Wetenschappelijk jaaroverzicht

2016

catharina ziekenhuis

Wetenschappelijk Jaaroverzicht 2016

Onder redactie van:
JMAH Jansen (Jolanda)
E Looije (Ellen)

Een uitgave van het Catharina Ziekenhuis
Eindhoven, 2017

Inhoudsopgave

“Do not go where the path may lead, go instead where there is no path and leave a trail”

Ralph Waldo Emerson (1803-1882)
American poet

Ralph Waldo Emerson. BrainyQuote.com. Retrieved April 4, 2017, from BrainyQuote.com
Web site: https://www.brainyquote.com/quotes/authors/r/ralph_waldo_emerson.html

Algemeen Klinisch Laboratorium

Berkel M van (Miranda)

Diagnosis of acute myocardial infarction in hemodialysis patients may be feasible by comparing variation of cardiac troponins during acute presentation to baseline variation

van Berkel M*, Dekker MJ*, Bogers H*, Geerse DA*, Konings CJ*, Scharnhorst V*
Clin Chim Acta. 2016 May 1;456:36-41. Epub 2016 Feb 11

Acute myocardial infarction (AMI) is defined as a dynamic change in cardiac troponin (cTn) with at least one cTn value exceeding the 99 th percentile of a reference population in combination with typical clinical symptoms. In hemodialysis (HD) patients, a broad range of cTn concentrations is found, partially due to patient-specific comorbidities. Therefore, the 99 th percentile cannot be used in HD patients and decision algorithms to diagnose AMI should be based on temporal variations of troponin. In this study, relative and absolute variations of cTn in a large population of asymptomatic hemodialysis patients were established during a period of 15 months. Patients were stratified according to their history of coronary artery disease (CAD). An intra-individual long term variation of 23% for cTroponin I (cTnI) and 12% for cTroponin T (cTnT) was found for patients without a history of CAD. The corresponding reference change values (RCVs) were 69% and 39% respectively. For patients with a history of CAD this variation was 29% for cTnI and 10% for cTnT, with RCVs of 86% and 35% respectively. During follow up, 27 HD patients developed an acute myocardial infarction (AMI). During these events, irrespective of CAD history, cTnI increased>172% and cTnT increased>97% above baseline cTn as measured during clinically stable periods three months separate to the event. Therefore, if a HD patient has symptoms of an acute event and a cTn increase that exceeds the RCVs described here, AMI may be suspected. If the troponin increase exceeds 172% for cTnI or 97% for cTnT, AMI is likely.

impactfactor: *2.799*

Boer AK (Arjen-Kars)

Comparison Between Different Intramuscular Vitamin B12 Supplementation Regimes: a retrospective matched cohort study

Smelt HJ*, Pouwels S*, Said M*, Berghuis KA*, Boer AK*, Smulders JF*
Obes Surg. 2016 Dec;26(12):2873-2879

Voor abstract zie: *Dietetiek - Smelt HJ*
impactfactor: *3.346*

Boer AK (Arjen-Kars)

Cut-off values to rule out urinary tract infection should be gender-specific

Geerts N*, Boonen KJ, Boer AK*, Scharnhorst V*
Clin Chim Acta. 2016 Jan 15;452:173-6. Epub 2015 Nov 23

Voor abstract zie: *Algemeen Klinisch Laboratorium - Geerts N*
impactfactor: *2.799*

Boer AK (Arjen-Kars)

Improving Bariatric Patient Aftercare Outcome by Improved Detection of a Functional Vitamin B12 Deficiency

Smelt HJ*, Smulders JF*, Said M*, Nienhuijs SW*, Boer AK*
Obes Surg. 2016 Jul;26(7):1500-4. Epub 2015 Nov 4

Voor abstract zie: *Dietetiek - Smelt HJ*
impactfactor: *3.346*

Boer AK (Arjen-Kars)
Interference of anticoagulants on coagulation testing
van de Kerkhof D*, Schmitz E, Moolenaar M*, Schellings M, Boer AK*, Boonen K
Clin Chem Lab Med. 2016 Jul 1;54(7):e207-10
Geen abstract beschikbaar
impactfactor: 3.017

Boer AK (Arjen-Kars)
Laboratoriumdiagnostiek bedraagt slechts 4% van een poliklinische internistische DOT
Rietjens K, Wilbik AM, Kaymak U, Scharnhorst V*, Boer-AK*
Ned Tijdschr Klin Chem Labgeneesk, 2016 ; 41(3):209-10
Geen abstract beschikbaar
impactfactor: --

Deiman AL (Birgit)
Reduced number of cardiovascular events and increased cost-effectiveness by genotype-guided antiplatelet therapy in patients undergoing percutaneous coronary interventions in the Netherlands
Deiman BA*, Tonino PA*, Kouhestani K*, Schrover CE*, Scharnhorst V*, Dekker LR*, Pijls NH*
Neth Heart J. 2016 Oct;24(10):589-99

AIM: This study explores clinical outcome in cytochrome P450 2C19 (CYP2C19)-related poor metaboliser patients treated with either clopidogrel or prasugrel after percutaneous coronary intervention (PCI) and investigates whether this could be cost-effective.
METHODS AND RESULTS: This single-centre, observational study included 3260 patients scheduled for elective PCI between October 2010 and June 2013 and followed for adverse cardiovascular events until October 2014. Post PCI, CYP2C19 poor metaboliser patients were treated with clopidogrel or prasugrel, in addition to aspirin. In total, 32 poor metabolisers were treated with clopidogrel and 41 with prasugrel. The number of adverse cardiovascular events, defined as death from cardiovascular cause, myocardial infarction, stent thrombosis, every second visit to the catheterisation room for re-PCI in the same artery, or stroke, within 1.5 years of PCI, was significantly higher in the CYP2C19 poor metaboliser group treated with clopidogrel (n = 10, 31?%) compared with the poor metaboliser group treated with prasugrel (n = 2, 5?%) (p = 0.003). Costs per gained quality-adjusted life years (QALY) were estimated, showing that genotype-guided post-PCI treatment with prasugrel could be cost-effective with less than € 10,000 per gained QALY.
CONCLUSION: This study provides evidence that for CYP2C19-related poor metabolisers prasugrel may be more effective than clopidogrel to prevent major adverse cardiovascular events after PCI and this approach could be cost-effective.

impactfactor: 2.062

Geerts N (Nienke)
Between analyser differences in chloride measurements and thus anion gap cause different interpretations of the acid-base balance
Geerts N*, Wlazlo N*, Scharnhorst V*
Clin Chem Lab Med. 2016 Mar;54(3):e81-4
Geen Abstract beschikbaar
impactfactor: 3.017

Geerts N (Nienke)

Cut-off values to rule out urinary tract infection should be gender-specific

Geerts N*, Boonen KJ, Boer AK*, Scharnhorst V*

Clin Chim Acta. 2016 Jan 15;452:173-6. Epub 2015 Nov 23

The diagnosis of urinary tract infection (UTI) by urine culture is an expensive and time-consuming procedure. Using a screening method, to identify negative samples, would improve the procedure and reduce costs. In this study, urine flow cytometry, of over 7000 urine samples, was assessed by retrospective analysis. With a cut-off value of >200bacteria/µl, we obtained a sensitivity of 93.0%, a specificity of 63.5%, and a negative predictive value (NPV) of 96.2%. As a result the culturing of 49% of all samples could be avoided. In addition, the data was retrospectively analyzed to determine if the introduction of gender-specific cut-off values could improve screening results. The obtained receiver operator curves are indeed significantly different when gender specific cut-offs were used. When a NPV of 95% is considered acceptable the unisex cut-off value of >200bacteria/µl can be used for women (NPV 94.9%), but the cut-off value for men could be raised to >400bacteria/µl without diminishing the NPV (NPV 95.0%).

impactfactor: *2.799*

Geerts N (Nienke)

Technieken voor het uitsluiten van urineweginfecties: Labquiz

Nienke Geerts en Volkher Scharnhorst

Ned Tijdschr Geneeskd. 2016;160: D101Q

Van alle klachten en aandoeningen waarmee vrouwen een arts consulteren, komt een urineweginfectie (UWI) het meest voor. De gouden standaard voor het aantonen van een UWI is een urinekweek. Omdat de uitslag van een urinekweek echter vaak pas na 3 dagen bekend is, zijn er andere technieken waarmee een mogelijke UWI eerder kan worden uitgesloten. Op basis van welke test mag de arts een urineweginfectie uitsluiten?

impactfactor: --

Heuvel D van den (Dennis)

Determination of dabigatran and rivaroxaban by ultra-performance liquid chromatography-tandem mass spectrometry and coagulation assays after major orthopaedic surgery

Schellings MW, Boonen K, Schmitz EM, Jonkers F*, van den Heuvel DJ*, Besselaar A*, Hendriks JG, van de Kerkhof D

Thromb Res. 2016 Mar;139:128-34. Epub 2016 Jan 18

Voor abstract zie: *Orthopedie - Jonkers F*

impactfactor: *2.320*

Kerkhof D van de (Daan)

Determination of dabigatran and rivaroxaban by ultra-performance liquid chromatography-tandem mass spectrometry and coagulation assays after major orthopaedic surgery

Schellings MW, Boonen K, Schmitz EM, Jonkers F*, van den Heuvel DJ*, Besselaar A*, Hendriks JG, van de Kerkhof D*

Thromb Res. 2016 Mar;139:128-34. Epub 2016 Jan 18

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Interference of anticoagulants on coagulation testing
van de Kerkhof D*, Schmitz E, Moolenaar M*, Schellings M, Boer AK*, Boonen K
Clin Chem Lab Med. 2016 Jul 1;54(7):e207-10
Geen abstract beschikbaar
impactfactor: 3.017

Kerkhof D van de (Daan)
Left atrial thrombus under dabigatran in a patient with nonvalvular atrial fibrillation
Janssen AM, van de Kerkhof D*, Szabó B, Durian MF, van der Voort PH*
Neth J Med. 2016 Aug;74(7):313-5

Dabigatran is a new direct competitive inhibitor of thrombin and is equally effective and safe as warfarin in the prevention of thromboembolism in patients with nonvalvular atrial fibrillation. We present a case of a 60-year-old man with persistent nonvalvular atrial fibrillation who switched from acenocoumarol to dabigatran 110 mg twice daily. After five months the patient developed a large atrial thrombus, occlusion of the tibial arteries of the right foot, cerebellar infarction and multiple infarctions in kidneys and spleen. Blood test showed a dabigatran concentration of 35 ng/ml six hours after intake, correlating with a low trough concentration of 24-27 ng/mL and significantly increased thromboembolic risk. Other risk factors for thromboembolism were excluded. The present case indicates that in selected patients, there might be an indication for dose adjustments based on serum levels of dabigatran to ensure patient efficacy (thromboembolic events) and safety (bleeding).

impactfactor: 1.489

Kerkhof D van de (Daan)
Red cell alloimmunisation in patients with different types of infections
Evers D, van der Bom JG, Tijmensen J, Middelburg RA, de Haas M, Zalpuri S, de Vooght KM, van de Kerkhof D*, Visser O, Péquériaux NC, Hudig F, Zwaginga JJ
Br J Haematol. 2016 Dec;175(5):956-966. Epub 2016 Aug 18

Red cell alloantigen exposure can cause alloantibody-associated morbidity. Murine models have suggested that inflammation modulates red cell alloimmunisation. This study quantifies alloimmunisation risks during infectious episodes in humans. We performed a multicentre case-control study within a source population of patients receiving their first and subsequent red cell transfusions during an 8-year follow-up period. Patients developing a first transfusion-induced red cell alloantibody (N = 505) were each compared with two similarly exposed, but non-alloimmunised controls (N = 1010) during a 5-week 'alloimmunisation risk period' using multivariate logistic regression analysis. Transfusions during 'severe' bacterial (tissue-invasive) infections were associated with increased risks of alloantibody development [adjusted relative risk (RR) 1·34, 95% confidence interval (95% CI) 0·97-1·85], especially when these infections were accompanied with long-standing fever (RR 3·06, 95% CI 1·57-5·96). Disseminated viral disorders demonstrated a trend towards increased risks (RR 2·41, 95% CI 0·89-6·53), in apparent contrast to a possible protection associated with Gram-negative bacteraemia (RR 0·58, 95% CI 0·13-1·14). 'Simple' bacterial infections, Gram-positive bacteraemia, fungal infections, maximum C-reactive protein values and leucocytosis were not associated with red cell alloimmunisation. These findings are consistent with murine models. Confirmatory research is needed before patients likely to develop alloantibodies may be identified based on their infectious conditions at time of transfusion.

impactfactor: 5.401

Kerkhof D van de (Daan)

Red-blood-cell alloimmunisation in relation to antigens' exposure and their immunogenicity: a cohort study

Evers D, Middelburg RA, de Haas M, Zalpuri S, de Vooght KM, van de Kerkhof D*, Visser O, Péquériaux NC, Hudig F, Schonewille H, Zwaginga JJ, van der Bom JG

Lancet Haematol. 2016 Jun;3(6):e284-92. Epub 2016 May 9

BACKGROUND: Matching donor red blood cells based on recipient antigens prevents alloimmunisation. Knowledge about the immunogenicity of red-blood-cell antigens can help optimise risk-adapted matching strategies. We set out to assess the immunogenicity of red-blood-cell antigens.

METHODS: In an incident new-user cohort of previously non-transfused, non-alloimmunised white patients receiving non-extended matched red-blood-cell transfusions in six Dutch hospitals between 2006 and 2013, we determined the cumulative number of mismatched red-blood-cell units per patient. We used multiple imputation to address missing antigen data. Using Kaplan-Meier analysis, we estimated cumulative alloimmunisation incidences per mismatched antigen dose as a measure of immunogenicity.

FINDINGS: Of 54?347 patients assessed, 21?512 were included in our study. Alloantibodies occurred in 474 (2·2%) of all transfused patients, with cumulative alloimmunisation incidences increasing up to 7·7% (95% CI 4·9-11·2) after 40 units received. The antigens C, c, E, K, and Jk(a) were responsible for 78% of all alloimmunisations in our cohort. K, E, and C(w) were the most immunogenic antigens (cumulative immunisation incidences after 2 mismatched units of 2·3% [95% CI 1·0-4·8] for K, 1·5% [0·6-3·0] for E, and 1·2% [0·0-10·8] for C(w)). These antigens were 8·7 times (for K), 5·4 times (for E), and 4·6 times (for C(w)) as immunogenic as Fy(a). The next most immunogenic antigens were, in order, e (1·9 times as immunogenic as Fy(a)), Jk(a) (1·9 times), and c (1·6 times).

INTERPRETATION: Red-blood-cell antigens vary in their potency to evoke a humoral immune response. Our findings highlight that donor-recipient red-blood-cell matching strategies will be most efficient when primarily focusing on prevention of C, c, E, K, and Jk(a) alloimmunisation. Matching for Fy(a) is of lower clinical relevance. Variations of antigen frequencies determined by ethnic background prevent extrapolating these conclusions to non-white populations.

impactfactor: 4.889

Kerkhof D van de (Daan)

Therapeutic drug monitoring of infliximab: performance evaluation of three commercial ELISA kits

Schmitz EM, van de Kerkhof D*, Hamann D, van Dongen JL, Kuijper PH, Brunsveld L, Scharnhorst V*, Broeren MA

Clin Chem Lab Med. 2016 Jul 1;54(7):1211-9

BACKGROUND: Therapeutic drug monitoring (TDM) of infliximab (IFX, Remicade®) can aid to optimize therapy efficacy. Many assays are available for this purpose. However, a reference standard is lacking. Therefore, we evaluated the analytical performance, agreement and clinically relevant differences of three commercially available IFX ELISA kits on an automated processing system.

METHODS: The kits of Theradiag (Lisa Tracker Infliximab), Progenika (Promonitor IFX) and apDia (Infliximab ELISA) were implemented on an automated processing system. Imprecision was determined by triplicate measurements of patient samples on five days. Agreement was evaluated by analysis of 30 patient samples and four spiked samples by the selected ELISA kits and the in-house IFX ELISA of Sanquin Diagnostics (Amsterdam, The Netherlands).

Therapeutic consequences were evaluated by dividing patients into four treatment groups using cut-off levels of 1, 3 and 7 µg/mL and determining assay concordance.
RESULTS: Within-run and between-run imprecision were acceptable (=12% and =17%, respectively) within the quantification range of the selected ELISA kits. The apDia assay had the best precision and agreement to target values. Statistically significant differences were found between all assays except between Sanquin Diagnostics and the Lisa Tracker assay. The Promonitor assay measured the lowest IFX concentrations, the apDia assay the highest. When patients were classified in four treatment categories, 70% concordance was achieved.
CONCLUSIONS: Although all assays are suitable for TDM, significant differences were observed in both imprecision and agreement. Therapeutic consequences were acceptable when patients were divided in treatment categories, but this could be improved by assay standardization.

impactfactor: *3.017*

Moolenaar M (Mitchel)

Interference of anticoagulants on coagulation testing

van de Kerkhof D*, Schmitz E, Moolenaar M*, Schellings M, Boer AK*, Boonen K.
Clin Chem Lab Med. 2016 Jul 1;54(7):e207-10

Geen abstract beschikbaar

impactfactor: *3.017*

Scharnhorst V (Volkher)

Between analyser differences in chloride measurements and thus anion gap cause different interpretations of the acid-base balance

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Clin Chim Acta. 2016 Jan 15;452:173-6. Epub 2015 Nov 23

Voor abstract zie: *Algemeen Klinisch Laboratorium - Geerts N*

impactfactor: *2.799*

Scharnhorst V (Volkher)

Diagnosis of acute myocardial infarction in hemodialysis patients may be feasible by comparing variation of cardiac troponins during acute presentation to baseline variation

van Berkel M*, Dekker MJ*, Bogers H*, Geerse DA*, Konings CJ*, Scharnhorst V*
Clin Chim Acta. 2016 May 1;456:36-41. Epub 2016 Feb 11

Voor abstract zie: *Algemeen Klinisch Laboratorium - Berkel M van*

impactfactor: *2.799*

Scharnhorst V (Volkher)

Laboratoriumdiagnostiek bedraagt slechts 4% van een poliklinische internistische DOT

Rietjens K, Wilbik AM, Kaymak U, Scharnhorst V*, Boer-AK*

Ned Tijdschr Klin Chem Labgeneesk, 2016 ; 41(3):209-10

Geen abstract beschikbaar

impactfactor: --

Scharnhorst V (Volkher)

Leveraging the real value of laboratory medicine with the value proposition

Price CP, John AS, Christenson R, Scharnhorst V*, Oellerich M, Jones P, Morris HA

Clin Chim Acta. 2016 Nov 1;462:183-186. Epub 2016 Sep 17

Improving quality and patient safety, containing costs and delivering value-for-money are the key drivers of change in the delivery of healthcare and have stimulated a shift from an activity-based service to a service based on patient-outcomes. The delivery of an outcomes-based healthcare agenda requires that the real value of laboratory medicine to all stakeholders be understood, effectively defined and communicated. The value proposition of any product or service is the link between the provider and the needs of the customer describing the utility of the product or service in terms of benefit to the customer. The framework of a value proposition for laboratory medicine provides the core business case that drives key activities in the evolution and maintenance of high quality healthcare from research through to adoption and quality improvement in an established service. The framework of a value proposition for laboratory medicine is described. The content is endorsed by IFCC and WASPaLM.

impactfactor: 2.799

Scharnhorst V (Volkher)

Rapid phenotype hemoglobin screening by high-resolution mass spectrometry on intact proteins

Helmich F, van Dongen JL, Kuijper PH, Scharnhorst V*, Brunsveld L, Broeren MA

Clin Chim Acta. 2016 Sep 1;460:220-6

BACKGROUND: Given the excellent performance of modern mass spectrometers, their clinical application for the analysis of macromolecules is a growing field of interest. This principle is explored by hemoglobin analysis, which is a representative example by its molecular weight and clinical relevance in e.g. screening programs for thalassemia and hemoglobin variants. Considering its abundance and cellular containment, pre-analysis is significantly reduced allowing for essential rapid acquisitions.

METHODS: By parallel analysis of routine diagnostics for hemoglobin variants and thalassemia, we acquired samples of adults who were consented for hemoglobinopathy screening in our clinical laboratory. The pre-analytical process comprised of red cell lysis only; without further digestion and purification steps, the samples were directly injected in an electrospray ionization quadrupole time-of-flight setup and the intact proteins were analyzed by flow injection analysis. After optimization of process parameters, the deconvoluted mass spectra revealed the presence of a- and ß-globulins. The reference ranges for the average mass of both globulins and their intensity ratio (a/ß-ratio) were deduced from a disease-free subgroup and patients with a hemoglobinopathy were compared.

RESULTS: The a/ß-ratio is a poor marker for thalassemia patients, yet deviant a/ß-ratios are found for patients with a hemoglobin variant. Mass deviations down to 1Da can be resolved;

even if the patient suffers from a heterozygotic disorder, the average mass is found outside the established reference interval.
CONCLUSIONS: Although subjects with mild thalassemia were not detected, all patients with a hemoglobin variant were resolved by top-down mass spectrometry using the average globulin mass and the a/ß-ratio as screening parameters.

impactfactor: *2.799*

Scharnhorst V (Volkher)

Reduced number of cardiovascular events and increased cost-effectiveness by genotype-guided antiplatelet therapy in patients undergoing percutaneous coronary interventions in the Netherlands

Deiman BA*, Tonino PA*, Kouhestani K*, Schrover CE*, Scharnhorst V*, Dekker LR*, Pijls NH*

Neth Heart J. 2016 Oct;24(10):589-99

Voor abstract zie: *Algemeen Klinisch Laboratorium - Deiman AL*

impactfactor: *2.062*

Scharnhorst V (Volkher)

Technieken voor het uitsluiten van urineweginfecties: Labquiz

Nienke Geerts en Volkher Scharnhorst

Ned Tijdschr Geneeskd. 2016;160: D101Q

Voor abstract zie: *Algemeen Klinisch Laboratorium - Geerts N*

impactfactor: *--*

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Therapeutic drug monitoring of infliximab: performance evaluation of three commercial ELISA kits

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Clin Chem Lab Med. 2016 Jul 1;54(7):1211-9

Voor abstract zie: *Algemeen Klinisch Laboratorium - van de Kerkhof D*

impactfactor: *3.017*

Schrover CE

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Neth Heart J. 2016 Oct;24(10):589-99

Voor abstract zie: *Algemeen Klinisch Laboratorium - Deiman AL*

impactfactor: *2.062*

** = Werkzaam in het Catharina Ziekenhuis*

Anesthesiologie

Bouwman RA (Arthur)

Can Sonography of the Inferior Vena Cava Predict More than Just Intraoperative Hypotension?

Scholten HJ*, Heynen H*, Korsten HH*, Bouwman RA*

Anesthesiology. 2016 Oct;125(4):812-3

Geen abstract beschikbaar

impactfactor: 5.264

Bouwman RA (Arthur)

Development of the A-DIVA Scale: A Clinical Predictive Scale to Identify Difficult Intravenous Access in Adult Patients Based on Clinical Observations

van Loon FH*, Puijn LA*, Houterman S*, Bouwman AR*

Medicine (Baltimore). 2016 Apr;95(16):e3428

Voor abstract zie: Anesthesiologie - Loon FH van

impactfactor: 1.206

Bouwman RA (Arthur)

Global patient outcomes after elective surgery: prospective cohort study in 27 low-, middle- and high-income countries

International Surgical Outcomes Study group: Bouwman RA*

Br J Anaesth. 2016 Nov;117(5):601-609

BACKGROUND: As global initiatives increase patient access to surgical treatments, there remains a need to understand the adverse effects of surgery and define appropriate levels of perioperative care.

METHODS: We designed a prospective international 7-day cohort study of outcomes following elective adult inpatient surgery in 27 countries. The primary outcome was in-hospital complications. Secondary outcomes were death following a complication (failure to rescue) and death in hospital. Process measures were admission to critical care immediately after surgery or to treat a complication and duration of hospital stay. A single definition of critical care was used for all countries.

RESULTS: A total of 474 hospitals in 19 high-, 7 middle- and 1 low-income country were included in the primary analysis. Data included 44 814 patients with a median hospital stay of 4 (range 2-7) days. A total of 7508 patients (16.8%) developed one or more postoperative complication and 207 died (0.5%). The overall mortality among patients who developed complications was 2.8%. Mortality following complications ranged from 2.4% for pulmonary embolism to 43.9% for cardiac arrest. A total of 4360 (9.7%) patients were admitted to a critical care unit as routine immediately after surgery, of whom 2198 (50.4%) developed a complication, with 105 (2.4%) deaths. A total of 1233 patients (16.4%) were admitted to a critical care unit to treat complications, with 119 (9.7%) deaths. Despite lower baseline risk, outcomes were similar in low- and middle-income compared with high-income countries.

CONCLUSIONS: Poor patient outcomes are common after inpatient surgery. Global initiatives to increase access to surgical treatments should also address the need for safe perioperative care.

impactfactor: 5.616

Bouwman RA (Arthur)

Myocardial Perfusion and Function Are Distinctly Altered by Sevoflurane Anesthesia in Diet-Induced Prediabetic Rats

van den Brom CE, Boly CA, Bulte CS, van den Akker RF, Kwekkeboom RF, Loer SA, Boer C, Bouwman RA*

J Diabetes Res. 2016; 2016: 5205631. Epub 2015 Dec 28

Preservation of myocardial perfusion during surgery is particularly important in patients with increased risk for perioperative complications, such as diabetes. Volatile anesthetics, like sevoflurane, have cardiodepressive effects and may aggravate cardiovascular complications. We investigated the effect of sevoflurane on myocardial perfusion and function in prediabetic rats. Rats were fed a western diet (WD; n = 18) or control diet (CD; n = 18) for 8 weeks and underwent (contrast) echocardiography to determine perfusion and function during baseline and sevoflurane exposure. Myocardial perfusion was estimated based on the product of microvascular filling velocity and blood volume. WD-feeding resulted in a prediabetic phenotype characterized by obesity, hyperinsulinemia, hyperlipidemia, glucose intolerance, and hyperglycemia. At baseline, WD-feeding impaired myocardial perfusion and systolic function compared to CD-feeding. Exposure of healthy rats to sevoflurane increased the microvascular filling velocity without altering myocardial perfusion but impaired systolic function. In prediabetic rats, sevoflurane did also not affect myocardial perfusion; however, it further impaired systolic function. Diet-induced prediabetes is associated with impaired myocardial perfusion and function in rats. While sevoflurane further impaired systolic function, it did not affect myocardial perfusion in prediabetic rats. Our findings suggest that sevoflurane anesthesia leads to uncoupling of myocardial perfusion and function, irrespective of the metabolic state

impactfactor: *2.431*

Bouwman RA (Arthur)

Perioperative respiratory care in obese patients undergoing bariatric surgery: Implications for clinical practice

Pouwels S*, Smeenk FW*, Manschot L*, Lascaris B*, Nienhuijs S*, Bouwman RA*, Buise MP*

Respir Med. 2016 Aug;117:73-80. Epub 2016 Jun 7

Voor abstract zie: *Chirurgie - Pouwels S*

impactfactor: *3.036*

Bouwman RA (Arthur)

Pulmonary transit time measurement by contrast-enhanced ultrasound in left ventricular dyssynchrony

Herold IH*, Saporito S, Mischi M, van Assen HC, Bouwman RA*, de Lepper AG*, van den Bosch HC*, Korsten HH*, Houthuizen P*

Echo Res Pract. 2016 Jun;3(2):35-43. doi: 10.1530/ERP-16-0011. Epub 2016 May 16

Voor abstract zie: *Anesthesiologie – Herold IH*

impactfactor: *--*

Bouwman RA (Arthur)

Reliability, repeatability, and reproducibility of pulmonary transit time assessment by contrast enhanced echocardiography

Herold IH*, Saporito S*, Bouwman RA*, Houthuizen P*, van Assen HC, Mischi M, Korsten HH*

Cardiovasc Ultrasound. 2016 Jan 5;14:1

Voor abstract zie: *Anesthesiologie - Herold IH*

impactfactor: *1.463*

Bouwman RA (Arthur)

The effect of perioperative insulin treatment on cardiodepression in mild adiposity in mice

Boly CA, Eringa EC, Bouwman RA*, van den Akker RF, de Man FS, Schalij I, Loer SA, Boer C, van den Brom CE

Cardiovasc Diabetol. 2016 Sep 20;15(1):135

BACKGROUND: While most studies focus on cardiovascular morbidity following anesthesia and surgery in excessive obesity, it is unknown whether these intraoperative cardiovascular alterations also occur in milder forms of adiposity without type 2 diabetes and if insulin is a possible treatment to improve intraoperative myocardial performance. In this experimental study we investigated whether mild adiposity without metabolic alterations is already associated with cardiometabolic dysfunction during anesthesia, mechanical ventilation and surgery and whether these myocardial alterations can be neutralized by intraoperative insulin treatment.

METHODS: Mice were fed a western (WD) or control diet (CD) for 4 weeks. After metabolic profiling, mice underwent general anesthesia, mechanical ventilation and surgery. Cardiac function was determined with echocardiography and left-ventricular pressure-volume analysis. Myocardial perfusion was determined with contrast-enhanced echocardiography. WD-fed mice were subsequently treated with insulin by hyperinsulinemic euglycemic clamping followed by the same measurements of cardiac function and perfusion.

RESULTS: Western-type diet feeding led to a 13 % increase in bodyweight, ($p < 0.0001$) and increased adipose tissue mass, without metabolic alterations. Despite this mild phenotype, WD-fed mice had decreased systolic and diastolic function (end-systolic elastance was 2.0 ± 0.5 versus 4.1 ± 2.4 mmHg/μL, $p = 0.01$ and diastolic beta was 0.07 ± 0.03 versus 0.04 ± 0.01 mmHg/μL, $p = 0.02$) compared to CD-fed mice. Ventriculo-arterial coupling and myocardial perfusion were decreased by 48 % ($p = 0.003$) and 43 % ($p = 0.03$) respectively. Insulin treatment in WD-fed mice improved echo-derived systolic function (fractional shortening 42 ± 5 % to 46 ± 3, $p = 0.05$), likely due to decreased afterload, but there was no effect on load-independent measures of systolic function or myocardial perfusion. However, there was a trend towards improved diastolic function after insulin treatment (43 % improvement, $p = 0.05$) in WD-fed mice.

CONCLUSIONS: Mild adiposity without metabolic alterations already affected cardiac function and perfusion during anesthesia, mechanical ventilation and surgery in mice. Intraoperative insulin may be beneficial to reduce afterload and enhance intraoperative ventricular relaxation, but not to improve ventricular contractility or myocardial perfusion.

impactfactor: *4.534*

Bouwman RA (Arthur)

The RAQET Study: the Effect of Eating a Popsicle Directly After Bariatric Surgery on the Quality of Patient Recovery; a Randomised Controlled Trial

Saak Pouwels*, Pieter S. Stepaniak*, Marc P. Buise* R. Arthur Bouwman* Simon W. Nienhuijs*

Indian Journal of Surgery 2016 , pp 1–7

Voor abstract zie: *Chirurgie - Pouwels S*

impactfactor: *0.353*

Bouwman RA (Arthur)

Unilateral Vocal Cord Paralysis following Insertion of a Supreme Laryngeal Mask in a Patient with Sjögren's Syndrome

Masarwa TO*, Herold IH*, Tabor M*, Bouwman RA*

Case Rep Anesthesiol. 2016;2016:8185628. Epub 2016 Nov 27.

Voor abstract zie: *Anesthesiologie - Masarwa TO*

impactfactor: *--*

Braam L (Loes)

Therapeutic hysteroscopy in an outpatient office-based setting compared to conventional inpatient treatment: superior? a cohort study

Smits RM*, Kuijsters NPM*, Braam L*, van Vliet HAAM*, Schoot BC*

Gynecol Surg, 2016; 13(4): 339-44

Voor abstract zie: *Gynaecologie - Smits RM*

impactfactor: *--*

Buise MP (Marc)

A postpartum woman with toxic shock syndrome: group A streptococcal infection, a much feared postpartum complication

Abbink K*, Kortekaas JC*, Buise MP*, Dokter J, Kuppens SM*, Hasaart TH*

Ned Tijdschr Geneeskd. 2016;160(0):D185

Voor abstract zie: *Gynaecologie - Abbink K*

impactfactor: *--*

Buise MP (Marc)

Comparative analysis of respiratory muscle strength before and after bariatric surgery using 5 different predictive equations

Pouwels S*, Buise MP*, Smeenk FW*, Teijink JA*, Nienhuijs SW*

J Clin Anesth. 2016 Aug;32:172-80.. Epub 2016 Apr 20

Voor abstract zie: *Chirurgie - Pouwels S*

impactfactor: *1.284*

Buise MP (Marc)

Influence of intraoperative hypotension on leaks after sleeve gastrectomy

Nienhuijs SW*, Kaymak U, Korsten E*, Buise MP*

Surg Obes Relat Dis. 2016 Mar-Apr;12(3):535-9. Epub 2015 Oct 29

Voor abstract zie: *Chirurgie - Nienhuijs SW*

impactfactor: *3.540*

Buise MP (Marc)

Perioperative respiratory care in obese patients undergoing bariatric surgery: Implications for clinical practice

Pouwels S*, Smeenk FW*, Manschot L*, Lascaris B*, Nienhuijs S*, Bouwman RA*, Buise MP*

Respir Med. 2016 Aug;117:73-80. doEpub 2016 Jun 7

Voor abstract zie: *Chirurgie - Pouwels S*

impactfactor: *3.036*

Buise MP (Marc)

The RAQET Study: the Effect of Eating a Popsicle Directly After Bariatric Surgery on the Quality of Patient Recovery; a Randomised Controlled Trial

Sjaak Pouwels*, Pieter S. Stepaniak*, Marc P. Buise*, R. Arthur Bouwman*, Simon W. Nienhuijs* Indian Journal of Surgery 2016 , pp 1–7

Voor abstract zie: *Chirurgie - Pouwels S*

impactfactor: *0.353*

Herold IH (Ingeborg)

Model-Based Characterization of the Transpulmonary Circulation by Dynamic Contrast-Enhanced Magnetic Resonance Imaging in Heart Failure and Healthy Volunteers

Saporito S, Herold IH*, Houthuizen P*, van Den Bosch HC*, Den Boer JA, Korsten HH*, van Assen HC, Mischi M

Invest Radiol. 2016 Nov;51(11):720-727

OBJECTIVES: Novel quantitative measures of transpulmonary circulation status may allow the improvement of heart failure (HF) patient management. In this work, we propose a method for the assessment of the transpulmonary circulation using measurements from indicator time intensity curves, derived from dynamic contrast-enhanced magnetic resonance imaging (DCE-MRI) series. The derived indicator dilution parameters in healthy volunteers (HVs) and HF patients were compared, and repeatability was assessed. Furthermore, we compared the parameters derived using the proposed method with standard measures of cardiovascular function, such as left ventricular (LV) volumes and ejection fraction.

MATERIALS AND METHODS: In total, 19 HVs and 33 HF patients underwent a DCE-MRI scan on a 1.5 T MRI scanner using a T1-weighted spoiled gradient echo sequence. Image loops with 1 heartbeat temporal resolution were acquired in 4-chamber view during ventricular late diastole, after the injection of a 0.1-mmol gadoteriol bolus. In a subset of subjects (8 HFs, 2 HVs), a second injection of a 0.3-mmol gadoteriol bolus was performed with the same imaging settings. The study was approved by the local institutional review board.Indicator dilution curves were derived, averaging the MR signal within regions of interest in the right and left ventricle; parametric deconvolution was performed between the right and LV indicator dilution curves to identify the impulse response of the transpulmonary dilution system. The local density random walk model was used to parametrize the impulse response; pulmonary transit time (PTT) was defined as the mean transit time of the indicator. ?, related to the Péclet number (ratio between convection and diffusion) for the dilution process, was also estimated.

RESULTS: Pulmonary transit time was significantly prolonged in HF patients (8.70 ± 1.87 seconds vs 6.68 ± 1.89 seconds in HV, $P < 0.005$) and even stronger when normalized to subject heart rate (normalized PTT, 9.90 ± 2.16 vs 7.11 ± 2.17 in HV, dimensionless, $P < 0.001$). ? was significantly smaller in HF patients (8.59 ± 4.24 in HF vs 12.50 ± 17.09 in HV,

dimensionless, P < 0.005), indicating a longer tail for the impulse response. Pulmonary transit time correlated well with established cardiovascular parameters (LV end-diastolic volume index, r = 0.61, P < 0.0001; LV ejection fraction, r = -0.64, P < 0.0001). The measurement of indicator dilution parameters was repeatable (correlation between estimates based on the 2 repetitions for PTT: r = 0.94, P < 0.001, difference between 2 repetitions 0.01 ± 0.60 second, for ?: r = 0.74, P < 0.01, difference 0.69 ± 4.39).

CONCLUSIONS: Characterization of the transpulmonary circulation by DCE-MRI is feasible in HF patients and HVs. Significant differences are observed between indicator dilution parameters measured in HVs and HF patients; preliminary results suggest good repeatability for the proposed parameters.

impactfactor: *4.887*

Herold IH (Ingeborg)

Pulmonary transit time measurement by contrast-enhanced ultrasound in left ventricular dyssynchrony

Herold IH*, Saporito S, Mischi M, van Assen HC, Bouwman RA*, de Lepper AG*, van den Bosch HC*, Korsten HH*, Houthuizen P*

Echo Res Pract. 2016 Jun;3(2):35-43. Epub 2016 May 16

BACKGROUND: Pulmonary transit time (PTT) is an indirect measure of preload and left ventricular function, which can be estimated using the indicator dilution theory by contrast-enhanced ultrasound (CEUS). In this study, we first assessed the accuracy of PTT-CEUS by comparing it with dynamic contrast-enhanced magnetic resonance imaging (DCE-MRI). Secondly, we tested the hypothesis that PTT-CEUS correlates with the severity of heart failure, assessed by MRI and N-terminal pro-B-type natriuretic peptide (NT-proBNP).

METHODS AND RESULTS: Twenty patients referred to our hospital for cardiac resynchronization therapy (CRT) were enrolled. DCE-MRI, CEUS, and NT-proBNP measurements were performed within an hour. Mean transit time (MTT) was obtained by estimating the time evolution of indicator concentration within regions of interest drawn in the right and left ventricles in video loops of DCE-MRI and CEUS. PTT was estimated as the difference of the left and right ventricular MTT. Normalized PTT (nPTT) was obtained by multiplication of PTT with the heart rate. Mean PTT-CEUS was 10.5±2.4s and PTT-DCE-MRI was 10.4±2.0s (P=0.88). The correlations of PTT and nPTT by CEUS and DCE-MRI were strong; r=0.75 (P=0.0001) and r=0.76 (P=0.0001), respectively. Bland-Altman analysis revealed a bias of 0.1s for PTT. nPTT-CEUS correlated moderately with left ventricle volumes. The correlations for PTT-CEUS and nPTT-CEUS were moderate to strong with NT-proBNP; r=0.54 (P=0.022) and r=0.68 (P=0.002), respectively.

CONCLUSIONS: (n)PTT-CEUS showed strong agreement with that by DCE-MRI. Given the good correlation with NT-proBNP level, (n)PTT-CEUS may provide a novel, clinically feasible measure to quantify the severity of heart failure.

impactfactor: --

Herold IH (Ingeborg)

Reliability, repeatability, and reproducibility of pulmonary transit time assessment by contrast enhanced echocardiography

Herold IH*, Saporito S*, Bouwman RA*, Houthuizen P*, van Assen HC, Mischi M, Korsten HH*

Cardiovasc Ultrasound. 2016 Jan 5;14:1

BACKGROUND: The aim of this study is to investigate the inter and intra-rater reliability, repeatability, and reproducibility of pulmonary transit time (PTT) measurement in patients

using contrast enhanced ultrasound (CEUS), as an indirect measure of preload and left ventricular function.
METHODS: Mean transit times (MTT) were measured by drawing a region of interest (ROI) in right and left cardiac ventricle in the CEUS loops. Acoustic intensity dilution curves were obtained from the ROIs. MTTs were calculated by applying model-based fitting on the dilution curves. PTT was calculated as the difference of the MTTs. Eight raters with different levels of experience measured the PTT (time moment 1) and repeated the measurement within a week (time moment 2). Reliability and agreement were assessed using intra-class correlations (ICC) and Bland-Altman analysis. Repeatability was tested by estimating the variance of means (ANOVA) of three injections in each patient at different doses. Reproducibility was tested by the ICC of the two time moments.
RESULTS: Fifteen patients with heart failure were included. The mean PTT was 11.8?±?3.1 s at time moment 1 and 11.7?±?2.9 s at time moment 2. The inter-rater reliability for PTT was excellent (ICC?=?0.94). The intra-rater reliability per rater was between 0.81-0.99. Bland-Altman analysis revealed a bias of 0.10 s within the rater groups. Reproducibility for PTT showed an ICC?=?0.94 between the two time moments. ANOVA showed no significant difference between the means of the three different doses F?=?0.048 (P?=?0.95). The mean and standard deviation for PTT estimates at three different doses was 11.6?±?3.3 s.
CONCLUSIONS: PTT estimation using CEUS shows a high inter- and intra-rater reliability, repeatability at three different doses, and reproducibility by ROI drawing. This makes the minimally invasive PTT measurement using contrast echocardiography ready for clinical evaluation in patients with heart failure and for preload estimation.

impactfactor: *1.463*

Herold IH (Ingeborg)

Unilateral Vocal Cord Paralysis following Insertion of a Supreme Laryngeal Mask in a Patient with Sjögren's Syndrome

Masarwa TO*, Herold IH*, Tabor M*, Bouwman RA*
Case Rep Anesthesiol. 2016;2016:8185628. Epub 2016 Nov 27

Voor abstract zie: *Anesthesiologie - Masarwa TO*

impactfactor: *--*

Heynen H (Hanneke)

Can Sonography of the Inferior Vena Cava Predict More than Just Intraoperative Hypotension? Scholten HJ*, Heynen H*, Korsten HH*, Bouwman RA*
Anesthesiology. 2016 Oct;125(4):812-3.

Geen abstract beschikbaar

impactfactor: *5.264*

Korsten HH (Erik)

Can Sonography of the Inferior Vena Cava Predict More than Just Intraoperative Hypotension?

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Geen abstract beschikbaar

impactfactor: *5.264*

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Voor abstract zie: *Chirurgie - Nienhuijs SW*
impactfactor: *3.540*

Korsten HH (Erik)
Model-Based Characterization of the Transpulmonary Circulation by Dynamic Contrast-Enhanced Magnetic Resonance Imaging in Heart Failure and Healthy Volunteers
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Invest Radiol. 2016 Nov;51(11):720-727
Voor abstract zie: *Anesthesiologie - Herold IH*
impactfactor: *4.887*

Korsten HH (Erik)
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Voor abstract zie: *Anesthesiologie - Herold IH*
impactfactor: *--*

Korsten HH (Erik)
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Cardiovasc Ultrasound. 2016 Jan 5;14:1
Voor abstract zie: *Anesthesiologie - Herold IH*
impactfactor: *1.463*

Lascaris B (Bianca)
Perioperative respiratory care in obese patients undergoing bariatric surgery: Implications for clinical practice
Pouwels S*, Smeenk FW*, Manschot L*, Lascaris B*, Nienhuijs S*, Bouwman RA*, Buise MP*
Respir Med. 2016 Aug;117:73-80. Epub 2016 Jun 7
Voor abstract zie: *Chirurgie - Pouwels S*
impactfactor: *3.036*

Loon FH van (Rick)
Comparison of the diameter, cross-sectional area, and position of the left and right internal jugular vein and carotid artery in adults using ultrasound
Bos MJ, van Loon RF*, Heywood L, Morse MP, van Zundert AA
J Clin Anesth. 2016 Aug;32:65-9. Epub 2016 Mar 23

STUDY OBJECTIVE: Central venous access is indicated for transduction of central venous pressure and the administration of inotropes in the perioperative period. The right internal jugular vein (RIJV) is cannulated preferentially over the left internal jugular vein (LIJV). Cannulation of the LIJV is associated with a higher complication rate and a perceived increased level of difficulty when compared with cannulation of the RIJV. Possible explanations for the higher complication rate include a smaller diameter and more anterior position relative to the corresponding carotid artery (CA) of the LIJV compared with the RIJV. In this study, the RIJV and LIJV were examined in mechanically ventilated patients to determine the validity of these possible explanations.

DESIGN: A prospective, nonrandomized cohort study.

SETTING: The operating room of a major teaching hospital.

PATIENTS: One hundred fifty-one patients scheduled for elective heart surgery.

INTERVENTION: Ultrasound examination of the RIJV and LIJV at the level of the cricoid cartilage with a 12-MHz linear transducer in 151 anesthetized, mechanically ventilated patients in the Trendelenburg position.

MEASUREMENTS AND RESULTS: In 72% of patients, the RIJV was dominant over the LIJV. The diameter and cross-sectional area of the RIJV was larger than the LIJV ($P < .001$). An anterior position of the LIJV in relation to the left CA was detected more often when compared with the RIJV and right CA (15.1% vs 5.4%, $P = .01$).

CONCLUSION: This study confirms the smaller diameter and increased frequency of anterior positioning relative to the corresponding CA of the LIJV when compared with the RIJV. This validates them as possible explanations for the higher complication rate of LIJV cannulation compared with RIJV cannulation.

impactfactor: 1.284

Loon FH van (Rick)

Development of the A-DIVA Scale: A Clinical Predictive Scale to Identify Difficult Intravenous Access in Adult Patients Based on Clinical Observations

van Loon FH*, Puijn LA*, Houterman S*, Bouwman AR*

Medicine (Baltimore). 2016 Apr;95(16):e3428

Placement of a peripheral intravenous catheter is a routine procedure in clinical practice, but failure of intravenous cannulation regularly occurs. An accurate and reliable predictive scale for difficult venous access creates the possibility to use other techniques in an earlier time frame.We aimed to develop a predictive scale to identify adult patients with a difficult intravenous access prospectively: the A-DIVA scale.This prospective, observational, cross-sectional cohort study was conducted between January 2014 and January 2015, and performed at the department of anesthesiology of the Catharina Hospital (Eindhoven, The Netherlands). Patients 18 years or older were eligible if scheduled for any surgical procedure, regardless ASA classification, demographics, and medical history.Experienced and certified anesthesiologists and nurse anesthetists routinely obtained peripheral intravenous access. Cannulation was performed regarding standards for care.A failed peripheral intravenous cannulation on the first attempt was the outcome of interest.A population-based sample of 1063 patients was included. Failure of intravenous cannulation was observed in 182/1063 patients (17%). Five variables were associated with a failed first attempt of peripheral intravenous cannulation: palpability of the target vein (OR?=?4.94, 95% CI [2.85-8.56]; P?<?0.001), visibility of the target vein (OR?=?3.63, 95% CI [2.09-6.32]; P?<?0.001), a history of difficult peripheral intravenous cannulation (OR?=?3.86, 95% CI [2.39-6.25]; P?<?0.001), an unplanned indication for surgery (OR?=?4.86, 95% CI [2.92-8.07]; P?<?0.001), and the vein diameter of at most 2 millimeters (OR?=?3.37, 95% CI [2.12-5.36]; P?<?0.001). The scoring system was applied in 3 risk groups: 36/788 patients (5%) suffered

from a failed first attempt in the low-risk group (A-DIVA score 0 or 1), whereas the medium (A-DIVA score 2 or 3) and high-risk group (A-DIVA score 4 plus), included 72/195 (37%) and 74/80 (93%) patients with a failed first attempt of inserting a peripheral intravenous catheter, respectively.The additive 5-variable A-DIVA scale is a reliable predictive rule that implies the probability to identify patients with a difficult intravenous access prospectively.

impactfactor: *1.206*

Manschot L (Loes)

Perioperative respiratory care in obese patients undergoing bariatric surgery: Implications for clinical practice

Pouwels S*, Smeenk FW*, Manschot L*, Lascaris B*, Nienhuijs S*, Bouwman RA*, Buise MP*

Respir Med. 2016 Aug;117:73-80. Epub 2016 Jun 7

Voor abstract zie: *Chirurgie - Pouwels S*

impactfactor: *3.036*

Masarwa TO (Tarek)

Unilateral Vocal Cord Paralysis following Insertion of a Supreme Laryngeal Mask in a Patient with Sjögren's Syndrome

Masarwa TO*, Herold IH*, Tabor M*, Bouwman RA*

Case Rep Anesthesiol. 2016;2016:8185628. Epub 2016 Nov 27

Since its introduction in 1988 by Dr. Archie Brain, the laryngeal mask airway (LMA) is being used with increasing frequency. Its ease of use has made it a very popular device in airway management and compared to endotracheal intubation it is less invasive. The use of LMA was on the rise, so has been the incidence of its related complications. We report severe unilateral vocal cord paralysis following the use of the supreme laryngeal mask (sLMA) in a patient with Sjögren's syndrome. In addition, we propose possible mechanisms of injury, review the existing case reports, and discuss our findings

impactfactor: *--*

Puijn LA (Lisette)

Development of the A-DIVA Scale: A Clinical Predictive Scale to Identify Difficult Intravenous Access in Adult Patients Based on Clinical Observations

van Loon FH*, Puijn LA,* Houterman S*, Bouwman AR*

Medicine (Baltimore). 2016 Apr;95(16):e3428

Voor abstract zie: *Anesthesiologie - Loon FH van*

impactfactor: *1.206*

Scholten HJ (Harm)

Can Sonography of the Inferior Vena Cava Predict More than Just Intraoperative Hypotension?

Scholten HJ*, Heynen H*, Korsten HH*, Bouwman RA*

Anesthesiology. 2016 Oct;125(4):812-3

Geen abstract beschikbaar

impactfactor: *5.264*

** = Werkzaam in het Catharina Ziekenhuis*

Apotheek

Bastiaans DE (Diane)

A new paediatric formulation of valaciclovir: development and bioequivalence assessment

Bastiaans DE*, Bartels-Wilmer CM, Colbers AP, Heijens CA, Velthoven-Graafland K, Smeets OS, Vink N, Harbers VE, Warris A, Burger DM

Arch Dis Child. 2016 Oct;101(10):971-2. Epub 2016 May 9

Geen abstract beschikbaar

impactfactor: 3.231

Ten tijde van publicatie verbonden aan: Department of Pharmacy, Radboud University Medical Center, Nijmegen

Bastiaans DE (Diane)

Zileuton for Pruritus in Sjögren-Larsson Syndrome: A Randomized Double-blind Placebo-controlled Crossover Trial

Fuijkschot J, Seyger MM, Bastiaans DE*, Wevers RA, Roeleveld N, Willemsen MA.

Acta Derm Venereol. 2016 Feb;96(2):255-6

Geen abstract beschikbaar

impactfactor: 3.638

Ten tijde van publicatie verbonden aan: Department of Pharmacy, Radboud University Medical Center, Nijmegen

Broeke, R ten (Robert)

Early treatment with intravenous lipid emulsion in a potentially lethal hydroxychloroquine intoxication

Ten Broeke R*, Mestrom E*, Woo L*, Kreeftenberg H*

Neth J Med. 2016 Jun;74(5):210-4.

This case report describes the possible benefit of intravenous lipid emulsion in two patients surviving a severe intoxication with hydroxychloroquine in a dose that was previously considered to be lethal. The first case involves a 25-year-old female who ingested 17.5 grams of hydroxychloroquine, approximately one hour before presentation. An ECG showed QRS widening and the lab results showed hypokalaemia. She became unconscious, and developed hypotension and eventually apnoea. After intubation, supportive care consisted of norepinephrine and supplementation of potassium. Moreover, sodium bicarbonate and intravenous lipid emulsion were started to prevent cardiac toxicity. After these interventions, haemodynamic stability was established within a few hours. Although cardiomyopathy was confirmed, the patient recovered after two weeks. The second case concerns a 25-year-old male who took 5 grams of hydroxychloroquine. At presentation, two hours after intake, he showed QTc prolongation and hypokalaemia. The patient was treated with the usual supportive care and, although presentation to hospital was later, with intravenous lipid emulsion. Also this patient recovered. In conclusion, these cases show the benefit of supplemental intravenous lipid emulsion to prevent cardiac toxicity after a severe intoxication with hydroxychloroquine.

impactfactor: 1.489

Broeke, R ten (Robert)

Incidentie en klinische relevantie van geneesmiddel-interacties bij parenterale chemotherapie. Het belang van lokale afhandeling

D.C. van Renswouw*, R. ten Broeke*, A.V.M. Brands-Nijenhuis en R.J.E. Grouls*
Nederlands Platform voor Farmaceutisch Onderzoek 2016; 1; a1612

Voor abstract zie: *Apotheek - Renswouw DC van*
impactfactor: *--*

Deenen MJ (Maarten)

Increased risk of severe fluoropyrimidine-associated toxicity in patients carrying a G>C Substitution in the First 28-bp tandem repeat of the thymidylate synthase 2R Allele

Meulendijks D, Jacobs BA, Aliev A, Pluim van Werkhoven E, Deenen MJ*, Beijnen JH, Cats A, Schellens JH Int J Cancer. 2016 Jan 1;138(1):245-53. Epub 2015 Oct 1

The fluoropyrimidines act by inhibiting thymidylate synthase (TS). Recent studies have shown that patients' risk of severe fluoropyrimidine-associated toxicity is affected by polymorphisms in the 5'-untranslated region of TYMS, the gene encoding TS. A G>C substitution in the promoter enhancer region of TYMS, rs183205964 (known as the 2RC allele), markedly reduces TS activity in vitro, but its clinical relevance is unknown. We determined rs183205964 in 1605 patients previously enrolled in a prospective multicenter study. Associations between putative low TS expression genotypes (3RC/2RC, 2RG/2RC, and 2RC/2RC) and severe toxicity were investigated using univariable and multivariable logistic regression. Activity of TS and TYMS gene expression were determined in peripheral blood mononuclear cells (PBMCs) of a patient carrying genotype 2RC/2RC and of a control group of healthy individuals. Among 1605 patients, 28 patients (1.7%) carried the 2RC allele. Twenty patients (1.2%) carried a risk-associated genotype (2RG/2RC, n=13; 3RC/2RC, n=6; and 2RC/2RC, n=1), the eight remaining patients had genotype 3RG/2RC. Early severe toxicity and toxicity-related hospitalization were significantly more frequent in risk-associated genotype carriers (OR 3.0, 95%CI 1.04-8.93, p=0.043 and OR 3.8, 95%CI 1.19-11.9, p=0.024, respectively, in multivariable analysis). The patient with genotype 2RC/2RC was hospitalized twice and had severe febrile neutropenia, diarrhea, and hand-foot syndrome. Baseline TS activity and gene expression in PBMCs of this patient, and a healthy individual with the 2RC allele, were found to be within the normal range. This study suggests that patients carrying rs183205964 are at strongly increased risk of severe, potentially life-threatening, toxicity when treated with fluoropyrimidines.

impactfactor: *5.531*

Deenen MJ (Maarten)

Pronounced between-subject and circadian variability in thymidylate synthase and dihydropyrimidine dehydrogenase enzyme activity in human volunteers

Jacobs BA, Deenen MJ*, Pluim D, van Hasselt JG, Krähenbühl MD, van Geel RM, de Vries N, Rosing H, Meulendijks D, Burylo AM, Cats A, Beijnen JH, Huitema AD, Schellens JH.

Br J Clin Pharmacol. 2016 Sep;82(3):706-16. Epub 2016 Jun 3

AIMS: The enzymatic activity of dihydropyrimidine dehydrogenase (DPD) and thymidylate synthase (TS) are important for the tolerability and efficacy of the fluoropyrimidine drugs. In the present study, we explored between-subject variability (BSV) and circadian rhythmicity in DPD and TS activity in human volunteers.

METHODS: The BSVs in DPD activity (n = 20) in peripheral blood mononuclear cells (PBMCs) and in plasma, measured by means of the dihydrouracil (DHU) and uracil (U) plasma levels and DHU : U ratio (n = 40), and TS activity in PBMCs (n = 19), were examined. Samples were collected every 4 h throughout 1 day for assessment of circadian rhythmicity in DPD and TS activity in PBMCs (n = 12) and DHU : U plasma ratios (n = 23). In addition, the effects of genetic polymorphisms and gene expression on DPD and TS activity were explored.

RESULTS: Population mean (± standard deviation) DPD activity in PBMCs and DHU : U plasma ratio were 9.2 (±2.1) nmol mg(-1) h(-1) and 10.6 (±2.4), respectively. Individual TS activity in PBMCs ranged from 0.024 nmol mg(-1) h(-1) to 0.596 nmol mg(-1) h(-1) . Circadian rhythmicity was demonstrated for all phenotype markers. Between 00:30 h and 02:00 h, DPD activity in PBMCs peaked, while the DHU : U plasma ratio and TS activity in PBMCs showed trough activity. Peak-to-trough ratios for DPD and TS activity in PBMCs were 1.69 and 1.62, respectively. For the DHU : U plasma ratio, the peak-to-trough ratio was 1.43.

CONCLUSIONS: BSV and circadian variability in DPD and TS activity were demonstrated. Circadian rhythmicity in DPD might be tissue dependent. The results suggested an influence of circadian rhythms on phenotype-guided fluoropyrimidine dosing and supported implications for chronotherapy with high-dose fluoropyrimidine administration during the night.

impactfactor: 3.830

Ten tijde van publicatie verbonden aan: Department of Clinical Pharmacology, The Netherlands Cancer Institute, Amsterdam

Deenen MJ (Maarten)

Prospective DPYD genotyping to reduce the risk of fluoropyrimidine-induced severe toxicity: Ready for prime time

Lunenburg CA, Henricks LM, Guchelaar HJ, Swen JJ, Deenen MJ*, Schellens JH, Gelderblom H

Eur J Cancer. 2016 Feb;54:40-8. Epub 2015 Dec 21

5-Fluorouracil (5-FU) and capecitabine (CAP) are among the most frequently prescribed anticancer drugs. They are inactivated in the liver by the enzyme dihydropyrimidine dehydrogenase (DPD). Up to 5% of the population is DPD deficient and these patients have a significantly increased risk of severe and potentially lethal toxicity when treated with regular doses of 5-FU or CAP. DPD is encoded by the gene DPYD and variants in DPYD can lead to a decreased DPD activity. Although prospective DPYD genotyping is a valuable tool to identify patients with DPD deficiency, and thus those at risk for severe and potential life-threatening toxicity, prospective genotyping has not yet been implemented in daily clinical care. Our goal was to present the available evidence in favour of prospective genotyping, including discussion of unjustified worries on cost-effectiveness, and potential underdosing. We conclude that there is convincing evidence to implement prospective DPYD genotyping with an upfront dose adjustment in DPD deficient patients. Immediate benefit in patient care can be expected through decreasing toxicity, while maintaining efficacy.

impactfactor: 6.163

Deenen MJ (Maarten)

Renal function, body surface area, and age are associated with risk of early-onset fluoropyrimidine-associated toxicity in patients treated with capecitabine-based anticancer regimens in daily clinical care

Meulendijks D, van Hasselt JG, Huitema AD, van Tinteren H, Deenen MJ, Beijnen JH, Cats A, Schellens JH

Eur J Cancer. 2016 Feb;54:120-30. Epub 2016 Jan 4

BACKGROUND: The objective of this analysis was to determine the factors associated with early onset treatment-related toxicity in patients treated with capecitabine-based anticancer regimens in daily clinical care.

PATIENTS AND METHODS: A total of 1463 patients previously included in a prospective cohort study and treated with standard-of-care capecitabine-based anticancer regimens (monotherapy or combined with other chemotherapy or radiotherapy) were analysed. Logistic regression models were developed to investigate associations between patient- and treatment-related factors and occurrence of early - i.e. cycle one or two - severe (grade = 3) treatment-related toxicity, toxicity-related hospitalisation, and toxicity-related treatment discontinuation. Performance of models was evaluated using receiver-operating characteristic (ROC) curves and internal validity was explored using bootstrap analysis.

RESULTS: Among 1463 patients included, 231 patients (16%) experienced early severe toxicity, 132 patients (9%) were hospitalised for toxicity, and 146 patients (10%) discontinued treatment for toxicity; in total, 321 patients (22%) experienced any early toxicity-related adverse outcome. Predictors of early grade =3 toxicity, after adjustment for treatment regimen, were renal function (odds ratio [OR] 0.85 per 10 ml/min/1.73 m(2), p = 0.0007), body surface area (BSA) (OR 0.33 per m(2), p = 0.0053), age (OR 1.14 per decade, p = 0.0891), and elevated pre-treatment uracil concentrations (OR 2.41 per 10 ng/ml, p = 0.0046). Age was significantly associated with fatal treatment-related toxicity (OR 5.75, p = 0.0008). Area under the ROC curve (AUC) of a model to predict early grade =3 toxicity was 0.704 (95% confidence interval 0.666-0.743, optimism-corrected AUC 0.690).

CONCLUSION: Renal function, BSA, and age, in addition to pre-treatment uracil, are associated with clinically relevant differences in risk of early severe toxicity in patients treated with capecitabine in routine clinical care.

impactfactor: 6.163

Ten tijde van publicatie verbonden aan: Department of Clinical Pharmacology, Division of Medical Oncology, The Netherlands Cancer Institute

Deenen MJ (Maarten)

Reply to T. Magnes et al.

Deenen MJ*, Cats A, Severens JL, Beijnen JH, Schellens JH

J Clin Oncol. 2016 Jul 10;34(20):2434-5

Geen abstract beschikbaar

impactfactor: 20.982

Deenen MJ (Maarten)

Rs895819 in MIR27A improves the predictive value of DPYD variants to identify patients at risk of severe fluoropyrimidine-associated toxicity

Meulendijks D, Henricks LM, Amstutz U, Froehlich TK, Largiadèr CR, Beijnen JH de Boer A, Deenen MJ*, Cats A, Schellens JH

Int J Cancer. 2016 Jun 1;138(11):2752-61. Epub 2016 Feb 19

The objective of this study was to determine whether genotyping of MIR27A polymorphisms rs895819A>G and rs11671784C>T can be used to improve the predictive value of DPYD variants to identify patients at risk of severe fluoropyrimidine-associated toxicity (FP-toxicity). Patients treated previously in a prospective study with fluoropyrimidine-based chemotherapy were genotyped for rs895819 and rs11671784, and DPYD c.2846A>T, c.1679T>G, c.1129-5923C>G, and c.1601G>A. The predictive value of MIR27A variants for early-onset grade =3 FP-toxicity, alone or in combination with DPYD variants, was tested in multivariable logistic regression models. Random-effects meta-analysis was performed, including previously published data. 1592 patients were included. Allele frequencies of rs895819 and rs11671784 were 0.331 and 0.020, respectively. In DPYD wild type patients, MIR27A variants did not affect risk of FP-toxicity (OR 1.3 for =1 variant MIR27A allele vs. none, 95%CI 0.87-1.82, p=0.228). In contrast, in patients carrying DPYD variants, the presence of =1 rs895819 variant allele was associated with increased risk of FP-toxicity (OR 4.9, 95%CI 1.24-19.7, p=0.023). Rs11671784 was not associated with FP-toxicity (OR 2.9, p=0.253). Patients carrying a DPYD variant and rs895819 were at increased risk of FP-toxicity compared to patients wild type for rs895819 and DPYD (OR 2.4, 95%CI 1.27-4.37, p=0.007), while patients with a DPYD variant but without a MIR27A variant were not (OR 0.4, 95%CI 0.09-1.82, p=0.236). In meta-analysis, rs895819 remained significantly associated with FP-toxicity in DPYD variant allele carriers, OR 5.4 (95%CI 1.83-15.7, p=0.002). This study demonstrates the clinical validity of combined MIR27A/DPYD screening to identify patients at risk of severe FP-toxicity

impactfactor: 5.531

Ten tijde van publicatie verbonden aan: Department of Clinical Pharmacology, Division of Medical Oncology, The Netherlands Cancer Institute

Deenen MJ (Maarten)

Upfront Genotyping of DPYD*2A to Individualize Fluoropyrimidine Therapy: A Safety and Cost Analysis

Deenen MJ*, Meulendijks D, Cats A, Sechterberger MK, Severens JL, Boot H, Smits PH, Rosing H, Mandigers CM, Soesan M, Beijnen JH, Schellens JH

J Clin Oncol. 2016 Jan 20;34(3):227-34. Epub 2015 Nov 16

PURPOSE: Fluoropyrimidines are frequently prescribed anticancer drugs. A polymorphism in the fluoropyrimidine metabolizing enzyme dihydropyrimidine dehydrogenase (DPD; ie, DPYD*2A) is strongly associated with fluoropyrimidine-induced severe and life-threatening toxicity. This study determined the feasibility, safety, and cost of DPYD*2A genotype-guided dosing.

PATIENTS AND METHODS: Patients intended to be treated with fluoropyrimidine-based chemotherapy were prospectively genotyped for DPYD*2A before start of therapy. Variant allele carriers received an initial dose reduction of = 50% followed by dose titration based on tolerance. Toxicity was the primary end point and was compared with historical controls (ie, DPYD*2A variant allele carriers receiving standard dose described in literature) and with DPYD*2A wild-type patients treated with the standard dose in this study. Secondary end points included a model-based cost analysis, as well as pharmacokinetic and DPD enzyme activity analyses.

RESULTS: A total of 2,038 patients were prospectively screened for DPYD*2A, of whom 22 (1.1%) were heterozygous polymorphic. DPYD*2A variant allele carriers were treated with a median dose-intensity of 48% (range, 17% to 91%). The risk of grade = 3 toxicity was thereby significantly reduced from 73% (95% CI, 58% to 85%) in historical controls (n = 48) to 28% (95% CI, 10% to 53%) by genotype-guided dosing (P < .001); drug-induced death was reduced

from 10% to 0%. Adequate treatment of genotype-guided dosing was further demonstrated by a similar incidence of grade = 3 toxicity compared with wild-type patients receiving the standard dose (23%; P = .64) and by similar systemic fluorouracil (active drug) exposure. Furthermore, average total treatment cost per patient was lower for screening (€2,772 [$3,767]) than for nonscreening (€2,817 [$3,828]), outweighing screening costs.

CONCLUSION: DPYD*2A is strongly associated with fluoropyrimidine-induced severe and life-threatening toxicity. DPYD*2A genotype-guided dosing results in adequate systemic drug exposure and significantly improves safety of fluoropyrimidine therapy for the individual patient. On a population level, upfront genotyping seemed cost saving.

impactfactor: 20.982

Ten tijde van publicatie verbonden aan: Department of Clinical Pharmacology, The Netherlands Cancer Institute, Amsterdam

Grouls RJ (René)

Anti Xa bepaling bij patiënten met een verminderde nierfunctie, reactie

E. Boerrigter, ATM Wasylewicz*, RJE Grouls*, CHM Kerskes*

Nederlands Platform voor Farmaceutisch onderzoek, 2016;1;c1601

Geen abstract beschikbaar

impactfactor: --

Grouls RJ (René)

Comparing compliance of two communication methods of CDSS-generated advices communicated by professionals with different background qualifications on a geriatric ward

[Vergelijking van opvolgingspercentages bij twee communicatiemethoden en invloed van adviesfunctionaris bij de presentatie van adviezen uit een klinisch beslis singsondersteunend systeem op een afdeling geriatrie]

Barmentlo-Andringa, K.M.* , Wasylewicz, A.T.M.*, Schols, J.M.G.A., Grouls, R.J.E.*, Van Der Linden, C.M.J.*

Pharmaceutisch Weekblad , Volume 151, Issue 3, 22 January 2016, Pages 23-28

Voor abstract zie: Geriatrie - Barmentlo-Andringa KM

impactfactor: --

Grouls RJ (René)

Incidentie en klinische relevantie van geneesmiddel-interacties bij parenterale chemotherapie. Het belang van lokale afhandeling

D.C. van Renswouw, R. ten Broeke, A.V.M. Brands-Nijenhuis en R.J.E. Grouls

Nederlands Platform voor Farmaceutisch Onderzoek 2016; 1; a1612

Voor abstract zie: Apotheek - Renswouw DC van

impactfactor: --

Grouls RJ (René)

Psychotropic Drug Prescription and the Risk of Falls in Nursing Home Residents

Cox CA*, van Jaarsveld HJ, Houterman S*, van der Stegen JC, Wasylewicz AT*, Grouls RJ*, van der Linden CM*

J Am Med Dir Assoc. 2016 Dec 1;17(12):1089-1093. Epub 2016 Sep 16

Voor abstract zie: Geriatrie - Cox C

impactfactor: 6.616

Kerskes CH (Marieke)

Anti Xa bepaling bij patiënten met een verminderde nierfunctie, reactie

E. Boerrigter, ATM Wasylewicz*, RJE Grouls*, CHM Kerskes*

Nederlands Platform voor Farmaceutisch onderzoek, 2016;1;c1601

Geen abstract beschikbaar

impactfactor: --

Renswouw DC van

Incidentie en klinische relevantie van geneesmiddel-interacties bij parenterale chemotherapie. Het belang van lokale afhandeling

D.C. van Renswouw*, R. ten Broeke*, A.V.M. Brands-Nijenhuis en R.J.E. Grouls*

Nederlands Platform voor Farmaceutisch Onderzoek 2016; 1; a1612

OBJECTIVE To investigate the incidence and clinical relevance of potential drug interactions related to parenteral chemotherapy in relation to local practice.

DESIGN Prospective observational pilot study.

METHODS In this pilot study, 100 patients who received parenteral chemotherapy at the department of oncology of the Catharina Hospital Eindhoven between March and September 2014, were included prospectively. Patients were included if an actual medication list was available. For each patient, demographic characteristics and identified potential drug interactions related to parenteral chemotherapy were registered. Potential drug interactions were identified and classified according to the national guideline (G-Standaard) and reviewed by a local expert panel (oncologist, haematologist and pharmacist) for local relevance.

RESULTS An incidence of 14% was found for potential drug interactions related to parenteral chemotherapy. Altogether 19 alerts for potential drug interaction were identified with a maximum of 2 per patient. 9 different potential drug interactions were identified. Only 16% of identified potential drug interactions were clinically relevant according to the national guideline. In 16% of potential drug interaction alerts, intervention was necessary according to the local expert panel. For 2 potential drug interactions the desired intervention differed between national guideline and local expert panel.

CONCLUSION Incidence of potential drug interactions related to parenteral chemotherapy is 14% in the Catharina Hospital Eindhoven. In local practice, only in part of these potential drug interactions an intervention was considered desirable. These findings could serve as a basis to optimize current medication surveillance and decrease potential alert fatigue.

impactfactor: --

Wasylewicz AT (Arthur)

Anti Xa bepaling bij patiënten met een verminderde nierfunctie, reactie

E. Boerrigter, ATM Wasylewicz*, RJE Grouls*, CHM Kerskes*

Nederlands Platform voor Farmaceutisch onderzoek, 2016;1;c1601

Geen abstract beschikbaar

impactfactor: --

Wasylewicz AT (Arthur)

Comparing compliance of two communication methods of CDSS-generated advices communicated by professionals with different background qualifications on a geriatric ward

[Vergelijking van opvolgingspercentages bij twee communicatiemethoden en invloed van adviesfunctionaris bij de presentatie van adviezen uit een klinisch beslis singsondersteunend systeem op een afdeling geriatrie]

Barmentlo-Andringa, K.M.* , Wasylewicz, A.T.M.*, Schols, J.M.G.A., Grouls, R.J.E.*, Van Der Linden, C.M.J.*

Pharmaceutisch Weekblad , Volume 151, Issue 3, 22 January 2016, Pages 23-28

Voor abstract zie: *Geriatrie - Barmentlo-Andringa KM*

impactfactor: *--*

Wasylewicz AT (Arthur)

Psychotropic Drug Prescription and the Risk of Falls in Nursing Home Residents

Cox CA*, van Jaarsveld HJ, Houterman S*, van der Stegen JC, Wasylewicz AT*, Grouls RJ*, van der Linden CM*

J Am Med Dir Assoc. 2016 Dec 1;17(12):1089-1093. Epub 2016 Sep 16

Voor abstract zie: *Geriatrie - Cox C*

impactfactor: *6.616*

Wezel RA van (Ralph)

Crystallization in the waterjet channel in colonoscopes due to simethicone

van Stiphout SH*, Laros IF*, van Wezel RA*, Gilissen LP*

Endoscopy. 2016 0;48(S 01):E394-E395

geen abstract beschikbaar

impactfactor: *5.634*

Wezel RA van (Ralph)

Second case study on the orientation of phaco hand pieces during steam sterilization

van Wezel RA*, van Doornmalen HW, de Geus J, Rutten S, van Doornmalen Gomez Hoyos JP

J Hosp Infect. 2016 Oct;94(2):194-7

geen abstract beschikbaar

impactfactor: *2.655*

Woo L

Early treatment with intravenous lipid emulsion in a potentially lethal hydroxychloroquine intoxication

Ten Broeke R*, Mestrom E*, Woo L*, Kreeftenberg H*

Neth J Med. 2016 Jun;74(5):210-4

Voor abstract zie: *Apotheek - Broeke R ten*

impactfactor: *1.489*

* = *Werkzaam in het Catharina Ziekenhuis*

Cardiologie

Bracke FA (Frank)

A Possible Role for Pacing the Left Ventricular Septum in Cardiac Resynchronization Therapy

Rademakers LM*, van Hunnik A, Kuiper M, Vernooy K, van Gelder BM*, Bracke FA*, Prinzen FW

JACC Clin Electrophysiol. 2016 Aug;2(4):413-22

Voor abstract zie: *Cardiologie - Rademakers LM*
impactfactor: --

Bracke FA (Frank)

Haemodynamic evaluation of alternative left ventricular endocardial pacing sites in clinical non-responders to cardiac resynchronisation therapy

van Gelder BM*, Nathoe R*, Bracke FA*

Neth Heart J. 2016 Jan;24(1):85-92. Epub 2015 Dec 8

Voor abstract zie: *Cardiologie - van Gelder BM*
impactfactor: *2.062*

Bracke FA (Frank)

Late asymptomatic atrial lead perforation, a fortuitous finding during lead extraction using thoracoscopic surveillance: a case report and review of the literature

Van Gelder BM*, Verberkmoes N*, Nathoe R*, Bracke FA*

Europace. 2016 Dec;18(12):1773-1778. Epub 2016 Jun 2

Voor abstract zie: *Cardiologie - Gelder BM van*
impactfactor: *4.021*

Bracke FA (Frank)

Timely detection of superior vena cava laceration with thoracoscopy during lead extraction

Bracke FA*, Verberkmoes N*, van Gelder BM*

Heart Rhythm. 2016 Oct;13(10):2106-7. Epub 2016 Jun 21

Voor abstract zie: *Geen abstract beschikbaar*
impactfactor: *4.391*

Brueren BR (Guus)

A multicentre European registry to evaluate the Direct Flow Medical transcatheter aortic valve system for the treatment of patients with severe aortic stenosis

Naber CK, Pyxaras SA, Ince H, Frambach P, Colombo A, Butter C, Gatto F, Hink U, Nickenig G, Bruschi G, Brueren G*, Tchétché D, Den Heijer P, Schillinger W, Scholtz S, Van der Heyden J, Lefèvre T, Gilard M, Kuck KH, Schofer J, Divchev D, Baumgartner H, Asch F, Wagner D, Latib A, De Marco F, Kische S

EuroIntervention. 2016 Dec 10;12(11):e1413-e1419.

AIMS: Our aim was to assess the clinical outcomes of the Direct Flow Medical Transcatheter Aortic Valve System (DFM-TAVS), when used in routine clinical practice.

METHODS AND RESULTS: This is a prospective, open-label, multicentre, post-market registry of patients treated with DFM-TAVS according to approved commercial indications. Echocardiographic and angiographic data were evaluated by an independent core laboratory and adverse events were adjudicated and classified according to VARC-2 criteria by an

independent clinical events committee. The primary endpoint was freedom from all-cause mortality at 30 days post procedure. Secondary endpoints included procedural, early safety and efficacy endpoints at 30 days. Two hundred and fifty patients with severe aortic stenosis undergoing transcatheter aortic valve implantation (TAVI) with the DFM-TAVS were enrolled in 21 European centres. The primary endpoint, freedom from all-cause mortality at 30 days, was met in 98% (245/250) of patients. Device success was 83.8%. Moderate or severe aortic regurgitation was reported in 3% of patients, and none/trace regurgitation in 73% of patients. Post-procedural permanent pacemaker implantation was performed in 30 patients (12.0%).

CONCLUSIONS: The DFM-TAVS was associated with good short-term outcomes in this real-world registry. The low pacemaker and aortic regurgitation rates confirm the advantages of this next-generation transcatheter heart valve (THV).

impactfactor: 3.863

Brueren BR (Guus)

Filter-based cerebral embolic protection with transcatheter aortic valve implantation: the randomised MISTRAL-C trial

Van Mieghem NM, van Gils L, Ahmad H, van Kesteren F, van der Werf HW, Brueren G*, Storm M, Lenzen M, Daemen J, van den Heuvel AF, Tonino P*, Baan J, Koudstaal PJ, Schipper ME, van der Lugt A, de Jaegere PP

EuroIntervention. 2016 Jul 20;12(4):499-507

AIMS: Our aim was to determine whether use of the filter-based Sentinel™ Cerebral Protection System (CPS) during transcatheter aortic valve implantation (TAVI) can affect the early incidence of new brain lesions, as assessed by diffusion-weighted magnetic resonance imaging (DW-MRI), and neurocognitive performance.

METHODS AND RESULTS: From January 2013 to July 2015, 65 patients were randomised 1:1 to transfemoral TAVI with or without the Sentinel CPS. Patients underwent DW-MRI and extensive neurological examination, including neurocognitive testing one day before and five to seven days after TAVI. Follow-up DW-MRI and neurocognitive testing was completed in 57% and 80%, respectively. New brain lesions were found in 78% of patients with follow-up MRI. Patients with the Sentinel CPS had numerically fewer new lesions and a smaller total lesion volume (95 mm3 [IQR 10-257] vs. 197 mm3 [95-525]). Overall, 27% of Sentinel CPS patients and 13% of control patients had no new lesions. Ten or more new brain lesions were found only in the control cohort (in 20% vs. 0% in the Sentinel CPS cohort, p=0.03). Neurocognitive deterioration was present in 4% of patients with Sentinel CPS vs. 27% of patients without (p=0.017). The filters captured debris in all patients with Sentinel CPS protection.

CONCLUSIONS: Filter-based embolic protection captures debris en route to the brain in all patients undergoing TAVI. This study suggests that its use can lead to fewer and overall smaller new brain lesions, as assessed by MRI, and preservation of neurocognitive performance early after TAVI.

impactfactor: 3.863

Dekker LR (Lukas)

A stumbling block or a stepping stone?

Zimmermann FM*, Dekker LR*

Neth Heart J. 2016 Apr;24(4):296-7

Geen abstract beschikbaar

impactfactor: 2.062

Dekker LR (Lukas)

A stumbling block or a stepping stone?

Zimmermann FM*, Dekker LR*

Neth Heart J. 2016 Apr;24(4):300

Geen abstract beschikbaar

impactfactor: 2.062

Dekker LR (Lukas)

Continuous Cardiac Monitoring around Atrial Fibrillation Ablation: Insights on Clinical Classifications and End Points

Dekker LR*, Pokushalov E, Sanders P, Lindborg KA, Maus B, Pürerfellner H

Pacing Clin Electrophysiol. 2016 Aug;39(8):805-13. Epub 2016 Jun 19

BACKGROUND: Atrial fibrillation (AF) is an arrhythmia that can be difficult to identify and classify with short-term monitoring. However, current standard of practice requires only short-term monitoring to determine AF classifications and identify symptom-arrhythmia correlations prior to AF ablation procedures. Insertable cardiac monitors (ICMs) offer continuous arrhythmia monitoring, which could lead to a more accurate measurement of AF burden than standard of practice.

METHODS: This analysis focused on 121 patients enrolled in the LINQ Usability Study indicated for an AF ablation. Patients were followed for up to 1 year after ICM insertion. Clinical AF classifications were made by physicians prior to ICM implantation based on available clinical information. Device-detected AF burden and maximum daily burden were collected from device interrogations and remote transmissions. Device AF classifications were determined by categorizing the AF burden based on guidelines.

RESULTS: Agreement between clinical and device AF classifications preablation was poor (48.3%, N = 58). The strongest agreement was in the paroxysmal AF group but still was only 61.8%. Furthermore, device-detected preablation AF burden led to the decision to defer AF ablation procedures in 16 (13.2%) patients. The median AF burden in patients with =6 months follow-up postablation (n = 71) was reduced from 7.8% (interquartile range [IQR]: 0-32.1%) to 0% (IQR: 0-0.7%).

CONCLUSIONS: ICM monitoring to determine AF burden pre- and post-AF ablation may have clinical utility for management of ablation candidates through more accurate AF classification and guiding treatment decisions.

impactfactor: 1.156

Dekker LR (Lukas)

Last call on nMARQ™ safety

Dekker LR*

Europace. 2016 Aug;18(8):1119-20. Epub 2016 Jun 2

Geen abstract beschikbaar

impactfactor: 4.021

Dekker LR (Lukas)

Low rate of asymptomatic cerebral embolism and improved procedural efficiency with the novel pulmonary vein ablation catheter GOLD: results of the PRECISION GOLD trial

De Greef Y, Dekker L*, Boersma L, Murray S, Wieczorek M, Spitzer SG, Davidson N, Furniss S, Hocini M, Geller JC, Csanádi Z; PRECISION GOLD investigators.

Europace. 2016 May;18(5):687-95. Epub 2016 Jan 29

AIMS: This prospective, multicentre study (PRECISION GOLD) evaluated the incidence of asymptomatic cerebral embolism (ACE) after pulmonary vein isolation (PVI) using a new gold multi-electrode radiofrequency (RF) ablation catheter, pulmonary vein ablation catheter (PVAC) GOLD. Also, procedural efficiency of PVAC GOLD was compared with ERACE. The ERACE study demonstrated that a low incidence of ACE can be achieved with a platinum multi-electrode RF catheter (PVAC) combined with procedural manoeuvres to reduce emboli.

METHODS AND RESULTS: A total of 51 patients with paroxysmal atrial fibrillation (AF) (age 57 ± 9 years, CHA2DS2-VASc score 1.4 ± 1.4) underwent AF ablation with PVAC GOLD. Continuous oral anticoagulation using vitamin K antagonists, submerged catheter introduction, and heparinization (ACT = 350 s prior to ablation) were applied. Cerebral magnetic resonance imaging (MRI) scans were performed within 48 h before and 16-72 h post-ablation. Cognitive function assessed by the Mini-Mental State Exam at baseline and 30 days post-ablation. New post-procedural ACE occurred in only 1 of 48 patients (2.1%) and was not detectable on MRI after 30 days. The average number of RF applications per patient to achieve PVI was lower in PRECISION GOLD (20.3 ± 10.0) than in ERACE (28.8 ± 16.1; P = 0.001). Further, PVAC GOLD ablations resulted in significantly fewer low-power (<3 W) ablations (15 vs. 23%, 5 vs. 10% and 2 vs. 7% in 4:1, 2:1, and 1:1 bipolar:unipolar energy modes, respectively). Mini-Mental State Exam was unchanged in all patients.

CONCLUSION: Atrial fibrillation ablation with PVAC GOLD in combination with established embolic lowering manoeuvres results in a low incidence of ACE. Pulmonary vein ablation catheter GOLD demonstrates improved biophysical efficiency compared with platinum PVAC.

impactfactor: *4.021*

Dekker LR (Lukas)

Multielectrode Pulmonary Vein Isolation Versus Single Tip Wide Area Catheter Ablation for Paroxysmal Atrial Fibrillation: A Multinational Multicenter Randomized Clinical Trial

Boersma LV, van der Voort P*, Debruyne P, Dekker L*, Simmers T*, Rossenbacker T, Balt J, Wijffels M, Degreef Y

Circ Arrhythm Electrophysiol. 2016 Apr;9(4)

Voor abstract zie: *Cardiologie - Voort PH van der*
impactfactor: *4.428*

Dekker LR (Lukas)

Performance of a new atrial fibrillation detection algorithm in a miniaturized insertable cardiac monitor: Results from the Reveal LINQ Usability Study

Sanders P, Pürerfellner H, Pokushalov E, Sarkar S, Di Bacco M, Maus B, Dekker LR*; Reveal LINQ Usability Investigators

Heart Rhythm. 2016 Jul;13(7):1425-30. Epub 2016 Mar 4

BACKGROUND: For clinicians, confidence in atrial fibrillation (AF) episode classification is an important consideration when electing to use insertable cardiac monitors (ICMs).
OBJECTIVE: The purpose of this study was to report on the improved AF detection algorithm in the Reveal LINQ ICM.
METHODS: The Reveal LINQ Usability Study is a nonrandomized, prospective, multicenter trial. The ICM has been miniaturized, uses wireless telemetry for remote patient monitoring, and its AF algorithm includes a new p-wave filter. At 1 month post-device insertion, Holter monitor data were collected and annotated for true AF episodes =2 minutes, and performance metrics were evaluated by comparing Holter annotations with ICM detections.
RESULTS: The study enrolled 151 patients (age 56.6 ± 12.1, male 67%). Reasons for monitoring included AF ablation or AF management in 81.5% (n = 123), syncope in 12.6% (n = 19), and other indications in 5.9% (n = 9) of patients. Of the 138 patients with an analyzable Holter recording, a total of 112 true AF episodes were identified in 38 patients (27.5%). The overall accuracy of the ICM to detect durations of AF or non-AF episodes was 99.4%, and the AF burden measured by the ICM was highly correlated with the Holter (Pearson coefficient 0.995).
CONCLUSION: The new AF detection algorithm in the Reveal LINQ ICM accurately detects the presence or absence of AF. Additionally, it showed high sensitivity in detecting AF duration in patients with a history of intermittent and symptomatic AF.

impactfactor: *4.391*

Dekker LR (Lukas)

Reduced number of cardiovascular events and increased cost-effectiveness by genotype-guided antiplatelet therapy in patients undergoing percutaneous coronary interventions in the Netherlands

Deiman BA*, Tonino PA*, Kouhestani K*, Schrover CE*, Scharnhorst V*, Dekker LR*, Pijls NH*

Neth Heart J. 2016 Oct;24(10):589-99

Voor abstract zie: *AKL - Deiman AL*
impactfactor: *2.062*

Dekker LR (Lukas)

Spatial distribution of electrical reconnection after pulmonary vein isolation in patients with recurrent paroxysmal atrial fibrillation

Rademakers LM*, Romero I, Simmers TA*, van der Voort PH*, Meijer AM*, Dekker LR

Neth Heart J. 2016 Jul;24(7-8):481-7

Voor abstract zie: *Cardiologie - Rademakers LM*
impactfactor: *2.062*

Gelder BM van (Berry)

A Possible Role for Pacing the Left Ventricular Septum in Cardiac Resynchronization Therapy

Rademakers LM*, van Hunnik A, Kuiper M, Vernooy K, van Gelder BM*, Bracke FA*, Prinzen FW

JACC Clin Electrophysiol. 2016 Aug;2(4):413-22

Voor abstract zie: *Cardiologie - Rademakers LM*
impactfactor: *--*

Gelder BM van (Berry)

Haemodynamic evaluation of alternative left ventricular endocardial pacing sites in clinical non-responders to cardiac resynchronisation therapy

van Gelder BM*, Nathoe R*, Bracke FA*

Neth Heart J. 2016 Jan;24(1):85-92. Epub 2015 Dec 8

INTRODUCTION: Non response to cardiac resynchronisation therapy (CRT) may be related to the position of the coronary sinus lead.

METHODS: We studied the acute haemodynamic response (AHR) from alternative left ventricular (LV) endocardial pacing sites in clinical non-responders to CRT. AHR and the interval from QRS onset to LV sensing (Q-LV interval) from four different endocardial pacing sites were evaluated in 24 clinical non-responders. A rise in LVdP/dtmax =?15?% from baseline was considered a positive AHR. We also compared the AHR from endocardial with the corresponding epicardial lead position.

RESULTS: The implanted system showed an AHR =?15?% in 5 patients. In 9 of the 19 remaining patients, AHR could be elevated to =?15?% by endocardial LV pacing. The optimal endocardial pacing site was posterolateral. There was no significant difference in AHR between the epicardial and the corresponding endocardial position. The longest Q-LV interval corresponded with the best AHR in 12 out of the 14 patients with a positive AHR, with an average Q-LV/QRS width ratio of 90?%.

CONCLUSIONS: Acute haemodynamic testing may indicate an alternative endocardial pacing site with a positive AHR in clinical non-responders. The Q-LV interval is a strongly correlated with the optimal endocardial pacing site. Endocardial pacing opposite epicardial sites does not result in a better AHR.

impactfactor: 2.062

Gelder BM van (Berry)

Late asymptomatic atrial lead perforation, a fortuitous finding during lead extraction using thoracoscopic surveillance: a case report and review of the literature

Van Gelder BM*, Verberkmoes N*, Nathoe R*, Bracke FA*

Europace. 2016 Dec;18(12):1773-1778. Epub 2016 Jun 2

A 61-year-old male patient was referred for lead extraction of an infected two-chamber pacemaker system first implanted 18 years ago. A new atrial lead was implanted 9 years later because of loss of capture of the original lead. Video-assisted thoracoscopic surgery (VATS) that we use in high-risk cases showed extensive fibrous adhesion between the right atrium wall and the right lung. Dissection of the adhesion revealed the presence of an atrial lead perforated into the lung. After cutting off the lead tip, the residual lead was removed endovascularly from the subclavian site. A literature review of 25 reported cases of late atrial lead perforation was added to the findings in our case report.

impactfactor: 4.021

Gelder BM van (Berry)

Timely detection of superior vena cava laceration with thoracoscopy during lead extraction

Bracke FA*, Verberkmoes N*, van Gelder BM*

Heart Rhythm. 2016 Oct;13(10):2106-7. Epub 2016 Jun 21.

Geen abstract beschikbaar

impactfactor: 4.391

Houthuizen P (Patrick)

Assessment of left ventricular mechanical dyssynchrony in left bundle branch block canine model: Comparison between cine and tagged MRI

Saporito S, van Assen HC, Houthuizen P*, Aben JP, Strik M, van Middendorp LB, Prinzen FW, Mischi M

J Magn Reson Imaging. 2016 Oct;44(4):956-63. Epub 2016 Mar 12

PURPOSE: To compare cine and tagged magnetic resonance imaging (MRI) for left ventricular dyssynchrony assessment in left bundle branch block (LBBB), using the time-to-peak contraction timing, and a novel approach based on cross-correlation.

MATERIALS AND METHODS: We evaluated a canine model dataset (n?=?10) before (pre-LBBB) and after induction of isolated LBBB (post-LBBB). Multislice short-axis tagged and cine MRI images were acquired using a 1.5 T scanner. We computed contraction time maps by cross-correlation, based on the timing of radial wall motion and of circumferential strain. Finally, we estimated dyssynchrony as the standard deviation of the contraction time over the different regions of the myocardium.

RESULTS: Induction of LBBB resulted in a significant increase in dyssynchrony (cine: 13.0?±?3.9 msec for pre-LBBB, and 26.4?±?5.0 msec for post-LBBB, P?=?0.005; tagged: 17.1?±?5.0 msec at for pre-LBBB, and 27.9?±?9.8 msec for post-LBBB, P?=?0.007). Dyssynchrony assessed by cine and tagged MRI were in agreement (r?=?0.73, P?=?0.0003); differences were in the order of time difference between successive frames of 20 msec (bias: -2.9 msec; limit of agreement: 10.1 msec). Contraction time maps were derived; agreement was found in the contraction patterns derived from cine and tagged MRI (mean difference in contraction time per segment: 3.6?±?13.7 msec).

CONCLUSION: This study shows that the proposed method is able to quantify dyssynchrony after induced LBBB in an animal model. Cine-assessed dyssynchrony agreed with tagged-derived dyssynchrony, in terms of magnitude and spatial direction

impactfactor: 3.250

Houthuizen P (Patrick)

Electrical remodelling in patients with iatrogenic left bundle branch block

Engels EB, Poels TT, Houthuizen P*, de Jaegere PP, Maessen JG, Vernooy K, Prinzen FW

Europace. 2016 Dec;18(suppl 4):iv44-iv52

AIMS: Left bundle branch block (LBBB) is induced in approximately one-third of all transcatheter aortic valve implantation (TAVI) procedures. We investigated electrophysiological remodelling in patients with TAVI-induced LBBB.

METHODS AND RESULTS: This retrospective study comprises 107 patients with initially narrow QRS complex of whom 40 did not and 67 did develop persistent LBBB after TAVI. 12-lead electrocardiograms (ECGs) taken before TAVI, within 24?hours ('acute'), and 1-12 months after TAVI ('chronic') were used to reconstruct vectorcardiograms. From these vectorcardiograms, QRS and T-wave area were calculated as comprehensive indices of depolarization and repolarization abnormalities, respectively. TAVI-induced LBBB resulted in significant acute depolarization and repolarization changes while further repolarization changes were observed with longer lasting LBBB. The amount of long-term repolarization changes (remodelling) was highly variable between patients. The change in T-wave area between acute and chronic LBBB ranged from?+57% to?-?77%. After dividing the LBBB cohort into tertiles based on the change in T-wave area, only baseline QRS area was larger in the tertile with no significant change in T-wave area. During longer lasting LBBB, the spatial vector gradient (SVG) changed orientation towards the direction of the QRS-vector, indicating that later-activated regions developed shorter action potential duration.

CONCLUSION: This study in patients with TAVI-induced LBBB shows that repolarization changes develop within months after onset of LBBB, and that these changes are highly variable between individual patients.

impactfactor: 4.021

Houthuizen P (Patrick)

Model-Based Characterization of the Transpulmonary Circulation by Dynamic Contrast-Enhanced Magnetic Resonance Imaging in Heart Failure and Healthy Volunteers Saporito S, Herold IH*, Houthuizen P*, van Den Bosch HC*, Den Boer JA, Korsten HH*, van Assen HC, Mischi M

Invest Radiol. 2016 Nov;51(11):720-727

Voor abstract zie: Anesthesiologie - Herold IH

impactfactor: 4.887

Houthuizen P (Patrick)

Propofol administration to the fetal-maternal unit reduces cardiac oxidative stress in preterm lambs subjected to prenatal asphyxia and cardiac arrest

Seehase M, Houthuizen P*, Collins JJ, Zimmermann LJ, Kramer BW

Pediatr Res. 2016 May;79(5):748-53. Epub 2016 Jan 13

BACKGROUND: Little is known about the effects of propofol on oxidative stress and its effect on key structures of the contractile apparatus as the myosin light chain 2 (MLC2) and the p38MAPK survival pathway in the preterm heart. We hypothesized that propofol administration could attenuate the hypoxic myocardial injury after birth asphyxia.

METHODS: Pregnant ewes were randomized to receive either propofol or isoflurane anesthesia. A total of 44 late-preterm lambs were subjected to in utero umbilical cord occlusion (UCO), resulting in asphyxia and cardiac arrest, or sham treatment. After emergency cesarean delivery, each fetus was resuscitated, mechanically ventilated, and supported under anesthesia for 8?h using the same anesthetic as the one received by its mother.

RESULTS: At 8?h after UCO, occurrence of reactive oxygen species and activation of inducible nitric oxide synthase in the heart were lower in association with propofol anesthesia than with isoflurane. This was accompanied by less degradation of MLC2 but higher p38MAPK level and in echocardiography with a trend toward a higher median left ventricular fractional shortening.

CONCLUSION: The use of propofol resulted in less oxidative stress and was associated with less cytoskeletal damage of the contractile apparatus than the use of isoflurane anesthesia.

impactfactor: 2.761

Houthuizen P (Patrick)

Pulmonary transit time measurement by contrast-enhanced ultrasound in left ventricular dyssynchrony

Herold IH*, Saporito S, Mischi M, van Assen HC, Bouwman RA*, de Lepper AG*, van den Bosch HC*, Korsten HH*, Houthuizen P*

Echo Res Pract. 2016 Jun;3(2):35-43. Epub 2016 May 16

Voor abstract zie: Anesthesiologie - Herold IH

impactfactor: --

Houthuizen P (Patrick)

Reliability, repeatability, and reproducibility of pulmonary transit time assessment by contrast enhanced echocardiography

Herold IH*, Saporito S*, Bouwman RA*, Houthuizen P*, van Assen HC, Mischi M, Korsten HH*

Cardiovasc Ultrasound. 2016 Jan 5;14:1

Voor abstract zie: *Anesthesiologie - Herold IH*
impactfactor: *1.463*

Johnson NP (Nils)

Why Is Fractional Flow Reserve After Percutaneous Coronary Intervention Not Always 1.0?

Tonino PA*, Johnson NP*

JACC Cardiovasc Interv. 2016 May 23;9(10):1032-5

geen abstract beschikbaar
impactfactor: *7.630*

Kleijn MC de (Marloes)

Anomalous left coronary artery arising from the pulmonary artery in an adult women

de Kleijn MC*, Kuijpers SH, Meijboom FJ

Neth Heart J. 2016 Nov;24(11):691-692

geen abstract beschikbaar
impactfactor: *2.062*

Koolen JJ (Jacques)

A Polylactide Bioresorbable Scaffold Eluting Everolimus For Treatment Of Coronary Stenosis: 5-Year Follow-Up

Serruys PW, Ormiston J, van Geuns RJ, de Bruyne B, Dudek D, Christiansen E, Chevalier B, Smits P, McClean D, Koolen J*, Windecker S, Whitbourn R, Meredith I, Wasungu L, Ediebah D, Veldhof S, Onuma Y J

Am Coll Cardiol. 2016 Feb 23;67(7):766-76

BACKGROUND: Long-term benefits of coronary stenosis treatment with an everolimus-eluting bioresorbable scaffold are unknown.

OBJECTIVES: This study sought to evaluate clinical and imaging outcomes 5 years after bioresorbable scaffold implantation.

METHODS: In the ABSORB multicenter, single-arm trial, 45 (B1) and 56 patients (B2) underwent coronary angiography, intravascular ultrasound (IVUS), and optical coherence tomography (OCT) at different times. At 5 years, 53 patients without target lesion revascularization underwent final imaging.

RESULTS: Between 6 months/1 year and 5 years, angiographic luminal late loss remained unchanged (B1: 0.14 ± 19 mm vs. 0.13 ± 0.33 mm; p = 0.7953; B2: 0.23 ± 0.28 mm vs. 0.18 ± 0.32 mm; p = 0.5685). When patients with a target lesion revascularization were included, luminal late loss was 0.15 ± 0.20 mm versus 0.15 ± 0.24 mm (p = 0.8275) for B1 and 0.30 ± 0.37 mm versus 0.32 ± 0.48 mm (p = 0.8204) for B2. At 5 years, in-scaffold and -segment binary restenosis was 7.8% (5 of 64) and 12.5% (8 of 64). On IVUS, the minimum lumen area of B1 decreased from 5.23 ± 0.97 mm(2) at 6 months to 4.89 ± 1.81 mm(2) at 5 years (p = 0.04), but remained unchanged in B2 (4.95 ± 0.91 mm(2) at 1 year to 4.84 ± 1.28 mm(2) at 5 years; p = 0.5). At 5 years, struts were no longer discernable by OCT and IVUS. On OCT, the

minimum lumen area in B1 decreased from 4.51 ± 1.28 mm(2) at 6 months to 3.65 ± 1.39 mm(2) at 5 years (p = 0.01), but remained unchanged in B2, 4.35 ± 1.09 mm(2) at 1 year and 4.12 ± 1.38 mm(2) at 5 years (p = 0.24). Overall, the 5-year major adverse cardiac event rate was 11.0%, without any scaffold thrombosis.

CONCLUSIONS: At 5 years, bioresorbable scaffold implantation in a simple stenotic lesion resulted in stable lumen dimensions and low restenosis and major adverse cardiac event rates. (ABSORB Clinical Investigation, Cohort B [ABSORB B]; NCT00856856).

impactfactor: *17.759*

Koolen JJ (Jacques)

Magmaris preliminary recommendation upon commercial launch: a consensus from the expert panel on 14 April 2016

Fajadet J, Haude M, Joner M, Koolen J*, Lee M, Tölg R, Waksman R. EuroIntervention. 2016 Sep 18;12(7):828-33

Bioresorbable scaffolds represent an exciting milestone in the development of coronary stent technology with the potential to substantially improve the management of patients with coronary artery disease. In an attempt to provide first recommendations for the technology, experienced experts involved in the first-in-man studies met in Zurich on the 14 April 2016 in order to reach consensus on a responsible market introduction. This document will be updated regularly as new information from clinical trials becomes available and should be understood as a review of current data, opportunities, expectations, advice, and recommendations for future investigations.

impactfactor: *3.863*

Kouhestani K

Reduced number of cardiovascular events and increased cost-effectiveness by genotype-guided antiplatelet therapy in patients undergoing percutaneous coronary interventions in the Netherlands

Deiman BA*, Tonino PA*, Kouhestani K*, Schrover CE*, Scharnhorst V*, Dekker LR*, Pijls NH*

Neth Heart J. 2016 Oct;24(10):589-99

Voor abstract zie: *AKL - Deiman AL*

impactfactor: *2.062*

Lammers J (Jeroen)

Absolute coronary blood flow measurement and microvascular resistance in ST-elevation myocardial infarction in the acute and subacute phase

Wijnbergen I*, van 't Veer M*, Lammers J*, Ubachs J*, Pijls NH*

Cardiovasc Revasc Med. 2016 Mar;17(2):81-7. Epub 2016 Jan 7

Voor abstract zie: *Cardiologie - Wijnbergen I*

impactfactor: *--*

Lammers J (Jeroen)

Coronary CT Angiography for Suspected ACS in the Era of High-Sensitivity Troponins: Randomized Multicenter Study

Dedic A, Lubbers MM, Schaap J, Lammers J*, Lamfers EJ, Rensing BJ, Braam RL, Nathoe HM, Post JC*, Nielen T, Beelen D, le Cocq d'Armandville MC, Rood PP, Schultz CJ, Moelker A, Ouhlous M, Boersma E, Nieman K

J Am Coll Cardiol. 2016 Jan 5;67(1):16-26

BACKGROUND: It is uncertain whether a diagnostic strategy supplemented by early coronary computed tomography angiography (CCTA) is superior to contemporary standard optimal care (SOC) encompassing high-sensitivity troponin assays (hs-troponins) for patients suspected of acute coronary syndrome (ACS) in the emergency department (ED).

OBJECTIVES: This study assessed whether a diagnostic strategy supplemented by early CCTA improves clinical effectiveness compared with contemporary SOC.

METHODS: In a prospective, open-label, multicenter, randomized trial, we enrolled patients presenting with symptoms suggestive of an ACS at the ED of 5 community and 2 university hospitals in the Netherlands. Exclusion criteria included the need for urgent cardiac catheterization and history of ACS or coronary revascularization. The primary endpoint was the number of patients identified with significant coronary artery disease requiring revascularization within 30 days.

RESULTS: The study population consisted of 500 patients, of whom 236 (47%) were women (mean age 54 ± 10 years). There was no difference in the primary endpoint (22 [9%] patients underwent coronary revascularization within 30 days in the CCTA group and 17 [7%] in the SOC group [p = 0.40]). Discharge from the ED was not more frequent after CCTA (65% vs. 59%, p = 0.16), and length of stay was similar (6.3 h in both groups; p = 0.80). The CCTA group had lower direct medical costs (€337 vs. €511, p < 0.01) and less outpatient testing after the index ED visit (10 [4%] vs. 26 [10%], p < 0.01). There was no difference in incidence of undetected ACS.

CONCLUSIONS: CCTA, applied early in the work-up of suspected ACS, is safe and associated with less outpatient testing and lower costs. However, in the era of hs-troponins, CCTA does not identify more patients with significant CAD requiring coronary revascularization, shorten hospital stay, or allow for more direct discharge from the ED. (Better Evaluation of Acute Chest Pain with Computed Tomography Angiography [BEACON]; NCT01413282).

impactfactor: *17.759*

Lepper AG de (Anouk)

Pulmonary transit time measurement by contrast-enhanced ultrasound in left ventricular dyssynchrony

Herold IH*, Saporito S, Mischi M, van Assen HC, Bouwman RA*, de Lepper AG*, van den Bosch HC*, Korsten HH*, Houthuizen P*

Echo Res Pract. 2016 Jun;3(2):35-43. doi: 10.1530/ERP-16-0011. Epub 2016 May 16.

Voor abstract zie: *Anesthesiologie - Herold IH*

impactfactor: --

Meijer A (Albert)

Extended detection time to reduce shocks is safe in secondary prevention patients: The secondary prevention substudy of PainFree SST

Sterns LD, Meine M, Kurita T, Meijer A*, Auricchio A, Ando K, Leng CT, Okumura K, Sapp JL, Brown ML, Lexcen DR, Gerritse B, Schloss EJ

Heart Rhythm. 2016 Jul;13(7):1489-96. Epub 2016 Mar 14.

BACKGROUND: Prolonged ventricular fibrillation (VF) detection has been shown to reduce implantable cardioverter-defibrillator (ICD) therapies and improve prognosis in primary prevention ICD patients. Data in secondary prevention patients are limited.

OBJECTIVE: The PainFree SST secondary prevention study is the largest trial of secondary prevention patients randomized between standard and prolonged detection to assess the safety of this strategy in these patients.

METHODS: A total of 705 secondary prevention patients implanted with an ICD in the PainFree SST trial were enrolled in this substudy; 353 patients were randomized to VF detection of 18/24 intervals and 352 patients to 30/40. All other VF parameters were standardized by protocol.

RESULTS: The 1-year arrhythmic syncope-free rates in the standard and prolonged groups were 97.7% vs 96.9%, respectively, (P = .0034 for noninferiority). Freedom from all-cause syncope was 96% in both arms (P = .0013 for noninferiority). There was no difference in the time to first appropriate or inappropriate VF therapy. However, the rates of treated VF episodes were lower in the prolonged arm (1.48 per patient per year vs 0.44 per patient per year, P = .0001). A trend toward lower mortality in the prolonged group was not statistically different (5.6% 1 year, 12% 2 years vs 3.8% 1 year, 7.7% 2 years, adjusted hazard ratio = 0.60, P = .061).

CONCLUSION: This large prospective randomized study shows that prolonged detection can safely be programmed in secondary prevention ICD patients with new or existing devices. This programming strategy decreases the rate of treated events and is not associated with an increased risk of syncope or mortality.

impactfactor: *4.391*

Meijer A (Albert)

Spatial distribution of electrical reconnection after pulmonary vein isolation in patients with recurrent paroxysmal atrial fibrillation

Rademakers LM*, Romero I, Simmers TA*, van der Voort PH*, Meijer AM*, Dekker LR*

Neth Heart J. 2016 Jul;24(7-8):481-7

Voor abstract zie: *Cardiologie - Rademakers LM*

impactfactor: *2.062*

Nathoe R (Roy)

Haemodynamic evaluation of alternative left ventricular endocardial pacing sites in clinical non-responders to cardiac resynchronisation therapy

van Gelder BM*, Nathoe R*, Bracke FA*

Neth Heart J. 2016 Jan;24(1):85-92. Epub 2015 Dec 8

Voor abstract zie: *Cardiologie - van Gelder BM*

impactfactor: *2.062*

Nathoe R (Roy)

Late asymptomatic atrial lead perforation, a fortuitous finding during lead extraction using thoracoscopic surveillance: a case report and review of the literature

Van Gelder BM*, Verberkmoes N*, Nathoe R*, Bracke FA*

Europace. 2016 Dec;18(12):1773-1778. Epub 2016 Jun 2

Voor abstract zie: *Cardiologie - Gelder BM van*
impactfactor: *4.021*

Nunen LX van (Lokien)

Fractional Flow Reserve-guided Percutaneous coronary intervention: Standing the Test of Time

Zimmermann FM, van Nunen LX

Cardiovascular Innovations and Applications,2016; 1(3):225-32

Percutaneous coronary intervention (PCI) improves symptoms and prognosis in ischemia-inducing, functionally significant, coronary lesions. Use of fractional flow reserve allows physicians to investigate the ischemia-inducing potential of a specific lesion and can be used to guide coronary revascularization, especially in multivessel coronary artery disease. Fractional flow reserve-guided PCI has been extensively investigated. Results show that deferral of stenting in non-significant lesions is safe, whereas deferral of stenting in functionally significant lesions worsens outcome. FFR-guided PCI improves outcome in multivessel disease over angiography-guided PCI. Until recently, there was little known about the long-term outcome of FFR-guided revascularization and its validity in acute coronary syndromes. This review aims to address the new evidence regarding long-term appropriateness of FFR-guided PCI, the need for hyperemia to evaluate functional severity, and the use of FFR in acute coronary syndromes.

Voor abstract zie: *Cardiologie - Zimmerman FM*
impactfactor: *--*

Nunen LX van (Lokien)

Images In Clinical Medicine. Ventricular Septal Defect after Acute Myocardial Infarction

Rademakers LM*, Van Nunen LX*.

N Engl J Med. 2016 Jun 9;374(23):e28

Geen abstract beschikbaar
impactfactor: *59.558*

Nunen LX van (Lokien)

Novel monorail infusion catheter for volumetric coronary blood flow measurement in humans: in vitro validation

van 't Veer M*, Adjedj J, Wijnbergen I*, Tóth GG, Rutten MC, Barbato E, van Nunen LX*, Pijls NH*, De Bruyne B

EuroIntervention. 2016 Aug 20;12(6):701-7

Voor abstract zie: *Cardiologie - Veer M van 't*
impactfactor: *3.863*

Nunen LX van (Lokien)

Safety and feasibility of local myocardial hypothermia

Otterspoor LC*, Van't Veer M*, van Nunen LX*, Wijnbergen I*, Tonino PA*, Pijls NH*

Catheter Cardiovasc Interv. 2016 Apr;87(5):877-83. Epub 2015 Aug 13

Voor abstract zie: *Cardiologie - Otterspoor LC*

impactfactor: *2.107*

Nunen LX van (Lokien)

Usefulness of Intra-aortic Balloon Pump Counterpulsation

van Nunen LX*, Noc M, Kapur NK, Patel MR, Perera D, Pijls NH*

Am J Cardiol. 2016 Feb 1;117(3):469-76. Epub 2015 Nov 19

Intra-aortic balloon pump (IABP) counterpulsation is the most widely used mechanical circulatory support device because of its ease of use, low complication rate, and fast manner of insertion. Its benefit is still subject of debate, and a considerable gap exists between guidelines and clinical practice. Retrospective nonrandomized studies and animal experiments show benefits of IABP therapy. However, recent large randomized trials do not show benefit of IABP therapy, which has led to a downgrading in the guidelines. In our view, this dichotomy between trials and practice might be the result of insufficient understanding of the prerequisites needed for effective IABP therapy, that is, exhausted autoregulation, and of not including the right patient population in trials. The population included in recent large randomized trials has been heterogeneous, also including patients in whom benefit of IABP could not be expected. The clinical condition in which most benefit is expected, that is persistent ischemia in acute ST-elevation myocardial infarction, is discussed in this review. In conclusion, this review aims to explain the physiological principles needed for effective IABP therapy, to reflect critically on the large randomized trials, and to solve some of the controversies in this field.

impactfactor: *3.154*

Otterspoor LC (Luuk)

Coronary angiography after cardiac arrest: Rationale and design of the COACT trial

Lemkes JS, Janssens GN, Straaten HM, Elbers PW, van der Hoeven NW, Tijssen JG, Otterspoor LC*, Voskuil M, van der Heijden JJ, Meuwissen M, Rijpstra TA, Vlachojannis GJ, van der Vleugel RM, Nieman K, Jewbali LS, Bleeker GB, Baak R, Beishuizen B, Stoel MG, van der Harst P, Camaro C, Henriques JP, Vink MA, Gosselink MT, Bosker HA, Crijns HJ, van Royen N; COACT investigators

Am Heart J. 2016 Oct;180:39-45. Epub 2016 Jul 14

BACKGROUND: Ischemic heart disease is a major cause of out-of-hospital cardiac arrest. The role of immediate coronary angiography (CAG) and percutaneous coronary intervention (PCI) after restoration of spontaneous circulation following cardiac arrest in the absence of ST-segment elevation myocardial infarction (STEMI) remains debated.

HYPOTHESIS: We hypothesize that immediate CAG and PCI, if indicated, will improve 90-day survival in post-cardiac arrest patients without signs of STEMI.

DESIGN: In a prospective, multicenter, randomized controlled clinical trial, 552 post-cardiac arrest patients with restoration of spontaneous circulation and without signs of STEMI will be randomized in a 1:1 fashion to immediate CAG and PCI (within 2 hours) versus initial deferral with CAG and PCI after neurological recovery. The primary end point of the study is 90-day survival. The secondary end points will include 90-day survival with good cerebral performance or minor/moderate disability, myocardial injury, duration of inotropic support,

occurrence of acute kidney injury, need for renal replacement therapy, time to targeted temperature control, neurological status at intensive care unit discharge, markers of shock, recurrence of ventricular tachycardia, duration of mechanical ventilation, and reasons for discontinuation of treatment.

SUMMARY: The COACT trial is a multicenter, randomized, controlled clinical study that will evaluate the effect of an immediate invasive coronary strategy in post-cardiac arrest patients without STEMI on 90-day survival.

impactfactor: 4.332

Otterspoor LC (Luuk)

Extracorporeal life support for cardiac and respiratory failure in adults in the intensive care unit in the Netherlands. Indications for ECLS and requirements for an ECLS centre

A. Oude Lansink, J. van den Brule, D. van Dijk, J. de Metz, L. Otterspoor, D. Gommers On behalf of the NVIC ECLS workgroup

Neth J Crit Care July 2016;24(4): 24 – 7

Geen abstract beschikbaar

impactfactor: --

Otterspoor LC (Luuk)

Safety and feasibility of local myocardial hypothermia

Otterspoor LC*, Van't Veer M*, van Nunen LX*, Wijnbergen I*, Tonino PA*, Pijls NH*

Catheter Cardiovasc Interv. 2016 Apr;87(5):877-83. Epub 2015 Aug 13

BACKGROUND: In ST-elevation myocardial infarction (STEMI), reduction in time to reperfusion of the occluded coronary artery reduces infarct size. In animal models, an additional reduction of infarct size was observed when hypothermia was induced before reperfusion, despite a longer ischemic time. However, several human studies did not corroborate this positive effect, which is believed to be in part due to the inability of systemic induced hypothermia to induce sufficient decrease of local myocardial temperature before reperfusion. Providing rapid local myocardial hypothermia by intracoronary infusion of saline before reperfusion in patients with STEMI may overcome this problem. In this study, we evaluate the safety and feasibility of providing rapid intracoronary myocardial hypothermia in patients undergoing intracoronary blood flow measurements based on thermodilution with continuous infusion of saline at room temperature.

METHODS AND RESULTS: In 53 patients with stable angina (SA) and 20 patients with STEMI, a total of 215 measurements were performed. The measurements consisted of continuous selective intracoronary infusion of saline at room temperature with rates between 10 ml/min and 30 ml/min. Temperature changes compared to initial blood temperature (Tb) were measured at the tip of the infusion catheter (Ti) and distally in the coronary artery (Td). In patients with SA, Ti was -5.65?±?1.41°C (range -9.27 to -2.28) and Td was -0.78?±?0.51°C (range -3.27 to -0.23°C). In patients with STEMI, Ti was -7.45?±?0.51°C (range -8.21 to -6.56) and Td was -1.37?±?0.82°C (range -4.62 to -0.74°C). In all patients, steady-state intracoronary hypothermia was achieved within 15 sec and could be maintained without noticeable complications.

CONCLUSION: This study demonstrates the safety and feasibility of inducing intracoronary hypothermia by selective infusion of saline at room temperature in patients with SA and STEMI. Steady-state hypothermia could be achieved and maintained quickly, easily, and safely using common PCI techniques. Therefore, our findings warrant further studies to the

use of intracoronary hypothermia to enhance myocardial salvage in acute myocardial infarction.

impactfactor: *2.181*

Pijls NH (Nico)

A Prospective Natural History Study of Coronary Atherosclerosis Using Fractional Flow Reserve

Barbato E, Toth GG, Johnson NP, Pijls NH*, Fearon WF, Tonino PA*, Curzen N, Piroth Z, Rioufol G, Jüni P, De Bruyne B

J Am Coll Cardiol. 2016 Nov 29;68(21):2247-2255

BACKGROUND: In patients with coronary artery disease, clinical outcome depends on the extent of reversible myocardial ischemia. Whether the outcome also depends on the severity of the stenosis as determined by fractional flow reserve (FFR) remains unknown.

OBJECTIVES: This study sought to investigate the relationship between FFR values and vessel-related clinical outcome.

METHODS: We prospectively studied major adverse cardiovascular events (MACE) at 2 years in 607 patients in whom all stenoses were assessed by FFR and who were treated with medical therapy alone. The relationship between FFR and 2-year MACE was assessed as a continuous function. Logistic and Cox proportional hazards regression models were used to calculate the average decrease in the risk of MACE per 0.05-U increase in FFR.

RESULTS: MACE occurred in 272 (26.5%) of 1,029 lesions. Target lesions with diameter stenosis =70% were more often present in the MACE group ($p < 0.01$). Median FFR was significantly lower in the MACE group versus the non-MACE group (0.68 [interquartile range: 0.54 to 0.77] vs. 0.80 [interquartile range: 0.70 to 0.88]; $p < 0.01$). The cumulative incidence of MACE significantly increased with increasing FFR quartiles. An average decrease in MACE per 0.05-unit increase in FFR was statistically significant even after adjustment for all clinical and angiographic features (odds ratio: 0.81; 95% confidence interval: 0.76 to 0.86]). The strongest increase in MACE occurred for FFR values between 0.80 and 0.60. In multivariable Cox regression analysis, FFR was significantly associated with MACE up to 2 years (hazard ratio: 0.87; 95% confidence interval: 0.83 to 0.91]).

CONCLUSIONS: In patients with stable coronary disease, stenosis severity as assessed by FFR is a major and independent predictor of lesion-related outcome. (FAME II - Fractional Flow Reserve [FFR] Guided Percutaneous Coronary Intervention [PCI] Plus Optimal Medical Treatment [OMT] Verses OMT; NCT01132495).

impactfactor: *17.759*

Pijls NH (Nico)

Absolute coronary blood flow measurement and microvascular resistance in ST-elevation myocardial infarction in the acute and subacute phase

Wijnbergen I*, van 't Veer M*, Lammers J*, Ubachs J*, Pijls NH*

Cardiovasc Revasc Med. 2016 Mar;17(2):81-7. Epub 2016 Jan 7

Voor abstract zie: *Cardiologie - Wijnbergen I*

impactfactor: --

Pijls NH (Nico)

Continuum of Vasodilator Stress FromÂ Rest to Contrast Medium toÂ Adenosine Hyperemia for FractionalÂ Flow Reserve Assessment

Johnson NP, Jeremias A, Zimmermann FM*, Adjedj J, Witt N, Hennigan B, Koo BK, Maehara A, Matsumura M, Barbato E, Esposito G, Trimarco B, Rioufol G, Park SJ, Yang HM, Baptista SB, Chrysant GS, Leone AM, Berry C, De Bruyne B, Gould KL, Kirkeeide RL, Oldroyd KG, Pijls NH*, Fearon WF

JACC Cardiovasc Interv. 2016 Apr 25;9(8):757-67

Voor abstract zie: *Cardiologie - Zimmermann FM*
impactfactor: *7.630*

Pijls NH (Nico)

Fractional Flow Reserve in Acute Coronary Syndromes

Fearon WF, De Bruyne B, Pijls NH*

J Am Coll Cardiol. 2016 Sep 13;68(11):1192-4

Voor abstract zie: *geen abstract beschikbaar*
impactfactor: *17.759*

Pijls NH (Nico)

Fractional Flow Reserve, Coronary Pressure Wires, and Drift

Pijls NH*, Bruyne BD

Circ J. 2016 Jul 25;80(8):1704-6

geen abstract beschikbaar
impactfactor: *4.124*

Pijls NH (Nico)

Impact of Right Atrial Pressure on Fractional Flow Reserve Measurements: Comparison of Fractional Flow Reserve and Myocardial Fractional Flow Reserve in 1,600 Coronary Stenoses

Toth GG, De Bruyne B, Rusinaru D, Di Gioia G, Bartunek J, Pellicano M, Vanderheyden M, Adjedj J, Wijns W, Pijls NH*, Barbato E J

ACC Cardiovasc Interv. 2016 Mar 14;9(5):453-9. Epub 2016 Feb 17

OBJECTIVES: This study sought to assess the impact of a wide range of mean right atrial pressure (Pra) on fractional flow reserve (FFR) measurements.

BACKGROUND: FFR invasively assesses the ischemic potential of coronary stenoses. FFR is calculated as the ratio of mean distal coronary pressure (Pd) to mean aortic pressure (Pa) during maximal hyperemia. The Pra is considered to have little impact if it is within normal range, so it is neglected in the formula.

METHODS: In 1,676 stenoses of 1,235 patients undergoing left-right heart catheterization for ischemic (642 [52%]) or valvular heart disease (593 [48%]), the authors compared the FFR values calculated without accounting for Pra (FFR= Pd/Pa) to the corresponding myocardial fractional flow reserve (FFRmyo) values accounting for Pra (FFRmyo = Pd - Pra/Pa - Pra).

RESULTS: The median Pra was 7 (interquartile range [IQR]: 5 to 10) mm Hg with a maximum of 27 mm Hg. The correlation and agreement between FFR and FFRmyo was excellent (R(2) = 0.987; slope 1.096 ± 0.003). The median FFR (0.85; IQR: 0.78 to 0.91) was slightly but statistically significantly higher than the median FFRmyo (0.83; IQR: 0.76 to 0.90; p < 0.001) with a median difference of 0.01 (IQR: 0.01 to 0.02). Values of FFR above the cutoff of 0.80

provided an FFRmyo =0.80 in 110 (9%) stenoses. No FFR value above 0.80 provided an FFRmyo =0.75.

CONCLUSIONS: The difference between FFR and FFRmyo was minimal even in patients with markedly increased Pra. FFR values above the gray zone (i.e., >0.80) did not yield values below the gray zone (i.e., =0.75) in any case, which suggests that the impact of right atrial pressure on FFR measurement is indeed negligible.

impactfactor: 7.630

Pijls NH (Nico)

Microvascular (Dys)Function and Clinical Outcome in Stable Coronary Disease

De Bruyne B, Oldroyd KG, Pijls NH*

J Am Coll Cardiol. 2016 Mar 15;67(10):1170-2

Geen abstract beschikbaar

Impactfactor: 17.759

Pijls NH Nico

Novel monorail infusion catheter for volumetric coronary blood flow measurement in humans: in vitro validation

van 't Veer M*, Adjedj J, Wijnbergen I*, Tóth GG, Rutten MC, Barbato E, van Nunen LX*, Pijls NH*, De Bruyne B

EuroIntervention. 2016 Aug 20;12(6):701-7

Voor abstract zie: Cardiologie - Veer M van 't

impactfactor: 3.863

Pijls NH (Nico)

Reduced number of cardiovascular events and increased cost-effectiveness by genotype-guided antiplatelet therapy in patients undergoing percutaneous coronary interventions in the Netherlands

Deiman BA*, Tonino PA*, Kouhestani K*, Schrover CE*, Scharnhorst V*, Dekker LR*, Pijls NH* Neth Heart J. 2016 Oct;24(10):589-99

Voor abstract zie: AKL - Deiman AL

impactfactor: 2.062

Pijls NH (Nico)

Safety and feasibility of local myocardial hypothermia

Otterspoor LC*, Van't Veer M*, van Nunen LX*, Wijnbergen I*, Tonino PA*, Pijls NH*

Catheter Cardiovasc Interv. 2016 Apr;87(5):877-83. Epub 2015 Aug 13

Voor abstract zie: Cardiologie - Otterspoor LC

impactfactor: 2.107

Pijls NH (Nico)

Standardization of Fractional Flow Reserve Measurements

Toth GG, Johnson NP, Jeremias A, Pellicano M, Vranckx P, Fearon WF, Barbato E, Kern MJ, Pijls NH*, De Bruyne B

J Am Coll Cardiol. 2016 Aug 16;68(7):742-53

Pressure wire-based fractional flow reserve is considered the standard of reference for evaluation of the ischemic potential of coronary stenoses and the expected benefit from

revascularization. Accordingly, its application in daily practice or for research purposes has to be as standardized as possible to avoid technical or operator-related artifacts in pressure recordings. This document proposes a standardized way of acquiring, recording, interpreting, and archiving the pressure tracings for daily practice and for the purpose of clinical research involving a core laboratory. Proposed standardized steps enhance the uniformity of clinical practices and data interpretation.

impactfactor: 17.759

Pijls NH (Nico)

The impact of left ventricular ejection fraction on fractional flow reserve: Insights from the FAME (Fractional flow reserve versus Angiography for Multivessel Evaluation) trial

Kobayashi Y, Tonino PA*, De Bruyne B, Yang HM, Lim HS, Pijls NH*, Fearon WF; FAME Study Investigators

Int J Cardiol. 2016 Feb 1;204:206-10. Epub 2015 Nov 27

Voor abstract zie: Cardiologie - Tonino WA

impactfactor: 4.638

Pijls NH (Nico)

The Influence of Lesion Location on the Diagnostic Accuracy of Adenosine-Free Coronary Pressure Wire Measurements

Kobayashi Y, Johnson NP, Berry C, De Bruyne B, Gould KL, Jeremias A, Oldroyd KG, Pijls NH*, Fearon WF; CONTRAST Study Investigators.

JACC Cardiovasc Interv. 2016 Dec 12;9(23):2390-2399

OBJECTIVES: This work compares the diagnostic performance of adenosine-free coronary pressure wire indices based on lesion location.

BACKGROUND: Several adenosine-free coronary pressure wire indices have been proposed to assess the functional significance of coronary artery lesions; however, there is a theoretical concern that lesion location and the mass of perfused myocardium may affect diagnostic performance.

METHODS: A total of 763 patients were prospectively enrolled from 12 institutions. Fractional flow reserve (FFR) and contrast-based FFR (cFFR) were obtained during adenosine-induced maximal hyperemia and contrast-induced submaximal hyperemia respectively, whereas the instantaneous wave-free ratio (iFR) and distal pressure/aortic pressure (Pd/Pa) were obtained at rest. Using an FFR of =0.80 as a reference standard, the diagnostic accuracy of each index was compared based on lesion location (left main or proximal left anterior descending artery [LM/pLAD] compared with other lesion locations).

RESULTS: The median FFR, cFFR, iFR, and Pd/Pa were 0.81 (interquartile range [IQR]: 0.74 to 0.87), 0.86 (IQR: 0.79 to 0.91), 0.90 (IQR: 0.85 to 0.94), and 0.92 (IQR: 0.88 to 0.95), respectively. The cFFR, iFR, and Pd/Pa were less accurate in LM/pLAD compared with other lesion locations (cFFR: 80.3% vs. 87.8%; iFR: 73.3% vs. 81.8%; Pd/Pa: 71.4% vs. 81.1%, respectively). By receiver-operating characteristics curve analysis, cFFR provided better diagnostic accuracy than resting indices regardless of lesion location (p =0.0001 vs. iFR and Pd/Pa for both groups).

CONCLUSIONS: The cFFR, iFR, and Pd/Pa are less accurate in LM/pLAD compared with other lesion locations, likely related to the larger amount of myocardium supplied by LM/pLAD. Nevertheless, cFFR provides the best diagnostic accuracy among the adenosine-free indices, regardless of lesion location.

impactfactor: 7.630

Pijls NH (Nico)

The Prognostic Value of Residual Coronary Stenoses After Functionally Complete Revascularization

Kobayashi Y, Nam CW, Tonino PA*, Kimura T, De Bruyne B, Pijls NH*, Fearon WF FAME Study Investigators

J Am Coll Cardiol. 2016 Apr 12;67(14):1701-11

Voor abstract zie: *Cardiologie - Tonino PA*

impactfactor: *17.759*

Pijls NH (Nico)

Treatment variation in stent choice in patients with stable or unstable coronary artery disease

Burgers LT, McClellan EA, Hoefer IE, Pasterkamp G, Jukema JW, Horsman S, Pijls NH*, Waltenberger J, Hillaert MA, Stubbs AC, Severens JL, Redekop WK

Neth Heart J. 2016 Feb;24(2):110-9

AIM: Variations in treatment are the result of differences in demographic and clinical factors (e.g. anatomy), but physician and hospital factors may also contribute to treatment variation. The choice of treatment is considered important since it could lead to differences in long-term outcomes. This study explores the associations with stent choice: i.e. drug-eluting stent (DES) versus bare-metal stents (BMS) for Dutch patients diagnosed with stable or unstable coronary artery disease (CAD).

METHODS & RESULTS: Associations with treatment decisions were based on a prospective cohort of 692 patients with stable or unstable CAD. Of those patients, 442 patients were treated with BMS or DES. Multiple logistic regression analyses were performed to identify variables associated with stent choice. Bivariate analyses showed that NYHA class, number of diseased vessels, previous percutaneous coronary intervention, smoking, diabetes, and the treating hospital were associated with stent type. After correcting for other associations the treating hospital remained significantly associated with stent type in the stable CAD population.

CONCLUSIONS: This study showed that several factors were associated with stent choice. While patients generally appear to receive the most optimal stent given their clinical characteristics, stent choice seems partially determined by the treating hospital, which may lead to differences in long-term outcomes.

impactfactor: *2.062*

Pijls NH (Nico)

Usefulness of Intra-aortic Balloon Pump Counterpulsation

van Nunen LX*, Noc M, Kapur NK, Patel MR, Perera D, Pijls NH*

Am J Cardiol. 2016 Feb 1;117(3):469-76. Epub 2015 Nov 19.

Intra-aortic balloon pump (IABP) counterpulsation is the most widely used mechanical circulatory support device because of its ease of use, low complication rate, and fast manner of insertion. Its benefit is still subject of debate, and a considerable gap exists between guidelines and clinical practice. Retrospective nonrandomized studies and animal experiments show benefits of IABP therapy. However, recent large randomized trials do not show benefit of IABP therapy, which has led to a downgrading in the guidelines. In our view, this dichotomy between trials and practice might be the result of insufficient understanding of the prerequisites needed for effective IABP therapy, that is, exhausted autoregulation, and of not including the right patient population in trials. The population included in recent

large randomized trials has been heterogeneous, also including patients in whom benefit of IABP could not be expected. The clinical condition in which most benefit is expected, that is persistent ischemia in acute ST-elevation myocardial infarction, is discussed in this review. In conclusion, this review aims to explain the physiological principles needed for effective IABP therapy, to reflect critically on the large randomized trials, and to solve some of the controversies in this field.

Voor abstract zie: *Cardiologie - Nunen, LX van*
impactfactor: *3.154*

Post JC (Hans)

Coronary CT Angiography for Suspected ACS in the Era of High-Sensitivity Troponins: Randomized Multicenter Study

Dedic A, Lubbers MM, Schaap J, Lammers J*, Lamfers EJ, Rensing BJ, Braam RL, Nathoe HM, Post JC*, Nielen T, Beelen D, le Cocq d'Armandville MC, Rood PP, Schultz CJ, Moelker A, Ouhlous M, Boersma E, Nieman K

J Am Coll Cardiol. 2016 Jan 5;67(1):16-26

Voor abstract zie: *Cardiologie - Lammers J*
impactfactor: *17.759*

Post JC (Hans)

Prognostic value of cardiovascular MR imaging biomarkers on outcome in peripheral arterial disease: a 6-year follow-up pilot study.

van den Bosch H*, Westenberg J, Setz-Pels W*, Kersten E*, Tielbeek A*, Duijm L, Post J*, Teijink J*, de Roos A

Int J Cardiovasc Imaging. 2016 Aug;32(8):1281-8. Epub 2016 May 21

Voor abstract zie: *Radiologie - Bosch H van den*
impactfactor: *1.880*

Rademakers LM (Nard)

A Possible Role for Pacing the Left Ventricular Septum in Cardiac Resynchronization Therapy

Rademakers LM*, van Hunnik A, Kuiper M, Vernooy K, van Gelder BM*, Bracke FA*, Prinzen FW

JACC Clin Electrophysiol. 2016 Aug;2(4):413-22

Objectives: The purpose of this study was to investigate whether stimulation at the left ventricular (LV) septum (LVs), alone or in combination with another site, could be an alternative way to apply cardiac resynchronization therapy (CRT) that avoids the coronary sinus and phrenic nerve stimulation and may create more physiological sequence of activation.

Background: In CRT, biventricular pacing is commonly performed from the right ventricle (RV) and the epicardium of the LV lateral wall (LVlat). In the left bundle branch block (LBBB), half of the electrical delay occurs due to impulse conduction across the septum.

Methods: Experiments were performed in 13 dogs with LBBB, 7 of them with chronic myocardial infarction (LBBB + MI). Pacing leads were positioned in the right atrium, RV, LVs, and at the LVlat epicardium. LV pump function was measured using conductance catheter and synchrony of electrical activation of the ventricles using epicardial mapping and from surface electrocardiogram. In 12 CRT patients, LV pump function was measured during temporary RV + LVs pacing and compared to RV + LVlat and RV + LVlat endo pacing.

Results: In the animals, electrical and hemodynamic benefits of LVs and RV + LVs pacing were comparable to those during conventional biventricular pacing and were comparable in LBBB and LBBB + MI hearts. Dispersion of repolarization was reduced by LVs stimulation, but not by LVlat pacing. In patients, hemodynamic benefits of RV + LVs, RV + LVlat and RV + LVlat endo pacing were similar.

Conclusions: The use of the LVs as LV pacing site in CRT improves synchronization and acute hemodynamics comparably to conventional biventricular pacing in dyssynchronous canines and in patients. In addition, LVs stimulation may reduce dispersion of repolarization compared to epicardial pacing.

impactfactor: --

Rademakers LM (Nard)

Images In Clinical Medicine. Ventricular Septal Defect after Acute Myocardial Infarction

Rademakers LM*, Van Nunen LX*

N Engl J Med. 2016 Jun 9;374(23):e28

Geen abstract beschikbaar

impactfactor: *59.558*

Rademakers LM (Nard)

Mid-term haemodynamic and clinical results after aortic valve replacement using the Freedom Solo stentless bioprosthesis versus the Carpentier Edwards Perimount stented bioprosthesis

van der Straaten EP*, Rademakers LM*, van Straten AH*, Houterman S*, Tan ME*, Soliman Hamad MA*

Eur J Cardiothorac Surg. 2016 Apr;49(4):1174-80. Epub 2015 Jul 29

Voor abstract zie: *Cardiothoracale Chirurgie- Straaten EP van der*

impactfactor: *2.803*

Rademakers LM (Nard)

Spatial distribution of electrical reconnection after pulmonary vein isolation in patients with recurrent paroxysmal atrial fibrillation

Rademakers LM*, Romero I, Simmers TA*, van der Voort PH*, Meijer AM*, Dekker LR*

Neth Heart J. 2016 Jul;24(7-8):481-7

INTRODUCTION: Recurrence of atrial fibrillation after pulmonary vein isolation (PVI) occurs frequently and may be associated with electrical reconnection of the pulmonary veins (PV). We investigated spatial distribution of electrical reconnection during re-do procedures in patients with paroxysmal atrial fibrillation who had previous successful acute electrical PVI with either single irrigated tip, antral ablation (s-RF; n = 38) or multi-electrode, duty-cycled ablation (PVAC; n = 48).

METHODS AND RESULTS: EP navigator, mapping and irrigated tip ablation catheters were used in all re-do procedures. Sites of reconnection were assessed in a 12-segment model. Baseline clinical and demographic characteristics were similar in both groups. The number of PVs reconnected per patient was similar in both groups (2.9 ± 0.9 and 3.2 ± 0.7 (p = 0.193), s-RF and PVAC, respectively), and each PV was equally affected. However, the inferior quadrant of the right lower PV was significantly more vulnerable to reconnection after previous PVAC ablation, whereas the superior quadrant of the right upper PV showed significantly more reconnection in the s-RF group.

CONCLUSION: The overall number of PVs reconnected was equally high in both groups, and each PV was affected equally. However, there were significant differences in the spatial distribution of electrical reconnection. Better understanding of predilection sites for reconnection might help to improve the long-term success rate of PVI.

impactfactor: 2.062

Simmers TA (Tim)

Multielectrode Pulmonary Vein Isolation Versus Single Tip Wide Area Catheter Ablation for Paroxysmal Atrial Fibrillation: A Multinational Multicenter Randomized Clinical Trial

Boersma LV, van der Voort P*, Debruyne P, Dekker L*, Simmers T*, Rossenbacker T, Balt J, Wijffels M, Degreef Y

Circ Arrhythm Electrophysiol. 2016 Apr;9(4)

Voor abstract zie: Cardiologie - Voort PH van der

impactfactor: 4.428

Simmers TA (Tim)

Spatial distribution of electrical reconnection after pulmonary vein isolation in patients with recurrent paroxysmal atrial fibrillation

Rademakers LM*, Romero I, Simmers TA*, van der Voort PH*, Meijer AM*, Dekker LR*

Neth Heart J. 2016 Jul;24(7-8):481-7

Voor abstract zie: Cardiologie - Rademakers LM

impactfactor: 2.062

Tonino WA (Pim)

A Prospective Natural History Study of Coronary Atherosclerosis Using Fractional Flow Reserve

Barbato E, Toth GG, Johnson NP, Pijls NH*, Fearon WF, Tonino PA*, Curzen N, Piroth Z, Rioufol G, Jüni P, De Bruyne B

J Am Coll Cardiol. 2016 Nov 29;68(21):2247-2255

Voor abstract zie: Cardiologie - Pijls NH

impactfactor: 17.759

Tonino WA (Pim)

Filter-based cerebral embolic protection with transcatheter aortic valve implantation: the randomised MISTRAL-C trial

Van Mieghem NM, van Gils L, Ahmad H, van Kesteren F, van der Werf HW, Brueren G*, Storm M, Lenzen M, Daemen J, van den Heuvel AF, Tonino P*, Baan J, Koudstaal PJ, Schipper ME, van der Lugt A, de Jaegere PP

EuroIntervention. 2016 Jul 20;12(4):499-507

Voor abstract zie: Cardiologie - Brueren BR

impactfactor: 3.863

Tonino WA (Pim)

Off-site primary percutaneous coronary intervention in a new centre is safe

Koolen KH, Mol KA, Rahel BM, Eerens F, Aydin S, Troquay RP, Janssen L, Tonino WA*, Meeder JG

Neth Heart J. 2016 Oct;24(10):581-8

OBJECTIVES: To evaluate the procedural and clinical outcomes of a new primary percutaneous coronary intervention (PPCI) centre without surgical back-up (off-site PCI) and to investigate whether these results are comparable with a high volume on-site PCI centre in the Netherlands.

BACKGROUND: Controversy remains about the safety and efficacy of PPCI in off-site PCI centres.

METHODS: We retrospectively analysed clinical and procedural data as well as 6-month follow-up of 226 patients diagnosed with ST-elevated myocardial infarction (STEMI) who underwent PPCI at VieCuri Medical Centre Venlo and 115 STEMI patients who underwent PPCI at Catharina Hospital Eindhoven.

RESULTS: PPCI patients in VieCuri Medical Centre had similar procedural and clinical outcomes to those in Catharina Hospital. Overall there were no significant differences. The occurrence of procedural complications was low in both groups (8.4?% VieCuri vs. 12.3?% Catharina Hospital). In the VieCuri group there was one procedural-related death. No patients in either group needed emergency surgery. At 30 days, 17 (7.9?%) patients in the VieCuri group and 9 (8.1?%) in the Catharina Hospital group had a major adverse cardiac event.

CONCLUSION: Performing PPCI in an off-site PCI centre is safe and effective. The study results show that the procedural and clinical outcomes of an off-site PPCI centre are comparable with an on-site high-volume PPCI centre.

impactfactor: *2.062*

Tonino WA (Pim)

Reduced number of cardiovascular events and increased cost-effectiveness by genotype-guided antiplatelet therapy in patients undergoing percutaneous coronary interventions in the Netherlands

Deiman BA*, Tonino PA*, Kouhestani K*, Schrover CE*, Scharnhorst V*, Dekker LR*, Pijls NH*

Neth Heart J. 2016 Oct;24(10):589-99

Voor abstract zie: *AKL - Deiman AL*

impactfactor: *2.062*

Tonino WA (Pim)

Renal denervation in hypertensive patients not on blood pressure lowering drugs

De Jager RL, Sanders MF, Bots ML, Lobo MD, Ewen S, Beeftink MM, Böhm M, Daemen J, Dörr O, Hering D, Mahfoud F, Nef H, Ott C, Saxena M, Schmieder RE, Schlaich MP, Spiering W, Tonino PA*, Verloop WL, Vink EE, Vonken EJ, Voskuil M, Worthley SG, Blankestijn PJ

Clin Res Cardiol. 2016 Sep;105(9):755-62. Epub 2016 Apr 22

INTRODUCTION: Studies on the blood pressure lowering effect of renal denervation (RDN) in resistant hypertensive patients have produced conflicting results. Change in medication usage during the studies may be responsible for this inconsistency. To eliminate the effect of

medication usage on blood pressure we focused on unmedicated hypertensive patients who underwent RDN.

METHODS AND RESULTS: Our study reports on a cohort of patients, who were not on blood pressure lowering drugs at baseline and during follow-up, from eight tertiary centers. Data of patients were used when they were treated with RDN and had a baseline office systolic blood pressure (SBP) =140 mmHg and/or 24-h ambulatory SBP =130 mmHg. Our primary outcome was defined as change in office and 24-h SBP at 12 months after RDN, compared to baseline. Fifty-three patients were included. There were three different reasons for not using blood pressure lowering drugs: (1) documented intolerance or allergic reaction (57 %); (2) temporary cessation of medication for study purposes (28 %); and (3) reluctance to take antihypertensive drugs (15 %). Mean change in 24-h SBP was -5.7 mmHg [95 % confidence interval (CI) -11.0 to -0.4; p = 0.04]. Mean change in office SBP was -13.1 mmHg (95 % CI -20.4 to -5.7; p = 0.001). No changes were observed in other variables, such as eGFR, body-mass-index and urinary sodium excretion.

CONCLUSION: This explorative study in hypertensive patients, who are not on blood pressure lowering drugs, suggests that at least in some patients RDN lowers blood pressure.

impactfactor: 4.324

Tonino WA (Pim)

Safety and feasibility of local myocardial hypothermia

Otterspoor LC*, Van't Veer M*, van Nunen LX*, Wijnbergen I*, Tonino PA*, Pijls NH*
Catheter Cardiovasc Interv. 2016 Apr;87(5):877-83. Epub 2015 Aug 13

Voor abstract zie: Cardiologie - Otterspoor LC
impactfactor: 2.107

Tonino WA (Pim)

Safety and long-term effects of renal denervation: Rationale and design of the Dutch registry

Sanders MF, Blankestijn PJ, Voskuil M, Spiering W, Vonken EJ, Rotmans JI, van der Hoeven BL, Daemen J, van den Meiracker AH, Kroon AA, de Haan MW, Das M, Bax M, van der Meer IM, van Overhagen H, van den Born BJ, van Brussel PM, van der Valk PH, Smak Gregoor PJ, Meuwissen M, Gomes ME, Oude Ophuis T, Troe E*, Tonino WA*, Konings CJ*, de Vries PA, van Balen A, Heeg JE, Smit JJ, Elvan A, Steggerda R, Niamut SM, Peels JO, de Swart JB, Wardeh AJ, Groeneveld JH, van der Linden E, Hemmelder MH, Folkeringa R, Stoel MG, Kant GD, Herrman JP, van Wissen S, Deinum J, Westra SW, Aengevaeren WR, Parlevliet KJ, Schramm A, Jessurun GA, Rensing BJ, Winkens MH, Wierema TK, Santegoets E, Lipsic E, Houwerzijl E, Kater M, Allaart CP, Nap A, Bots ML
Neth J Med. 2016 Jan;74(1):5-15

Voor abstract zie: Inwendige geneeskunde - Troe E
impactfactor: 1.489

Tonino WA (Pim)

The impact of left ventricular ejection fraction on fractional flow reserve: Insights from the FAME (Fractional flow reserve versus Angiography for Multivessel Evaluation) trial

Kobayashi Y, Tonino PA*, De Bruyne B, Yang HM, Lim HS, Pijls NH*, Fearon WF; FAME Study Investigators

Int J Cardiol. 2016 Feb 1;204:206-10. Epub 2015 Nov 27

BACKGROUND: Fractional flow reserve (FFR)-guided percutaneous coronary intervention (PCI) significantly improves outcomes compared with angio-guided PCI in patients with multivessel coronary artery disease. However, there is a theoretical concern that in patients with reduced left ventricular ejection fraction (EF) FFR may be less accurate and FFR-guided PCI less beneficial.

METHODS: From the FAME (Fractional flow reserve versus Angiography for Multivessel Evaluation) trial database, we compared FFR values between patients with reduced EF (both =40%, n=90 and =50%, n=252) and preserved EF (>40%, n=825 and >50%, n=663) according to the angiographic stenosis severity. We also compared differences in 1year outcomes between FFR- vs. angio-guided PCI in patients with reduced and preserved EF.

RESULTS: Both groups had similar FFR values in lesions with 50-70% stenosis (p=0.49) and with 71-90% stenosis (p=0.89). The reduced EF group had a higher mean FFR compared to the preserved EF group across lesions with 91-99% stenosis (0.55 vs. 0.50, p=0.02), although the vast majority of FFR values remained =0.80. There was a similar reduction in the composite end point of death, nonfatal myocardial infarction, and repeat revascularization with FFR-guided compared to angio-guided PCI for both the reduced (14.5% vs. 19.0%, relative risk=0.76, p=0.34) and the preserved EF group (13.8 vs. 17.0%, relative risk=0.81, p=0.25). The results were similar with an EF cutoff of 40%.

CONCLUSION: Reduced EF has no influence on the FFR value unless the stenosis is very tight, in which case a theoretically explainable, but clinically irrelevant overestimation might occur. As a result, FFR-guided PCI remains beneficial regardless of EF.

impactfactor: 4.638

Tonino WA Pim

The Prognostic Value of Residual Coronary Stenoses After Functionally Complete Revascularization

Kobayashi Y, Nam CW, Tonino PA*, Kimura T, De Bruyne B, Pijls NH*, Fearon WF FAME Study Investigators

J Am Coll Cardiol. 2016 Apr 12;67(14):1701-11

BACKGROUND: The residual SYNTAX score (RSS) and SYNTAX revascularization index (SRI) quantitatively assess angiographic completeness of revascularization for patients with multivessel coronary artery disease. Whether residual angiographic disease remains of prognostic importance after "functionally" complete revascularization with fractional flow reserve (FFR) guidance is unknown.

OBJECTIVES: This study sought to investigate the prognostic value of the RSS and SRI after FFR-guided functionally complete revascularization.

METHODS: From the FFR-guided percutaneous coronary intervention (PCI) cohort of the FAME (Fractional Flow Reserve Versus Angiography for Multivessel Evaluation) trial, the RSS and SRI were calculated in 427 patients after functionally complete revascularization. The RSS was defined as the SYNTAX score (SS) recalculated after PCI. The SRI was calculated as: 100 × (1 - RSS/baseline SS) (%). We compared differences in 1- and 2-year outcomes among

patients with RSS of 0, >0 to 4, >4 to 8, and >8, and with SRI of 100%, 50% to <100%, and 0 to <50%.

RESULTS: The mean baseline SS, RSS, and SRI were 14.4 ± 7.2, 6.5 ± 5.8, and 55.1 ± 32.5%, respectively. Major adverse cardiac events (MACE) at 1 year occurred in 53 patients (12.4%). Patients with MACE had higher SS than those without (18.0 [interquartile range (IQR): 11.0 to 21.0] vs. 12.0 [IQR: 9.0 to 18.0], p = 0.001), but had similar RSS and SRI after PCI (RSS: 6.0 [IQR: 3.0 to 10.0] vs. 5.0 [IQR: 2.0 to 9.5], p = 0.51 and SRI: 60.0% [IQR: 40.9% to 78.9%] vs. 58.8% [IQR: 26.7% to 81.8%], p = 0.24, respectively). Kaplan-Meier analysis showed similar 1-year incidence of MACE with RSS/SRI stratifications (log-rank p = 0.55 and p = 0.54, respectively). Results were similar with 2-year outcome data analysis.

CONCLUSIONS: After functionally complete revascularization with FFR guidance, residual angiographic lesions that are not functionally significant do not reflect residual ischemia or predict a worse outcome, supporting functionally complete, rather than angiographically complete, revascularization

impactfactor: *16.503*

Tonino WA (Pim)

Why Is Fractional Flow Reserve After Percutaneous Coronary Intervention Not Always 1.0?

Tonino PA*, Johnson NP JACC Cardiovasc Interv. 2016 May 23;9(10):1032-5

geen abstract beschikbaar

impactfactor: *7.630*

Ubachs JF (Jeroen)

Absolute coronary blood flow measurement and microvascular resistance in ST-elevation myocardial infarction in the acute and subacute phase

Wijnbergen I*, van 't Veer M*, Lammers J*, Ubachs J*, Pijls NH*

Cardiovasc Revasc Med. 2016 Mar;17(2):81-7. Epub 2016 Jan 7

Voor abstract zie: *Cardiologie - Wijnbergen I*

impactfactor: --

Veer M van 't (Marcel)

Absolute coronary blood flow measurement and microvascular resistance in ST-elevation myocardial infarction in the acute and subacute phase

Wijnbergen I*, van 't Veer M*, Lammers J*, Ubachs J*, Pijls NH*

Cardiovasc Revasc Med. 2016 Mar;17(2):81-7. Epub 2016 Jan 7

Voor abstract zie: *Cardiologie - Wijnbergen I*

impactfactor: --

Veer M van 't (Marcel)

Novel monorail infusion catheter for volumetric coronary blood flow measurement in humans: in vitro validation

van 't Veer M*, Adjedj J, Wijnbergen I*, Tóth GG, Rutten MC, Barbato E, van Nunen LX*, Pijls NH*, De Bruyne B

EuroIntervention. 2016 Aug 20;12(6):701-7

AIMS: The aim of this study is to validate a novel monorail infusion catheter for thermodilution-based quantitative coronary flow measurements.

METHODS AND RESULTS: Based on the principles of thermodilution, volumetric coronary flow can be determined from the flow rate of a continuous saline infusion, the temperature of saline when it enters the coronary artery, and the temperature of the blood mixed with the saline in the distal part of the coronary artery. In an in vitro set-up of the systemic and coronary circulation at body temperature, coronary flow values were varied from 50-300 ml/min in steps of 50 ml/min. At each coronary flow value, thermodilution-based measurements were performed at infusion rates of 15, 20, and 30 ml/min. Temperatures and pressures were simultaneously measured with a pressure/temperature sensor-tipped guidewire. Agreement of the calculated flow and the measured flow as well as repeatability were assessed. A total of five catheters were tested, with a total of 180 measurements. A strong correlation (?=0.976, p<0.0001) and a difference of -6.5±15.5 ml/min were found between measured and calculated flow. The difference between two repeated measures was 0.2%±8.0%.

CONCLUSIONS: This novel infusion catheter used in combination with a pressure/temperature sensor-tipped guidewire allows accurate and repeatable absolute coronary flow measurements. This opens a window to a better understanding of the coronary microcirculation.

impactfactor: *3.863*

Veer M van 't (Marcel)

Safety and feasibility of local myocardial hypothermia

Otterspoor LC*, Van't Veer M*, van Nunen LX*, Wijnbergen I*, Tonino PA*, Pijls NH*

Catheter Cardiovasc Interv. 2016 Apr;87(5):877-83. Epub 2015 Aug 13

Voor abstract zie: *Cardiologie - Otterspoor LC*

impactfactor: *2.107*

Veghel D van (Dennis)

First results of a national initiative to enable quality improvement of cardiovascular care by transparently reporting on patient-relevant outcomes

van Veghel D*, Marteijn M, de Mol B; Measurably Better Study Group (The Netherlands) and Advisory Board

Eur J Cardiothorac Surg. 2016 Jun;49(6):1660-9. Epub 2016 Mar 16

OBJECTIVES: The aims of this study were to assess patient-relevant outcomes of delivered cardiovascular care by focusing on disease management as determined by a multidisciplinary Heart Team, to establish and share best practices by comparing outcomes and to embed value-based decision-making to improve quality and efficiency in Dutch heart centres.

METHODS: In 2014, 12 Dutch heart centres pooled patient-relevant outcome data, which resulted in transparent publication of the outcomes, including long-term follow-up up to 5 years, of approximately 86 000 heart patients. This study presents the results of both disease- and treatment patient-relevant outcome measures for coronary artery disease and aortic valve disease. The patients included were presented to a Heart Team and underwent invasive or operative treatment. In-hospital and out-of-hospital patient-relevant outcome measures were collected as well as initial conditions. Quality of life was assessed using the Short Form (SF)-36 or SF-12 health survey.

RESULTS: In the Netherlands, patient-relevant and risk-adjusted outcomes of cardiovascular care in participating heart centres are published annually. Data were sufficiently reliable to enable comparisons and to subtract best practices. The statistically lower risk-adjusted mortality rate after coronary artery bypass grafting resulted in a voluntary roll-out of a perioperative safety check. The in-depth analysis of outcomes after percutaneous coronary

intervention resulted in process improvements in several heart centres, such as pre-hydration for patients with renal insufficiency and the need of target vessel revascularizations within a year.

CONCLUSION: Annual data collection on follow-up of patient-relevant outcomes of cardiovascular care, initiated and organized by physicians, appears feasible. Transparent publication of outcomes drives the improvement of quality within heart centres. The system of using a limited set of patient-relevant outcome measures enables reliable comparisons and exposes the quality of decision-making and the operational process. Transparent communication on outcomes is feasible, safe and cost-effective, and stimulates professional decision-making and disease management.

impactfactor: *2.803*

Voort PH van der (Pepijn)

Left atrial thrombus under dabigatran in a patient with nonvalvular atrial fibrillation

Janssen AM, van de Kerkhof D*, Szabó B, Durian MF, van der Voort PH*

Neth J Med. 2016 Aug;74(7):313-5

Voor abstract zie: *AKL - Kerkhof D van de*

impactfactor: *1.489*

Voort PH van der (Pepijn)

Multielectrode Pulmonary Vein Isolation Versus Single Tip Wide Area Catheter Ablation for Paroxysmal Atrial Fibrillation: A Multinational Multicenter Randomized Clinical Trial

Boersma LV, van der Voort P*, Debruyne P, Dekker L*, Simmers T*, Rossenbacker T, Balt J, Wijffels M, Degreef Y

Circ Arrhythm Electrophysiol. 2016 Apr;9(4)

BACKGROUND: Single-shot ablation techniques may facilitate safe and simple pulmonary vein isolation to treat paroxysmal atrial fibrillation. Multielectrode pulmonary vein isolation versus single tip wide area catheter ablation-paroxysmal atrial fibrillation is the first multinational, multicenter, prospective, noninferiority randomized clinical trial comparing multielectrode-phased radiofrequency ablation (MEA) to standard focal irrigated radiofrequency ablation (STA) using 3-dimensional navigation.

METHODS AND RESULTS: Patients with paroxysmal atrial fibrillation were randomized to MEA (61 patients) or STA (59 patients). Preprocedure transesophageal echocardiogram and computed tomography/magnetic resonance imaging (also 6-month postprocedure) were performed. Mean age was 57 years, 25% female sex, BMI was 28, CHA2DS2-VASc score was 0 to 1 in 82%, 8% had previous right atrial ablation, whereas all had at least 1 antiarrhythmic drug failure. The MEA group had significantly shorter mean procedure time (96±36 versus 166±46 minutes, P<0.001) and fluoroscopy time (23±9 versus 27±9 minutes, P=0.023). The total radiofrequency energy duration was 22±8 minutes for MEA versus 36±13 minutes for STA (P<0.001) with confirmed pulmonary vein isolation in all patients. Hospital admission was 1 day in both groups, without major adverse events either during the procedure or during 30-day follow-up. Two patients in the STA group had 1 PV with asymptomatic narrowing >50%. Freedom of atrial fibrillation for MEA and STA was 86.4% and 89.7% at 6 months, dropping to 76.3% and 81.0% at 12 months.

CONCLUSIONS: In this multicenter, randomized clinical trial, MEA and STA had similar rates of single-procedure acute pulmonary vein isolation without serious adverse events in the first 30 days. MEA had slightly lower long-term arrhythmia freedom, but showed marked and significantly shorter procedure, fluoroscopy, and radiofrequency energy times.

impactfactor: *4.428*

Voort PH van der (Pepijn)

Non-sustained ventricular tachycardia in patients with congenital heart disease: An important sign?

Teuwen CP, Ramdjan TT, Götte M, Brundel BJ, Evertz R, Vriend JW, Molhoek SG, Reinhart Dorman HG, van Opstal JM, Konings TC, van der Voort P*, Delacretaz E, Wolfhagen NJ, van Gastel V, de Klerk P, Theuns DA, Witsenburg M, Roos-Hesselink JW, Triedman JK, Bogers AJ, de Groot NM

Int J Cardiol. 2016 Mar 1;206:158-63. Epub 2016 Jan 6.

BACKGROUND: Sustained ventricular tachycardia (susVT) and ventricular fibrillation (VF) are observed in adult patients with congenital heart disease (CHD). These dysrhythmias may be preceded by non-sustained ventricular tachycardia (NSVT). The aims of this study are to examine the 1] time course of ventricular tachyarrhythmia (VTA) in a large cohort of patients with various CHDs and 2] the development of susVT/VF after NSVT.

METHODS: In this retrospective study, patients with VTA on ECG, 24-hour Holter or ICD-printout or an out-of-hospital-cardiac arrest due to VF were included. In patients with an ICD, the number of shocks was studied.

RESULTS: Patients (N=145 patients, 59% male) initially presented with NSVT (N=103), susVT (N=25) or VF (N=17) at a mean age of 40 ± 14 years. Prior to VTA, 58 patients had intraventricular conduction delay, 14 an impaired ventricular dysfunction and 3 had coronary artery disease. susVT/VF rarely occurred in patients with NSVT (N=5). Fifty-two (36%) patients received an ICD; appropriate and inappropriate shocks, mainly due to supraventricular tachycardia (SVT), occurred in respectively 15 (29%) (NSVT: N=1, susVT: N=9, VF: N=5) and 12 (23%) (NSVT: N=4, susVT: N=5, VF: N=3) patients.

CONCLUSIONS: VTA in patients with CHD appear on average at the age of 40 years. susVT/VF rarely developed in patients with only NSVT, whereas recurrent episodes of susVT/VF frequently developed in patients initially presenting with susVT/VF. Hence, a wait-and-see treatment strategy in patients with NSVT and aggressive therapy of both episodes of VTA and SVT in patients with susVT/VF seems justified.

impactfactor: *4.638*

Voort PH van der (Pepijn)

Spatial distribution of electrical reconnection after pulmonary vein isolation in patients with recurrent paroxysmal atrial fibrillation

Rademakers LM*, Romero I, Simmers TA*, van der Voort PH*, Meijer AM*, Dekker LR*

Neth Heart J. 2016 Jul;24(7-8):481-7

Voor abstract zie: *Cardiologie - Rademakers LM*

impactfactor: *2.062*

Voort PH van der (Pepijn)

Tachyarrhythmia in patients with congenital heart disease: inevitable destiny?

Teuwen CP, Taverne YJ, Houck C, Götte M, Brundel BJ, Evertz R, Witsenburg M, Roos-Hesselink JW, Bogers AJ, de Groot NM; DANARA Study Investigators: Voort PH van der
Neth Heart J. 2016 Mar;24(3):161-70

The prevalence of patients with congenital heart disease (CHD) has increased over the last century. As a result, the number of CHD patients presenting with late, postoperative tachyarrhythmias has increased as well. The aim of this review is to discuss the present knowledge on the mechanisms underlying both atrial and ventricular tachyarrhythmia in patients with CHD and the advantages and disadvantages of the currently available invasive treatment modalities.

impactfactor: 2.062

Wijnbergen I (Inge)

Absolute coronary blood flow measurement and microvascular resistance in ST-elevation myocardial infarction in the acute and subacute phase

Wijnbergen I*, van 't Veer M*, Lammers J*, Ubachs J*, Pijls NH*
Cardiovasc Revasc Med. 2016 Mar;17(2):81-7. Epub 2016 Jan 7

BACKGROUND/PURPOSE: In a number of patients with acute myocardial infarction (AMI), myocardial hypoperfusion, known as the no-reflow phenomenon, persists after primary percutaneous intervention (PPCI). The aim of this study was to evaluate the feasibility and safety of a new quantitative method of measuring absolute blood flow and resistance within the perfusion bed of an infarct-related artery. Furthermore, we sought to study no-reflow by correlating these measurements to the index of microvascular resistance (IMR) and the area at risk (AR) as determined by cardiac magnetic resonance imaging (CMR).

METHODS: Measurements of absolute flow and myocardial resistance were performed in 20 patients with ST-segment elevation myocardial infarction (STEMI), first immediately following PPCI and then again after 3-5days. These measurements used the technique of thermodilution during a continuous infusion of saline. Flow was expressed in ml/min per gram of tissue within the area at risk.

RESULTS: The average time needed for measurement of absolute flow, resistance and IMR was 20min, and all measurements could be performed without complication. A higher flow supplying the AR correlated with a lower IMR in the acute phase. Absolute flow increased from 3.14 to 3.68ml/min/g (p=0.25) and absolute resistance decreased from 1317 to 1099 dyne.sec.cm-5/g (p=0.40) between the first day and fifth day after STEMI.

CONCLUSIONS: Measurement of absolute flow and microvascular resistance is safe and feasible in STEMI patients and may allow for a better understanding of microvascular (dys)function in the early phase of AMI.

impactfactor: --

Wijnbergen I (Inge)

Novel monorail infusion catheter for volumetric coronary blood flow measurement in humans: in vitro validation

van 't Veer M*, Adjedj J, Wijnbergen I*, Tóth GG, Rutten MC, Barbato E, van Nunen LX*, Pijls NH*, De Bruyne B
EuroIntervention. 2016 Aug 20;12(6):701-7

Voor abstract zie: Cardiologie - Veer M van 't
impactfactor: 3.863

Wijnbergen I (Inge)

Safety and feasibility of local myocardial hypothermia

Otterspoor LC*, Van't Veer M*, van Nunen LX*, Wijnbergen I*, Tonino PA*, Pijls NH*

Catheter Cardiovasc Interv. 2016 Apr;87(5):877-83. Epub 2015 Aug 13

Voor abstract zie: *Cardiologie - Otterspoor LC*

impactfactor: *2.107*

Zimmermann FM (Frederik)

A stumbling block or a stepping stone?

Zimmermann FM*, Dekker LR*

Neth Heart J. 2016 Apr;24(4):296-7

Geen abstract beschikbaar

impactfactor: *2.062*

Zimmermann FM (Frederik)

A stumbling block or a stepping stone?

Zimmermann FM*, Dekker LR*

Neth Heart J. 2016 Apr;24(4):300

Geen abstract beschikbaar

impactfactor: *2.062*

Zimmermann FM (Frederik)

Continuum of Vasodilator Stress From Rest to Contrast Medium to Adenosine Hyperemia for Fractional Flow Reserve Assessment

Johnson NP, Jeremias A, Zimmermann FM*, Adjedj J, Witt N, Hennigan B, Koo BK, Maehara A, Matsumura M, Barbato E, Esposito G, Trimarco B, Rioufol G, Park SJ, Yang HM, Baptista SB, Chrysant GS, Leone AM, Berry C, De Bruyne B, Gould KL, Kirkeeide RL, Oldroyd KG, Pijls NH*, Fearon WF

JACC Cardiovasc Interv. 2016 Apr 25;9(8):757-67

OBJECTIVES: This study compared the diagnostic performance with adenosine-derived fractional flow reserve (FFR) =0.8 of contrast-based FFR (cFFR), resting distal pressure (Pd)/aortic pressure (Pa), and the instantaneous wave-free ratio (iFR).

BACKGROUND: FFR objectively identifies lesions that benefit from medical therapy versus revascularization. However, FFR requires maximal vasodilation, usually achieved with adenosine. Radiographic contrast injection causes submaximal coronary hyperemia. Therefore, intracoronary contrast could provide an easy and inexpensive tool for predicting FFR.

METHODS: We recruited patients undergoing routine FFR assessment and made paired, repeated measurements of all physiology metrics (Pd/Pa, iFR, cFFR, and FFR). Contrast medium and dose were per local practice, as was the dose of intracoronary adenosine. Operators were encouraged to perform both intracoronary and intravenous adenosine assessments and a final drift check to assess wire calibration. A central core lab analyzed blinded pressure tracings in a standardized fashion.

RESULTS: A total of 763 subjects were enrolled from 12 international centers. Contrast volume was 8 ± 2 ml per measurement, and 8 different contrast media were used. Repeated measurements of each metric showed a bias <0.005, but a lower SD (less variability) for cFFR than resting indexes. Although Pd/Pa and iFR demonstrated equivalent performance against FFR =0.8 (78.5% vs. 79.9% accuracy; p = 0.78; area under the receiver-operating

characteristic curve: 0.875 vs. 0.881; p = 0.35), cFFR improved both metrics (85.8% accuracy and 0.930 area; p < 0.001 for each) with an optimal binary threshold of 0.83. A hybrid decision-making strategy using cFFR required adenosine less often than when based on either Pd/Pa or iFR.

CONCLUSIONS: cFFR provides diagnostic performance superior to that of Pd/Pa or iFR for predicting FFR. For clinical scenarios or health care systems in which adenosine is contraindicated or prohibitively expensive, cFFR offers a universal technique to simplify invasive coronary physiological assessments. Yet FFR remains the reference standard for diagnostic certainty as even cFFR reached only ~85% agreement.

impactfactor: *7.630*

Zimmermann FM (Frederik)

Fractional Flow Reserve-guided Percutaneous coronary intervention: Standing the Test of Time

Zimmermann FM, van Nunen LX

Cardiovascular Innovations and Applications,2016; 1(3):225-32

Percutaneous coronary intervention (PCI) improves symptoms and prognosis in ischemia-inducing, functionally significant, coronary lesions. Use of fractional flow reserve allows physicians to investigate the ischemia-inducing potential of a specific lesion and can be used to guide coronary revascularization, especially in multivessel coronary artery disease. Fractional flow reserve-guided PCI has been extensively investigated. Results show that deferral of stenting in non-significant lesions is safe, whereas deferral of stenting in functionally significant lesions worsens outcome. FFR-guided PCI improves outcome in multivessel disease over angiography-guided PCI. Until recently, there was little known about the long-term outcome of FFR-guided revascularization and its validity in acute coronary syndromes. This review aims to address the new evidence regarding long-term appropriateness of FFR-guided PCI, the need for hyperemia to evaluate functional severity, and the use of FFR in acute coronary syndromes.

impactfactor: --

* = Werkzaam in het Catharina Ziekenhuis

Cardiothoracale Chirurgie

Akca F (Ferdi)

To the Editor- Device enabled left atrial appendage ligation-A word of caution

Verberkmoes N*, Akca F*, Putte Bv, Geuzebroek G, Salzberg S, Emmert M, Whitlock RHeart Rhythm. 2016 Oct;13(10):e293. Epub 2016 Jun 30

Geen abstract beschikbaar

impactfactor: 4.391

Soliman Hamad MA (Mohamed)

Impaired Left Ventricular Function Does Not Predict Worse Late Outcome after Isolated Mitral Valve Surgery

Verstraeten SE*, Soliman Hamad MA*

J Heart Valve Dis. 2016 Jan;25(1):55-61

geen abstract beschikbaar

impactfactor: 0.715

Soliman Hamad M (Mohamed)

Mid-term haemodynamic and clinical results after aortic valve replacement using the Freedom Solo stentless bioprosthesis versus the Carpentier Edwards Perimount stented bioprosthesis

van der Straaten EP*, Rademakers LM*, van Straten AH*, Houterman S*, Tan ME*, Soliman Hamad MA*

Eur J Cardiothorac Surg. 2016 Apr;49(4):1174-80. Epub 2015 Jul 29

Voor abstract zie: Cardiothoracale Chirurgie- Straaten EP van der

impactfactor: 2.803

Straaten EP van der (Ellen)

Mid-term haemodynamic and clinical results after aortic valve replacement using the Freedom Solo stentless bioprosthesis versus the Carpentier Edwards Perimount stented bioprosthesis

van der Straaten EP*, Rademakers LM*, van Straten AH*, Houterman S*, Tan ME*, Soliman Hamad MA*

Eur J Cardiothorac Surg. 2016 Apr;49(4):1174-80. Epub 2015 Jul 29

OBJECTIVES: The aim of this study was to investigate the mid-term haemodynamic and clinical results after aortic valve replacement (AVR) using the Sorin Freedom Solo (SFS) stentless bioprosthesis, compared with the standard Carpentier Edwards Perimount (CEP) stented bioprosthesis.

METHODS: In this retrospective cohort study of prospectively collected data, 116 patients were included in the SFS group (53 males; median age 74 years, range 56-85 years), and 122 patients in the CEP group (85 males; median age 73 years, range 43-88 years) between July 2007 and January 2013. Echocardiography was performed at 6 weeks after surgery in our centre, and the most recent echocardiography (in our centre or in referring cardiology departments) was requested. Between September 2013 and April 2014, all patients were called by the same researcher to gain clinical follow-up data.

RESULTS: Mid-term mortality was 16.4% in the SFS group (19 patients) and 21.3% in the CEP group (26 patients); (P = 0.3). The mean transvalvular gradient was 7.4 ± 3.1 mmHg in the SFS group, and 11.6 ± 3.2 mmHg in the CEP group at 6 weeks postoperatively (P < 0.001). When stratified by labelled valve size, mean gradients were significantly lower in the SFS group for every size (P = 0.03). After 3.3 ± 1.4 years of follow-up, the mean gradient was still significantly lower in the SFS group than that in the CEP group (P < 0.001). Clinical follow-up showed relatively low complication rates.

CONCLUSION: These data suggest that the Sorin Freedom Solo stentless bioprosthesis is as safe as the Carpentier Edwards bioprosthesis, and provides better short- and mid-term haemodynamic performance than the Carpentier Edwards bioprosthesis.

impactfactor: 2.803

Straten AH van (Bart)

Mid-term haemodynamic and clinical results after aortic valve replacement using the Freedom Solo stentless bioprosthesis versus the Carpentier Edwards Perimount stented bioprosthesis

van der Straaten EP*, Rademakers LM*, van Straten AH*, Houterman S*, Tan ME*, Soliman Hamad MA*

Eur J Cardiothorac Surg. 2016 Apr;49(4):1174-80. Epub 2015 Jul 29

Voor abstract zie: Cardiothoracale Chirurgie - Straaten EP van der

impactfactor: 2.803

Tan ME (Erwin)

A European Multicenter Study of 616 Patients Receiving the Freedom Solo Stentless Bioprosthesis

Thalmann M, Grubitzsch H, Matschke K, Glauber M, Tan E*, Francois K, Amorim MJ, Hensens AG, Cesari F, Feyrer R, Diegeler A, Veit F, Repossini A; Freedom Solo Investigators Ann Thorac Surg. 2016 Jan;101(1):100-8. Epub 2015 Oct 9

BACKGROUND: The purpose of this study was to evaluate the safety and performance of the Freedom Solo valve in aortic valve replacement by clinical and hemodynamic outcomes.

METHODS: Six hundred sixteen patients underwent aortic valve replacement in 18 European centers; mean age was 74.5 ± 5.9 years, 54.1% of the patients were male, and concomitant procedures were performed in 43.2% of the patients. The majority (69%) of the implanted sizes were 23 mm and 25 mm.

RESULTS: At 1 year, overall survival was 94.0%, whereas freedom from valve-related death was 98.6%. There were 9 (1.5%) early (=30 days) and 27 (4.4%) late (>30 days) deaths. Early and late valve-related mortality was 0.3% (n = 2) and 1.1% (n = 7), respectively. Freedom from explant was 97.6%; 10 valves were explanted for endocarditis and 4 for paravalvular leak. There were 10 (1.6%) early and 5 (0.8%) late strokes. Atrioventricular block requiring pacemaker implant occurred in 8 (1.3%) and 1 (0.2%) patients in the early and late postoperative period, respectively. Thrombocytopenia was seen in 27 cases (4.4%) in the early postoperative period. Preoperatively, 93.8% of patients were in New York Heart Association functional classes II through IV, whereas at 1 year 96.9% of patients were in New York Heart Association functional classes I and II. At 1-year follow-up, mean and peak pressure gradients were 7.2 and 14.6 mm Hg, respectively. Indexed left ventricular mass decreased by 12% from 138 g/m2 at discharge to 122 g/m2 at 1 year.

CONCLUSIONS: At 1-year follow-up after Freedom Solo implantation, we found acceptable clinical results with low mortality and morbidity and good hemodynamic performance, confirming safety and effectiveness in this multicenter experience.

impactfactor: 2.975

Tan ME (Erwin)

Mid-term haemodynamic and clinical results after aortic valve replacement using the Freedom Solo stentless bioprosthesis versus the Carpentier Edwards Perimount stented bioprosthesis

van der Straaten EP*, Rademakers LM*, van Straten AH*, Houterman S*, Tan ME*, Soliman Hamad MA*

Eur J Cardiothorac Surg. 2016 Apr;49(4):1174-80. Epub 2015 Jul 29

Voor abstract zie: *Cardiothoracale Chirurgie- Straaten EP van der*

impactfactor: *2.803*

Verberkmoes NJ (Niels)

Late asymptomatic atrial lead perforation, a fortuitous finding during lead extraction using thoracoscopic surveillance: a case report and review of the literature

Van Gelder BM*, Verberkmoes N*, Nathoe R*, Bracke FA*

Europace. 2016 Dec;18(12):1773-1778. Epub 2016 Jun 2.

Voor abstract zie: *Cardiologie - Gelder BM van*

impactfactor: *4.021*

Verberkmoes NJ (Niels)

Timely detection of superior vena cava laceration with thoracoscopy during lead extraction

Bracke FA*, Verberkmoes N*, van Gelder BM* Heart Rhythm. 2016 Oct;13(10):2106-7. Epub 2016 Jun 21.

Geen abstract beschikbaar

impactfactor: *4.391*

Verberkmoes NJ (Niels)

To the Editor- Device enabled left atrial appendage ligation-A word of caution

Verberkmoes N*, Akca F*, Putte Bv, Geuzebroek G, Salzberg S, Emmert M, Whitlock R

Heart Rhythm. 2016 Oct;13(10):e293. Epub 2016 Jun 30.

Geen abstract beschikbaar

impactfactor: *4.391*

Verstraeten SE (Stefan)

Impaired Left Ventricular Function Does Not Predict Worse Late Outcome after Isolated Mitral Valve Surgery

Verstraeten SE*, Soliman Hamad MA*

J Heart Valve Dis. 2016 Jan;25(1):55-61

geen abstract beschikbaar

impactfactor: *0.715*

** = Werkzaam in het Catharina Ziekenhuis*

Chirurgie

Bakens M (Maikel)

The use of adjuvant chemotherapy for pancreatic cancer varies widely between hospitals: a nationwide population-based analysis

Bakens MJ*, van der Geest LG, van Putten M, van Laarhoven HW, Creemers GJ*, Besselink MG, Lemmens VE, de Hingh IH*; Dutch Pancreatic Cancer Group

Cancer Med. 2016 Oct;5(10):2825-2831

Adjuvant chemotherapy after pancreatoduodenectomy for pancreatic cancer is currently considered standard of care. In this nationwide study, we investigated which characteristics determine the likelihood of receiving adjuvant chemotherapy and its effect on overall survival. The data were obtained from the Netherlands Cancer Registry. All patients alive 90 days after pancreatoduodenectomy for M0 -pancreatic cancer between 2008 and 2013 in the Netherlands were included in this study. The likelihood to receive adjuvant chemotherapy was analyzed by multilevel logistic regression analysis and differences in time-to-first-chemotherapy were tested for significance by Mann-Whitney U test. Overall survival was assessed by Kaplan-Meier method and Cox regression analysis. Of the 1195 patients undergoing a pancreatoduodenectomy for pancreatic cancer, 642 (54%) patients received adjuvant chemotherapy. Proportions differed significantly between the 19 pancreatic centers, ranging from 26% to 74% (P < 0.001). Median time-to-first-chemotherapy was 6.7 weeks and did not differ between centers. Patients with a higher tumor stage, younger age, and diagnosed more recently were more likely to receive adjuvant treatment. The 5-year overall survival was significantly prolonged in patients treated with adjuvant chemotherapy-23% versus 17%, log-rank = 0.01. In Cox regression analysis, treatment with adjuvant chemotherapy significantly prolonged survival compared with treatment without adjuvant chemotherapy. The finding that elderly patients and patients with a low tumor stage are less likely to undergo treatment needs further attention, especially since adjuvant treatment is known to prolong survival in most of these patients.

impactfactor: --

Berghuis KA (Kim)

Comparison Between Different Intramuscular Vitamin B12 Supplementation Regimes: a retrospective matched cohort study

Smelt HJ*, Pouwels S*, Said M*, Berghuis KA*, Boer AK*, Smulders JF*

Obes Surg. 2016 Dec;26(12):2873-2879.

Voor abstract zie: *Dietetiek - Smelt HJ*

impactfactor: *3.346*

Berkelmans G (Gijs)

Immediate Postoperative Oral Nutrition Following Esophagectomy: A Multicenter Clinical Trial

Weijs TJ*, Berkelmans GH*, Nieuwenhuijzen GA*, Dolmans AC*, Kouwenhoven EA, Rosman C, Ruurda JP, van Workum F, van Det MJ, Silva Corten LC, van Hillegersberg R, Luyer MD*

Ann Thorac Surg. 2016 Oct;102(4):1141-8. doi: Epub 2016 Jun 17.

Voor abstract zie: *Chirurgie - Weijs TJ*

impactfactor: *2.975*

Berkelmans G (Gijs)

Nutritional route in oesophageal resection trial II (NUTRIENT II): study protocol for a multicentre open-label randomised controlled trial

Berkelmans GH*, Wilts BJ*, Kouwenhoven EA, Kumagai K, Nilsson M, Weijs TJ*, Nieuwenhuijzen GA*, van Det MJ, Luyer MD* BMJ Open. 2016 Aug 5;6(8):e011979.

INTRODUCTION: Early start of an oral diet is safe and beneficial in most types of gastrointestinal surgery and is a crucial part of fast track or enhanced recovery protocols. However, the feasibility and safety of oral intake directly following oesophagectomy remain unclear. The aim of this study is to investigate the effects of early versus delayed start of oral intake on postoperative recovery following oesophagectomy.

METHODS AND ANALYSIS: This is an open-label multicentre randomised controlled trial. Patients undergoing elective minimally invasive or hybrid oesophagectomy for cancer are eligible. Further inclusion criteria are intrathoracic anastomosis, written informed consent and age 18 years or older. Inability for oral intake, inability to place a feeding jejunostomy, inability to provide written consent, swallowing disorder, achalasia, Karnofsky Performance Status <80 and malnutrition are exclusion criteria. Patients will be randomised using online randomisation software. The intervention group (direct oral feeding) will receive a liquid oral diet for 2 weeks with gradually expanding daily maximums. The control group (delayed oral feeding) will receive enteral feeding via a jejunostomy during 5 days and then start the same liquid oral diet. The primary outcome measure is functional recovery. Secondary outcome measures are 30-day surgical complications; nutritional status; need for artificial nutrition; need for additional interventions; health-related quality of life. We aim to recruit 148 patients. Statistical analysis will be performed according to an intention to treat principle. Results are presented as risk ratios with corresponding 95% CIs. A two-tailed p<0.05 is considered statistically significant.

ETHICS AND DISSEMINATION: Our study protocol has received ethical approval from the Medical research Ethics Committees United (MEC-U). This study is conducted according to the principles of Good Clinical Practice. Verbal and written informed consent is required before randomisation. All data will be collected using an online database with adequate security measures.

impactfactor: 2.562

Bosman S J (Sietske)

Local Recurrence in the Lateral Lymph Node Compartment: Improved Outcomes with Induction Chemotherapy Combined with Multimodality Treatment

Kusters M*, Bosman SJ*, Van Zoggel DM*, Nieuwenhuijzen GA*, Creemers GJ*, Van den Berg HA*, Rutten HJ*

Ann Surg Oncol. 2016 Jun;23(6):1883-9

Voor abstract zie: Chirurgie - Kusters M

impactfactor: 3.655

Broos PP (Pieter)

A 15-Year Single-Center Experience of Endovascular Repair for Elective and Ruptured Abdominal Aortic Aneurysms

Broos PP*, 't Mannetje YW*, Stokmans RA*, Houterman S*, Corte G*, Cuypers PW*, Teijink JA*, van Sambeek MR*

J Endovasc Ther. 2016 Aug;23(4):566-73. Epub 2016 May 13

PURPOSE: To evaluate the differences in technical outcomes and secondary interventions between elective endovascular aneurysm repair (el-EVAR) procedures and those for rupturedaneurysms (r-EVAR).

METHODS: Of the 906 patients treated with primary EVAR from September 1998 until July 2012, 43 cases were excluded owing to the use of first-generation stent-grafts. Among the remaining 863 patients, 773 (89.6%) patients (mean age 72 years; 697 men) with asymptomatic or symptomatic abdominal aortic aneurysms (AAAs) were assigned to the el-EVAR group; 90 (10.4%) patients (mean age 73 years; 73 men) were assigned to the r-EVAR group based on blood outside the aortic wall on preoperative imaging. The primary study outcome was technical success; secondary endpoints, including freedom from secondary interventions and late survival, were examined with Kaplan-Meier analyses.
RESULTS: At baseline, r-EVAR patients had larger aneurysms on average ($p<0.001$) compared to el-EVAR patients. Technical success was comparable ($p=0.052$), but there were more type Ia endoleaks at completion angiography in the r-EVAR group ($p=0.038$). As anticipated, more patients died in the first month in the r-EVAR group (18.9% vs 2.2% el-EVAR, $p<0.001$). At 5 years, there was an overall survival of 65.1% for the el-EVAR patients vs 48.1% in the r-EVAR group ($p<0.001$). The freedom from AAA-related mortality was 95.7% for el-EVAR and 71.0% for r-EVAR ($p<0.001$). Five-year freedom from type I/III endoleaks was significantly lower in the r-EVAR group (78.7% vs 90.0%, $p=0.003$). Five-year freedom from secondary intervention estimates were not significantly different (el-EVAR 84.2% vs r-EVAR 78.2%, $p=0.064$).
CONCLUSION: Within our cohort of primary EVAR patients, r-EVAR cases showed comparable stent-graft-related technical outcome. Although there was a higher incidence of type Ia endoleaks on completion angiography in the r-EVAR group, the overall secondary intervention rate was comparable to el-EVAR.
impactfactor: 3.128

Broos PP (Pieter)

A ruptured abdominal aortic aneurysm that requires preoperative cardiopulmonary resuscitation is not necessarily lethal

Broos PP*, 't Mannetje YW*, Loos MJ, Scheltinga MR, Bouwman LH, Cuypers PW*, van Sambeek MR*, Teijink JA*

J Vasc Surg. 2016 Jan;63(1):49-54. Epub 2015 Oct 1

OBJECTIVE: A ruptured abdominal aortic aneurysm (RAAA) is associated with a high mortality rate. If cardiopulmonary resuscitation (CPR) is required before surgical repair, mortality rates are said to approach 100%. The aim of this multicenter, retrospective study was to study outcome in RAAA patients who required CPR before a surgical (endovascular or open) repair (CPR group). RAAA patients who did not need CPR served as controls (non-CPR group).

METHODS: Over a 5-year time period, demographic and clinical characteristics and specifics of preoperative CPR if necessary were studied in all patients who were treated for a RAAA in three large, nonacademic hospitals.

RESULTS: A total of 199 consecutive RAAA patients were available for analysis; 176 patients were surgically treated. Thirteen of these 176 patients (7.4%) needed CPR, and 163 (92.6%) did not. A 38.5% (5 of 13) survival rate was observed in the CPR group. Thirty-day mortality was almost three times greater in the CPR group compared with the non-CPR group (61.5% vs 22.7%; P = .005). Both CPR patients who received endovascular aortic repair survived. In contrast, survival in 11 CPR patients who underwent open RAAA repair was 27% (3 of 11; P = .128). A trend for higher Hardman index was found in patients who received CPR compared with patients who did not receive CPR (P = .052). The 30-day mortality in patients with a 0, 1, 2, or 3 Hardman index was 16.1%, 31.0%, 37.9%, and 33.3%, respectively (P = .093).

CONCLUSIONS: An RAAA that requires preoperative CPR is not necessarily a lethal combination. Patient selection must be tailored before surgery is denied.

impactfactor: *3.454*

Broos PP (Pieter)

Late single-center outcome of the Talent Abdominal Stent Graft after a decade of follow-up

't Mannetje YW*, Broos PP*, van Poppel RF*, van Sambeek MR*, Teijink JA*, Cuypers PW*

J Vasc Surg. 2016 Sep;64(3):557-62. Epub 2016 Mar 16

Voor abstract zie: *Chirurgie - Mannetje Y 't*

impactfactor: *3.454*

Cuypers Ph W (Philippe)

A 15-Year Single-Center Experience of Endovascular Repair for Elective and Ruptured Abdominal Aortic Aneurysms

Broos PP*, 't Mannetje YW*, Stokmans RA*, Houterman S*, Corte G*, Cuypers PW*, Teijink JA*, van Sambeek MR*

J Endovasc Ther. 2016 Aug;23(4):566-73. Epub 2016 May 13

Voor abstract zie: *Chirurgie - Broos PP*

impactfactor: *3.128*

Cuypers Ph W (Philippe)

A ruptured abdominal aortic aneurysm that requires preoperative cardiopulmonary resuscitation is not necessarily lethal

Broos PP*, 't Mannetje YW*, Loos MJ, Scheltinga MR, Bouwman LH, Cuypers PW*, van Sambeek MR*, Teijink JA*

J Vasc Surg. 2016 Jan;63(1):49-54. Epub 2015 Oct 1

Voor abstract zie: *Chirurgie - Broos PP*

impactfactor: *3.454*

Cuypers Ph W (Philippe)

Cost-effectiveness of Elective Endovascular Aneurysm Repair Versus Open Surgical Repair of Abdominal Aortic Aneurysms

Burgers LT, Vahl AC, Severens JL, Wiersema AM, Cuypers PW*, Verhagen HJ, Redekop WK

Eur J Vasc Endovasc Surg. 2016 Jul;52(1):29-40. Epub 2016 Apr 23

OBJECTIVE/BACKGROUND: The aim of this study was to estimate the lifetime cost-effectiveness of endovascular aneurysm repair (EVAR) versus open surgical repair (OSR) in the Netherlands, based on recently published literature.

METHODS: A model was developed to simulate a cohort of individuals (age 72 years, 87% men) with an abdominal aortic aneurysm (AAA) diameter of at least 5.5 cm and considered fit for both repairs. The model consisted of two sub-models that estimated the lifetime cost-effectiveness of EVAR versus OSR: (1) a decision tree for the first 30 post-operative days; and (2) a Markov model for the period thereafter (31 days-30 years).

RESULTS: In the base case analysis, EVAR was slightly more effective (4.704 vs. 4.669 quality adjusted life years) and less expensive (€24,483 vs. €25,595) than OSR. Improved effectiveness occurs because EVAR can reduce 30 day mortality risk, as well as the risk of events following the procedure, while lower costs are primarily due to a

reduction in length of hospital stay. The cost-effectiveness of EVAR is highly dependent on the price of the EVAR device and the reduction in hospital stay, complications, and 30 day mortality.
CONCLUSION: EVAR and OSR can be considered equally effective, while EVAR can be cost saving compared with OSR. EVAR can therefore be considered as a cost-effective solution for patients with AAAs.
impactfactor: *2.912*

Cuypers Ph W (Philippe)
Late single-center outcome of the Talent Abdominal Stent Graft after a decade of follow-up
't Mannetje YW*, Broos PP*, van Poppel RF*, van Sambeek MR*, Teijink JA*, Cuypers PW* J Vasc Surg. 2016 Sep;64(3):557-62. Epub 2016 Mar 16
Voor abstract zie: *Chirurgie - Mannetje Y 't*
impactfactor: *3.454*

Cuypers Ph W (Philippe)
Predicting reinterventions after open and endovascular aneurysm repair using the St George's Vascular Institute score
de Bruin JL, Karthikesalingam A, Holt PJ, Prinssen M, Thompson MM, Blankensteijn JD; Dutch Randomised Endovascular Aneurysm Management (DREAM) Study Group.
J Vasc Surg. 2016 Jun;63(6):1428-1433.e1. Epub 2016 Mar 19

BACKGROUND: Identifying patients at risk for aneurysm rupture and sac expansion after open and endovascular abdominal aortic aneurysm (AAA) repair (EVAR) may help to attenuate this risk by intensifying follow-up and early detection of problems. The goal of this study was to validate the St George's Vascular Institute (SGVI) score to identify patients at risk for a secondary intervention after elective aneurysm repair.
METHODS: A post hoc on-treatment analysis of a randomized trial comparing open AAA repair and EVAR was performed. In this multicenter trial, 351 patients were randomly assigned to undergo open AAA repair or EVAR. Information on survival and reinterventions was available for all patients at 5 years postoperatively, for 79% at 6 years, and for 53% at 7 years. Open repair was completed in 173 patients and EVAR in 171, based on an on-treatment analysis. Because 17 patients had incomplete anatomic data, 327 patients (157 open repair and 170 EVAR) were available for analysis. During 6 years of follow-up, 78 patients underwent at least one reintervention. The SGVI score, which is calculated from preoperative AAA morphology using aneurysm and iliac diameter, predictively dichotomized patients into groups at high-risk or low-risk for a secondary intervention. The observed freedom from reintervention was compared between groups at predicted high-risk and predicted low-risk.
RESULTS: The 20 patients in the high-risk group were indeed at higher risk for a secondary intervention compared with the 307 patients predicted to be at low risk (hazard ratio [HR], 3.82; 95% confidence interval [CI], 2.05-7.11; P < .001). Discrimination between high-risk and low-risk groups was valid for EVAR (HR, 4.06; 95% CI, 1.93-8.51; P < .001) and for open repair (HR, 3.41; 95% CI, 1.02-11.4; P = .033).
CONCLUSIONS: The SGVI score appears to be a useful tool to predict reintervention risk in patients after open repair and EVAR.
impactfactor: *3.454*

Cuypers Ph W (Philippe)

Quality of life from a randomized trial of open and endovascular repair for abdominal aortic aneurysm

de Bruin JL, Groenwold RH, Baas AF, Brownrigg JR, Prinssen M, Grobbee DE, Blankensteijn JD; Dutch Randomised Endovascular Aneurysm Management (DREAM) Study Group: Cuypers PW*, Sambeek MR*, Tielbeek AV*, Teijink JA*

Br J Surg. 2016 Jul;103(8):995-1002. Epub 2016 Apr 5

BACKGROUND: Long-term survival is similar after open or endovascular repair of abdominal aortic aneurysm. Few data exist on the effect of either procedure on long-term health-related quality of life (HRQoL) and health status.

METHODS: Patients enrolled in a multicentre randomized clinical trial (DREAM trial; 2000-2003) in Europe of open repair versus endovascular repair (EVAR) of abdominal aortic aneurysm were asked to complete questionnaires on health status and HRQoL. HRQoL scores were assessed at baseline and at 13 time points thereafter, using generic tools, the Medical Outcomes Study 36-Item Short-Form Health Survey (SF-36®) and EuroQol 5D (EQ-5D™). Physical (PCS) and mental component summary scores were also calculated. Follow-up was 5 years.

RESULTS: Some 332 of 351 patients enrolled in the trial returned questionnaires. More than 70 per cent of questionnaires were returned at each time point. Both surgical interventions had a short-term negative effect on HRQoL and health status. This was less severe in the EVAR group than in the open repair group. In the longer term the physical domains of SF-36® favoured open repair: mean difference in PCS score between open repair and EVAR -1·98 (95 per cent c.i. -3·56 to -0·41). EQ-5D™ descriptive and EQ-5D™ visual analogue scale scores for open repair were also superior to those for EVAR after the initial 6-week interval: mean difference -0·06 (-0·10 to -0·02) and -4·09 (-6·91 to -1·27) respectively.

CONCLUSION: in this study EVAR appeared to be associated with less severe disruption to HRQoL and health status in the short term. However, during longer-term follow-up to 5 years, patients receiving open repair appeared to have improved quality of life and health status.

impactfactor: 5.596

Devilee RA (Robin)

Increased Survival of Patients with Synchronous Colorectal Peritoneal Metastases Receiving Preoperative Chemotherapy Before Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemotherapy

Devilee RA*, Simkens GA*, van Oudheusden TR*, Rutten HJ*, Creemers GJ*, Ten Tije AJ, de Hingh IH*

Ann Surg Oncol. 2016 Sep;23(9):2841-8. Epub 2016 Apr 4.

BACKGROUND: Cytoreductive surgery and hyperthermic intraperitoneal chemotherapy (CRS + HIPEC) can result in long-term survival for selected patients with colorectal peritoneal metastases (PM). Most patients are additionally treated with systemic chemotherapy, but timing (adjuvant vs. preoperative) varies between treatment centers. This study aimed to compare short- and long-term outcomes for patients with synchronous colorectal PM undergoing CRS + HIPEC who received preoperative or adjuvant chemotherapy.

METHODS: This study enrolled patients with synchronous colorectal PM who underwent macroscopically complete or near complete CRS + HIPEC. Data were collected from a prospective database containing all patients between 2007 and 2014. Perioperative outcome and survival were compared between patients who underwent adjuvant chemotherapy

(adjuvant strategy [AS]) and those who had preoperative chemotherapy followed by adjuvant systemic chemotherapy if possible (preoperative strategy PS]).
RESULTS: The study enrolled 91 patients, 25 (28 %) of whom received preoperative chemotherapy. The peritoneal cancer index (PCI) score was lower and the operation length shorter for the patients receiving preoperative chemotherapy (both p = 0.02). The complication rates were comparable between the two groups. The median survival after diagnosis was 38.6 months in the AS group, whereas median survival was not reached in the PS group (p < 0.01). The 3-year overall survival rates were 50 and 89 %, respectively. After correction for other significant prognostic factors, preoperative chemotherapy was independently associated with improved survival (HR 0.23; 95 % confidence interval, 0.07-0.75; p = 0.01).
CONCLUSION:
Treatment with preoperative chemotherapy was associated with improved long-term survival after CRS + HIPEC compared with adjuvant chemotherapy. Ideally, a randomized controlled trial should be performed to investigate the optimal timing of systemic chemotherapy for colorectal PM patients.

impactfactor: 3.655

Disseldorp EM (Emiel)

Altered joint kinematics and increased electromyographic muscle activity during walking in patients with intermittent claudication

Gommans LN*, Smid AT*, Scheltinga MR, Brooijmans FA, van Disseldorp EM*, van der Linden FT*, Meijer K, Teijink JA*

J Vasc Surg. 2016 Mar;63(3):664-72. Epub 2016 Jan 9

Voor abstract zie: Chirurgie - Gommans LN

impactfactor: 3.454

Disseldorp E (Emiel)

Application of an Adaptive Polynomial Chaos Expansion on Computationally Expensive Three-Dimensional Cardiovascular Models for Uncertainty Quantification and Sensitivity Analysis

Quicken S, Donders WP, van Disseldorp EM*, Gashi K, Mees BM, van de Vosse FN, Lopata RG, Delhaas T, Huberts W

J Biomech Eng. 2016 Dec 1;138(12)

When applying models to patient-specific situations, the impact of model input uncertainty on the model output uncertainty has to be assessed. Proper uncertainty quantification (UQ) and sensitivity analysis (SA) techniques are indispensable for this purpose. An efficient approach for UQ and SA is the generalized polynomial chaos expansion (gPCE) method, where model response is expanded into a finite series of polynomials that depend on the model input (i.e., a meta-model). However, because of the intrinsic high computational cost of three-dimensional (3D) cardiovascular models, performing the number of model evaluations required for the gPCE is often computationally prohibitively expensive. Recently, Blatman and Sudret (2010, "An Adaptive Algorithm to Build Up Sparse Polynomial Chaos Expansions for Stochastic Finite Element Analysis," Probab. Eng. Mech., 25(2), pp. 183-197) introduced the adaptive sparse gPCE (agPCE) in the field of structural engineering. This approach reduces the computational cost with respect to the gPCE, by only including polynomials that significantly increase the meta-model's quality. In this study, we demonstrate the agPCE by applying it to a 3D abdominal aortic aneurysm (AAA) wall mechanics model and a 3D model of flow through an arteriovenous fistula (AVF). The agPCE method was indeed able to perform UQ and SA at a significantly lower computational cost

than the gPCE, while still retaining accurate results. Cost reductions ranged between 70-80% and 50-90% for the AAA and AVF model, respectively.

impactfactor: 1.747

Disseldorp EM (Emiel)

Influence of limited field-of-view on wall stress analysis in abdominal aortic aneurysms

van Disseldorp EM*, Hobelman KH, Petterson NJ, van de Vosse FN, van Sambeek MR*, Lopata RG

J Biomech. 2016 Aug 16;49(12):2405-12. Epub 2016 Feb 6

Abdominal aortic aneurysms (AAAs) are local dilations of the aorta which can lead to a fatal hemorrhage when ruptured. Wall stress analysis of AAAs has been widely reported in literature to predict the risk of rupture. Usually, the complete AAA geometry including the aortic bifurcation is obtained by computed tomography (CT). However, performing wall stress analysis based on 3D ultrasound (3D US) has many advantages over CT, although, the field-of-view (FOV) of 3D US is limited and the aortic bifurcation is not easily imaged. In this study, the influence of a limited FOV is examined by performing wall stress analysis on CT-based (total) AAA geometries in 10 patients, and observing the changes in 99th percentile stresses and median stresses while systematically limiting the FOV. Results reveal that changes in the 99th percentile wall stresses are less than 10% when the proximal and distal shoulders of the aneurysm are in the shortened FOV. Wall stress results show that the presence of the aortic bifurcation in the FOV does not influence the wall stresses in high stress regions. Hence, the necessity of assessing the complete FOV, including the aortic bifurcation, is of minor importance. When the proximal and distal shoulders of the AAA are in the FOV, peak wall stresses can be detected adequately.

impactfactor: 2.431

Disseldorp EM (Emiel)

Patient Specific Wall Stress Analysis and Mechanical Characterization of Abdominal Aortic Aneurysms Using 4D Ultrasound

van Disseldorp EM*, Petterson NJ, Rutten MC, van de Vosse FN, van Sambeek MR*, Lopata RG

Eur J Vasc Endovasc Surg. 2016 Nov;52(5):635-642. 2016 Sep27

OBJECTIVES: The aim of this study was to perform wall stress analysis (WSA) using 4D ultrasound (US) in 40 patients with an abdominal aortic aneurysm (AAA). The geometries and wall stress results were compared with computed tomography (CT) in seven patients. Additionally, the WSA models were calibrated using 4D motion estimation, resulting in patient specific material parameters that were compared among patients.

METHODS: 4D-US images were acquired for 40 patients (AAA diameter 27-52 mm). Patient specific AAA geometries and wall motion were extracted from the 4D-US. WSA was performed and corresponding patient specific material properties were derived. For seven patients, CT data were available and analyzed for geometry and wall stress comparison. RESULTS: The 4D-US based 99th percentile wall stress ranged from 198 to 390 kPa. Regression analysis showed no significant relation between wall stress and diameter of the AAA. The similarity indices between US and CT were very good and ranged between 0.90 and 0.96, and the 25th, 50th, 75th, and 95th percentile wall stresses of the US and CT data were in agreement. The characterized patient specific shear modulus had a median of 1.1 MPa (interquartile range, 0.7-1.4 MPa). Based on the maximum AAA diameter, the AAAs were divided in a small, medium, and large diameter groups. The largest AAAs revealed an increased wall stiffness compared with the smallest AAAs.

CONCLUSIONS: 4D ultrasound is applicable for wall stress analysis of AAAs, and offers the opportunity to perform wall stress analysis over time, also for AAAs who do not qualify for a CT or magnetic resonance imaging. Moreover, the patient specific material properties can be determined, which could possibly improve risk assessment.

impactfactor: *2.912*

Dolmans AC (Annemarie)

Immediate Postoperative Oral Nutrition Following Esophagectomy: A Multicenter Clinical TriaL

Weijs TJ*, Berkelmans GH*, Nieuwenhuijzen GA*, Dolmans AC*, Kouwenhoven EA, Rosman C, Ruurda JP, van Workum F, van Det MJ, Silva Corten LC, van Hillegersberg R, Luyer MD* Ann Thorac Surg. 2016 Oct;102(4):1141-8. doi: Epub 2016 Jun 17

Voor abstract zie: *Chirurgie - Weijs TJ*

impactfactor: *2.975*

Gee R de (Robbin)

Minimal correlation between physical exercise capacity and daily activity in patients with intermittent claudication

Gommans LN*, Hageman D*, Jansen I*, de Gee R*, van Lummel RC, Verhofstad N*, Scheltinga MR, Teijink JA*

J Vasc Surg. 2016 Apr;63(4):983-9. Epub 2016 Jan 21

Voor abstract zie: *Chirurgie - Gommans LN*

impactfactor: *3.454*

Gommans L (Lindy)

Altered joint kinematics and increased electromyographic muscle activity during walking in patients with intermittent claudication

Gommans LN*, Smid AT*, Scheltinga MR, Brooijmans FA, van Disseldorp EM*, van der Linden FT*, Meijer K, Teijink JA*

J Vasc Surg. 2016 Mar;63(3):664-72. Epub 2016 Jan 9

BACKGROUND: Patients with intermittent claudication (IC) tend to walk at a slower pace, have less lower leg muscle strength, and consume approximately 40% more oxygen during walking compared with healthy individuals. An unfavorable locomotion pattern has been suggested to explain this metabolic inefficiency. However, knowledge on gait patterns in IC is limited. Muscle activity patterns during walking measured using surface electromyography (EMG) have not been investigated in this patient population. METHODS: In this cross-sectional study, gait pattern of patients newly diagnosed with IC and age-matched controls were evaluated using kinematic parameters and medial gastrocnemius (MG) and tibialis anterior (TA) muscles activity patterns. The protocol included pain-free and painful (only IC patients) treadmill walking sessions. RESULTS: A total of 22 IC patients and 22 healthy control subjects were included. Patients walked 1.4 km/h slower (3.2 km/h vs 4.6 km/h; P < .001) than control subjects, coinciding with a 10% slower cadence (110 steps/min vs 122 steps/min; P < .001). The kinematic analysis resulted in a patient's ankle plantar flexion reduction of 45% during the propulsion phase, and ankle dorsal flexion reduction of 41% at initial contact. No additional kinematic changes were observed when claudication pain presented. Interestingly, kinematic differences did not influence the muscle activity duration during walking, because equal duration of muscle activity was found in IC patients and healthy controls. However, the amount of muscle activity in microvolts did significantly increase in IC patients when claudication pain presented (TA: ?23%; P < .001; MG: ?54%; P = .007).

CONCLUSIONS: Patients with IC show significant kinematic changes during walking. These alterations did not affect EMG activity duration of MG and TA muscles. However, EMG amplitude of both muscles did significantly increase during painful walking in IC patients.

impactfactor: 3.454

Gommans L (Lindy)

Minimal correlation between physical exercise capacity and daily activity in patients with intermittent claudication

Gommans LN*, Hageman D*, Jansen I*, de Gee R*, van Lummel RC, Verhofstad N*, Scheltinga MR, Teijink JA*

J Vasc Surg. 2016 Apr;63(4):983-9. doi: 10.1016/j.jvs.2015.10.060. Epub 2016 Jan 21

BACKGROUND: Walking capacity measured by a treadmill test (TT) reflects the patient's maximal capacity in a controlled setting and is part of the physical exercise capacity (PEC). Daily physical activity (PA) is defined as the total of actively freely produced movements per day. A lower PA level has been increasingly recognized as a strong predictor of increased morbidity and mortality in patients with intermittent claudication (IC). Recent insights suggested that an increased PEC does not automatically lead to an increase in daily PA. However, the precise relation between PEC and PA in patients with IC is still unclear.

METHODS: A cross-sectional study was conducted to assess the association between several PEC outcomes and PA in a general IC population. PEC was determined by well-established tests (Gardner-Skinner TT, a physical performance battery, a timed up-and-go test, and a 6-minute walk test distance). PA was obtained during 7 consecutive days using a triaxial accelerometer (Dynaport MoveMonitor; McRoberts BV, The Hague, The Netherlands). Five PA components (lying, sitting, standing, shuffling, and locomotion) and four parameters (total duration, number of periods, mean duration per period, and mean movement intensity per period) were analysed. Correlation coefficients between PEC and PA components were calculated.

RESULTS: Data of 46 patients were available for analysis. Patients were sedentary (sitting and lying) during 81% of the day and were physically active (standing, shuffling, and locomotion) for the remaining 19% of the time. Correlations between PEC outcomes and PA ranged from very weak (0.025) to moderate (0.663). Moderate correlations (as therefore assumed to be relevant) were only found for outcomes of both the TT and 6-minute walk test and the locomotion components of PA. For instance, functional claudication distance (measured by TT) and number of steps per day correlated reasonably well (Spearman correlation ? = 0.663; P < .01).

CONCLUSIONS: Exercise capacity and PA correlate minimally in patients with IC. PA may be preferred as a novel outcome measure and future treatment target in patients with IC.

impactfactor: 3.454

Gommans L (Lindy)

Minimally Important Difference of the Absolute and Functional Claudication Distance in Patients with Intermittent Claudication

van den Houten MM*, Gommans LN*, van der Wees PJ, Teijink JA*

Eur J Vasc Endovasc Surg. 2016 Mar;51(3):404-9. Epub 2015 Dec 20

OBJECTIVE: Disease severity and treatment outcomes in patients with intermittent claudication (IC) are commonly assessed using walking distance measured with a standardized treadmill test. It is unclear what improvement or deterioration in walking distance constitutes a meaningful, clinically relevant, change from the patients' perspective. The purpose of the present study was to estimate the minimally important difference (MID)

for the absolute claudication distance (ACD) and functional claudication distance (FCD) in patients with IC.

METHOD: The MIDs were estimated using an anchor based approach with a previously defined clinical anchor derived from scores of the walking impairment questionnaire (WIQ) in a similar IC population. Baseline and 3 month follow up data on WIQ scores and walking distances (ACD and FCD) were used from 202 patients receiving supervised exercise therapy from the 2010 EXITPAD randomized controlled trial. The external WIQ anchor was used to form three distinct categories: patients with "clinically relevant improvement," "clinically relevant deterioration," and "no clinically relevant change." The MIDs for improvement and deterioration were defined by the upper and lower limits of the 95% confidence interval of the mean change in ACD and FCD, for the group of IC patients that remained unchanged according to the WIQ anchor.

RESULTS: For the estimation of the MID of the ACD and FCD, 102 and 101 patients were included, respectively. The MID for the ACD was 305 m for improvement, and 147 m for deterioration. The MID for the FCD was 250 m for improvement, and 120 m for deterioration.

CONCLUSION: The MIDs for the treadmill measured ACD and FCD can be used to interpret the clinical relevance of changes in walking distances after supervised exercise therapy and may be used in both research and individual care.

Voor abstract zie: *Chirurgie - Houten MM van den*
impactfactor: *2.912*

Grinsven R van (Regine)
Treatment of upper-extremity outflow thrombosis
van den Houten MM*, van Grinsven R*, Pouwels S*, Yo LS*, van Sambeek MR*, Teijink JA*
Phlebology. 2016 Mar;31(1 Suppl):28-33
Voor abstract zie: *Chirurgie - Houten MM van*
impactfactor: *1.413*

Hageman D (David)
Minimal correlation between physical exercise capacity and daily activity in patients with intermittent claudication
Gommans LN*, Hageman D*, Jansen I*, de Gee R*, van Lummel RC, Verhofstad N*, Scheltinga MR, Teijink JA*
J Vasc Surg. 2016 Apr;63(4):983-9. doi: 10.1016/j.jvs.2015.10.060. Epub 2016 Jan 21.
Voor abstract zie: *Chirurgie - Gommans LN*
impactfactor: *3.454*

Hageman D (David)
Preoperative exercise therapy in surgical care: a scoping review
Pouwels S*, Hageman D*, Gommans LN, Willigendael EM, Nienhuijs SW*, Scheltinga MR, Teijink JA*
J Clin Anesth. 2016 Sep;33:476-90
Voor abstract zie: *Chirurgie - Pouwels S*
impactfactor: *1.284*

Heesakkers F (Fanny)

Beneficial Effects of Early Enteral Nutrition After Major Rectal Surgery: A Possible Role for Conditionally Essential Amino Acids? Results of a Randomized Clinical Trial

van Barneveld KW, Smeets BJ*, Heesakkers FF*, Bosmans JW, Luyer MD*, Wasowicz D*, Bakker JA, Roos AN*, Rutten HJ*, Bouvy ND, Boelens PG*

Crit Care Med. 2016 Jun;44(6):e353-61

Voor abstract zie: *Chirurgie - Smeets B*

impactfactor: *7.422*

Himbeeck FJ van (Frank)

Predictors for the occurrence of major complications after primary Roux-en-Y gastric bypass surgery

van Wezenbeek MR*, Smulders FJ*, Luyer MD*, VAN Montfort G*, Vanhimbeeck FJ*, Nienhuijs SW*

Minerva Chir. 2016 Oct;71(5):286-92. Epub 2016 Jun 29

Voor abstract zie: *Chirurgie - Wezenbeek MR van*

impactfactor: *0.877*

Hingh IH de (Ignace)

A multi-centred randomised trial of radical surgery versus adjuvant chemoradiotherapy after local excision for early rectal cancer

Borstlap WA, Tanis PJ, Koedam TW, Marijnen CA, Cunningham C, Dekker E, van Leerdam ME, Meijer G, van Grieken N, Nagtegaal ID, Punt CJ, Dijkgraaf MG, De Wilt JH, Beets G, de Graaf EJ, van Geloven AA, Gerhards MF, van Westreenen HL, van de Ven AW, van Duijvendijk P, de Hingh IH*, Leijtens JW, Sietses C, Spillenaar-Bilgen EJ, Vuylsteke RJ, Hoff C, Burger JW, van Grevenstein WM, Pronk A, Bosker RJ, Prins H, Smits AB, Bruin S, Zimmerman DD, Stassen LP, Dunker MS, Westerterp M, Coene PP, Stoot J, Bemelman WA, Tuynman

JB BMC Cancer. 2016 Jul 21;16:513

BACKGROUND: Rectal cancer surgery is accompanied with high morbidity and poor long term functional outcome. Screening programs have shown a shift towards more early staged cancers. Patients with early rectal cancer can potentially benefit significantly from rectal preserving therapy. For the earliest stage cancers, local excision is sufficient when the risk of lymph node disease and subsequent recurrence is below 5 %. However, the majority of early cancers are associated with an intermediate risk of lymph node involvement (5-20 %) suggesting that local excision alone is not sufficient, while completion radical surgery, which is currently standard of care, could be a substantial overtreatment for this group of patients. METHODS/STUDY DESIGN: In this multicentre randomised trial, patients with an intermediate risk T1-2 rectal cancer, that has been locally excised using an endoluminal technique, will be randomized between adjuvant chemo-radiotherapylimited to the mesorectum and standard completion total mesorectal excision (TME). To strictly monitor the risk of locoregional recurrence in the experimental arm and enable early salvage surgery, there will be additional follow up with frequent MRI and endoscopy. The primary outcome of the study is three-year local recurrence rate. Secondary outcomes are morbidity, disease free and overall survival, stoma rate, functional outcomes, health related quality of life and costs. The design is a non inferiority study with a total sample size of 302 patients. DISCUSSION: The results of the TESAR trial will potentially demonstrate that adjuvant chemoradiotherapy is an oncological safe treatment option in patients who are confronted with the difficult clinical dilemma of a radically removed intermediate risk early rectal cancer by polypectomy or transanal surgery that is conventionally treated with subsequent radical

surgery. Preserving the rectum using adjuvant radiotherapy is expected to significantly improve morbidity, function and quality of life if compared to completion TME surgery.

impactfactor: *3.365*

Hingh IH de (Ignace)

Angiogenesis-Related Markers and Prognosis After Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemotherapy for Metastatic Colorectal Cancer

de Cuba EM, de Hingh IH*, Sluiter NR, Kwakman R, Coupé VM, Beliën JA, Verwaal VJ*, Meijerink WJ, Delis-van Diemen PM, Bonjer HJ, Meijer GA, Te Velde EA

Ann Surg Oncol. 2016 May;23(5):1601-8. Epub 2016 Jan 4

BACKGROUND: Patients presenting with peritoneal metastases (PM) of colorectal cancer (CRC) can be curatively treated with cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC). Angiogenesis is under control of multiple molecules of which HIF1a, SDF1, CXCR4, and VEGF are key players. We investigated these angiogenesis-related markers and their prognostic value in patients with PM arising from CRC treated with CRS and HIPEC.

PATIENTS AND METHODS: Clinicopathological data and tissue specimens were collected in 2 tertiary referral centers from 52 patients who underwent treatment for isolated PM of CRC. Whole tissue specimens were subsequently analyzed for protein expression of HIF1a, SDF1, CXCR4, and VEGF by immunohistochemistry. Microvessel density (MVD) was analyzed by CD31 immunohistochemistry. The relationship between overall survival (OS) and protein expression as well as other clinicopathological characteristics was analyzed.

RESULTS: Univariate analysis showed that high peritoneal cancer index (PCI), resection with residual disease and high expression of VEGF were negatively correlated with OS after treatment with CRS and HIPEC ($P < 0.01$, $P < 0.01$, and $P = 0.02$, respectively). However, no association was found between the other markers and OS ($P > 0.05$). Multivariate analysis showed an independent association between OS and PCI, resection outcome and VEGF expression (multivariate HR: 6.1, 7.8 and 3.8, respectively, $P = 0.05$).

CONCLUSIONS: An independent association was found between high VEGF expression levels and worse OS after CRS and HIPEC. The addition of VEGF expression to the routine clinicopathological workup could help to identify patients at risk for early treatment failure. Furthermore, VEGF may be a potential target for adjuvant treatment in these patients.

impactfactor: *3.655*

Hingh IH de (Ignace)

Bevacizumab for metachronous metastatic colorectal cancer: a reflection of community based practice

Razenberg LG*, van Gestel YR, de Hingh IH*, Loosveld OJ, Vreugdenhil G, Beerepoot LV, Creemers GJ*, Lemmens VE

BMC Cancer. 2016 Feb 16;16:110

Voor abstract zie: *Inwendige geneeskunde - Razenberg LG*

impactfactor: *3.365*

Hingh IH de (Ignace)

Bevacizumab in Addition to Palliative Chemotherapy for Patients With Peritoneal Carcinomatosis of Colorectal Origin

Razenberg LG*, van Gestel YR, Lemmens VE, de Hingh IH*, Creemers GJ*

Clin Colorectal Cancer. 2016 Jun;15(2):e41-6. Epub 2015 Dec 17

Voor abstract zie: *Inwendige geneeskunde - Razenberg LG*

Impactfactor: *3.090*

Hingh IH de (Ignace)

Challenging the dogma of colorectal peritoneal metastases as an untreatable condition: Results of a population-based study

Razenberg LG*, Lemmens VE, Verwaal VJ, Punt CJ, Tanis PJ, Creemers GJ*, de Hingh IH*

Eur J Cancer. 2016 Sep;65:113-20. Epub 2016 Aug 3

Voor abstract zie: *inwendige geneeskunde - Razenberg LG*

impactfactor: *6.163*

Hingh IH de (Ignace)

Cytoreduction and hyperthermic intraperitoneal chemotherapy: The learning curve reassessed

Kuijpers AM, Hauptmann M, Aalbers AG, Nienhuijs SW*, de Hingh IH*, Wiezer MJ, van Ramshorst B, van Ginkel RJ, Havenga K, Verwaal VJ

Eur J Surg Oncol. 2016 Feb;42(2):244-50. Epub 2015 Sep 3

Voor abstract zie: *Chirurgie - Nienhuijs SW*

impactfactor: *2.940*

Hingh IH de (Ignace)

Cytoreductive surgery and HIPEC offers similar outcomes in patients with rectal peritoneal metastases compared to colon cancer patients: a matched case control study

Simkens GA*, van Oudheusden TR*, Braam HJ, Wiezer MJ, Nienhuijs SW*, Rutten HJ*, van Ramshorst B, de Hingh IH*

J Surg Oncol. 2016 Apr;113(5):548-53. Epub 2016 Jan 12

Voor abstract zie: *Chirurgie - Simkens GA*

impactfactor: *3.151*

Hingh IH de (Ignace)

Developing a core set of patient-reported outcomes in pancreatic cancer: A Delphi survey

Gerritsen A, Jacobs M, Henselmans I, van Hattum J, Efficace F, Creemers GJ*, de Hingh IH*, Koopman M, Molenaar IQ, Wilmink HW, Busch OR, Besselink MG, van Laarhoven HW; Dutch Pancreatic Cancer Group

Eur J Cancer. 2016 Apr;57:68-77

Voor abstract zie: *Inwendige Geneeskunde - Creemers GJ*

impactfactor: *6.163*

Hingh IH de (Ignace)

Development of a Prognostic Nomogram for Patients with Peritoneally Metastasized Colorectal Cancer Treated with Cytoreductive Surgery and HIPEC

Simkens GA*, van Oudheusden TR*, Nieboer D, Steyerberg EW, Rutten HJ*, Luyer MD*, Nienhuijs SW*, de Hingh IH* Ann Surg Oncol. 2016 Dec;23(13):4214-4221

Voor abstract zie: *Chirurgie - Simkens GA*

impactfactor: *3.655*

Hingh IH de (Ignace)

Does long-term survival exist in pancreatic adenocarcinoma?

Zijlstra M*, Bernards N*, de Hingh IH*, van de Wouw AJ, Goey SH, Jacobs EM, Lemmens VE, Creemers GJ*

Acta Oncol. 2016;55(3):259-64. Epub 2015 Nov 11

Voor abstract zie: *Inwendige Geneeskunde - Zijlstra M*

impactfactor: *3.730*

Hingh IH de (Ignace)

Elderly Patients Strongly Benefit from Centralization of Pancreatic Cancer Surgery: A Population-Based Study

van der Geest LG, Besselink MG, Busch OR, de Hingh IH*, van Eijck CH, Dejong CH, Lemmens VE

Ann Surg Oncol. 2016 Jun;23(6):2002-9. Epub 2016 Jan 21

BACKGROUND: Series from expert centers suggest that pancreas cancer surgery is safe for elderly patients but nationwide data, taking hospital volume into account, are lacking. METHODS: From the Netherlands Cancer Registry, all 3420 patients who underwent pancreatoduodenectomy (PD) for primary pancreatic or periampullary carcinoma in 2005-2013 were selected. Associations between age (<75, =75 years), hospital volume (tertiles), and postoperative mortality (30, 90 day) were evaluated by ? (2) tests and logistic regression analyses. Overall survival was investigated by means of Kaplan-Meier and Cox proportional hazard regression analyses.

RESULTS: The proportion of elderly patients (=75 years) undergoing PD increased from 15 % in 2005-2007 to 20 % in 2011-2013 (p = 0.009). In low (<15 per year), medium (15-28 per year), and high (>28 per year) hospital volume tertiles, the proportion of elderly patients was 16, 20, and 17 %, respectively (p = 0.10). With increasing hospital volume, 30-day postoperative mortality was 6.0-4.5-2.9 % (p = 0.002) and 90-day mortality 9.3-8.0-5.3 % (p = 0.001), respectively. Within each volume tertile, adjusted 30- and 90-day mortality of elderly patients was 1.6-2.5 times higher compared to outcomes of younger patients. Adjusted 30-day mortality in elderly patients was higher in low-volume hospitals (odds ratio = 2.87, 95 % confidence interval 1.15-7.17) compared to high-volume hospitals. Similarly, elderly patients had a worse overall survival in low-volume hospitals (hazard ratio = 1.28, 95 % confidence interval 1.01-1.63). Postoperative mortality of elderly patients in high-volume hospitals was similar to mortality of younger patients in low- and medium-volume hospitals. CONCLUSIONS: Elderly patients benefit from centralization by undergoing PD in high-volume hospitals, both with respect to postoperative mortality and survival. It would seem reasonable to place elderly patients into a high-risk category; they should only undergo surgery in the highest-tertile-volume hospitals.

impactfactor: *3.655*

Hingh IH de (Ignace)

Histological subtype and systemic metastases strongly influence treatment and survival in patients with synchronous colorectal peritoneal metastases

Simkens GA*, Razenberg LG*, Lemmens VE, Rutten HJ*, Creemers GJ*, de Hingh IH*

Eur J Surg Oncol. 2016 Jun;42(6):794-800. Epub 2016 Mar 28

Voor abstract zie: *Chirurgie - Simkens GA*

impactfactor: *2.940*

Hingh IH de (Ignace)

Impact of a Nationwide Training Program in Minimally Invasive Distal Pancreatectomy (LAELAPS)

de Rooij T, van Hilst J, Boerma D, Bonsing BA, Daams F, van Dam RM, Dijkgraaf MG, van Eijck CH, Festen S, Gerhards MF, Koerkamp BG, van der Harst E, de Hingh IH*, Kazemier G, Klaase J, de Kleine RH, van Laarhoven CJ, Lips DJ, Luyer MD*, Molenaar IQ, Patijn GA, Roos D, Scheepers JJ, van der Schelling GP, Steenvoorde P, Vriens MR, Wijsman JH, Gouma DJ, Busch OR, Abu Hilal M, Besselink MG; Dutch Pancreatic Cancer Group.

Ann Surg. 2016 Aug 1;264(5):754–62

OBJECTIVE: To study the feasibility and impact of a nationwide training program in minimally invasive distal pancreatectomy (MIDP).

SUMMARY OF BACKGROUND DATA: Superior outcomes of MIDP compared with open distal pancreatectomy have been reported. In the Netherlands (2005 to 2013) only 10% of distal pancreatectomies were in a minimally invasive fashion and 85% of surgeons welcomed MIDP training. The feasibility and impact of a nationwide training program is unknown.

METHODS: From 2014 to 2015, 32 pancreatic surgeons from 17 centers participated in a nationwide training program in MIDP, including detailed technique description, video training, and proctoring on-site. Outcomes of MIDP before training (2005-2013) were compared with outcomes after training (2014-2015).

RESULTS: In total, 201 patients were included; 71 underwent MIDP in 9 years before training versus 130 in 22 months after training (7-fold increase, P < 0.001). The conversion rate (38% [n = 27] vs 8% [n = 11], P < 0.001) and blood loss were lower after training and more pancreatic adenocarcinomas were resected (7 [10%] vs 28 [22%], P = 0.03), with comparable R0-resection rates (4/7 [57%] vs 19/28 [68%], P = 0.67). Clavien-Dindo score =III complications (15 [21%] vs 19 [15%], P = 0.24) and pancreatic fistulas (20 [28%] vs 41 [32%], P = 0.62) were not significantly different. Length of hospital stay was shorter after training (9 [7-12] vs 7 [5-8] days, P < 0.001). Thirty-day mortality was 3% vs 0% (P = 0.12).

CONCLUSION: A nationwide MIDP training program was feasible and followed by a steep increase in the use of MIDP, also in patients with pancreatic cancer, and decreased conversion rates. Future studies should determine whether such a training program is applicable in other settings.

impactfactor: 8.569

Hingh IH de (Ignace)

Impact of a Nationwide Training Program in Minimally Invasive Distal Pancreatectomy (LAELAPS)

de Rooij T, van Hilst J, Boerma D, Bonsing BA, Daams F, van Dam RM, Dijkgraaf MG,
van Eijck CH, Festen S, Gerhards MF, Koerkamp BG, van der Harst E, de Hingh IH*, Kazemier G, Klaase J, de Kleine RH, van Laarhoven CJ, Lips DJ, Luyer MD*, Molenaar IQ, Patijn GA, Roos D, Scheepers JJ, van der Schelling GP, Steenvoorde P, Vriens MR, Wijsman JH, Gouma DJ, Busch OR, Hilal MA, Besselink MG; Dutch Pancreatic Cancer Group.

Ann Surg. 2016 Nov;264(5):754-762

OBJECTIVE: To study the feasibility and impact of a nationwide training program in minimally invasive distal pancreatectomy (MIDP).

SUMMARY OF BACKGROUND DATA: Superior outcomes of MIDP compared with open distal pancreatectomy have been reported. In the Netherlands (2005 to 2013) only 10% of distal pancreatectomies were in a minimally invasive fashion and 85% of surgeons welcomed MIDP training. The feasibility and impact of a nationwide training program is unknown.

METHODS: From 2014 to 2015, 32 pancreatic surgeons from 17 centers participated in a nationwide training program in MIDP, including detailed technique description, video training, and proctoring on-site. Outcomes of MIDP before training (2005-2013) were compared with outcomes after training (2014-2015).

RESULTS: In total, 201 patients were included; 71 underwent MIDP in 9 years before training versus 130 in 22 months after training (7-fold increase, P < 0.001). The conversion rate (38% [n = 27] vs 8% [n = 11], P < 0.001) and blood loss were lower after training and more pancreatic adenocarcinomas were resected (7 [10%] vs 28 [22%], P = 0.03), with comparable R0-resection rates (4/7 [57%] vs 19/28 [68%], P = 0.67). Clavien-Dindo score =III complications (15 [21%] vs 19 [15%], P = 0.24) and pancreatic fistulas (20 [28%] vs 41 [32%], P = 0.62) were not significantly different. Length of hospital stay was shorter after training (9 [7-12] vs 7 [5-8] days, P < 0.001). Thirty-day mortality was 3% vs 0% (P = 0.12).

CONCLUSION: A nationwide MIDP training program was feasible and followed by a steep increase in the use of MIDP, also in patients with pancreatic cancer, and decreased conversion rates. Future studies should determine whether such a training program is applicable in other settings.

impactfactor: *8.569*

Hingh IH de (Ignace)

Increased Survival of Patients with Synchronous Colorectal Peritoneal Metastases Receiving Preoperative Chemotherapy Before Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemotherapy

Devilee RA*, Simkens GA*, van Oudheusden TR*, Rutten HJ*, Creemers GJ*,
Ten Tije AJ, de Hingh IH*

Ann Surg Oncol. 2016 Sep;23(9):2841-8. Epub 2016 Apr 4.

Voor abstract zie: *Chirurgie - Devilee RA*

impactfactor: *3.655*

Hingh IH de (Ignace)

Outcomes of Distal Pancreatectomy for Pancreatic Ductal Adenocarcinoma in the Netherlands: A Nationwide Retrospective Analysis

de Rooij T, Tol JA, van Eijck CH, Boerma D, Bonsing BA, Bosscha K, van Dam RM, Dijkgraaf MG, Gerhards MF, van Goor H, van der Harst E, de Hingh IH*, Kazemier G, Klaase JM, Molenaar IQ, Patijn GA, van Santvoort HC, Scheepers JJ,
van der Schelling GP, Sieders E, Busch OR, Besselink MG;
Dutch Pancreatic Cancer Group

Ann Surg Oncol. 2016 Feb;23(2):585-91. Epub 2015 Oct 27

BACKGROUND: Large multicenter series on outcomes and predictors of survival after distal pancreatectomy (DP) for pancreatic ductal adenocarcinoma (PDAC) are scarce. METHODS: Adults who underwent DP for PDAC in 17 Dutch pancreatic centers between January 2005 and September 2013 were analyzed retrospectively. The primary outcome was survival, and predictors of survival were identified using Cox regression analysis.

RESULTS: In total, 761 consecutive patients after DP were assessed, of whom 620 patients were excluded because of non-PDAC histopathology (n = 616) or a lack of data (n = 4), leaving a total of 141 patients included in the study [45 % (n = 63) male, mean age 64 years (SD = 10)]. Multivisceral resection was performed in 43 patients (30 %) and laparoscopic resection was performed in 7 patients (5 %). A major complication (Clavien-Dindo score of III or higher) occurred in 46 patients (33 %). Mean tumor size was 44 mm (SD 23), and histopathological examination showed 70 R0 resections (50 %), while 30-day and 90-day mortality was 3 and 6 %, respectively. Overall, 63 patients (45 %) received adjuvant

chemotherapy. Median survival was 17 months [interquartile range (IQR) 13-21], with a median follow-up of 17 months (IQR 8-29). Cumulative survival at 1, 3 and 5 years was 64, 29, and 22 %, respectively. Independent predictors of worse postoperative survival were R1/R2 resection [hazard ratio (HR) 1.6, 95 % confidence interval (CI) 1.1-2.4], pT3/pT4 stage (HR 1.9, 95 % CI 1.3-2.9), a major complication (HR 1.7, 95 % CI 1.1-2.5), and not receiving adjuvant chemotherapy (HR 1.5, 95 % CI 1.0-2.3).

CONCLUSION: Survival after DP for PDAC is poor and is related to resection margin, tumor stage, surgical complications, and adjuvant chemotherapy. Further studies should assess to what extent prevention of surgical complications and more extensive use of adjuvant chemotherapy can improve survival.

impactfactor: 3.655

Hingh IH de (Ignace)

Pancreatic cancer surgery in elderly patients: Balancing between short-term harm and long-term benefit. A population-based study in the Netherlands

van der Geest LG, Besselink MG, van Gestel YR, Busch OR, de Hingh IH*, de Jong KP, Molenaar IQ, Lemmens VE

Acta Oncol. 2016;55(3):278-85. . Epub 2015 Nov 9

BACKGROUND: At a national level, it is unknown to what degree elderly patients with pancreatic or periampullary carcinoma benefit from surgical treatment compared to their younger counterparts. We investigated resection rates and outcomes after surgical treatment among elderly patients.

METHODS: From the Netherlands Cancer Registry, 20 005 patients diagnosed with primary pancreatic or periampullary cancer in 2005-2013 were selected. The associations between age (<70, 70-74, 75-79,?=80 years) and resection rates were investigated using ?2 tests, and surgical outcomes (30-, 90-day mortality) were evaluated using logistic regression analysis. Overall survival after resection was investigated by means of Kaplan-Meier and Cox proportional hazard regression analysis.

RESULTS: During the study period, resection rates increased in all age groups (<70 years: 20-30%, p?<?0.001;?=80 years: 2-8%, p?<?0.001). Of 3845 patients who underwent tumour resection for pancreatic or periampullary carcinoma, the proportion of octogenarians increased from 3.5% to 5.5% (p?=?0.03), whereas postoperative mortality did not increase (30-day: 6-3%, p?=?0.06; 90-day: 9-8%, p?=?0.21). With rising age, 30-day postoperative mortality increased (4-5-7-8%, respectively, p?<?0.001), while 90-day mortality was 6-10-13-12% (p?<?0.001) and three-year overall survival rates after surgery were 35-33-28-31%, respectively (p?<?0.001). After adjustment for confounding factors, octogenarians who survived 90 days postoperative exhibited an overall survival close to younger patients [hazard ratio (=80 vs.?<70 years)?=?1.21, 95% confidence interval (0.99-1.47), p?=?0.07].

CONCLUSION: Despite higher short-term mortality, octogenarians who underwent pancreatic resection showed long-term survival similar to younger patients. With careful patient screening and counselling of elderly patients, a further increase of resection rates may be combined with improved outcomes.

impactfactor: 3.730

Hingh IH de (Ignace)

Pancreatoduodenectomy with colon resection for cancer: A nationwide retrospective analysis

Marsman EM, de Rooij T, van Eijck CH, Boerma D, Bonsing BA, van Dam RM, van Dieren S, Erdmann JI, Gerhards MF, de Hingh IH*, Kazemier G, Klaase J, Molenaar IQ, Patijn GA, Scheepers JJ, Tanis PJ, Busch OR, Besselink MG; Dutch Pancreatic Cancer Group.

Surgery. 2016 Jul;160(1):145-52. Epub 2016 Apr 5

BACKGROUND: Microscopically radical (R0) resection of pancreatic, periampullary, or colon cancer may occasionally require a pancreatoduodenectomy with colon resection (PD-colon), but the benefits of this procedure have been disputed, and multicenter studies on morbidity and oncologic outcomes after PD-colon are lacking. This study aimed to assess complications and survival after PD-colon.

METHODS: Patients who had undergone PD-colon from 2004-2014 in 1 of 13 centers were analyzed retrospectively. Ninety-day morbidity was scored using the Clavien-Dindo score and the Comprehensive Complication Index (CCI, 0 = no complications, 100 = death). Survival was analyzed per histopathologic diagnosis.

RESULTS: After screening 3,218 consecutive PDs, 50 (1.6%) PD-colon patients (median age 66 years [interquartile range 55-72], 33 [66%] men) were included. Twenty-three (46%) patients had pancreatic ductal adenocarcinoma (PDAC), 19 (38%) other pathology, and 8 (16%) colon cancer. Ninety-day Clavien-Dindo =3 complications occurred in 30 (60%) patients without differences per diagnosis (P > .99); mean CCI was 39 (standard deviation 27). Colonic anastomosis leak, pancreatic fistula, and 90-day mortality occurred in 3 (6%), 2 (4%), and 4 (8%) patients, respectively. A total of 11/23 (48%) patients with PDAC and 8/8 (100%) patients with colon cancer underwent an R0 resection. Patients with PDAC had a median postoperative survival of 13 months (95% confidence interval = 5-21). One-, 3-, and 5-year cumulative survival was 56%, 21%, and 14%, respectively. Median survival after R0 resection for PDAC was 21 months (95% confidence interval = 6-35). All patients with colon cancer were alive at end of follow-up (median 24 months [95% confidence interval = 9-110]).

CONCLUSION: In this retrospective, multicenter study, PD-colon was associated with considerable complications and acceptable survival rates when a tumor negative resection margin was achieved.

impactfactor: 3.309

Hingh IH de (Ignace)

Predictors of Severe Morbidity After Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemotherapy for Patients With Colorectal Peritoneal Carcinomatosis

Simkens GA*, van Oudheusden TR*, Luyer MD*, Nienhuijs SW*, Nieuwenhuijzen GA*, Rutten HJ*, de Hingh IH*

Ann Surg Oncol. 2016 Mar;23(3):833-41. Epub 2015 Oct 6

Voor abstract zie: Chirurgie - Simkens GA

impactfactor: 3.655

Hingh IH de (Ignace)

Preoperative radiochemotherapy versus immediate surgery for resectable and borderline resectable pancreatic cancer (PREOPANC trial): study protocol for a multicentre randomized controlled trial

Versteijne E, van Eijck CH, Punt CJ, Suker M, Zwinderman AH, Dohmen MA, Groothuis KB, Busch OR, Besselink MG, de Hingh IH*, Ten Tije AJ, Patijn GA, Bonsing BA, de Vos-Geelen J, Klaase JM, Festen S, Boerma D, Erdmann JI, Molenaar IQ, van der Harst E, van der Kolk MB, Rasch CR, van Tienhoven G; Dutch Pancreatic Cancer Group (DPCG).

Trials. 2016 Mar 9;17(1):127

BACKGROUND: Pancreatic cancer is the fourth largest cause of cancer death in the United States and Europe with over 100,000 deaths per year in Europe alone. The overall 5-year survival ranges from 2-7 % and has hardly improved over the last two decades. Approximately 15 % of all patients have resectable disease at diagnosis, and of those, only a subgroup has a resectable tumour at surgical exploration. Data from cohort studies have suggested that outcome can be improved by preoperative radiochemotherapy, but data from well-designed randomized studies are lacking. Our PREOPANC phase III trial aims to test the hypothesis that median overall survival of patients with resectable or borderline resectable pancreatic cancer can be improved with preoperative radiochemotherapy.

METHODS/DESIGN: The PREOPANC trial is a randomized, controlled, multicentric superiority trial, initiated by the Dutch Pancreatic Cancer Group. Patients with (borderline) resectable pancreatic cancer are randomized to A: direct explorative laparotomy or B: after negative diagnostic laparoscopy, preoperative radiochemotherapy, followed by explorative laparotomy. A hypofractionated radiation scheme of 15 fractions of 2.4 gray (Gy) is combined with a course of gemcitabine, 1,000 mg/m(2)/dose on days 1, 8 and 15, preceded and followed by a modified course of gemcitabine. The target volumes of radiation are delineated on a 4D CT scan, where at least 95 % of the prescribed dose of 36 Gy in 15 fractions should cover 98 % of the planning target volume. Standard adjuvant chemotherapy is administered in both treatment arms after resection (six cycles in arm A and four in arm B). In total, 244 patients will be randomized in 17 hospitals in the Netherlands. The primary endpoint is overall survival by intention to treat. Secondary endpoints are (R0) resection rate, disease-free survival, time to locoregional recurrence or distant metastases and perioperative complications. Secondary endpoints for the experimental arm are toxicity and radiologic and pathologic response.

DISCUSSION: The PREOPANC trial is designed to investigate whether preoperative radiochemotherapy improves overall survival by means of increased (R0) resection rates in patients with resectable or borderline resectable pancreatic cancer.

impactfactor: *1.859*

Hingh IH de (Ignace)

Short-term outcome in patients treated with cytoreduction and HIPEC compared to conventional colon cancer surgery

Simkens GA*, Verwaal VJ, Lemmens VE, Rutten HJ*, de Hingh IH*

Medicine (Baltimore). 2016 Oct;95(41):e5111

Voor abstract zie: *Chirurgie - Simkens GA*

impactfactor: *1.206*

Hingh IH de (Ignace)

The use of adjuvant chemotherapy for pancreatic cancer varies widely between hospitals: a nationwide population-based analysis

Bakens MJ*, van der Geest LG, van Putten M, van Laarhoven HW, Creemers GJ*, Besselink MG, Lemmens VE, de Hingh IH*; Dutch Pancreatic Cancer Group.
Cancer Med. 2016 Oct;5(10):2825-2831

Voor abstract zie: *Chirurgie - Bakens MJ*
impactfactor: --

Hingh IH de (Ignace)

Treatment-Related Mortality After Cytoreductive Surgery and HIPEC in Patients with Colorectal Peritoneal Carcinomatosis is Underestimated by Conventional Parameters

Simkens GA*, van Oudheusden TR*, Braam HJ, Luyer MD*, Wiezer MJ, van Ramshorst B, Nienhuijs SW*, de Hingh IH*
Ann Surg Oncol. 2016 Jan;23(1):99-105. Epub 2015 Jul 7

Voor abstract zie: *Chirurgie - Simkens GA*
impactfactor: *3.655*

Hingh IH de (Ignace)

Trends in incidence, treatment and survival of small bowel adenocarcinomas between 1999 and 2013: a population-based study in The Netherlands

Legué LM*, Bernards N*, Gerritse SL, van Oudheusden TR*, de Hingh IH*, Creemers GJ*, Ten Tije AJ, Lemmens VE
Acta Oncol. 2016 Sep-Oct;55(9-10):1183-1189. Epub 2016 May 12

Voor abstract zie: *Inwendige geneeskunde - Legue LM*
impactfactor: *3.730*

Hingh IH de (Ignace)

Versican and vascular endothelial growth factor expression levels in peritoneal metastases from colorectal cancer are associated with survival after cytoreductive surgery and hyperthermic intraperitoneal chemotherapy

Sluiter NR, de Cuba EM, Kwakman R, Meijerink WJ, Delis-van Diemen PM, Coupé VM, Beliën JA, Meijer GA, de Hingh IH*, te Velde EA
Clin Exp Metastasis. 2016 Apr;33(4):297-307. Epub 2016 Feb 12

Cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC) can increase survival of colorectal cancer (CRC) patients with peritoneal metastases (PM). This treatment is associated with high morbidity and mortality rates. Therefore, improvement of patient selection is necessary. Assuming that the clinical phenotype is dictated by biological mechanisms, biomarkers could play a crucial role in this process. Since it is unknown whether and to what extent angiogenesis influences the course of disease in patients with PM, we investigated the expression of two angiogenesis-related markers and their relation to overall survival (OS) in CRC patients after CRS and HIPEC. Clinicopathological data and tissue samples were collected from 65 CRC patients with isolated metastases to the peritoneum that underwent CRS and HIPEC. Whole tissue specimens from PM were evaluated for versican (VCAN) expression, VEGF expression and microvessel density (MVD) by immunohistochemistry. The relation between these markers and OS was assessed using univariate and multivariate analysis. Associations between VEGF expression, VCAN expression, MVD and clinicopathological data were tested. High stromal VCAN expression was associated with high MVD (p = 0.001), better resection outcome (p = 0.003) and high T-stage (p = 0.027). High epithelial VCAN expression was associated with MVD (p = 0.007) and

a more complete resection (p < 0.001). In multivariate analysis, simplified peritoneal cancer index (p = 0.001), VEGF expression levels (p = 0.012), age (p = 0.030), epithelial VCAN expression levels (p = 0.042) and lymph node status (p = 0.053) were associated with OS. Concluding, VCAN and VEGF were associated with survival in CRC patients with PM after CRS and HIPEC. Independent validation in a well-defined patient cohort is required to confirm the putative prognostic role of these candidate biomarkers.

impactfactor: *2.728*

Hingh IH de(Ignace)

Volume matters in the systemic treatment of metastatic pancreatic cancer: a population-based study in the Netherlands

Haj Mohammad N, Bernards N*, Besselink MG, Busch OR, Wilmink JW, Creemers GJ*, De Hingh IH*, Lemmens VE, van Laarhoven HW

J Cancer Res Clin Oncol. 2016 Jun;142(6):1353-60. Epub 2016 Mar 19

Voor abstract zie: *Inwendige geneeskunde - Bernards N*

impactfactor: *3.141*

Hingh IH de (Ignace)

Volume-outcome relationships in pancreatoduodenectomy for cancer

van der Geest LG, van Rijssen LB, Molenaar IQ, de Hingh IH*, Groot Koerkamp B, Busch OR, Lemmens VE, Besselink MG Dutch Pancreatic Cancer Group.

HPB (Oxford). 2016 Apr;18(4):317-24. Epub 2016 Feb 11

BACKGROUND: Volume-outcome relationships in pancreatic surgery are well established, but an optimal volume remains to be determined. Studies analyzing outcomes in volume categories exceeding 20 procedures annually are lacking.

STUDY DESIGN: A consecutive 3420 patients underwent PD for primary pancreatic or periampullary carcinoma (2005-2013) and were registered in the Netherlands Cancer Registry. Relationships between hospital volume (<5, 5-19, 20-39 and =40 PDs/year) and mortality and survival were explored.

RESULTS: There was a non-significant decrease in 90-day mortality from 8.1 to 6.7% during the study period (p = 0.23). Ninety-day mortality was 9.7% in centers performing <5 PDs/year (n = 185 patients), 8.9% for 5-19 PDs/year (n = 1432), 7.3% for 20-39 PDs/year (n = 240) and 4.3% for =40 PDs/year (n = 562, p = 0.004). Within volume categories, 90-day mortality did not change over time. After adjustment for confounding factors, significantly lower mortality was found in the =40 category compared to 20-39 PDs/year (OR = 1.72 (1.08-2.74)). Overall survival adjusted for confounding factors was better in the =40 category compared to categories under 20 PDs/year: HR (=40 vs 5-19/year) = 1.24 (1.09-1.42). In the =40 category significantly more patients received adjuvant chemotherapy and had >10 lymph nodes retrieved compared to lower volume categories.

CONCLUSIONS: Volume-outcome relationships in pancreatic surgery persist in centers performing =40 PDs annually, regarding both mortality and survival. The volume plateau for pancreatic surgery has yet to be determined.

impactfactor: *2.918*

Houten MM van den (Marijn)

Cost-effectiveness of supervised exercise therapy compared with endovascular revascularization for intermittent claudication

van den Houten MM*, Lauret GJ, Fakhry F, Fokkenrood HJ, van Asselt AD, Hunink MG, Teijink JA*

Br J Surg. 2016 Nov;103(12):1616-1625.

BACKGROUND: Current guidelines recommend supervised exercise therapy (SET) as the preferred initial treatment for patients with intermittent claudication. The availability of SET programmes is, however, limited and such programmes are often not reimbursed. Evidence for the long-term cost-effectiveness of SET compared with endovascular revascularization (ER) as primary treatment for intermittent claudication might aid widespread adoption in clinical practice.

METHODS: A Markov model was constructed to determine the incremental costs, incremental quality-adjusted life-years (QALYs) and incremental cost-effectiveness ratio of SET versus ER for a hypothetical cohort of patients with newly diagnosed intermittent claudication, from the Dutch healthcare payer's perspective. In the event of primary treatment failure, possible secondary interventions were repeat ER, open revascularization or major amputation. Data sources for model parameters included original data from two RCTs, as well as evidence from the medical literature. The robustness of the results was tested with probabilistic and one-way sensitivity analysis.

RESULTS: Considering a 5-year time horizon, probabilistic sensitivity analysis revealed that SET was associated with cost savings compared with ER (-€6412, 95 per cent credibility interval (CrI) -€11 874 to -€1939). The mean difference in effectiveness was -0·07 (95 per cent CrI -0·27 to 0·16) QALYs. ER was associated with an additional €91 600 per QALY gained compared with SET. One-way sensitivity analysis indicated more favourable cost-effectiveness for ER in subsets of patients with low quality-of-life scores at baseline.

CONCLUSION: SET is a more cost-effective primary treatment for intermittent claudication than ER. These results support implementation of supervised exercise programmes in clinical practice.

impactfactor: 5.596

Houten MM van de (Marijn)

Minimally Important Difference of the Absolute and Functional Claudication Distance in Patients with Intermittent Claudication

van den Houten MM*, Gommans LN*, van der Wees PJ, Teijink JA*

Eur J Vasc Endovasc Surg. 2016 Mar;51(3):404-9. Epub 2015 Dec 20

OBJECTIVE: Disease severity and treatment outcomes in patients with intermittent claudication (IC) are commonly assessed using walking distance measured with a standardized treadmill test. It is unclear what improvement or deterioration in walking distance constitutes a meaningful, clinically relevant, change from the patients' perspective. The purpose of the present study was to estimate the minimally important difference (MID) for the absolute claudication distance (ACD) and functional claudication distance (FCD) in patients with IC.

METHOD: The MIDs were estimated using an anchor based approach with a previously defined clinical anchor derived from scores of the walking impairment questionnaire (WIQ) in a similar IC population. Baseline and 3 month follow up data on WIQ scores and walking distances (ACD and FCD) were used from 202 patients receiving supervised exercise therapy from the 2010 EXITPAD randomized controlled trial. The external WIQ anchor was used to form three distinct categories: patients with "clinically relevant improvement," "clinically relevant deterioration," and "no clinically relevant change." The MIDs for improvement and

deterioration were defined by the upper and lower limits of the 95% confidence interval of the mean change in ACD and FCD, for the group of IC patients that remained unchanged according to the WIQ anchor.

RESULTS: For the estimation of the MID of the ACD and FCD, 102 and 101 patients were included, respectively. The MID for the ACD was 305 m for improvement, and 147 m for deterioration. The MID for the FCD was 250 m for improvement, and 120 m for deterioration.

CONCLUSION: The MIDs for the treadmill measured ACD and FCD can be used to interpret the clinical relevance of changes in walking distances after supervised exercise therapy and may be used in both research and individual care.

impactfactor: *2.912*

Houten MM van den (Marijn)

Treatment of upper-extremity outflow thrombosis

van den Houten MM*, van Grinsven R*, Pouwels S*, Yo LS*, van Sambeek MR*, Teijink JA*

Phlebology. 2016 Mar;31(1 Suppl):28-33

Approximately 10% of all cases of deep vein thrombosis (DVT) occur in the upper extremities. The most common secondary cause of upper-extremity DVT (UEDVT) is the presence of a venous catheter. Primary UEDVT is far less common and usually occurs in patients with anatomic abnormalities of the costoclavicular space causing compression of the subclavian vein, called venous thoracic outlet syndrome (VTOS). Subsequently, movement of the arm results in repetitive microtrauma to the vein and its surrounding structures causing apparent 'spontaneous' thrombosis, or Paget-Schrötter syndrome. Treatment of UEDVT aims at elimination of the thrombus, thereby relieving acute symptoms, and preventing recurrence. Initial management for all UEDVT patients consists of anticoagulant therapy. In patients with Paget-Schrötter syndrome the underlying VTOS necessitates a more aggressive management strategy. Several therapeutic options exist, including catheter-directed thrombolysis, surgical decompression through first rib resection, and percutaneous transluminal angioplasty of the vein. However, several controversies exist regarding their indication and timing.

impactfactor: *1.413*

Jansen I (Ingeborg)

Minimal correlation between physical exercise capacity and daily activity in patients with intermittent claudication

Gommans LN*, Hageman D*, Jansen I*, de Gee R*, van Lummel RC, Verhofstad N*, Scheltinga MR, Teijink JA*

J Vasc Surg. 2016 Apr;63(4):983-9. doi: 10.1016/j.jvs.2015.10.060. Epub 2016 Jan 21

Voor abstract zie: *Chirurgie - Gommans LN*

impactfactor: *3.454*

Kathiravetpillai N (Nilan)

Delaying surgery after neoadjuvant chemoradiotherapy does not significantly influence postoperative morbidity or oncological outcome in patients with oesophageal adenocarcinoma

Kathiravetpillai N*, Koëter M*, van der Sangen MJ*, Creemers GJ*, Luyer MD*, Rutten HJ*, Nieuwenhuijzen GA*

Eur J Surg Oncol. 2016 Aug;42(8):1183-90. Epub 2016 Apr 19

BACKGROUND: Patients with resectable oesophageal cancer are treated with neoadjuvant chemoradiotherapy (nCRT) followed by surgery within 3-8 weeks. In practice, surgery is often delayed for various reasons. The aim of this study was to evaluate whether delaying surgery beyond 8 weeks has an effect on postoperative morbidity, long-term survival, and pathologic response in patients treated for oesophageal ADC.

METHODS: Patients who underwent nCRT followed by surgery, for cT1-3, N0-3, M0 ADC between 2001 and 2014 were retrospectively included from a prospectively obtained database. Patients with a time from the end of nCRT to surgery (TTS) =8 weeks were compared with patients with a TTS >8 weeks.

RESULTS: Of 190 patients, 65 had a TTS =8 weeks, and 125 had a TTS >8 weeks. Patient characteristics were comparable for both groups, but patients with TTS >8 weeks exhibited higher ASA scores (p = 0.013) and more comorbidities (p = 0.007). Multivariate analysis revealed that TTS did not significantly influence postoperative morbidity, pathologic complete response rates, and five-year survival rates (42% in patients with TTS =8 weeks and 37% in patients with TTS >8 weeks).

CONCLUSIONS: Delaying surgery beyond 8 weeks after nCRT did not significantly influence postoperative morbidity, pathologic response, and survival in patients with non-metastatic ADC. Therefore, it appears reasonable to postpone surgery beyond 8 weeks in patients who have not yet recovered from nCRT. However, if the patient is fit for surgery, postponing surgery does not have any additional advantages.

impactfactor: 2.940

Koëter M (Marijn)

Delaying surgery after neoadjuvant chemoradiotherapy does not significantly influence postoperative morbidity or oncological outcome in patients with oesophageal adenocarcinoma

Kathiravetpillai N*, Koëter M*, van der Sangen MJ*, Creemers GJ*, Luyer MD*, Rutten HJ*, Nieuwenhuijzen GA*

Eur J Surg Oncol. 2016 Aug;42(8):1183-90. Epub 2016 Apr 19

Voor abstract zie: Chirurgie - Kathiravetpillai N

impactfactor: 2.940

Koëter M (Marijn)

Internal and External Validation of a multivariable Model to Define Hospital-Acquired Pneumonia After Esophagectomy

Weijs TJ*, Seesing MF, van Rossum PS, Koëter M*, van der Sluis PC, Luyer MD*, Ruurda JP, Nieuwenhuijzen GA*, van Hillegersberg R.

J Gastrointest Surg. 2016 Apr;20(4):680-7. Epub 2016 Feb 16

Voor abstract zie: Chirurgie - Weijs TJ

impactfactor: 2.807

Koëter M (Marijn)

Perioperative Treatment, Not Surgical Approach, Influences Overall Survival in Patients with Gastroesophageal Junction Tumors: A Nationwide, Population-Based Study in The Netherlands

Koëter M*, Parry K, Verhoeven RH, Luyer MD*, Ruurda JP, van Hillegersberg R, Lemmens VE, Nieuwenhuijzen GA*

Ann Surg Oncol. 2016 May;23(5):1632-8. Epub 2016 Jan 4

BACKGROUND: Resectable gastroesophageal junction (GEJ) tumors are treated either with an esophageal-cardia resection or with gastrectomy. The difference in outcome between these two treatment modalities is unknown; Therefore, the aim of this study was to evaluate population-based treatment strategies for patients with resectable adenocarcinomas of the GEJ and to compare the oncological outcomes.

METHODS: Patients with potentially resectable GEJ tumors diagnosed between 2005 and 2012 were selected from the nationwide, population-based Netherlands Cancer Registry. Differences between patients were compared using the ? (2) test, and survival curves were generated using the Kaplan-Meier method. Overall multivariate survival was assessed using Cox regression analyses.

RESULTS: Patients treated with esophagectomy (n = 939) were significantly younger than patients treated with gastrectomy (n = 257; 64 vs. 66 years; p < 0.001), and no differences were noted regarding lymph node yield, lymph node ratio, and radicality. Patients treated with an esophagectomy or gastrectomy exhibited comparable overall 5-year survival rates (36 vs. 33 %, respectively; p = 0.250). Multivariate analysis showed that patients receiving perioperative treatment and gastrectomy exhibited similar overall survival rates compared with patients receiving perioperative treatment and esophagectomy [hazard ratio (HR) 1.9, 95 % confidence interval (CI) 0.7-1.3; p = 0.908]; however, patients receiving esophagectomy alone (HR 1.3, 95 % CI 1.3-1.8; p = 0.002) or gastrectomy alone (HR 1.8, 95 % CI 1.4-2.4; p < 0.001) exhibited a significantly worse overall survival.

CONCLUSIONS: The chosen type of surgery (esophagectomy or gastrectomy) did not influence the overall survival in our cohort of patients with GEJ tumors. The administration of perioperative chemo(radio)therapy improved survival regardless of the surgical approach.

impactfactor: 3.655

Kusters M (Miranda)

Local Recurrence in the Lateral Lymph Node Compartment: Improved Outcomes with Induction Chemotherapy Combined with Multimodality Treatment.

Kusters M*, Bosman SJ*, Van Zoggel DM*, Nieuwenhuijzen GA*, Creemers GJ*, Van den Berg HA*, Rutten HJ*

Ann Surg Oncol. 2016 Jun;23(6):1883-9

BACKGROUND: Lateral nodal disease is of major importance in the treatment of rectal cancer in the East, but a mostly neglected entity in the West. In this article, the treatment of recurrences in the lateral compartment (latLRs) in a national tertiary referral center is evaluated.

METHODS: Of 214 patients with locally recurrent rectal cancer who underwent multimodality treatment in the Catharina Hospital in the last 10 years, a total of 51 patients with latLR were selected (the latLR region was classified as upper, middle, or lower). Thirteen (25 %) of these patients underwent induction chemotherapy (ICT) prior to chemo(re)irradiation.

RESULTS: LatLRs occurred mainly after low and N+ primary tumors. Seven (14 %) patients had a complete response (pCR) and 28 (55 %) underwent an R0 resection. Patients with a lower latLR had the highest chance of undergoing an abdominoperineal resection and

resection of anterior organs. ICT resulted in a 31 % pCR rate compared with 8 % without ICT (p = 0.039). Patients who received ICT had an 85 % R0 resection rate, while this was 45 % in patients who did not receive ICT (p = 0.013). The 5-year local re-recurrence (LRR) rate was 64.3 %, and overall survival (OS) was 34.2 %; the only factor improving these was an R0 resection. Five-year survival after multivariate analyses was 10.3 % after an R+ resection compared with 66.8 % after an R0 resection (p = 0.011).

CONCLUSIONS: LatLRs impose a major surgical challenge and result in high LRR and low OS. More R0 resections can possibly be achieved with ICT, which is the only factor that can improve LRR and OS.

impactfactor: 3.655

Kusters M (Miranda)

The treatment of all MRI-defined low rectal cancers in a single expert centre over a 5-year period: is there room for improvement?

Kusters M*, Slater, Betts M, Hompes R, Guy RJ, Jones OM, George BD, Lindsey I, Mortensen NJ, James DR, Cunningham C

Colorectal Dis. 2016 Nov;18(11):O397-O404

AIM. Outcomes following treatment for low rectal cancer still remain inferior to those for upper rectal cancer. A clear definition of 'low' rectal cancer is lacking and consensus is more likely using a definition based on MRI criteria. This study aimed to determine disease presentation and treatment outcome of low rectal cancer based on a strict anatomical definition.

METHOD: A low rectal cancer was defined as one with a lower border below the pelvic attachment of the levator muscles on sagittal MRI. One hundred and eighty consecutive patients with tumours defined by this criterion between 2006 and 2011 were identified from a prospectively managed departmental database.

RESULTS: One hundred and eighteen patients (66%) underwent curative resection and 12 (7%) palliative resection. Eleven patients (6%) were entered into a 'watch and wait' (W&W) protocol; 10 others (5%) were not fit to undergo any operation. Some 26 patients (14%) had nonresectable local or metastatic disease. An R0 resection was the most important factor influencing survival after curative surgery. R+ resections occurred in 12% of non-abdominoperineal excisions, 11% of abdominoperineal excisions and 47% of extended resections. Overall survival was similar in the curative resections compared with the W&W patients. In 23 of the 96 (24%) treated with neoadjuvant chemoradiotherapy there was a persistent clinical or a pathological complete response.

CONCLUSION: In curative resections, a clear margin is the most important determinant of survival. In 24% of the patients treated with neoadjuvant chemoradiotherapy, surgery could potentially have been avoided. There is scope for improvement in the treatment of locally advanced rectal cancers.

impactfactor: 2.452

Lauret GJ (Gert-Jan)

Development of quality indicators for physiotherapy for patients with PAOD in the Netherlands: a Delphi study

Gijsbers HJ, Lauret GJ*, van Hofwegen A, van Dockum TA, Teijink JA*, Hendriks HJ

Physiotherapy. 2016 Jun;102(2):196-201. Epub 2015 Jun 19

OBJECTIVES: The aim of the study was to develop quality indicators (QIs) for physiotherapy management of patients with intermittent claudication (IC) in the Netherlands. DESIGN: As part of an international six-step method to develop QIs, an online survey Delphi-

procedure was completed. After two Delphi-rounds a validation round was performed. PARTICIPANTS: Twenty-six experts were recruited to participate in this study. Twenty-four experts completed two Delphi-rounds. A third round was conducted inviting 1200 qualified and registered physiotherapists of the Dutch integrated care network 'Claudicationet' to validate a draft set of quality indicators.

RESULTS: Out of 83 potential QIs in the Dutch physiotherapy guideline on 'Intermittent claudication', consensus among the experts selected nine indicators. All nine quality indicators were validated by 300 physiotherapists.

CONCLUSION: A final set of nine indicators was derived from (1) a Dutch evidence-based physiotherapy guideline, (2) an expert Delphi procedure and (3) a validation by 300 physiotherapists. This set of indicators should be validated in clinical practice.

impactfactor: *1.814*

Linden FT van der (Fred)

Altered joint kinematics and increased electromyographic muscle activity during walking in patients with intermittent claudication

Gommans LN*, Smid AT*, Scheltinga MR, Brooijmans FA, van Disseldorp EM*, van der Linden FT*, Meijer K, Teijink JA*

J Vasc Surg. 2016 Mar;63(3):664-72. Epub 2016 Jan 9

Voor abstract zie: *Chirurgie - Gommans LN*

impactfactor: *3.454*

Luyer MD (Misha)

Acetylcholine-producing T cells in the intestine regulate antimicrobial peptide expression and microbial diversity

Dhawan S, De Palma G, Willemze RA, Hilbers FW, Verseijden C, Luyer MD*, Nuding S, Wehkamp J, Souwer Y, de Jong EC, Seppen J, van den Wijngaard RM, Wehner S, Verdu E, Bercik P, de Jonge WJ

Am J Physiol Gastrointest Liver Physiol. 2016 Nov 1;311(5):G920-G933

The cholinergic anti-inflammatory pathway reduces systemic tumor necrosis factor (TNF) via acetylcholine-producing memory T cells in the spleen. These choline acetyltransferase (ChAT)-expressing T cells are also found in the intestine, where their function is unclear. We aimed to characterize these cells in mouse and human intestine and delineate their function. We made use of the ChAT-enhanced green fluorescent protein (eGFP) reporter mice. CD4Cre mice were crossed to ChATfl/fl mice to achieve specific deletion of ChAT in CD4+ T cells. We observed that the majority of ChAT-expressing T cells in the human and mouse intestine have characteristics of Th17 cells and coexpress IL17A, IL22, and RORC The generation of ChAT-expressing T cells was skewed by dendritic cells after activation of their adrenergic receptor ß2 To evaluate ChAT T cell function, we generated CD4-specific ChAT-deficient mice. CD4ChAT-/- mice showed a reducedhdhsdsjsdklk;l level of epithelial antimicrobial peptides lysozyme, defensin A, and ang4, which was associated with an enhanced bacterial diversity and richness in the small intestinal lumen in CD4ChAT-/- mice. We conclude that ChAT-expressing T cells in the gut are stimulated by adrenergic receptor activation on dendritic cells. ChAT-expressing T cells may function to mediate the host AMP secretion, microbial growth and expansion.

impactfactor: *3.297*

Luyer MD (Misha)

An umbilical surprise: a collective review on umbilical pilonidal sinus : An uncommon alternative diagnosis in common umbilical symptoms

Ponten JB, Ponten JE*, Luyer MD*, Nienhuijs SW*
Hernia. 2016 Aug;20(4):497-504. Epub 2016 May 19

Voor abstract zie: *Chirurgie - Ponten JE*
impactfactor: *2.054*

Luyer MD (Misha)

Aortic Calcification Increases the Risk of Anastomotic Leakage After Ivor-Lewis Esophagectomy

Goense L, van Rossum PS, Weijs TJ*, van Det MJ, Nieuwenhuijzen GA*, Luyer MD*, van Leeuwen MS, van Hillegersberg R, Ruurda JP, Kouwenhoven EA
Ann Thorac Surg. 2016 Jul;102(1):247-52. Epub 2016 Apr 25

Voor abstract zie: *Chirurgie - Weijs TJ*
impactfactor: *2.975*

Luyer MD(Misha)

Beneficial Effects of Early Enteral Nutrition After Major Rectal Surgery: A Possible Role for Conditionally Essential Amino Acids? Results of a Randomized Clinical Trial

van Barneveld KW, Smeets BJ*, Heesakkers FF*, Bosmans JW, Luyer MD*, Wasowicz D*, Bakker JA, Roos AN*, Rutten HJ*, Bouvy ND, Boelens PG* Crit Care Med. 2016 Jun;44(6):e353-61

Voor abstract zie: *Chirurgie - Smeets B*
impactfactor: *7.422*

Luyer MD (Misha)

Comparative Study of Performance in Ultrasonic Tissue Dissection for Sleeve Gastrectomy: Wired versus Cordless

van Rutte PW*, Lup SL, Luyer MD*, Jakimowicz JJ, Goossens RH, Nienhuijs SW*
Surg Technol Int. 2016 Apr;28:111-6

Voor abstract zie: *Chirurgie - Rutte PW van*
impactfactor: *--*

Luyer MD (Misha)

Correlates of physical activity among colorectal cancer survivors: results from the longitudinal population-based profiles registry

van Putten M, Husson O, Mols F, Luyer MD*, van de Poll-Franse LV, Ezendam NP
Support Care Cancer. 2016 Feb;24(2):573-83. Epub 2015 Jul 16

PURPOSE: Physical activity can improve health of cancer survivors. To increase physical activity levels among colorectal cancer (CRC) survivors, we need to understand which factors affect physical activity. Therefore, this study examined the longitudinal relationship between symptom-related, functioning-related, and psychological barriers and socio-demographic and clinical factors with physical activity among CRC survivors.

METHODS: CRC survivors identified from the population-based Eindhoven Cancer Registry (ECR) diagnosed between 2000 and 2009 were included. Survivors completed validated questionnaires measuring moderate-to-vigorous physical activity (MVPA) and barriers in 2010(T1), 2011(T2), and 2012(T3). Linear-mixed models and linear regression techniques were used.

RESULTS: Response rates were 74 % (N?=?2451, T1); 47 % (N?=?1547, T2); and 41 % (N?=?1375, T3). Several factors were negatively associated with MVPA: symptom-related barriers (e.g., fatigue, dyspnea, chemotherapy side effects, pain, appetite loss, and weight loss); psychological barriers (i.e., depressive symptoms and anxiety); functioning-related barriers (e.g., low physical or role functioning, unfavorable future perspective); socio-demographic (i.e., older age, female, no partner); and clinical factors (i.e., obesity). However, no within-subject effects were significantly associated with MVPA. Groups of functioning-related barriers, socio-demographic factors, symptom-related barriers, psychological barriers, and clinical factors explained 11, 3.9, 3.8, 2.4, and 2.2 % of the variance in MVPA at T1, respectively.

CONCLUSIONS: Several functioning-related and symptom-related barriers and few socio-demographic factors were associated with physical activity among CRC survivors. Future interventions to promote physical activity among CRC survivors could benefit by taking into account functioning aspects and symptoms of cancer and its treatment, and assess the causal direction of these associations.

impactfactor: *2.535*

Luyer MD (Misha)

Delaying surgery after neoadjuvant chemoradiotherapy does not significantly influence postoperative morbidity or oncological outcome in patients with oesophageal adenocarcinoma

Kathiravetpillai N*, Koëter M*, van der Sangen MJ*, Creemers GJ*, Luyer MD*, Rutten HJ*, Nieuwenhuijzen GA*

Eur J Surg Oncol. 2016 Aug;42(8):1183-90. Epub 2016 Apr 19

Voor abstract zie: *Chirurgie - Kathiravetpillai N*

impactfactor: *2.940*

Luyer MD (Misha)

Development of a Prognostic Nomogram for Patients with Peritoneally Metastasized Colorectal Cancer Treated with Cytoreductive Surgery and HIPEC

Simkens GA*, van Oudheusden TR*, Nieboer D, Steyerberg EW, Rutten HJ*, Luyer MD*, Nienhuijs SW*, de Hingh IH*

Ann Surg Oncol. 2016 Dec;23(13):4214-4221

Voor abstract zie: *Chirurgie - Simkens GA*

impactfactor: *3.655*

Luyer MD (Misha)

Impact of a Nationwide Training Program in Minimally Invasive Distal Pancreatectomy (LAELAPS)

de Rooij T, van Hilst J, Boerma D, Bonsing BA, Daams F, van Dam RM, Dijkgraaf MG, van Eijck CH, Festen S, Gerhards MF, Koerkamp BG, van der Harst E, de Hingh IH*, Kazemier G, Klaase J, de Kleine RH, van Laarhoven CJ, Lips DJ, Luyer MD*, Molenaar IQ, Patijn GA, Roos D, Scheepers JJ, van der Schelling GP, Steenvoorde P, Vriens MR, Wijsman JH, Gouma DJ, Busch OR, Hilal MA, Besselink MG;

Dutch Pancreatic Cancer Group.

Ann Surg. 2016 Nov;264(5):754-762

Voor abstract zie: *Chirurgie - Hingh IH de*

impactfactor: *8.569*

Luyer MD (Misha)

Immediate Postoperative Oral Nutrition Following Esophagectomy: A Multicenter Clinical Trial

Weijs TJ*, Berkelmans GH*, Nieuwenhuijzen GA*, Dolmans AC*, Kouwenhoven EA, Rosman C, Ruurda JP, van Workum F, van Det MJ, Silva Corten LC, van Hillegersberg R, Luyer MD*

Ann Thorac Surg. 2016 Oct;102(4):1141-8. doi: Epub 2016 Jun 17

Voor abstract zie: *Chirurgie - Weijs TJ*

impactfactor: *2.975*

Luyer MD (Misha)

Impact of a Nationwide Training Program in Minimally Invasive Distal Pancreatectomy (LAELAPS)

de Rooij T, van Hilst J, Boerma D, Bonsing BA, Daams F, van Dam RM, Dijkgraaf MG, van Eijck CH, Festen S, Gerhards MF, Koerkamp BG, van der Harst E, de Hingh IH*, Kazemier G, Klaase J, de Kleine RH, van Laarhoven CJ, Lips DJ, Luyer MD*, Molenaar IQ, Patijn GA, Roos D, Scheepers JJ, van der Schelling GP, Steenvoorde P, Vriens MR, Wijsman JH, Gouma DJ, Busch OR, Abu Hilal M, Besselink MG; Dutch Pancreatic Cancer Group.

Ann Surg. 2016 Aug 1;264(5):754–62

Voor abstract zie: *Chirurgie - Hingh IH de*

impactfactor: *8.569*

Luyer MD (Misha)

Internal and External Validation of a multivariable Model to Define Hospital-Acquired Pneumonia After Esophagectomy

Weijs TJ*, Seesing MF, van Rossum PS, Koëter M*, van der Sluis PC, Luyer MD*, Ruurda JP, Nieuwenhuijzen GA*, van Hillegersberg R.

J Gastrointest Surg. 2016 Apr;20(4):680-7. Epub 2016 Feb 16

Voor abstract zie: *Chirurgie - Weijs TJ*

impactfactor: *2.807*

Luyer MD(Misha)

Intrathoracic versus Cervical ANastomosis after minimally invasive esophagectomy for esophageal cancer: study protocol of the ICAN randomized controlled trial

Van Workum F, Bouwense SA, Luyer MD*, Nieuwenhuijzen GA*, van der Peet DL, Daams F, Kouwenhoven EA, van Det MJ, van den Wildenberg FJ, Polat F, Gisbertz SS, Henegouwen MI, Heisterkamp J, Langenhoff BS, Martijnse IS, Grutters JP, Klarenbeek BR, Rovers MM, Rosman C

Trials. 2016 Oct 18;17(1):505

BACKGROUND: Currently, a cervical esophagogastric anastomosis (CEA) is often performed after minimally invasive esophagectomy (MIE). However, the CEA is associated with a considerable incidence of anastomotic leakage requiring reintervention or reoperation and moderate functional results. An intrathoracic esophagogastric anastomosis (IEA) might reduce the incidence of anastomotic leakage, improve functional results and reduce costs. The objective of the ICAN trial is to compare anastomotic leakage and postoperative morbidity, mortality, quality of life and cost-effectiveness between CEA and IEA after MIE.

METHODS/DESIGN: The ICAN trial is an open randomized controlled multicentre superiority trial, comparing CEA (control group) with IEA (intervention group) after MIE. All patients with esophageal cancer planning to undergo curative MIE are considered for inclusion. A total of

200 patients will be included in the study and randomized between the groups in a 1:1 ratio. The primary outcome is anastomotic leakage requiring reintervention or reoperation, and secondary outcomes are (amongst others) other postoperative complications, new onset of organ failure, length of stay, mortality, benign strictures requiring dilatation, quality of life and cost-effectiveness.

DISCUSSION: We hypothesize that an IEA after MIE is associated with a lower incidence of anastomotic leakage requiring reintervention or reoperation than a CEA. The trial is also designed to give answers to additional research questions regarding a possible difference in functional outcome, quality of life and cost-effectiveness.

impactfactor: *1.859*

Luyer MD (Misha)

Long-term results after revisions of failed primary vertical banded gastroplasty

van Wezenbeek MR*, Smulders FJ*, de Zoete JP*, Luyer MD*, van Montfort G*, Nienhuijs SW*

World J Gastrointest Surg. 2016 Mar 27;8(3):238-45 .

Voor abstract zie: *Chirurgie - Wezenbeek MR van*

impactfactor: *2.807*

Luyer MD (Misha)

Near-infrared fluorescence cholangiography assisted laparoscopic cholecystectomy versus conventional laparoscopic cholecystectomy

van den Bos J, Schols RM, Luyer MD*, van Dam RM, Vahrmeijer AL, Meijerink WJ, Gobardhan PD, van Dam GM, Bouvy ND, Stassen LP

BMJ Open. 2016 Aug 26;6(8):e011668

INTRODUCTION: Misidentification of the extrahepatic bile duct anatomy during laparoscopic cholecystectomy (LC) is the main cause of bile duct injury. Easier intraoperative recognition of the biliary anatomy may be accomplished by using near-infrared fluorescence (NIRF) imaging after an intravenous injection of indocyanine green (ICG). Promising results were reported for successful intraoperative identification of the extrahepatic bile ducts compared to conventional laparoscopic imaging. However, routine use of ICG fluorescence laparoscopy has not gained wide clinical acceptance yet due to a lack of high-quality clinical data. Therefore, this multicentre randomised clinical study was designed to assess the potential added value of the NIRF imaging technique during LC.

METHODS AND ANALYSIS: A multicentre, randomised controlled clinical trial will be carried out to assess the use of NIRF imaging in LC. In total, 308 patients scheduled for an elective LC will be included. These patients will be randomised into a NIRF imaging laparoscopic cholecystectomy (NIRF-LC) group and a conventional laparoscopic cholecystectomy (CLC) group. The primary end point is time to 'critical view of safety' (CVS). Secondary end points are 'time to identification of the cystic duct (CD), of the common bile duct, the transition of CD in the gallbladder and the transition of the cystic artery in the gallbladder, these all during dissection of CVS'; 'total surgical time'; 'intraoperative bile leakage from the gallbladder or cystic duct'; 'bile duct injury'; 'postoperative length of stay', 'complications due to the injected ICG'; 'conversion to open cholecystectomy'; 'postoperative complications (until 90 days postoperatively)' and 'cost-minimisation'.

ETHICS AND DISSEMINATION: The protocol has been approved by the Medical Ethical Committee of Maastricht University Medical Center/Maastricht University; the trial has been registered at ClinicalTrials.gov. The findings of this study will be disseminated widely through peer-reviewed publications and conference presentations.

impactfactor: *2.562*

Luyer MD (Misha)

Nutritional route in oesophageal resection trial II (NUTRIENT II): study protocol for a multicentre open-label randomised controlled trial

Berkelmans GH*, Wilts BJ*, Kouwenhoven EA, Kumagai K, Nilsson M, Weijs TJ*, Nieuwenhuijzen GA*, van Det MJ, Luyer MD*

BMJ Open. 2016 Aug 5;6(8):e011979

Voor abstract zie: *Chirurgie - Berkelmans GH*

impactfactor: *2.562*

Luyer MD (Misha)

Perioperative Treatment, Not Surgical Approach, Influences Overall Survival in Patients with Gastroesophageal Junction Tumors: A Nationwide, Population-Based Study in The Netherlands

Koëter M*, Parry K, Verhoeven RH, Luyer MD*, Ruurda JP, van Hillegersberg R, Lemmens VE, Nieuwenhuijzen GA*

Ann Surg Oncol. 2016 May;23(5):1632-8. Epub 2016 Jan 4

Voor abstract zie: *Chirurgie - Koëter M*

impactfactor: *3.655*

Luyer MD (Misha)

Predictors for the occurrence of major complications after primary Roux-en-Y gastric bypass surgery

van Wezenbeek MR*, Smulders FJ*, Luyer MD*, van Montfort G*, Vanhimbeeck FJ*, Nienhuijs SW*

Minerva Chir. 2016 Oct;71(5):286-92. Epub 2016 Jun 29

Voor abstract zie: *Chirurgie - Wezenbeek MR van*

impactfactor: *0.877*

Luyer MD (Misha)

Predictors of Severe Morbidity After Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemotherapy for Patients With Colorectal Peritoneal Carcinomatosis

Simkens GA*, van Oudheusden TR*, Luyer MD*, Nienhuijs SW*, Nieuwenhuijzen GA*, Rutten HJ*, de Hingh IH*

Ann Surg Oncol. 2016 Mar;23(3):833-41. Epub 2015 Oct 6

Voor abstract zie: *Chirurgie - Simkens GA*

impactfactor: *3.655*

Luyer MD (Misha)

Preserving the pulmonary vagus nerve branches during thoracoscopic esophagectomy

Weijs TJ, Ruurda JP, Luyer MD*, Nieuwenhuijzen GA*, van der Horst S, Bleys RL, van Hillegersberg R

Surg Endosc. 2016 Sep;30(9):3816-22. Epub 2015 Dec 10

BACKGROUND: Pulmonary vagus branches are transected as part of a transthoracic esophagectomy and lymphadenectomy for cancer. This may contribute to the development of postoperative pulmonary complications. Studies in which sparing of the pulmonary vagus nerve branches during thoracoscopic esophagectomy is investigated are lacking. Therefore, this study aimed to determine the feasibility and pitfalls of sparing pulmonary vagus nerve branches during thoracoscopic esophagectomy.

METHODS: In 10 human cadavers, a thoracoscopic esophagectomy was performed while sparing the pulmonary vagus nerve branches. The number of intact nerve branches, their distribution over the lung lobes and the number and location of the remaining lymph nodes in the relevant esophageal lymph node stations (7, 10R and 10L) were recorded during microscopic dissection.

RESULTS: A median of 9 (range 5-16) right pulmonary vagus nerve branches were spared, of which 4 (0-12) coursed to the right middle/inferior lung lobe. On the left side, 10 (3-12) vagus nerve branches were spared, of which 4 (2-10) coursed to the inferior lobe. In 8 cases, lymph nodes were left behind, at stations 10R and 10L while sparing the vagus nerve branches. Lymph nodes at station 7 were always removed.

CONCLUSIONS: Sparing of pulmonary vagus nerve branches during thoracoscopic esophagectomy is feasible. Extra care should be given to the dissection of peribronchial lymph nodes, station 10R and 10L.

impactfactor: *3.540*

Luyer MD (Misha)

Stage-directed individualized therapy in esophageal cancer

Goense L, van Rossum PS, Kandioler D, Ruurda JP, Goh KL, Luyer MD*, Krasna MJ, van Hillegersberg R

Ann N Y Acad Sci. 2016 Oct;1381(1):50-65

Esophageal cancer is the eighth most common cancer worldwide, and the incidence of esophageal carcinoma is rapidly increasing. With the advent of new staging and treatment techniques, esophageal cancer can now be managed through various strategies. A good understanding of the advances and limitations of new staging techniques and how these can guide in individualizing treatment is important to improve outcomes for esophageal cancer patients. This paper outlines the recent progress in staging and treatment of esophageal cancer, with particularly attention to endoscopic techniques for early-stage esophageal cancer, multimodality treatment for locally advanced esophageal cancer, assessment of response to neoadjuvant treatment, and the role of cervical lymph node dissection. Furthermore, advances in robot-assisted surgical techniques and postoperative recovery protocols that may further improve outcomes after esophagectomy are discussed.

impactfactor: *4.518*

Luyer MD (Misha)

Transection versus preservation of the neurovascular bundle of the lesser omentum in primary Roux-en-Y gastric bypass surgery

van Wezenbeek MR*, van Oudheusden TR*, Smulders JF*, Nienhuijs SW*, Luyer MD*

Surg Obes Relat Dis. 2016 Feb;12(2):283-9. Epub 2015 Aug 3

Voor abstract zie: *Chirurgie - Wezenbeek MR van*

impactfactor: *3.540*

Luyer MD (Misha)

Treatment-Related Mortality After Cytoreductive Surgery and HIPEC in Patients with Colorectal Peritoneal Carcinomatosis is Underestimated by Conventional Parameters

Simkens GA*, van Oudheusden TR*, Braam HJ, Luyer MD*, Wiezer MJ, van Ramshorst B, Nienhuijs SW*, de Hingh IH*

Ann Surg Oncol. 2016 Jan;23(1):99-105. Epub 2015 Jul 7

Voor abstract zie: *Chirurgie - Simkens GA*

impactfactor: *3.655*

Maaskant-Braat AJ (Sabrina)

Axillary Response Monitoring After Neoadjuvant Chemotherapy in Breast Cancer: Can We Avoid the Morbidity of Axillary Treatment?

Vugts G*, Schipper RJ*, Maaskant-Braat AJ*, Smidt ML, Nieuwenhuijzen GA*
Ann Surg. 2016 Feb;263(2):e28-9.Epub 2014 Nov 17

Geen abstract beschikbaar

impactfactor: 8.569

Maaskant-Braat AJ (Sabrina)

Differences in Response and Surgical Management with Neoadjuvant Chemotherapy in Invasive Lobular Versus Ductal Breast Cancer

Truin W, Vugts G*, Roumen RM, Maaskant-Braat AJ*, Nieuwenhuijzen GA*, van der Heiden-van der Loo M, Tjan-Heijnen VC, Voogd AC.
Ann Surg Oncol. 2016 Jan;23(1):51-7.Epub 2015 May 16

Voor abstract zie: Chirurgie - Vugts G

impactfactor: 3.655

Mannetje Y 't (Yannick)

A 15-Year Single-Center Experience of Endovascular Repair for Elective and Ruptured Abdominal Aortic Aneurysms

Broos PP*, 't Mannetje YW*, Stokmans RA*, Houterman S*, Corte G*, Cuypers PW*, Teijink JA*, van Sambeek MR*
J Endovasc Ther. 2016 Aug;23(4):566-73. Epub 2016 May 13

Voor abstract zie: Chirurgie - Broos PP

impactfactor: 3.128

Mannetje Y 't (Yannick)

A ruptured abdominal aortic aneurysm that requires preoperative cardiopulmonary resuscitation is not necessarily lethal

Broos PP*, 't Mannetje YW*, Loos MJ, Scheltinga MR, Bouwman LH, Cuypers PW*, van Sambeek MR*, Teijink JA* J Vasc Surg. 2016 Jan;63(1):49-54

Voor abstract zie: Chirurgie - Broos PP

impactfactor: 3.454

Mannetje Y 't (Yannick)

Late single-center outcome of the Talent Abdominal Stent Graft after a decade of follow-up

't Mannetje YW*, Broos PP*, van Poppel RF*, van Sambeek MR*, Teijink JA*, Cuypers PW*
J Vasc Surg. 2016 Sep;64(3):557-62. Epub 2016 Mar 16

OBJECTIVE: Lifelong yearly surveillance is advised after endovascular aneurysm repair (EVAR) for abdominal aortic aneurysms. This follow-up requires a substantial amount of health care resources. The aim of this paper was to assess the occurrence of stent graft-related complications and secondary interventions during a minimum 10-year follow-up after elective EVAR.

METHODS: Patients who were treated in a high-volume endovascular center in The Netherlands with the Talent infrarenal stent graft (Medtronic Vascular, Santa Rosa, Calif) between June 1999 and February 2005 were included. Patients with previous aortic surgery or emergency interventions were excluded. Our primary outcome was clinical success up to 10 years. Secondary end points were technical success and survival.

RESULTS: A total of 149 patients were included; 91.9% were male. The mean age was 70.2 ± 7.8 years. A stent graft was implanted in 98% of patients; technical success was achieved in 89.9%. Clinical success after 30 days, 1 year, 5 years, and 10 years was 81.1%, 74.3%, 70.3%, and 65.5%, respectively. In 30 patients (20.7%), a secondary intervention was required; 80.0% of first secondary interventions occurred within the first 5 years. Six late conversions were necessary because of stent graft infection (2), migration (2), or persisting endoleak (2). The 5- and 10-year overall survival rates were 55.2% and 38.6%, respectively.

CONCLUSIONS: The risk of EVAR-related complication is highest in the first 5 years. Consequently, the main focus should be on that period; further follow-up must not be neglected, as complications occur up to 10 years after treatment.

impactfactor: 3.454

Montfort G van (Gust)

Expanded allogeneic adipose-derived mesenchymal stem cells (Cx601) for complex perianal fistulas in Crohn's disease: a phase 3 randomised, double-blind controlled trial

Panés J, García-Olmo D, Van Assche G, Colombel JF, Reinisch W, Baumgart DC, Dignass A, Nachury M, Ferrante M, Kazemi-Shirazi L, Grimaud JC, de la Portilla F, Goldin E, Richard MP, Leselbaum A, Danese S; ADMIRE CD Study Group Collaborators: Gilissen LP, Montfort G van

Lancet. 2016 Sep 24;388(10051):1281-90

Voor abstract zie: Maag-darm-leverziekten - Gilissen LP

impactfactor: 44.002

Montfort G van (Gust)

Long-term results after revisions of failed primary vertical banded gastroplasty

van Wezenbeek MR*, Smulders FJ*, de Zoete JP*, Luyer MD*, van Montfort G*, Nienhuijs SW*

World J Gastrointest Surg. 2016 Mar 27;8(3):238-45

Voor abstract zie: Chirurgie - Wezenbeek MR van

Impactfactor : 2.807

Montfort G van (Gust)

Predictors for the occurrence of major complications after primary Roux-en-Y gastric bypass surgery

van Wezenbeek MR*, Smulders FJ*, Luyer MD*, VAN Montfort G*, Vanhimbeeck FJ*, Nienhuijs SW*

Minerva Chir. 2016 Oct;71(5):286-92. Epub 2016 Jun 29

Voor abstract zie: Chirurgie - Wezenbeek MR van

impactfactor: 0.877

Nienhuijs SW (Simon)

A Specifically Designed Stent for Anastomotic Leaks after Bariatric Surgery: Experiences in a Tertiary Referral Hospital

van Wezenbeek MR*, de Milliano MM*, Nienhuijs SW*, Friederich P*, Gilissen LP*

Obes Surg. 2016 Aug;26(8):1875-80. Epub 2015 Dec 24

Voor abstract zie: Chirurgie - Wezenbeek MR van

impactfactor: 3.346

Nienhuijs SW (Simon)

An umbilical surprise: a collective review on umbilical pilonidal sinus : An uncommon alternative diagnosis in common umbilical symptoms

Ponten JB, Ponten JE*, Luyer MD*, Nienhuijs SW*.
Hernia. 2016 Aug;20(4):497-504

Voor abstract zie: *Chirurgie - Ponten JE*
impactfactor: *2.054*

Nienhuijs SW (Simon)

Comparative analysis of respiratory muscle strength before and after bariatric surgery using 5 different predictive equations

Pouwels S*, Buise MP*, Smeenk FW*, Teijink JA*, Nienhuijs SW*
J Clin Anesth. 2016 Aug;32:172-80. Epub 2016 Apr 20

Voor abstract zie: *Chirurgie - Pouwels S*
impactfactor: *1.284*

Nienhuijs SW (Simon)

Comparative Study of Performance in Ultrasonic Tissue Dissection for Sleeve Gastrectomy: Wired versus Cordless

van Rutte PW*, Lup SL, Luyer MD*, Jakimowicz JJ, Goossens RH, Nienhuijs SW*
Surg Technol Int. 2016 Apr;28:111-6

Voor abstract zie: *Chirurgie - Rutte PW van*
impactfactor: *--*

Nienhuijs SW (Simon)

Cytoreduction and hyperthermic intraperitoneal chemotherapy: The learning curve reassessed

Kuijpers AM, Hauptmann M, Aalbers AG, Nienhuijs SW*, de Hingh IH*, Wiezer MJ, van Ramshorst B, van Ginkel RJ, Havenga K, Verwaal VJ
Eur J Surg Oncol. 2016 Feb;42(2):244-50. Epub 2015 Sep 3

BACKGROUND: CytoReductive Surgery and Hyperthermic IntraPEritoneal Chemotherapy (CRS-HIPEC) is now the preferred treatment of many peritoneal surface malignancies. In this retrospective study we aimed to analyze how several performance indicators changed during the first 100 CRS-HIPEC procedures in hospitals which recently introduced this treatment, and compare those with an experienced institution.

METHODS: The first consecutive 100 CRS-HIPEC procedures of three institutions were compared to those of the pioneer hospital. The training provided by the pioneer hospital consisted of hands-on training during the first ten procedures; hereafter guidance was available on consult basis. Operation characteristics, morbidity and completeness of cytoreduction were evaluated by case sequence. Locally-estimated-scatter-plot smoothing was used to evaluate the learning curve.

RESULTS: From four institutions 372 cases were included. A macroscopic complete cytoreduction was reached in 66% of the cases in the pioneer hospital and in 86% in the new hospitals ($p < 0.001$). Complete cytoreduction rates were higher at start off in the new institutions compared with the experienced institution and increased significantly in the first 100 procedures. The new hospitals started with lower morbidity than the experienced hospital, which did not significantly decrease during the study period.

CONCLUSION: New institutions that were trained and mentored by an experienced CRS-HIPEC hospital performed better from the beginning with regard to complete cytoreduction

and morbidity rate with than the experienced center. An improvement in complete cytoreduction rate during the first 100 procedures was observed in the new institutions.

impactfactor: *2.940*

Nienhuijs SW (Simon)

Cytoreductive surgery and HIPEC offers similar outcomes in patients with rectal peritoneal metastases compared to colon cancer patients: a matched case control study

Simkens GA*, van Oudheusden TR*, Braam HJ, Wiezer MJ, Nienhuijs SW*, Rutten HJ*, van Ramshorst B, de Hingh IH*

J Surg Oncol. 2016 Apr;113(5):548-53. Epub 2016 Jan 12

Voor abstract zie: *Chirurgie - Simkens GA*

impactfactor: *3.151*

Nienhuijs SW (Simon)

Development of a Prognostic Nomogram for Patients with Peritoneally Metastasized Colorectal Cancer Treated with Cytoreductive Surgery and HIPEC

Simkens GA*, van Oudheusden TR*, Nieboer D, Steyerberg EW, Rutten HJ*, Luyer MD*, Nienhuijs SW*, de Hingh IH*

Ann Surg Oncol. 2016 Dec;23(13):4214-4221

Voor abstract zie: *Chirurgie - Simkens GA*

impactfactor: *3.655*

Nienhuijs SW (Simon)

How to perform the endoscopically assisted components separation technique (ECST) for large ventral hernia repair

Mommers EH, Wegdam JA, Nienhuijs SW*, de Vries Reilingh TS

Hernia. 2016 Jun;20(3):441-7. Epub 2016 Apr 1

BACKGROUND: The components separation technique (CST) is frequently used for reconstructing large ventral hernias. Unfortunately, it is associated with a high wound complication rate up to 50 %, caused by large wound surface and inherent trauma to abdominal skin vascularization. An endoscopically assisted modification of the original technique (ECST) spares skin vascularization and reduces wound surface, supposedly reducing wound complications. This study accurately describes ECST step by step with detailed illustrations and report the results of a 27 patient cohort.

METHODS: Since September 2012 patients with midline hernias without previous subcutaneous dissection and a maximum diameter of approximately 10-15 cm underwent ECST in an expert centre for abdominal wall reconstructions. Prospective data was gathered during inpatient care and 3-6 monthly follow-up.

RESULTS: Twenty-seven patients (17 male/10 female) with median age of 60 years (range 35-77), average BMI 27 (SD ±2) kg/m(2) and median ASA classification 2 (range 1-3) underwent ECST. Two patients were excluded due to bilateral conversion to conventional CST and finding of peritoneal metastases. Median defect size was 116 ± 48 cm(2). Median length of stay was 5 days (range 3-15). Wound complication rate was 11 %. Recurrence rate was 29 % after a median follow-up of 13 months.

CONCLUSIONS: Endoscopically assisted modification of the original technique can be used for reconstructing large and complex ventral hernias up to 15 cm in diameter. The results of this small sized cohort study showed that ECST is feasible in patients with a uro-, or

enterostomy and suggest that ECST reduces wound complication rate when compared to CST.

impactfactor: *2.054*

Nienhuijs SW (Simon)

Improving Bariatric Patient Aftercare Outcome by Improved Detection of a Functional Vitamin B12 Deficiency

Smelt HJ*, Smulders JF*, Said M*, Nienhuijs SW*, Boer AK*

Obes Surg. 2016 Jul;26(7):1500-4. Epub 2015 Nov 4.

Voor abstract zie: *Dietetiek - Smelt HJ*

impactfactor: *3.346*

Nienhuijs SW (Simon)

Influence of intraoperative hypotension on leaks after sleeve gastrectomy

Nienhuijs SW*, Kaymak U, Korsten E*, Buise MP*

Surg Obes Relat Dis. 2016 Mar-Apr;12(3):535-9. Epub 2015 Oct 29

BACKGROUND: Leak after a sleeve gastrectomy (SG) is a severe complication. Risk factors, such as regional ischemia, increased intraluminal pressure, technical failure of the stapling device, and surgeon error, have been reported.

OBJECTIVES: It was hypothesized that intraoperative hypotension is another risk factor for leak, similar to that reported for colorectal surgery.

SETTING: Tertiary teaching hospital in The Netherlands.

METHODS: Results of a 7-year cohort of primary SGs were reviewed in relation to multiple intraoperative blood pressure measurements. The thresholds for the mean pressure were 40 to 70 mm Hg and for the systolic pressure 70 to 100 mm Hg. Only continuous episodes of 15 and 20 minutes were included.

RESULTS: Twenty-four leaks were identified in a cohort of 1041 primary SGs. Episodes of systolic blood pressure<100 mm Hg for 15 min (P = .027) and 20 minutes (P = .008) were significantly related to a staple line leak. An episode of mean blood pressure<70 mm Hg for 20 min was significantly related to leak (P = .014). Episodes with lower thresholds of pressure occurred less frequently and revealed no significant differences. Other identified risk factors were smoking (P = .019), fast-track recovery program (P = .006), use of a tri-stapler (P = .004), and duration of surgery (P = .000). In a multivariate analysis, only intraoperative systolic pressure<100 mm Hg for 20 minutes remained significant (odds ratio, 2.45; P = .012).

impactfactor: *3.540*

Nienhuijs SW (Simon)

Long-term results after revisions of failed primary vertical banded gastroplasty

van Wezenbeek MR*, Smulders FJ*, de Zoete JP*, Luyer MD*, van Montfort G*, Nienhuijs SW*

World J Gastrointest Surg. 2016 Mar 27;8(3):238-45

Voor abstract zie: *Chirurgie - Wezenbeek MR van*

impactfactor: *2.807*

Nienhuijs SW (Simon)

Perioperative respiratory care in obese patients undergoing bariatric surgery: Implications for clinical practice

Pouwels S*, Smeenk FW*, Manschot L*, Lascaris B*, Nienhuijs S*, Bouwman RA*, Buise MP*

Respir Med. 2016 Aug;117:73-80. doEpub 2016 Jun 7

Voor abstract zie: *Chirurgie - Pouwels S*

impactfactor: *3.036*

Nienhuijs SW (Simon)

Predictors for the occurrence of major complications after primary Roux-en-Y gastric bypass surgery

van Wezenbeek MR*, Smulders FJ*, Luyer MD*, VAN Montfort G*, Vanhimbeeck FJ*, Nienhuijs SW*

Minerva Chir. 2016 Oct;71(5):286-92. Epub 2016 Jun 29

Voor abstract zie: *Chirurgie - Wezenbeek MR van*

impactfactor: *0.877*

Nienhuijs SW (Simon)

Predictors of Severe Morbidity After Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemotherapy for Patients With Colorectal Peritoneal Carcinomatosis

Simkens GA*, van Oudheusden TR*, Luyer MD*, Nienhuijs SW*, Nieuwenhuijzen GA*, Rutten HJ*, de Hingh IH*

Ann Surg Oncol. 2016 Mar;23(3):833-41. Epub 2015 Oct 6

Voor abstract zie: *Chirurgie - Simkens GA*

impactfactor: *3.655*

Nienhuijs SW (Simon)

Preoperative exercise therapy in surgical care: a scoping review

Pouwels S*, Hageman D*, Gommans LN, Willigendael EM, Nienhuijs SW*, Scheltinga MR, Teijink JA*

J Clin Anesth. 2016 Sep;33:476-90

Voor abstract zie: *Chirurgie - Pouwels S*

impactfactor: *1.284*

Nienhuijs SW (Simon)

The RAQET Study: the Effect of Eating a Popsicle Directly After Bariatric Surgery on the Quality of Patient Recovery; a Randomised Controlled Trial

Sjaak Pouwels*, Pieter S. Stepaniak*, Marc P. Buise* R. Arthur Bouwman* Simon W. Nienhuijs*

Indian Journal of Surgery 2016 , pp 1–7

Voor abstract zie: *Chirurgie - Pouwels S*

impactfactor: *0.353*

Nienhuijs SW (Simon)

Transection versus preservation of the neurovascular bundle of the lesser omentum in primary Roux-en-Y gastric bypass surgery

van Wezenbeek MR*, van Oudheusden TR*, Smulders JF*, Nienhuijs SW*, Luyer MD*
Surg Obes Relat Dis. 2016 Feb;12(2):283-9. Epub 2015 Aug 3

Voor abstract zie: *Chirurgie - Wezenbeek MR van*

impactfactor: *3.540*

Nienhuijs SW (Simon)

Treatment-Related Mortality After Cytoreductive Surgery and HIPEC in Patients with Colorectal Peritoneal Carcinomatosis is Underestimated by Conventional Parameters

Simkens GA*, van Oudheusden TR*, Braam HJ, Luyer MD*, Wiezer MJ, van Ramshorst B, Nienhuijs SW*, de Hingh IH*
Ann Surg Oncol. 2016 Jan;23(1):99-105. Epub 2015 Jul 7

Voor abstract zie: *Chirurgie - Simkens GA*

impactfactor: *3.655*

Nieuwenhuijzen GA (Grard)

Aortic Calcification Increases the Risk of Anastomotic Leakage After Ivor-Lewis Esophagectomy

Goense L, van Rossum PS, Weijs TJ*, van Det MJ, Nieuwenhuijzen GA*, Luyer MD*, van Leeuwen MS, van Hillegersberg R, Ruurda JP, Kouwenhoven EA
Ann Thorac Surg. 2016 Jul;102(1):247-52. Epub 2016 Apr 25

Voor abstract zie: *Chirurgie - Weijs TJ*

impactfactor: *2.975*

Nieuwenhuijzen GA (Grard)

Axillary Response Monitoring After Neoadjuvant Chemotherapy in Breast Cancer: Can We Avoid the Morbidity of Axillary Treatment?

Vugts G*, Schipper RJ*, Maaskant-Braat AJ*, Smidt ML, Nieuwenhuijzen GA*
Ann Surg. 2016 Feb;263(2):e28-9.Epub 2014 Nov 17

Geen abstract beschikbaar

impactfactor: *8.569*

Nieuwenhuijzen GA (Grard)

Delaying surgery after neoadjuvant chemoradiotherapy does not significantly influence postoperative morbidity or oncological outcome in patients with oesophageal adenocarcinoma

Kathiravetpillai N*, Koëter M*, van der Sangen MJ*, Creemers GJ*, Luyer MD*, Rutten HJ*, Nieuwenhuijzen GA*
Eur J Surg Oncol. 2016 Aug;42(8):1183-90. Epub 2016 Apr 19

Voor abstract zie: *Chirurgie - Kathiravetpillai N*

impactfactor: *2.940*

Nieuwenhuijzen GA (Grard)

Differences in Response and Surgical Management with Neoadjuvant Chemotherapy in Invasive Lobular Versus Ductal Breast Cancer

Truin W, Vugts G*, Roumen RM, Maaskant-Braat AJ*, Nieuwenhuijzen GA*, van der Heiden-van der Loo M, Tjan-Heijnen VC, Voogd AC

Ann Surg Oncol. 2016 Jan;23(1):51-7.Epub 2015 May 16

Voor abstract zie: *Chirurgie - Vugts G*

impactfactor: *3.655*

Nieuwenhuijzen GA (Grard)

Early outcomes from the Dutch Upper Gastrointestinal Cancer Audit

Busweiler LA, Wijnhoven BP, van Berge Henegouwen MI, Henneman D, van Grieken NC, Wouters MW, van Hillegersberg R, van Sandick JW; Dutch Upper Gastrointestinal Cancer Audit (DUCA) Group7: Nieuwenhuijzen GA

Br J Surg. 2016 Dec;103(13):1855-1863

BACKGROUND: In 2011, the Dutch Upper Gastrointestinal Cancer Audit (DUCA) group began nationwide registration of all patients undergoing surgery with the intention of resection for oesophageal or gastric cancer. The aim of this study was to describe the initiation and implementation of this process along with an overview of the results.

METHODS: The DUCA is part of the Dutch Institute for Clinical Auditing. The audit provides (surgical) teams with reliable, weekly updated, benchmarked information on process and (case mix-adjusted) outcome measures. To accomplish this, a web-based registration was designed, based on a set of predefined quality measures.

RESULTS: Between 2011 and 2014, a total of 2786 patients with oesophageal cancer and 1887 with gastric cancer were registered. Case ascertainment approached 100 per cent for patients registered in 2013. The percentage of patients with oesophageal cancer starting treatment within 5 weeks of diagnosis increased significantly over time from 32·5 per cent in 2011 to 41·0 per cent in 2014 (P < 0·001). The percentage of patients with a minimum of 15 examined lymph nodes in the resected specimen also increased significantly for both oesophageal cancer (from 50·3 per cent in 2011 to 73·0 per cent in 2014; P < 0·001) and gastric cancer (from 47·5 per cent in 2011 to 73·6 per cent in 2014; P < 0·001). Postoperative mortality remained stable (around 4·0 per cent) for patients with oesophageal cancer, and decreased for patients with gastric cancer (from 8·0 per cent in 2011 to 4·0 per cent in 2014; P = 0·031).

CONCLUSION: Nationwide implementation of the DUCA has been successful. The results indicate a positive trend for various process and outcome measures.

impactfactor: *5.596*

Nieuwenhuijzen GA (Grard)

Hospital of diagnosis and probability of having surgical treatment for resectable gastric cancer

van Putten M, Verhoeven RH, van Sandick JW, Plukker JT, Lemmens VE, Wijnhoven BP, Nieuwenhuijzen GA*

Br J Surg. 2016 Feb;103(3):233-41. Epub 2015 Dec 1.

BACKGROUND: Gastric cancer surgery is increasingly being centralized in the Netherlands, whereas the diagnosis is often made in hospitals where gastric cancer surgery is not performed. The aim of this study was to assess whether hospital of diagnosis affects the probability of undergoing surgery and its impact on overall survival.

METHODS: All patients with potentially curable gastric cancer according to stage (cT1/1b-4a, cN0-2, cM0) diagnosed between 2005 and 2013 were selected from the Netherlands Cancer

Registry. Multilevel logistic regression was used to examine the probability of undergoing surgery according to hospital of diagnosis. The effect of variation in probability of undergoing surgery among hospitals of diagnosis on overall survival during the intervals 2005-2009 and 2010-2013 was examined by using Cox regression analysis.

RESULTS: A total of 5620 patients with potentially curable gastric cancer, diagnosed in 91 hospitals, were included. The proportion of patients who underwent surgery ranged from 53·1 to 83·9 per cent according to hospital of diagnosis (P?<?0·001); after multivariable adjustment for patient and tumour characteristics it ranged from 57·0 to 78·2 per cent (P?<?0·001). Multivariable Cox regression showed that patients diagnosed between 2010 and 2013 in hospitals with a low probability of patients undergoing curative treatment had worse overall survival (hazard ratio 1·21; P?<?0·001).

CONCLUSION: The large variation in probability of receiving surgery for gastric cancer between hospitals of diagnosis and its impact on overall survival indicates that gastric cancer decision-making is suboptimal.

impactfactor: *5.596*

Nieuwenhuijzen GA (Grard)

Immediate Postoperative Oral Nutrition Following Esophagectomy: A Multicenter Clinical Trial

Weijs TJ*, Berkelmans GH*, Nieuwenhuijzen GA*, Dolmans AC*, Kouwenhoven EA, Rosman C, Ruurda JP, van Workum F, van Det MJ, Silva Corten LC, van Hillegersberg R, Luyer MD*

Ann Thorac Surg. 2016 Oct;102(4):1141-8. doi: Epub 2016 Jun 17

Voor abstract zie: *Chirurgie - Weijs TJ*

impactfactor: *2.975*

Nieuwenhuijzen GA (Grard)

Improvement in survival for patients with synchronous metastatic esophageal cancer in the south of the Netherlands from 1994 to 2013

Bernards N*, Haj Mohammad N, Creemers GJ*, Rozema T, Roukema JA, Nieuwenhuijzen GA*, van Laarhoven HW, van der Sangen M*, Lemmens VE

Acta Oncol. 2016 Sep-Oct;55(9-10):1161-1167. Epub 2016 May 13

Voor abstract zie: *Inwendiige geneeskunde - Bernards N*

impactfactor: *3.730*

Nieuwenhuijzen GA (Grard)

Internal and External Validation of a multivariable Model to Define Hospital-Acquired Pneumonia After Esophagectomy

Weijs TJ*, Seesing MF, van Rossum PS, Koëter M*, van der Sluis PC, Luyer MD*, Ruurda JP, Nieuwenhuijzen GA*, van Hillegersberg R

J Gastrointest Surg. 2016 Apr;20(4):680-7. Epub 2016 Feb 16

Voor abstract zie: *Chirurgie - Weijs TJ*

impactfactor: *2.807*

Nieuwenhuijzen GA (Grard)

Intrathoracic versus Cervical ANastomosis after minimally invasive esophagectomy for esophageal cancer: study protocol of the ICAN randomized controlled trial

van Workum F, Bouwense SA, Luyer MD*, Nieuwenhuijzen GA*, van der Peet DL, Daams F, Kouwenhoven EA, van Det MJ, van den Wildenberg FJ, Polat F, Gisbertz SS, Henegouwen MI, Heisterkamp J, Langenhoff BS, Martijnse IS, Grutters JP, Klarenbeek BR, Rovers MM, Rosman C

Trials. 2016 Oct 18;17(1):505

Voor abstract zie: *Chirurgie - Luyer MD*

impactfactor: *1.859*

Nieuwenhuijzen GA (Grard)

Local Recurrence in the Lateral Lymph Node Compartment: Improved Outcomes with Induction Chemotherapy Combined with Multimodality Treatment

Kusters M*, Bosman SJ*, Van Zoggel DM*, Nieuwenhuijzen GA*, Creemers GJ*, Van den Berg HA*, Rutten HJ*

Ann Surg Oncol. 2016 Jun;23(6):1883-9

Voor abstract zie: *Chirurgie - Kusters M*

impactfactor: *3.655*

Nieuwenhuijzen GA (Grard)

Management of the axilla after neoadjuvant chemotherapy for clinically node positive breast cancer: A nationwide survey study in The Netherlands

Vugts G*, Maaskant-Braat AJ, de Roos WK, Voogd AC, Nieuwenhuijzen GA*

Eur J Surg Oncol. 2016 Jul;42(7):956-64. Epub 2016 Apr 12

Voor abstract zie: *Chirurgie - Vugts G*

impactfactor: *2.940*

Nieuwenhuijzen GA (Grard)

Nutritional route in oesophageal resection trial II (NUTRIENT II): study protocol for a multicentre open-label randomised controlled trial

Berkelmans GH*, Wilts BJ*, Kouwenhoven EA, Kumagai K, Nilsson M, Weijs TJ*, Nieuwenhuijzen GA*, van Det MJ, Luyer MD*

BMJ Open. 2016 Aug 5;6(8):e011979

Voor abstract zie: *Chirurgie - Berkelmans GH*

impactfactor: *2.562*

Nieuwenhuijzen GA (Grard)

Patterns of Care in the Administration of Neo-adjuvant Chemotherapy for Breast Cancer. A Population-Based Study

Vugts G*, Maaskant-Braat AJ, Nieuwenhuijzen GA*, Roumen RM, Luiten EJ, Voogd AC

Breast J. 2016 May;22(3):316-21. Epub 2016 Mar 4

Voor abstract zie: *Chirurgie - Vugts G*

impactfactor: *1.920*

Nieuwenhuijzen GA (Grard)

Perioperative Treatment, Not Surgical Approach, Influences Overall Survival in Patients with Gastroesophageal Junction Tumors: A Nationwide, Population-Based Study in The Netherlands

Koëter M*, Parry K, Verhoeven RH, Luyer MD*, Ruurda JP, van Hillegersberg R, Lemmens VE, Nieuwenhuijzen GA*

Ann Surg Oncol. 2016 May;23(5):1632-8. Epub 2016 Jan 4

Voor abstract zie: *Chirurgie - Koëter M*

impactfactor: *3.655*

Nieuwenhuijzen GA (Grard)

Predictors of Severe Morbidity After Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemotherapy for Patients With Colorectal Peritoneal Carcinomatosis

Simkens GA*, van Oudheusden TR*, Luyer MD*, Nienhuijs SW*, Nieuwenhuijzen GA*, Rutten HJ*, de Hingh IH*

Ann Surg Oncol. 2016 Mar;23(3):833-41. Epub 2015 Oct 6

Voor abstract zie: *Chirurgie - Simkens GA*

impactfactor: *3.655*

Nieuwenhuijzen GA (Grard)

Preserving the pulmonary vagus nerve branches during thoracoscopic esophagectomy

Weijs TJ, Ruurda JP, Luyer MD*, Nieuwenhuijzen GA*, van der Horst S, Bleys RL, van Hillegersberg R

Surg Endosc. 2016 Sep;30(9):3816-22. Epub 2015 Dec 10

Voor abstract zie: *Chirurgie - Luyer MD*

impactfactor: *3.540*

Nieuwenhuijzen GA (Grard)

Prospective nationwide outcome audit of surgery for suspected acute appendicitis

van Rossem CC, Bolmers MD, Schreinemacher MH, van Geloven AA, Bemelman WA; Snapshot Appendicitis Collaborative Study Group: Nieuwenhuijzen GA*

Br J Surg. 2016 Jan;103(1):144-51. Epub 2015 Oct 28

BACKGROUND: Studies comparing laparoscopic and open appendicectomy are difficult to interpret owing to several types of bias, and the results often seem of limited clinical importance. National audits can be valuable to provide insight into outcomes following appendicectomy at a population level.

METHODS: A prospective, observational, resident-led, nationwide audit was carried out over a period of 2?months, including all consecutive adult patients who had surgery for suspected acute appendicitis. Complications after laparoscopic and open appendicectomy were compared by means of logistic regression analysis; subgroup analyses were performed for patients with complicated appendicitis.

RESULTS: A total of 1975 patients were included from 62 participating Dutch hospitals. A normal appendix was seen in 3·3 per cent of patients. Appendicectomy was performed for acute appendicitis in 1378 patients, who were analysed. All but three patients underwent preoperative imaging. Laparoscopy was used in 79·5 per cent of patients; the conversion rate was 3·4 per cent. A histologically normal appendix was found in 2·2 per cent. Superficial surgical-site infection was less common in the laparoscopic group (odds ratio 0·25, 95 per cent c.i. 0·14 to 0·44; P?<?0·001). The rate of intra-abdominal abscess formation was not

significantly different following laparoscopic or open surgery (odds ratio 1·71, 0·80 to 3·63; P?=?0·166). Similar findings were observed in patients with complicated appendicitis.

CONCLUSION: Management of acute appendicitis in the Netherlands is preferably performed laparoscopically, characterized by a low conversion rate. Fewer superficial surgical-site infections occurred with laparoscopy, although the rate of abscess formation was no different from that following open surgery. A low normal appendix rate is the presumed effect of a mandatory preoperative imaging strategy.

impactfactor: 5.596

Nieuwenhuijzen GA (Grard)

Results of intraoperative electron beam radiotherapy containing multimodality treatment for locally unresectable T4 rectal cancer: a pooled analysis of the Mayo Clinic Rochester and Catharina Hospital Eindhoven

Holman FA, Haddock MG, Gunderson LL, Kusters M, Nieuwenhuijzen GA*,
van den Berg HA,* Nelson H, Rutten HJ*

J Gastrointest Oncol. 2016 Dec;7(6):903-916

BACKGROUND: The aim of this study is to analyse the pooled results of intraoperative electron beam radiotherapy (IOERT) containing multimodality treatment of locally advanced T4 rectal cancer, initially unresectable for cure, from the Mayo Clinic, Rochester, USA (MCR) and Catharina Hospital, Eindhoven, The Netherlands (CHE), both major referral centers for locally advanced rectal cancer. A rectal tumor is called locally unresectable for cure if after full clinical work-up infiltration into the surrounding structures or organs has been demonstrated, which would result in positive surgical margins if resection was the initial component of treatment. This was the reason to refer these patients to the IOERT program of one of the centers.

METHODS: In the period from 1981 to 2010, 417 patients with locally unresectable T4 rectal carcinomas at initial presentation were treated with multimodality treatment including IOERT at either one of the two centres. The preferred treatment approach was preoperative (chemo) radiation and intended radical surgery combined with IOERT. Risk factors for local recurrence (LR), cancer specific survival, disease free survival and distant metastases (DM) were assessed.

RESULTS: A total of 306 patients (73%) underwent a R0 resection. LRs and metastases occurred more frequently after an R1-2 resection ($P<0.001$ and $P<0.001$ respectively). Preoperative chemoradiation (preop CRT) was associated with a higher probability of having a R0 resection. Waiting time after preoperative treatment was inversely related with the chance of developing a LR, especially after R+ resection. In 16% of all cases a LR developed. Five-year disease free survival and overall survival (OS) were 55% and 56% respectively.

CONCLUSIONS: An acceptable survival can be achieved in treatment of patients with initially unresectable T4 rectal cancer with combined modality therapy that includes preop CRT and IOERT. Completeness of the resection is the most important predictive and prognostic factor in the treatment of T4 rectal cancer for all outcome parameters. IOERT can reduce the LR rate effectively, especially in R+ resected patients.

impactfactor: --

Nieuwenhuijzen GA (Grard)

Stoma placement in obstructive rectal cancer prior to neo-adjuvant treatment and definitive surgery: A practical guideline

Vermeer TA*, Orsini RG*, Nieuwenhuijzen GA*, Rutten HJ*, Daams F

Eur J Surg Oncol. 2016 Feb;42(2):273-80. Epub 2015 Nov 22

Voor abstract zie: *Chirurgie - Vermeer TA*

impactfactor: *3.009*

Nieuwenhuijzen GA (Grard)

Using the Comprehensive Complication Index to Assess the Impact of Neoadjuvant Chemoradiotherapy on Complication Severity After Esophagectomy for Cancer

Nederlof N, Slaman AE, van Hagen P, van der Gaast A, Slankamenac K, Gisbertz SS, van Lanschot JJ, Wijnhoven BP, van Berge Henegouwen MI; CROSS-Study Group: Nieuwenhuijzen GA*

Ann Surg Oncol. 2016 Nov;23(12):3964-3971. Epub 2016 Jun 14

BACKGROUND: Neoadjuvant chemoradiotherapy (nCRT) followed by surgery for patients with esophageal or junctional cancer has become a standard of care. The comprehensive complication index (CCI) has recently been developed and accounts for all postoperative complications. Hence, CCI better reflects the burden of all combined postoperative complications in surgical patients than the Clavien-Dindo score alone, which incorporates only the most severe complication. This study was designed to evaluate the severity of complications in patients treated with nCRT followed by esophagectomy versus in patients who underwent esophagectomy alone using the comprehensive complication index.

STUDY-DESIGN: All patients included in the CROSS trial-a randomized, clinical trial on the value of nCRT followed by esophagectomy-were included. Complications were assessed and graded using the Clavien-Dindo classification. CCI was derived from these scores, using the CCI calculator available online (www.assessurgery.com). CCI of patients who underwent nCRT followed by surgery was compared with the CCI of patients who underwent surgery alone.

RESULTS: In both groups 161 patients were included. The median (and interquartile range) CCI of patients with nCRT and surgery was 26.22 (17.28-42.43) versus 25.74 (8.66-43.01) in patients who underwent surgery alone (p = 0.58). There also was no difference in CCI between subgroups of patients with anastomotic leakage, pulmonary complications, cardiac complications, thromboembolic events, chyle leakage, and wound infections.

CONCLUSIONS: Neoadjuvant chemoradiotherapy according to CROSS did not have a negative impact on postoperative complication severity expressed by CCI compared with patients who underwent surgery alone for potentially curable esophageal or junctional cancer.

impactfactor: *3.655*

Orsini RG (Ricardo)

Stoma placement in obstructive rectal cancer prior to neo-adjuvant treatment and definitive surgery: A practical guideline

Vermeer TA*, Orsini RG*, Nieuwenhuijzen GA*, Rutten HJ*, Daams F

Eur J Surg Oncol. 2016 Feb;42(2):273-80. Epub 2015 Nov 22

Voor abstract zie: *Chirurgie - Vermeer TA*

impactfactor: *3.009*

Oudheusden TR van (Thijs)

Cytoreductive surgery and HIPEC offers similar outcomes in patients with rectal peritoneal metastases compared to colon cancer patients: a matched case control study

Simkens GA*, van Oudheusden TR*, Braam HJ, Wiezer MJ, Nienhuijs SW*, Rutten HJ*, van Ramshorst B, de Hingh IH*

J Surg Oncol. 2016 Apr;113(5):548-53. Epub 2016 Jan 12

Voor abstract zie: *Chirurgie - Simkens GA*

impactfactor: *3.151*

Oudheusden TR van (Thijs)

Development of a Prognostic Nomogram for Patients with Peritoneally Metastasized Colorectal Cancer Treated with Cytoreductive Surgery and HIPEC

Simkens GA*, van Oudheusden TR*, Nieboer D, Steyerberg EW, Rutten HJ*, Luyer MD*, Nienhuijs SW*, de Hingh IH*

Ann Surg Oncol. 2016 Dec;23(13):4214-4221

Voor abstract zie: *Chirurgie - Simkens GA*

impactfactor: *3.655*

Oudheusden TR van (Thijs)

Increased Survival of Patients with Synchronous Colorectal Peritoneal Metastases Receiving Preoperative Chemotherapy Before Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemotherapy

Devilee RA*, Simkens GA*, van Oudheusden TR*, Rutten HJ*, Creemers GJ*, Ten Tije AJ, de Hingh IH* Ann Surg Oncol. 2016 Sep;23(9):2841-8. Epub 2016 Apr 4

Voor abstract zie: *Chirurgie - Devilee RA*

impactfactor: *3.655*

Oudheusden TR van (Thijs)

Predictors of Severe Morbidity After Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemotherapy for Patients With Colorectal Peritoneal Carcinomatosis

Simkens GA*, van Oudheusden TR*, Luyer MD*, Nienhuijs SW*, Nieuwenhuijzen GA*, Rutten HJ*, de Hingh IH*

Ann Surg Oncol. 2016 Mar;23(3):833-41. Epub 2015 Oct 6

Voor abstract zie: *Chirurgie - Simkens GA*

impactfactor: *3.655*

Oudheusden TR van (Thijs)

Transection versus preservation of the neurovascular bundle of the lesser omentum in primary Roux-en-Y gastric bypass surgery

van Wezenbeek MR*, van Oudheusden TR*, Smulders JF*, Nienhuijs SW*, Luyer MD*

Surg Obes Relat Dis. 2016 Feb;12(2):283-9. Epub 2015 Aug 3

Voor abstract zie: *Chirurgie - Wezenbeek MR van*

impactfactor: *3.540*

Oudheusden TR van (Thijs)

Treatment-Related Mortality After Cytoreductive Surgery and HIPEC in Patients with Colorectal Peritoneal Carcinomatosis is Underestimated by Conventional Parameters

Simkens GA*, van Oudheusden TR*, Braam HJ, Luyer MD*, Wiezer MJ, van Ramshorst B, Nienhuijs SW*, de Hingh IH* Ann Surg Oncol. 2016 Jan;23(1):99-105. Epub 2015 Jul 7

Voor abstract zie: *Chirurgie - Simkens GA*

impactfactor: *3.655*

Oudheusden TR van (Thijs)

Trends in incidence, treatment and survival of small bowel adenocarcinomas between 1999 and 2013: a population-based study in The Netherlands

Legué LM*, Bernards N*, Gerritse SL, van Oudheusden TR*, de Hingh IH*, Creemers GJ*, Ten Tije AJ, Lemmens VE

Acta Oncol. 2016 Sep-Oct;55(9-10):1183-1189. Epub 2016 May 12

Voor abstract zie: *Inwendige geneeskunde - Legue LM*

impactfactor: *3.730*

Ponten JE (Jeroen)

An umbilical surprise: a collective review on umbilical pilonidal sinus : An uncommon alternative diagnosis in common umbilical symptoms

Ponten JB, Ponten JE*, Luyer MD*, Nienhuijs SW*

Hernia. 2016 Aug;20(4):497-504. Epub 2016 May 19

PURPOSE: Umbilical pilonidal sinus (UPS) has an atypical clinical presentation and is therefore not well recognized. The aim of this case series and review of the literature, is to provide more insight in the underlying pathology and a guidance for the treatment of this condition.

METHODS: three recent clinical cases are described that made us perform a multi-database research was to reveal relevant literature.

RESULTS: Three relevant clinical cases from our clinic are described. Thirth three studies, describing 463 patients were included. Most studies were case reports or series; few were case series or cohort studies. UPS develops by loose hairs getting caught in the umbilical pit and subsequently penetrate the umbilical cicatrix by friction. In this way an inflammatory response is triggered, resulting in oedema that further narrows the umbilical orifice, hence forming a sinus. Several risk factors are identified. There is no particular consensus on the treatment of this disease. Although older literature advocates immediate umbilical excision without exception, recent studies provide evidence that supports multiple courses of conservative treatment. Several cases were described in which surgery consisted of excision of the sinus and hair tufts in contrast to excision of the entire umbilicus.

CONCLUSIONS: Umbilical pilonidal disease has an atypical presentation and might mimic conditions such as incarcerated hernia, Anterior Cutaneous Nerve Entrapment Syndrome or urachal cyst. Risk factors that can bring physicians closer to a reliable diagnosis are identified. An example of a treatment algorithm is provided, suggesting surgery should only be considered when conservative treatment fails.

impactfactor: *2.054*

Poppel RF van (Roy)

Late single-center outcome of the Talent Abdominal Stent Graft after a decade of follow-up

't Mannetje YW*, Broos PP*, van Poppel RF*, van Sambeek MR*, Teijink JA*, Cuypers PW* J Vasc Surg. 2016 Sep;64(3):557-62. Epub 2016 Mar 16.

Voor abstract zie: *Chirurgie - Mannetje Y 't*

impactfactor: *3.454*

Pouwels S (Sjaak)

Assessing psychological distress in patients with facial paralysis using the Hospital Anxiety and Depression Scale

Pouwels S*, Beurskens CH, Kleiss IJ, Ingels KJ J

Plast Reconstr Aesthet Surg. 2016 Aug;69(8):1066-71. Epub 2016 Feb 2

OBJECTIVES: Anxiety and depression are seen among patients with facial paralysis (FP), but less is known about the exact prevalence. The aim of the current study is to assess the prevalence of anxiety and depressive disorders in the FP population and to investigate possible differences between patients with left- and right-sided FP.

METHODS: Fifty-nine patients with FP and 59 healthy individuals were included in this study between March and December of 2014. The Hospital Anxiety and Depression Scale was used to assess the prevalence of anxiety and depression among these groups.

RESULTS: The mean age of the patients and controls was 56 ± 15 and 40 ± 16 years, respectively. Twenty-eight patients had left-sided FP, 30 patients had right-sided FP, and one patient had bilateral FP. In the patient group, approximately 30% had anxiety and 25% had a depressive disorder. Compared with the control group, significantly more patients presented with mild anxiety ($p = 0.031$), mild depression ($p = 0.047$), and moderate depression ($p = 0.006$). No significant differences were found in terms of the prevalence of anxiety between left- and right-sided FP. However, significantly more patients with left-sided FP had mild depression ($p = 0.018$) than those with right-sided FP.

CONCLUSION: This study found a significant difference in anxiety and depression between patients with FP and healthy controls. No clinically significant difference was noted in the prevalence of anxiety or depression between patients with left- and right-sided FP.

impactfactor: *1.743*

Pouwels S (Sjaak)

Clinical importance of smiling in patients with a peripheral facial palsy

Pouwels S*, Beurskens CH, Luijmes RE*, Ingels KJJ

Plast Reconstr Aesthet Surg. 2016 Sep;69(9):1305-6

geen abstract beschikbaar

impactfactor: *1.743*

Pouwels S (Sjaak)

Comparative analysis of respiratory muscle strength before and after bariatric surgery using 5 different predictive equations

Pouwels S*, Buise MP*, Smeenk FW*, Teijink JA*, Nienhuijs SW*

J Clin Anesth. 2016 Aug;32:172-80. Epub 2016 Apr 20

STUDY OBJECTIVE: Obesity has detrimental effects on general health and respiratory function. This study aimed to evaluate respiratory muscle strength in the morbidly obese population, before and after bariatric surgery, and to compare these estimates with the predictive values using different mathematical equations available.

DESIGN: Prospective cohort study.

SETTING: Outpatient clinic for the treatment of obesity.
PATIENTS: Patients scheduled for elective bariatric surgery.
INTERVENTION: Bariatric surgery.
MEASUREMENTS: The maximal inspiratory pressure (MIP) was measured at screening and 3, 6, and 9 months postoperative. Predictive values were calculated using 5 different mathematical equations. Visual inspection of Bland-Altman plots was performed to determine the agreement between the equations studied.
MAIN RESULTS: In total 125 patients were found eligible and 122 patients were available for the final analysis, among them were 104 women and 18 men, with a mean age of 43.02 ± 11.11 years and mean BMI of 43.10 ± 5.25 kg/m(2). In the preoperative period, the predicted MIPs according to the Harik-Khan, Neder, Costa, and Wilson equations were significantly different compared with the actual MIP ($P < .05$). The predicted MIP according to the Enright equation was not significantly different ($P > .05$). Postoperatively, there was a significant difference between the MIP values after 3 and 6 months and the predicted MIP values according to Harik Khan, Neder, and Enright equations. After 9 months, all predicted MIP values were significantly different from the predicted values. Bland-Altman analysis showed that the Enright equation was best suitable for predicting the MIP.
CONCLUSION: Of the 5 mathematical equations studied, that of Enright and colleagues was found best suitable for predicting the MIP in the obese population studied.

impactfactor: *1.284*

Pouwels S (Sjaak)

Comparison Between Different Intramuscular Vitamin B12 Supplementation Regimes: a retrospective matched cohort study

Smelt HJ*, Pouwels S*, Said M*, Berghuis KA*, Boer AK*, Smulders JF*
Obes Surg. 2016 Dec;26(12):2873-2879

Voor abstract zie: *Dietetiek - Smelt HJ*
impactfactor: *3.346*

Pouwels S (Sjaak)

Different Supplementation Regimes to Treat Perioperative Vitamin B12 Deficiencies in Bariatric Surgery: a Systematic Review

Smelt HJ*, Pouwels S*, Smulders JF*
Obes Surg. 2017 Jan;27(1):254-262

Voor abstract zie: *Dietetiek - Smelt HJ*
impactfactor: *3.346*

Pouwels S (Sjaak)

Effects of different metabolic states and surgical models on glucose metabolism and secretion of ileal L-cell peptides: protocol for a cross-sectional study

Celik A, Dixon JB, Pouwels S*, Celik BO, Karaca FC, Gupta A, Santoro S, Ugale S
BMJ Open. 2016 Mar 14;6(3):e010245

INTRODUCTION: Obesity and type 2 diabetes mellitus are increasing worldwide, reaching pandemic proportions. The understanding of the role of functional restriction and gut hormones can be a beneficial tool in treating obesity and diabetes. However, the exact hormonal profiles in different metabolic states and surgical models are not known.
METHODS AND ANALYSIS: The HIPER-1 Study is a single-centre cross-sectional study in which 240 patients (in different metabolic states and surgical models) will receive an oral mixed-meal tolerance test (OMTT). At baseline and after 30, 60 and 120 min, peptide YY and glucagon-like peptide 1 levels and glucose and insulin sensitivity will be measured. The

primary end point of the study will be the area under the glucagon-like peptide 1 and peptide YY curves after the OMTT. Secondary study end points will include examination of the difference in plasma levels of the distal ileal hormones in subjects with various health statuses and in patients who have been treated with different surgical techniques.

ETHICS AND DISSEMINATION: An independent ethics committee, the Institutional Review Board of Istanbul Sisli Kolan International Hospital, Turkey, has approved the study protocol. Dissemination will occur via publication, national and international conference presentations, and exchanges with regional, provincial and national stakeholders.

impactfactor: 2.562

Pouwels S (Sjaak)

Perioperative respiratory care in obese patients undergoing bariatric surgery: Implications for clinical practice

Pouwels S*, Smeenk FW*, Manschot L*, Lascaris B*, Nienhuijs S*, Bouwman RA*, Buise MP*

Respir Med. 2016 Aug;117:73-80. doEpub 2016 Jun 7

Obesity is an increasing problem worldwide. The number of people with obesity doubled since the 1980's to affect an estimated 671 million people worldwide. Obese patients in general have an altered respiratory physiology and can have an impaired lung function, which leads to an increased risk of developing pulmonary complications during anaesthesia and after bariatric surgery (approximately 8%). Therefore the respiratory management of the bariatric surgical patient provides a number of challenges. This review will focus on the perioperative respiratory care in bariatric surgical patients discussing respiratory physiology in the obese and perioperative respiratory care in bariatric surgery. Finally the value of preoperative pulmonary function testing and preoperative OSAS screening will be discussed.

impactfactor: 3.036

Pouwels S (Sjaak)

Preoperative exercise therapy in surgical care: a scoping review

Pouwels S*, Hageman D*, Gommans LN, Willigendael EM, Nienhuijs SW*, Scheltinga MR, Teijink JA*

J Clin Anesth. 2016 Sep;33:476-90

OBJECTIVES: Several systematic reviews have focused on the role of preoperative exercise therapy (PET) in various fields of surgical care. Aims of the present scoping review are to summarize research findings and to identify gaps in existing literature.

METHODS: Two authors independently conducted a comprehensive literature search on systematic reviews regarding PET. The risk of bias was assessed using "the methodology checklist for systematic reviews and meta-analyses of the Scottish Intercollegiate Guidelines Network (SIGN)." Findings of the included systematic reviews were summarized according to type of surgery and type of PET.

RESULTS: Twenty-one reviews on PET with a low risk of bias were included. Seven reviews investigated PET in multiple surgical fields and 14 in just a single surgical field. PET was studied before cardiac surgery (n = 9), orthopedic surgery (n = 8), abdominal surgery (n = 8), thoracic surgery (n = 8), vascular surgery (n = 3), and urologic surgery (n = 1).

CONCLUSION: Overall, it seems that PET exerts beneficial effects on physical fitness and postoperative outcome measures. Gaps in current literature are the heterogeneity in selected patient populations and outcome measures as well as lack of guidelines on the specific PET regimes. Therefore, there is increasing need for multicenter randomized trials

with specifically designed PET programs and a carefully selected patient population to strengthen current evidence.

impactfactor: 1.284

Pouwels S (Sjaak)

The Clinical Dilemma of Calcium Supplementation After Bariatric Surgery: Calcium Citrate or Calcium Carbonate That Is the Question?

Smelt HJ*, Pouwels S*, Smulders JF*

Obes Surg. 2016 Nov;26(11):2781-2782

geen abstract beschikbaar

impactfactor: 3.346

Pouwels S (Sjaak)

The effectiveness of neurofeedback on cognitive functioning in patients with Alzheimer's disease: Preliminary results

Luijmes RE*, Pouwels S*, Boonman J*

Neurophysiol Clin. 2016 Jun;46(3):179-87. Epub 2016 Jun 30

Voor abstract zie: Medische Psychologie - Luijmes RE

impactfactor: 1.479

Pouwels S (Sjaak)

The RAQET Study: the Effect of Eating a Popsicle Directly After Bariatric Surgery on the Quality of Patient Recovery; a Randomised Controlled Trial

Sjaak Pouwels*, Pieter S. Stepaniak*, Marc P. Buise* R. Arthur Bouwman*

Simon W. Nienhuijs*

Indian Journal of Surgery 2016 , pp 1–7

Quality of recovery could be influenced positively if there is less postoperative sore throat (POST). Eating a popsicle might attenuate this sore throat. Especially for bariatric surgery, early recovery is important. Adding popsicles to the postoperative protocol could be beneficial. Our hypothesis is that offering a popsicle in the recovery room to patients after bariatric surgery will decrease POST and will increase quality of postoperative recovery. Patients undergoing elective bariatric surgery, between the 23 February 2015 and 3 April, were randomised to either the popsicle group or control group. Primary endpoint was the incidence of POST and secondly if a reduction in POST influences quality of recovery at the first day postoperative measured with the Bariatric Quality Of Recovery (BQoR) questionnaire. One hundred and thirty-three patients were assessed for eligibility. For the final analysis, 44 patients in the intervention and 65 in the control group were available. Eating a popsicle after bariatric surgery had no significant effect on the incidence of POST. Significant effects (in favour of the popsicle group) were seen in muscle pain score ($p = 0.047$) and sore mouth score ($p = 0.012$). Popsicle intragroup analysis revealed that eating the whole popsicle (compared to partially eating the popsicle) has positive effects on nausea ($p = 0.059$), feeling cold ($p = 0.008$), and mean total comfort score ($p = 0.011$). Of the patients who became nauseous and/or had to vomit because of the popsicle, $n = 4$ had more severe pain ($p = 0.04$) and the mean pain score was higher ($p = 0.09$). The present study demonstrates that offering a popsicle early during recovery after bariatric surgery is feasible without adverse effects, although eating popsicle did not reduce postoperative sore throat. There are possible beneficial effects, such as reduced muscle pains and less sore mouth, that may enhance the quality of recovery. More research is necessary to further substantiate the effect of eating popsicles on the quality of recovery in this patient population .

impactfactor: 0.353

Pouwels S (Sjaak)

Treatment of upper-extremity outflow thrombosis

van den Houten MM*, van Grinsven R*, Pouwels S*, Yo LS*, van Sambeek MR*, Teijink JA*

Phlebology. 2016 Mar;31(1 Suppl):28-33

Voor abstract zie: *Chirurgie - Houten MM van*

impactfactor: *1.413*

Riet EA van (Yvonne)

Sentinel lymph node biopsy can be omitted in DCIS patients treated with breast conserving therapy

van Roozendaal LM, Goorts B, Klinkert M, Keymeulen KB, De Vries B, Strobbe LJ, Wauters CA, van Riet YE*, Degreef E, Rutgers EJ, Wesseling J, Smidt ML

Breast Cancer Res Treat. 2016 Apr;156(3):517-25. Epub 2016 Apr 15

Breast cancer guidelines advise sentinel lymph node biopsy (SLNB) in patients with ductal carcinoma in situ (DCIS) on core biopsy at high risk of invasive cancer or in case of mastectomy. This study investigates the incidence of SLNB and SLN metastases and the relevance of indications in guidelines and literature to perform SLNB in order to validate whether SLNB is justified in patients with DCIS on core biopsy in current era. Clinically node negative patients diagnosed from 2004 to 2013 with only DCIS on core needle biopsy were selected from a national database. Incidence of SLN biopsy and metastases was calculated. With Fisher exact tests correlation between SLNB indications and actual presence of SLN metastases was studied. Further, underestimation rate for invasive cancer and correlation with SLN metastases was analysed. 910 patients were included. SLNB was performed in 471 patients (51.8 %): 94.5 % had pN0, 3.0 % pN1mi and 2.5 % pN1. Patients undergoing mastectomy had 7 % SLN metastases versus 3.5 % for breast conserving surgery (BCS) ($p = 0.107$). The only factors correlating to SLN metastases were smaller core needle size ($p = 0.01$) and invasive cancer ($p < 0.001$). Invasive cancer was detected in 16.7 % by histopathology with 15.6 % SLN metastases versus only 2 % in pure DCIS. SLNB showed metastases in 5.5 % of patients; 3.5 % in case of BCS (any histopathology) and 2 % when pure DCIS was found at definitive histopathology (BCS and mastectomy). Consequently, SLNB should no longer be performed in patients diagnosed with DCIS on core biopsy undergoing BCS. If definitive histopathology shows invasive cancer, SLNB can still be considered after initial surgery.

impactfactor: *4.085*

Rutte PW van (Pim)

Comparative Study of Performance in Ultrasonic Tissue Dissection for Sleeve Gastrectomy: Wired versus Cordless

van Rutte PW*, Lup SL, Luyer MD*, Jakimowicz JJ, Goossens RH, Nienhuijs SW*

Surg Technol Int. 2016 Apr;28:111-6

BACKGROUND: The sleeve gastrectomy is being performed increasingly as a primary procedure for the treatment of morbid obesity. A minimally invasive approach is currently applied to the procedure. The two major steps are dissection and stapling. For dissection, several tools have been developed. The goal of this study was to compare the efficiency and the ergonomics of two ultrasonic devices during the sleeve gastrectomy. MATERIALS AND METHODS: Thirty patients were randomised for the use of a cordless Sonicision™ (Covidien, Mansfield, MA) or a cord-containing HARMONIC ACE®+ (Ethicon Endo-Surgery Inc., Cincinnati, OH) during dissection. Both devices were assessed for objective and subjective measures.

RESULTS: There was no significant difference in duration of the procedures. The assembly and installation time of the Sonicision™ were significantly shorter; however, the dismantle time was not. No difference in plume formation or dissection failures was found between the devices. Scrub nurses scored the Sonicision™ significantly clearer and easier in use and more reliable. The surgeons, however, did not find one of the devices easier in use, more reliable or precise, but they did report better manoeuvrability of the Sonicision™.

CONCLUSION: In comparison to the wired HARMONIC ACE®+, during sleeve gastrectomy, the cordless Sonicision™ was considered easier to use, faster during assembling and installation, and more reliable with better manoeuvrability. Surgeons scored both devices equally effective. Both ultrasonic devices can be used easily and safely for a sleeve gastrectomy.

impactfactor: --

Rutten HJ (Harm)

Axillary reverse mapping in axillary surgery for breast cancer: an update of the current status

Beek MA, Gobardhan PD, Schoenmaeckers EJ, Klompenhouwer EG, Rutten HJ*, Voogd AC, Luiten EJ

Breast Cancer Res Treat. 2016 Aug;158(3):421-32

Axillary reverse mapping (ARM) is a technique by which the lymphatic drainage of the upper extremity that traverses the axillary region can be differentiated from the lymphatic drainage of the breast during axillary lymph node dissection (ALND). Adding this procedure to ALND may reduce upper extremity lymphedema by preserving upper extremity drainage. This review of the current literature on the ARM procedure discusses the feasibility, safety and relevance of this technique. A PubMed literature search was performed until 12 August 2015. A total of 31 studies were included in this review. The studies indicated that the ARM procedure adequately identifies the upper extremity lymph nodes and lymphatics in the axillary basin using blue dye or fluorescence. Preservation of ARM lymph nodes and corresponding lymphatics was proven to be oncologically safe in clinically node-negative breast cancer patients with metastatic lymph node involvement in the sentinel lymph node (SLN) who are advised to undergo a completion ALND. The ARM procedure is technically feasible with a high visualisation rate using blue dye or fluorescence. ALND combined with ARM can be regarded as a promising surgical refinement in order to reduce the incidence of upper extremity lymphedema in selected groups of patients.

impactfactor: *4.085*

Rutten HJ (Harm)

Beneficial Effects of Early Enteral Nutrition After Major Rectal Surgery: A Possible Role for Conditionally Essential Amino Acids? Results of a Randomized Clinical Trial

van Barneveld KW, Smeets BJ*, Heesakkers FF*, Bosmans JW, Luyer MD*, Wasowicz D, Bakker JA, Roos AN*, Rutten HJ*, Bouvy ND, Boelens PG

Crit Care Med. 2016 Jun;44(6):e353-61

Voor abstract zie: *Chirurgie - Smeets B*

impactfactor: *7.422*

Rutten HJ (Harm)

Clinical impact of breast MRI with regard to axillary reverse mapping in clinically node positive breast cancer patients following neo-adjuvant chemotherapy

Beek MA, Tetteroo E, Luiten EJ, Gobardhan PD, Rutten HJ*, Heijns JB, Voogd AC, Klompenhouwer EG

Eur J Surg Oncol. 2016 May;42(5):672-8. Epub 2016 Feb 10

BACKGROUND: Axillary reverse mapping (ARM) is a technique that discerns axillary lymphatic drainage of the arm from the breast. In the current study, we retrospectively evaluated the incidence of metastatic axillary lymph node involvement, including ARM lymph nodes, in clinically node positive breast cancer patients (cN+ patients) in whom neo-adjuvant chemotherapy (NAC) was administered followed by primary ALND using breast MRI.

PATIENTS AND METHODS: Data from 98 cN+ breast cancer patients were analysed retrospectively. Patients without residual axillary disease at breast MRI following NAC (RAD-, n = 64) were compared with patients with residual axillary disease (RAD+, n = 34). Presence of suspect axillary lymph nodes on pre-NAC and post-NAC breast MRI was determined by experienced breast radiologists and was correlated to histopathological findings.

RESULTS: In the RAD-group residual axillary disease on pathological analysis following NAC was found in 25 patients (39.1%), as compared to 24 patients (70.6%) in the RAD + group (p = 0.003). Metastatic involvement of ARM lymph nodes following NAC was demonstrated in 5 patients (7.8%) in the RAD-group as compared to 10 patients (29.4%) in the RAD + group (p = 0.005).

CONCLUSION: Breast MRI following NAC is not suitable to detect residual metastatic disease of the axilla. However, breast MRI post-NAC may be of use to identify cN+ patients with a low risk of ARM lymph node metastases. This may help to select a subgroup of cN+ patients in whom sparing of ARM lymph nodes during axillary lymph node dissection can be considered.

impactfactor: 2.940

Rutten HJ

Harm Clinicopathological characteristics predict lymph node metastases in ypT0-2 rectal cancer after chemoradiotherapy

Bosch SL, Vermeer TA*, West NP, Swellengrebel HA, Marijnen CA, Cats A, Verhoef C, van Lijnschoten I*, de Wilt JH, Rutten HJ*, Nagtegaal ID

Histopathology. 2016 Nov;69(5):839-848. Epub 2016 Jul 26

Voor abstract zie: Chirurgie - Vermeer TA

impactfactor: 3.425

Rutten HJ (Harm)

Cytoreductive surgery and HIPEC offers similar outcomes in patients with rectal peritoneal metastases compared to colon cancer patients: a matched case control study

Simkens GA*, van Oudheusden TR*, Braam HJ, Wiezer MJ, Nienhuijs SW*, Rutten HJ*, van Ramshorst B, de Hingh IH*

J Surg Oncol. 2016 Apr;113(5):548-53. Epub 2016 Jan 12

Voor abstract zie: Chirurgie - Simkens GA

impactfactor: 3.151

Rutten HJ (Harm)

Delaying surgery after neoadjuvant chemoradiotherapy does not significantly influence postoperative morbidity or oncological outcome in patients with oesophageal adenocarcinoma

Kathiravetpillai N*, Koëter M*, van der Sangen MJ*, Creemers GJ*, Luyer MD*, Rutten HJ*, Nieuwenhuijzen GA*

Eur J Surg Oncol. 2016 Aug;42(8):1183-90. Epub 2016 Apr 19

Voor abstract zie: *Chirurgie - Kathiravetpillai N*

impactfactor: *2.940*

Rutten HJ (Harm)

Development of a Prognostic Nomogram for Patients with Peritoneally Metastasized Colorectal Cancer Treated with Cytoreductive Surgery and HIPEC

Simkens GA*, van Oudheusden TR*, Nieboer D, Steyerberg EW, Rutten HJ*, Luyer MD*, Nienhuijs SW*, de Hingh IH*

Ann Surg Oncol. 2016 Dec;23(13):4214-4221

Voor abstract zie: *Chirurgie - Simkens GA*

impactfactor: *3.655*

Rutten HJ (Harm)

Histological subtype and systemic metastases strongly influence treatment and survival in patients with synchronous colorectal peritoneal metastases

Simkens GA*, Razenberg LG*, Lemmens VE, Rutten HJ*, Creemers GJ*, de Hingh IH*

Eur J Surg Oncol. 2016 Jun;42(6):794-800. Epub 2016 Mar 28

Voor abstract zie: *Chirurgie - Simkens GA*

Impactfactor: *2.940*

Rutten HJ (Harm)

Increased Survival of Patients with Synchronous Colorectal Peritoneal Metastases Receiving Preoperative Chemotherapy Before Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemotherapy

Devilee RA*, Simkens GA*, van Oudheusden TR*, Rutten HJ*, Creemers GJ*, Ten Tije AJ, de Hingh IH*

Ann Surg Oncol. 2016 Sep;23(9):2841-8. Epub 2016 Apr 4

Voor abstract zie: *Chirurgie - Devilee RA*

impactfactor: *3.655*

Rutten HJ (Harm)

Local Recurrence in the Lateral Lymph Node Compartment: Improved Outcomes with Induction Chemotherapy Combined with Multimodality Treatment

Kusters M*, Bosman SJ*, Van Zoggel DM*, Nieuwenhuijzen GA*, Creemers GJ*, Van den Berg HA*, Rutten HJ*

Ann Surg Oncol. 2016 Jun;23(6):1883-9

Voor abstract zie: *Chirurgie - Kusters M*

impactfactor: *3.655*

Rutten HJ (Harm)

No Difference in Overall Survival Between Hospital Volumes for Patients With Colorectal Cancer in The Netherlands

Bos AC, van Erning FN, Elferink MA, Rutten HJ*, van Oijen MG, de Wilt JH, Lemmens VE

Dis Colon Rectum. 2016 Oct;59(10):943-52

BACKGROUND: High-volume hospitals have been associated with improved patient outcomes for tumors with a relatively low incidence that require complex surgeries, such as esophageal and pancreatic cancer. The volume-outcome association for colorectal cancer is under debate.

OBJECTIVE: This study investigated whether hospital volume for colorectal cancer is associated with surgical care characteristics and 5-year overall survival.

DESIGN: This is a population-based study.

SETTING: Data were gathered from the Netherlands Cancer Registry. Hospitals were grouped by volume for colon (<50, 50-74, 75-99, and =100 resections per year) and rectum (<20, 20-39, and =40 resections per year).

PATIENTS: All of the patients with primary nonmetastatic colorectal cancer who underwent resection between 2005 and 2012 were included.

MAIN OUTCOME MEASURES: Differences in surgical approach, anastomotic leakage, and postoperative 30-day mortality between hospital volumes were analyzed using ? tests and multivariable logistic regression analyses. Cox proportional hazard models were used to investigate the effect of hospital volume on overall survival.

RESULTS: This study included 61,394 patients with colorectal cancer. In 2012, 31 of the 91 hospitals performed less than 50 colon cancer resections per year, and 21 of the 90 hospitals performed less than 20 rectal cancer resections per year. No differences in anastomotic leakage rates between hospital volumes were observed. Only small differences between hospital volumes were revealed for conversion of laparoscopic to open resection (OR of less than 50 versus 100 or more resections per year = 1.25 (95% CI, 1.06-1.46)) and postoperative 30-day mortality (colon: OR of less than 50 versus 100 or more resections per year = 1.17 (95% CI, 1.02-1.35); rectum: OR of less than 20 versus 40 or more resections per year = 1.42 (95% CI, 1.09-1.84)). No differences in overall survival were found between hospital volumes.

LIMITATIONS: Although we adjusted for several patient and tumour characteristics, data regarding comorbidity, surgeon volume, local recurrences, and specific postoperative complications other than anastomotic leakage were not available.

CONCLUSIONS: In the Netherlands, no differences in 5-year survival rates were revealed between hospital volumes for patients with nonmetastatic colorectal cancer.

impactfactor: *3.739*

Rutten HJ (Harm)

Predictors of Severe Morbidity After Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemotherapy for Patients With Colorectal Peritoneal Carcinomatosis

Simkens GA*, van Oudheusden TR*, Luyer MD*, Nienhuijs SW*, Nieuwenhuijzen GA*, Rutten HJ*, de Hingh IH*

Ann Surg Oncol. 2016 Mar;23(3):833-41. Epub 2015 Oct 6

Voor abstract zie: *Chirurgie - Simkens GA*

impactfactor: *3.655*

Rutten HJ (Harm)

Results of intraoperative electron beam radiotherapy containing multimodality treatment for locally unresectable T4 rectal cancer: a pooled analysis of the Mayo Clinic Rochester and Catharina Hospital Eindhoven

Holman FA, Haddock MG, Gunderson LL, Kusters M, Nieuwenhuijzen GA*, van den Berg HA,* Nelson H, Rutten HJ*

J Gastrointest Oncol. 2016 Dec;7(6):903-916

Voor abstract zie: *Chirurgie - Nieuwenhuijzen GA*

impactfactor: --

Rutten HJ (Harm)

Second St. Gallen European Organisation for Research and Treatment of Cancer Gastrointestinal Cancer Conference: consensus recommendations on controversial issues in the primary treatment of rectal cancer

Lutz MP, Zalcberg JR, Glynne-Jones R, Ruers T, Ducreux M, Arnold D, Aust D, Brown G, Bujko K, Cunningham C, Evrard S, Folprecht G, Gerard JP, Habr-Gama A, Haustermans K, Holm T, Kuhlmann KF, Lordick F, Mentha G, Moehler M, Nagtegaal ID, Pigazzi A, Puciarelli S, Roth A, Rutten H*, Schmoll HJ, Sorbye H, Van Cutsem E, Weitz J, Otto F

Eur J Cancer. 2016 May 30;63:11-24

Primary treatment of rectal cancer was the focus of the second St. Gallen European Organisation for Research and Treatment of Cancer (EORTC) Gastrointestinal Cancer Conference. In the context of the conference, a multidisciplinary international expert panel discussed and voted on controversial issues which could not be easily answered using published evidence. Main topics included optimal pretherapeutic imaging, indication and type of neoadjuvant treatment, and the treatment strategies in advanced tumours. Here we report the key recommendations and summarise the related evidence. The treatment strategy for localised rectal cancer varies from local excision in early tumours to neoadjuvant radiochemotherapy (RCT) in combination with extended surgery in locally advanced disease. Optimal pretherapeutic staging is a key to any treatment decision. The panel recommended magnetic resonance imaging (MRI) or MRI + endoscopic ultrasonography (EUS) as mandatory staging modalities, except for early T1 cancers with an option for local excision, where EUS in addition to MRI was considered to be most important because of its superior near-field resolution. Primary surgery with total mesorectal excision was recommended by most panellists for some early tumours with limited risk of recurrence (i.e. cT1-2 or cT3a N0 with clear mesorectal fascia on MRI and clearly above the levator muscles), whereas all other stages were considered for multimodal treatment. The consensus panel recommended long-course RCT over short-course radiotherapy for most clinical situations where neoadjuvant treatment is indicated, with the exception of T3a/b N0 tumours where short-course radiotherapy or even no neoadjuvant therapy were regarded to be an option. In patients with potentially resectable tumours and synchronous liver metastases, most panel members did not see an indication to start with classical fluoropyrimidine-based RCT but rather favoured preoperative short-course radiotherapy with systemic combination chemotherapy or alternatively a liver-first resection approach in resectable metastases, which both allow optimal systemic therapy for the metastatic disease. In general, proper patient selection and discussion in an experienced multidisciplinary team was considered as crucial component of care.

impactfactor: *6.163*

Rutten HJ (Harm)

Short-term outcome in patients treated with cytoreduction and HIPEC compared to conventional colon cancer surgery

Simkens GA*, Verwaal VJ, Lemmens VE, Rutten HJ*, de Hingh IH*

Medicine (Baltimore). 2016 Oct;95(41):e5111

Voor abstract zie: *Chirurgie - Simkens GA*

impactfactor: *1.206*

Rutten HJ (Harm)

Stoma placement in obstructive rectal cancer prior to neo-adjuvant treatment and definitive surgery: A practical guideline

Vermeer TA*, Orsini RG*, Nieuwenhuijzen GA*, Rutten HJ*, Daams F

Eur J Surg Oncol. 2016 Feb;42(2):273-80. Epub 2015 Nov 22

Voor abstract zie: *Chirurgie - Vermeer TA*

impactfactor: *3.009*

Rutten HJ (Harm)

The anatomy of the perineal body in relation to abdominoperineal excision for low rectal cancer

Kraima AC, West NP, Treanor D, Magee D, Roberts N, van de Velde CJ, DeRuiter MC, Quirke P, Rutten HJ*

Colorectal Dis. 2016 Jul;18(7):688-95

AIM: Dissection of the perineal body (PB) during abdominoperineal excision (APE) for low rectal cancer is often difficult due to lack of a natural plane of dissection. Understanding of the PB and its relation to the anorectum is essential to permit safe dissection during the perineal phase of the operation, to avoid damage to the anorectum and urogenital organs. This study describes the anatomy and histology of the PB relevant to APE.

METHOD: Six human adult cadaver pelvic exenteration specimens (three males, three females) from the Leeds GIFT Research Tissue Programme were studied. Paraffin-embedded mega-blocks were produced and serially sectioned at 50 and 250 μm intervals. Sections were stained by immunohistochemistry to show collagen, elastin and smooth muscle. RESULTS: The PB was cylindrically-shaped in males and wedge-shaped in females. Although centrally located between the anal and urogenital triangles, it was nearly completely formed by muscle fibres derived from the rectal muscularis propria. Thick bundles of smooth muscle mostly arising from the longitudinal muscle, inserted into the PB and levator ani muscle (LAM). The recto-urethralis muscle originated from the PB and separated the anterolateral PB from the urogenital organs.

CONCLUSION: Smooth muscle fibres derived from the rectal muscularis propria extend into the PB and LAM and appear to fix the anorectum. Dissection of the PB during APE is safe only when the smooth muscle fibres that extend into the PB are divided.

impactfactor: *2.452*

Said M (Mohammed)

Comparison Between Different Intramuscular Vitamin B12 Supplementation Regimes: a retrospective matched cohort study

Smelt HJ*, Pouwels S*, Said M*, Berghuis KA*, Boer AK*, Smulders JF*

Obes Surg. 2016 Dec;26(12):2873-2879

Voor abstract zie: *Dietetiek - Smelt HJ*

impactfactor: *3.346*

Said M (Mohammed)

Improving Bariatric Patient Aftercare Outcome by Improved Detection of a Functional Vitamin B12 Deficiency

Smelt HJ*, Smulders JF*, Said M*, Nienhuijs SW*, Boer AK*

Obes Surg. 2016 Jul;26(7):1500-4. Epub 2015 Nov 4

Voor abstract zie: *Dietetiek - Smelt HJ*

impactfactor: *3.346*

Sambeek MR van (Marc)

A 15-Year Single-Center Experience of Endovascular Repair for Elective and Ruptured Abdominal Aortic Aneurysms

Broos PP*, 't Mannetje YW*, Stokmans RA*, Houterman S*, Corte G*, Cuypers PW*, Teijink JA*, van Sambeek MR*

J Endovasc Ther. 2016 Aug;23(4):566-73. Epub 2016 May 13

Voor abstract zie: *Chirurgie - Broos PP*

impactfactor: *3.128*

Sambeek MR van (Marc)

A ruptured abdominal aortic aneurysm that requires preoperative cardiopulmonary resuscitation is not necessarily lethal

Broos PP*, 't Mannetje YW*, Loos MJ, Scheltinga MR, Bouwman LH, Cuypers PW*, van Sambeek MR*, Teijink JA*

J Vasc Surg. 2016 Jan;63(1):49-54. Epub 2015 Oct 1

Voor abstract zie: *Chirurgie - Broos PP*

impactfactor: *3.454*

Sambeek MR van (Marc)

Experience with the GORE EXCLUDER iliac branch endoprosthesis for common iliac artery aneurysms

van Sterkenburg SM, Heyligers JM, van Bladel M, Verhagen HJ, Eefting D, van Sambeek MR*, Zeebregts CJ, Reijnen MM, Dutch IBE Collaboration

J Vasc Surg. 2016 Jun;63(6):1451-7

OBJECTIVE: In this study, we analyzed the procedural success and early outcome of endovascular treatment of a multicenter cohort of patients with common iliac artery (CIA) aneurysms treated with the new GORE EXCLUDER (W. L. Gore & Associates, Flagstaff, Ariz) iliac branch endoprosthesis (IBE).

METHODS: A retrospective cohort analysis was performed in 13 sites in The Netherlands. Anatomic, demographic, procedural, and follow-up data were assessed from hospital records.

RESULTS: From November 2013 to December 2014, 51 CIA aneurysms were treated with an IBE in 46 patients. The median diameter of the treated aneurysm was 40.5 (range, 25.0-90.0) mm. The mean procedural time was 198 ± 56 minutes. All but one implantation were successful; two type Ib endoleaks were noticed, resulting in a procedural success rate of 93.5%. The two type Ib endoleaks spontaneously disappeared at 30 days. There was no 30-day mortality. Ipsilateral buttock claudication was present in only two cases at 30 days and disappeared during follow-up. The incidence of reported erectile dysfunction was low and severe ischemic complications were absent. After a mean follow-up of 6 months, data on 17 treated aneurysms were available. Two showed a stable diameter, whereas 15 showed a mean decrease of 3.9 ± 2.2 mm (P < .001). Reinterventions were performed in two patients (7.1%). The 6-month primary patency of the internal component of the IBE device was 94%.

CONCLUSIONS: The use of the GORE EXCLUDER IBE device for CIA aneurysms is related to high procedural success, high patency rates, and low reintervention rates at short-term follow-up. Prospective data with longer follow-up are awaited to establish the role of the device in the treatment algorithm of CIA aneurysms.

impactfactor: *3.454*

Sambeek MR van (Marc)

Inflation and Bi-axial Tensile Testing of Healthy Porcine Carotid Arteries

Boekhoven RW, Peters MF, Rutten MC, van Sambeek MR*, van de Vosse FN, Lopata RG

Ultrasound Med Biol. 2016 Feb;42(2):574-85. Epub 2015 Dec 1

Knowledge of the intrinsic material properties of healthy and diseased arterial tissue components is of great importance in diagnostics. This study describes an in vitro comparison of 13 porcine carotid arteries using inflation testing combined with functional ultrasound and bi-axial tensile testing. The measured tissue behavior was described using both a linear, but geometrically non-linear, one-parameter (neo-Hookean) model and a two-parameter non-linear (Demiray) model. The shear modulus estimated using the linear model resulted in good agreement between the ultrasound and tensile testing methods, GUS = 25 ± 5.7 kPa and GTT = 23 ± 5.4 kPa. No significant correspondence was observed for the non-linear model aUS = 1.0 ± 2.7 kPa vs. aTT = 17 ± 8.8 kPa, $p \sim 0$); however, the exponential parameters were in correspondence (bUS = 12 ± 4.2 vs. bTT = 10 ± 1.7, $p > 0.05$). Estimation of more complex models in vivo is cumbersome considering the sensitivity of the model parameters to small changes in measurement data and the absence of intraluminal pressure data, endorsing the use of a simple, linear model in vivo.

impactfactor: *2.298*

Sambeek MR van (Marc)

Influence of limited field-of-view on wall stress analysis in abdominal aortic aneurysms

van Disseldorp EM, Hobelman KH, Petterson NJ, van de Vosse FN, van Sambeek MR*, Lopata RG

J Biomech. 2016 Aug 16;49(12):2405-12. Epub 2016 Feb 6

Abdominal aortic aneurysms (AAAs) are local dilations of the aorta which can lead to a fatal hemorrhage when ruptured. Wall stress analysis of AAAs has been widely reported in literature to predict the risk of rupture. Usually, the complete AAA geometry including the aortic bifurcation is obtained by computed tomography (CT). However, performing wall stress analysis based on 3D ultrasound (3D US) has many advantages over CT, although, the field-of-view (FOV) of 3D US is limited and the aortic bifurcation is not easily imaged. In this study, the influence of a limited FOV is examined by performing wall stress analysis on CT-based (total) AAA geometries in 10 patients, and observing the changes in 99th percentile stresses and median stresses while systematically limiting the FOV. Results reveal that changes in the 99th percentile wall stresses are less than 10% when the proximal and distal shoulders of the aneurysm are in the shortened FOV. Wall stress results show that the presence of the aortic bifurcation in the FOV does not influence the wall stresses in high stress regions. Hence, the necessity of assessing the complete FOV, including the aortic bifurcation, is of minor importance. When the proximal and distal shoulders of the AAA are in the FOV, peak wall stresses can be detected adequately.

impactfactor: *2.431*

Sambeek MR van (Marc)

Late single-center outcome of the Talent Abdominal Stent Graft after a decade of follow-up

't Mannetje YW*, Broos PP*, van Poppel RF*, van Sambeek MR*, Teijink JA*, Cuypers PW*

J Vasc Surg. 2016 Sep;64(3):557-62. Epub 2016 Mar 16

Voor abstract zie: *Chirurgie - Mannetje Y 't*

impactfactor: *3.454*

Sambeek MR van (Marc)

Patient Specific Wall Stress Analysis and Mechanical Characterization of Abdominal Aortic Aneurysms Using 4D Ultrasound

van Disseldorp EM*, Petterson NJ, Rutten MC, van de Vosse FN, van Sambeek MR*, Lopata RG

Eur J Vasc Endovasc Surg. 2016 Nov;52(5):635-642. 2016 Sep 27

Voor abstract zie: *Chirurgie - Disseldorp EM*

impactfactor: *2.912*

Sambeek MR van (Marc)

Predicting reinterventions after open and endovascular aneurysm repair using the St George's Vascular Institute score de Bruin JL, Karthikesalingam A, Holt PJ, Prinssen M, Thompson MM, Blankensteijn JD; Dutch Randomised Endovascular Aneurysm Management (DREAM) Study Group: Cuypers PW, Sambeek MR, Tielbeek AV, Teijink JA

J Vasc Surg. 2016 Jun;63(6):1428-1433.e1. Epub 2016 Mar 19

Voor abstract zie: *Chirurgie - Cuypers PhW*

impactfactor: *3.454*

Sambeek MR van (Marc)

Quality of life from a randomized trial of open and endovascular repair for abdominal aortic aneurysm

de Bruin JL, Groenwold RH, Baas AF, Brownrigg JR, Prinssen M, Grobbee DE, Blankensteijn JD; Dutch Randomised Endovascular Aneurysm Management (DREAM) Study Group: Cuypers PW, Sambeek MR, Tielbeek AV, Teijink JA

Br J Surg. 2016 Jul;103(8):995-1002. Epub 2016 Apr 5

Voor abstract zie: *Chirurgie - Cuypers PhW*

impactfactor: *5.596*

Sambeek MR van (Marc)

Symptomatic abdominal aortic aneurysm repair: to wait or not to wait

Ten Bosch JA, Koning SW, Willigendael EM, Van Sambeek MR H M*, Stokmans RA*, Prins MH, Teijink JA W*

J Cardiovasc Surg (Torino). 2016 Dec;57(6):830-838

Aim: In patients with a symptomatic abdominal aortic aneurysm (sAAA), acute intervention theoretically reduces rupture risk prior to surgery whereas delayed intervention provides surgery under optimised conditions. In the present study we evaluated differences in 30-day mortality in patients with a sAAA operated within 12 hours compared to patients who received treatment after 12 hours and who were optimised for surgery. Methods: All patients with a sAAA who were treated within one week after presentation were included in the analyses. The 30-day mortality rates of patients operated within 12 hours were compared to those operated after 12 hours, adjusted for type of operation and for all

potential confounders. Results: Of the 89 included patients, 37 patients received surgery within 12 hours. In patients treated within 12 hours, 30-day mortality rate was 6 (16.2%) compared to 3 (5.8%) in patients treated after 12 hours (odds ratio 0.316; CI 0.074-1.358). When adjusted for type of operation and other confounders, odds ratios were 0.305 (CI 0.066-1.405) and 0.270 (CI 0.015-4.836), respectively. Conclusion: In a substantial amount of patients with an alleged symptomatic AAA, delayed surgery with patient optimisation might be justified. However, specific criteria in order to select patients that might benefit from delayed surgery need further investigation.

impactfactor: *1.632*

Sambeek MR van (Marc)

Treatment of upper-extremity outflow thrombosis

van den Houten MM*, van Grinsven R*, Pouwels S*, Yo LS*, van Sambeek MR*, Teijink JA*

Phlebology. 2016 Mar;31(1 Suppl):28-33

Voor abstract zie: *Chirurgie - Houten MM van*

impactfactor: *1.413*

Schipper RJ (Robert Jan)

Axillary Response Monitoring After Neoadjuvant Chemotherapy in Breast Cancer: Can We Avoid the Morbidity of Axillary Treatment?

Vugts G*, Schipper RJ*, Maaskant-Braat AJ*, Smidt ML, Nieuwenhuijzen GA*

Ann Surg.2016 Feb;263(2):e28-9.Epub 2014 Nov 17

Geen abstract beschikbaar

impactfactor: *8.569*

Schipper RJ (Robert Jan)

Routine use of standard breast MRI compared to axillary ultrasound for differentiating between no, limited and advanced axillary nodal disease in newly diagnosed breast cancer patients

van Nijnatten TJ, Ploumen EH, Schipper RJ*, Goorts B, Andriessen EH, Vanwetswinkel S, Schavemaker M, Nelemans P, de Vries B, Beets-Tan RG, Smidt ML, Lobbes MB Eur J Radiol. 2016 Dec;85(12):2288-2294

OBJECTIVES: To compare standard breast MRI to dedicated axillary ultrasound (with or without tissue sampling) for differentiating between no, limited and advanced axillary nodal disease in breast cancer patients.

METHODS: All patients who underwent breast MRI and dedicated axillary ultrasound between 2009 and 2014 were eligible. Exclusion criteria were recurrent disease, neoadjuvant systemic therapy and not receiving completion axillary lymph node dissection after positive sentinel lymph node biopsy (SLNB). Two radiologists independently reassessed all MRI exams. Axillary ultrasound findings were retrospectively collected. Probability of advanced axillary nodal disease (pN2-3) given clinically node negative (cN0) or limited (cN1) findings was calculated, with corresponding negative predictive value (NPV) to exclude pN2-3 and positive predictive value (PPV) to identify axillary nodal disease. Histopathology served as gold standard.

RESULTS: A total of 377 cases resulted in 81.4% no, 14.4% limited and 4.2% advanced axillary nodal disease at final histopathology. Probability of pN2-3 given cN0 for breast MRI and axillary ultrasound was 0.7-0.9% versus 1.5% and probability of pN2-3 given cN1 was 11.6-15.4% versus 29.0%. When cN1 on breast MRI was observed, PPV to identify positive axillary nodal disease was 50.7% and 59.0%.

CONCLUSIONS: Evaluation of axillary nodal status on standard breast MRI is comparable to dedicated axillary ultrasound in breast cancer patients. In patients who underwent preoperative standard breast MRI, axillary ultrasound is only required in case of suspicious nodal findings on MRI.

impactfactor: 2.593

Simkens GA (Geert)

Cytoreductive surgery and HIPEC offers similar outcomes in patients with rectal peritoneal metastases compared to colon cancer patients: a matched case control study

Simkens GA*, van Oudheusden TR*, Braam HJ, Wiezer MJ, Nienhuijs SW*, Rutten HJ*, van Ramshorst B, de Hingh IH*

J Surg Oncol. 2016 Apr;113(5):548-53. Epub 2016 Jan 12

BACKGROUND & OBJECTIVES:

The effect of cytoreduction and hyperthermic intraperitoneal chemotherapy (HIPEC) in patients with rectal peritoneal metastases (PM) is unclear. This case-control study aims to assess the results of cytoreduction and HIPEC in patients with rectal PM compared to colon PM patients.

METHODS: Colorectal PM patients treated with complete macroscopic cytoreduction and HIPEC were included. Two colon cancer patients were case-matched for each rectal cancer patient, based on prognostic factors (T stage, N stage, histology type, and extent of PM). Short- and long-term outcomes were compared between both groups. RESULTS: From 317 patients treated with complete macroscopic cytoreduction and HIPEC, 29 patients (9.1%) had rectal PM. Fifty-eight colon cases were selected as control patients. Baseline characteristics were similar between groups. Major morbidity was 27.6% and 34.5% in the rectal and colon group, respectively (P?=?0.516). Median disease-free survival was 13.5 months in the rectal group and 13.6 months in the colon group (P?=?0.621). Two- and five-year overall survival rates were 54%/32% in rectal cancer patients, and 61%/24% in colon cancer patients (P?=?0.987).

CONCLUSIONS: Cytoreduction and HIPEC in selected patients with rectal PM is feasible and provides similar outcomes as in colon cancer patients. Rectal PM should not be regarded a contra-indication for cytoreduction and HIPEC in selected patients.

impactfactor: 3.151

Simkens GA (Geert)

Development of a Prognostic Nomogram for Patients with Peritoneally Metastasized Colorectal Cancer Treated with Cytoreductive Surgery and HIPEC

Simkens GA*, van Oudheusden TR*, Nieboer D, Steyerberg EW, Rutten HJ*, Luyer MD*, Nienhuijs SW*, de Hingh IH*

Ann Surg Oncol. 2016 Dec;23(13):4214-4221

BACKGROUND: With the introduction of cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC), long-term survival can be achieved in selected patients with colorectal peritoneal metastases (PM). Patient selection and outcome may be improved significantly with a tool that adequately predicts survival in these patients. This study was designed to validate the peritoneal surface disease severity score (PSDSS) in patients with colorectal PM treated with CRS + HIPEC. If performance of the PSDSS was suboptimal (c < 0.7), we aimed to develop a new prognostic model.

METHODS: Patients were included if they had colorectal PM and underwent CRS + HIPEC with intended complete cytoreduction in a Dutch tertiary hospital between 2007 and 2015. Statistical analyses were performed with R-software.

RESULTS: A total of 200 patients underwent CRS + HIPEC. External validation of the PSDSS showed a Harrell's c statistic of 0.62. After analysis, four parameters appeared prognostically relevant factors for overall survival: age, PCI score, locoregional lymph node status, and signet ring cell histology. The weighted relevance of these parameters was turned into a prognostic nomogram that we termed colorectal peritoneal metastases prognostic surgical score (COMPASS). The COMPASS differentiated well and showed a Harrell's c statistic of 0.72 with a calibration plot showing good agreement.

CONCLUSIONS: This study externally validated the PSDSS and developed a new prognostic score, the COMPASS. This pre-cytoreduction nomogram was more accurate than PSDSS in predicting survival of patients undergoing CRS + HIPEC. It can be used as tool to assist in the decision about continuing cytoreduction and HIPEC and can provide valuable information in the follow-up period after CRS + HIPEC.

impactfactor: 3.655

Simkens GA (Geert)

Histological subtype and systemic metastases strongly influence treatment and survival in patients with synchronous colorectal peritoneal metastases

Simkens GA*, Razenberg LG*, Lemmens VE, Rutten HJ*, Creemers GJ*, de Hingh IH*

Eur J Surg Oncol. 2016 Jun;42(6):794-800. Epub 2016 Mar 28

BACKGROUND: Treatment possibilities for colorectal peritoneal metastases (PM) are increasing. It is however unclear how treatment choice and outcome are influenced by histological subtype and the presence of systemic metastases. Therefore, this study assessed the impact of histological subtype and systemic metastases on treatment choice and survival in patients with colorectal PM.

METHODS: This population-based study included patients with synchronous PM originating from colorectal adenocarcinoma (AC), mucinous adenocarcinoma (MC), or signet ring cell carcinoma (SRCC). Data of patients diagnosed between 2005 and 2014 were extracted from the National Cancer Registry (IKNL) of the Netherlands. Treatment strategy and survival were analyzed with logistic regression and cox proportional hazard analyses.

RESULTS: In total, 5516 patients were included, of whom 71.8% had an AC, 21.2% an MC, and 7.0% had an SRCC. The use of cytoreduction and hyperthermic intraperitoneal chemotherapy (HIPEC) was dependent on histological subtype and the presence of systemic metastases, and increased over time, especially in AC and MC patients. The relative survival gain of CRS + HIPEC, corrected for systemic metastases, was comparable in AC, MC, and SRCC patients (hazard ratio: 0.17, 0.21, and 0.13, respectively). Compared to supportive care only, the absolute survival gain was 30, 35, and 18 months, respectively. Systemic therapy improved survival in all histological subtypes.

CONCLUSIONS: Histological subtype and the presence of systemic metastases strongly influenced treatment choice and survival in patients with synchronous colorectal PM. These results can be used to optimize treatment strategy for patients with synchronous colorectal PM.

impactfactor: 2.940

Simkens GA (Geert)

Increased Survival of Patients with Synchronous Colorectal Peritoneal Metastases Receiving Preoperative Chemotherapy Before Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemotherapy

Devilee RA*, Simkens GA*, van Oudheusden TR*, Rutten HJ*, Creemers GJ*, Ten Tije AJ, de Hingh IH* Ann Surg Oncol. 2016 Sep;23(9):2841-8. Epub 2016 Apr 4

Voor abstract zie: *Chirurgie - Devilee RA*

impactfactor: *3.655*

Simkens GA (Geert)

Predictors of Severe Morbidity After Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemotherapy for Patients With Colorectal Peritoneal Carcinomatosis

Simkens GA*, van Oudheusden TR*, Luyer MD*, Nienhuijs SW*, Nieuwenhuijzen GA*, Rutten HJ*, de Hingh IH*

Ann Surg Oncol. 2016 Mar;23(3):833-41. Epub 2015 Oct 6

BACKGROUND: Severe morbidity after cytoreductive surgery (CRS) followed by hyperthermic intraperitoneal chemotherapy (HIPEC) is, besides the obvious short-term consequences, associated with impaired long-term outcomes. The risk factors for severe morbidity in patients with peritoneal carcinomatosis (PC) of colorectal origin are poorly defined. This study aimed to identify risk factors for severe morbidity after CRS + HIPEC in patients with colorectal PC.

METHODS: Patients with colorectal PC who underwent CRS + HIPEC between 2007 and 2015 were categorized and compared between those with and those without severe morbidity. Risk factors were identified using logistic regression analysis. Morbidity was graded according to the Clavien-Dindo classification, with grade 3 or higher indicating severe morbidity.

RESULTS: This study included 211 patients, of whom 53 patients (25.1 %) experienced morbidity of grade 3 or higher. The identified risk factors for severe morbidity were extensive prior surgery [odds ratio (OR) 4.3], a positive recent smoking history (OR 4.0), a poor physical performance status (OR 2.9), and extensive cytoreduction (OR 1.2 per additional resection). Patients with a greater number of risk factors more often had severe morbidity and higher reoperation, readmission, and mortality rates. Furthermore, an internally validated preoperative prediction model for severe morbidity with an area under the curve of 70 % was constructed.

CONCLUSION: The current study identified risk factors for severe morbidity after CRS + HIPEC in patients with colorectal PC. Patients with a combination of risk factors have a substantial risk of severe morbidity and therefore should be carefully selected for CRS + HIPEC. The preoperative decision model can be a valuable additional tool in this process of patient selection.

impactfactor: *3.655*

Simkens GA (Geert)

Short-term outcome in patients treated with cytoreduction and HIPEC compared to conventional colon cancer surgery

Simkens GA*, Verwaal VJ, Lemmens VE, Rutten H*J, de Hingh IH*

Medicine (Baltimore). 2016 Oct;95(41):e5111

Cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC) is an extensive procedure with considerable morbidity. Since only few hospitals perform CRS?+?HIPEC, this might lead to confounded outcomes between hospitals when audited.

This study aims to compare outcomes between peritoneally metastasized (PM) colon cancer patients treated with CRS?+?HIPEC and patients undergoing conventional colon surgery. Furthermore, the impact of CRS?+?HIPEC on the risk of postoperative complications will be assessed, probably leading to better insight into how to report on postoperative outcomes in this distinct group of patients undergoing extensive colon surgery.All patients with primary colon cancer who underwent segmental colon resection in a tertiary referral hospital between 2011 and 2014 were included in this prospective cohort study. Outcome after surgery was compared between patients who underwent additional CRS?+?HIPEC treatment or conventional surgery.Consequently, 371 patients underwent surgery, of which 43 (12%) underwent CRS?+?HIPEC. These patients were younger and healthier than patients undergoing conventional surgery. Tumor characteristics were less favorable and surgery was more extensive in CRS?+?HIPEC patients. The morbidity rate was also higher in CRS?+?HIPEC patients (70% vs 41%; P?<?0.001). CRS?+?HIPEC was an independent predictor of postoperative complications (odds ratio 6.4), but was not associated with more severe postoperative complications or higher treatment-related mortality.Although patients with colonic PM undergoing CRS?+?HIPEC treatment were younger and healthier, the postoperative outcome was worse. This is most probably due to less favorable tumor characteristics and more extensive surgery. Nevertheless, CRS?+?HIPEC treatment was not associated with severe complications or increased treatment-related mortality. These results stress the need for adequate case-mix correction in colorectal surgery audits.

impactfactor: *1.206*

Simkens GA (Geert)

Treatment-Related Mortality After Cytoreductive Surgery and HIPEC in Patients with Colorectal Peritoneal Carcinomatosis is Underestimated by Conventional Parameters

Simkens GA*, van Oudheusden TR*, Braam HJ, Luyer MD*, Wiezer MJ,
van Ramshorst B, Nienhuijs SW*, de Hingh IH*

Ann Surg Oncol. 2016 Jan;23(1):99-105. Epub 2015 Jul 7

BACKGROUND: Cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC) as treatment for patients with colorectal peritoneal carcinomatosis (PC) is regarded as an extensive procedure. The risk of postoperative mortality after major abdominal surgery might be substantially higher than described by the 30-day mortality. This study aims to identify causes of 1-year mortality, thereby assessing a more accurate treatment-related mortality rate after CRS + HIPEC.

METHODS: All subsequent patients with colorectal PC treated with CRS + HIPEC with complete macroscopic cytoreduction in two tertiary hospitals between April 2005 and April 2013 were included in this study. Causes of 1-year mortality were carefully analyzed and patient data were compared between patients who died or did not die within 12 months after CRS + HIPEC.

RESULTS: Of the 245 included patients, 34 (13.9 %) died within 12 months after CRS + HIPEC. The overall treatment-related mortality rate was 4.9 % (n = 12), and the 30-day and in-hospital mortality rates were 1.6 % (n = 4) and 2.4 % (n = 6), respectively. Furthermore, 18 patients (7.3 %) died due to early recurrent disease. Three patients (1.2 %) died of cardiovascular events, unrelated to CRS + HIPEC. The 1-year mortality group had more extensive peritoneal disease (p = 0.02) and the operative time in this group was longer (p < 0.001).

CONCLUSIONS: Overall treatment-related mortality was considerably higher than described by the 30-day and in-hospital mortality rate. However, even though complete macroscopic cytoreduction was achieved in every patient, the main cause of 1-year mortality was early

recurrent disease. Both findings are valuable in preoperative patient selection, as well as in preoperative counseling of patients undergoing a CRS + HIPEC procedure.

impactfactor: *3.655*

Smeets B (Boudewijn)

Beneficial Effects of Early Enteral Nutrition After Major Rectal Surgery: A Possible Role for Conditionally Essential Amino Acids? Results of a Randomized Clinical Trial

van Barneveld KW, Smeets BJ*, Heesakkers FF*, Bosmans JW, Luyer MD*, Wasowicz D*, Bakker JA, Roos AN*, Rutten HJ*, Bouvy ND, Boelens PG*

Crit Care Med. 2016 Jun;44(6):e353-61

OBJECTIVES: To investigate direct postoperative outcome and plasma amino acid concentrations in a study comparing early enteral nutrition versus early parenteral nutrition after major rectal surgery. Previously, it was shown that a low plasma glutamine concentration represents poor prognosis in ICU patients.

DESIGN: A preplanned substudy of a previous prospective, randomized, open-label, single-centre study, comparing early enteral nutrition versus early parenteral nutrition in patients at high risk of postoperative ileus after surgery for locally advanced or locally recurrent rectal cancer. Early enteral nutrition reduced postoperative ileus, anastomotic leakage, and hospital stay.

SETTING: Tertiary referral centre for locally advanced and recurrent rectal cancer. PATIENTS: A total of 123 patients with locally advanced or recurrent rectal carcinoma requiring major rectal surgery.

INTERVENTIONS: Patients were randomized (ALEA web-based external randomization) preoperatively into two groups: early enteral nutrition (early enteral nutrition, intervention) by nasojejunal tube (n = 61) or early parenteral nutrition (early parenteral nutrition, control) by jugular vein catheter (n = 62). Eight hours after the surgical procedure artificial nutrition was started in hemodynamically stable patients, stimulating oral intake in both groups. Blood samples were collected to measure plasma glutamine, citrulline, and arginine concentrations using a validated ultra performance liquid chromatography-tandem mass spectrometric method.

MEASUREMENTS AND MAIN RESULTS: Baseline concentrations were comparable for both groups. Directly after rectal surgery, a decrease in plasma amino acids was observed. Plasma glutamine concentrations were higher in the parenteral group than in the enteral group on postoperative day 1 ($p = 0.027$) and day 5 ($p = 0.008$). Arginine concentrations were also significantly increased in the parenteral group at day 1 ($p < 0.001$) and day 5 ($p = 0.001$).

CONCLUSIONS: Lower plasma glutamine and arginine concentrations were measured in the enteral group, whereas a better clinical outcome was observed. We conclude that plasma amino acids do not provide a causal explanation for the observed beneficial effects of early enteral feeding after major rectal surgery.

impactfactor: *7.422*

Smid AT (Annemieke)

Altered joint kinematics and increased electromyographic muscle activity during walking in patients with intermittent claudication

Gommans LN*, Smid AT*, Scheltinga MR, Brooijmans FA, van Disseldorp EM*, van der Linden FT*, Meijer K, Teijink JA*

J Vasc Surg. 2016 Mar;63(3):664-72. Epub 2016 Jan 9

Voor abstract zie: *Chirurgie - Gommans LN*

impactfactor: *3.454*

Smulders JF (Frans)

Comparison Between Different Intramuscular Vitamin B12 Supplementation Regimes: a retrospective matched cohort study

Smelt HJ*, Pouwels S*, Said M*, Berghuis KA*, Boer AK*, Smulders JF*

Obes Surg. 2016 Dec;26(12):2873-2879

Voor abstract zie: *Dietetiek - Smelt HJ*

impactfactor: *3.346*

Smulders JF (Frans)

Different Supplementation Regimes to Treat Perioperative Vitamin B12 Deficiencies in Bariatric Surgery: a Systematic Review

Smelt HJ*, Pouwels S*, Smulders JF*

Obes Surg. 2017 Jan;27(1):254-262

Voor abstract zie: *Dietetiek - Smelt HJ*

impactfactor: *3.346*

Smulders JF (Frans)

Improving Bariatric Patient Aftercare Outcome by Improved Detection of a Functional Vitamin B12 Deficiency

Smelt HJ*, Smulders JF*, Said M*, Nienhuijs SW*, Boer AK*

Obes Surg. 2016 Jul;26(7):1500-4. Epub 2015 Nov 4

Voor abstract zie: *Dietetiek - Smelt HJ*

impactfactor: *3.346*

Smulders JF (Frans)

Increased Belching After Sleeve Gastrectomy

Burgerhart JS, van de Meeberg PC, Mauritz FA, Schoon EJ*, Smulders JF*, Siersema PD, Smout AJ

Obes Surg. 2016 Jan;26(1):132-7. Epub 2015 Jun 23

Voor abstract zie: *Maag-darm-leverziekten - Schoon EJ*

impactfactor: *3.346*

Smulders JF (Frans)

Long-term results after revisions of failed primary vertical banded gastroplasty

van Wezenbeek MR*, Smulders FJ*, de Zoete JP*, Luyer MD*, van Montfort G*, Nienhuijs SW*

World J Gastrointest Surg. 2016 Mar 27;8(3):238-45

Voor abstract zie: *Chirurgie - Wezenbeek MR van*

impactfactor: *2.807*

Smulders JF (Frans)

Predictors for the occurrence of major complications after primary Roux-en-Y gastric bypass surgery

van Wezenbeek MR*, Smulders FJ*, Luyer MD*, VAN Montfort G*, Vanhimbeeck FJ*, Nienhuijs SW*

Minerva Chir. 2016 Oct;71(5):286-92. Epub 2016 Jun 29

Voor abstract zie: Chirurgie - Wezenbeek MR van

impactfactor: 0.877

Smulders JF (Frans)

The Clinical Dilemma of Calcium Supplementation After Bariatric Surgery: Calcium Citrate or Calcium Carbonate That Is the Question?

Smelt HJ*, Pouwels S*, Smulders JF*

Obes Surg. 2016 Nov;26(11):2781-2782

geen abstract beschikbaar

impactfactor: 3.346

Smulders JF (Frans)

Transection versus preservation of the neurovascular bundle of the lesser omentum in primary Roux-en-Y gastric bypass surgery

van Wezenbeek MR*, van Oudheusden TR*, Smulders JF*, Nienhuijs SW*, Luyer MD*

Surg Obes Relat Dis. 2016 Feb;12(2):283-9. Epub 2015 Aug 3

Voor abstract zie: Chirurgie - Wezenbeek MR van

impactfactor: 3.540

Stokmans RA (Rutger)

A 15-Year Single-Center Experience of Endovascular Repair for Elective and Ruptured Abdominal Aortic Aneurysms

Broos PP*, 't Mannetje YW*, Stokmans RA*, Houterman S*, Corte G*, Cuypers PW*, Teijink JA*, van Sambeek MR*

J Endovasc Ther. 2016 Aug;23(4):566-73. Epub 2016 May 13

Voor abstract zie: Chirurgie - Broos PP

impactfactor: 3.128

Stokmans RA (Rutger)

Symptomatic abdominal aortic aneurysm repair: to wait or not to wait

Ten Bosch JA, Koning SW, Willigendael EM, Van Sambeek MR H M*, Stokmans RA*, Prins MH, Teijink JA W*

J Cardiovasc Surg (Torino). 2016 Dec;57(6):830-838

Voor abstract zie: Chirurgie - Sambeek MR van

impactfactor: 1.632

Teijink JA (Joep)

A 15-Year Single-Center Experience of Endovascular Repair for Elective and Ruptured Abdominal Aortic Aneurysms

Broos PP*, 't Mannetje YW*, Stokmans RA*, Houterman S*, Corte G*, Cuypers PW*, Teijink JA*, van Sambeek MR*

J Endovasc Ther. 2016 Aug;23(4):566-73. Epub 2016 May 13

Voor abstract zie: Chirurgie - Broos PP

impactfactor: 3.128

Teijink JA (Joep)

A ruptured abdominal aortic aneurysm that requires preoperative cardiopulmonary resuscitation is not necessarily lethal

Broos PP*, 't Mannetje YW*, Loos MJ, Scheltinga MR, Bouwman LH, Cuypers PW*, van Sambeek MR*, Teijink JA*

J Vasc Surg. 2016 Jan;63(1):49-54. Epub 2015 Oct 1

Voor abstract zie: *Chirurgie - Broos PP*

impactfactor: *3.454*

Teijink JA (Joep)

Altered joint kinematics and increased electromyographic muscle activity during walking in patients with intermittent claudication

Gommans LN*, Smid AT*, Scheltinga MR, Brooijmans FA, van Disseldorp EM*, van der Linden FT*, Meijer K, Teijink JA*

J Vasc Surg. 2016 Mar;63(3):664-72. Epub 2016 Jan 9

Voor abstract zie: *Chirurgie - Gommans LN*

impactfactor: *3.454*

Teijink JA (Joep)

Comparative analysis of respiratory muscle strength before and after bariatric surgery using 5 different predictive equations

Pouwels S*, Buise MP*, Smeenk FW*, Teijink JA*, Nienhuijs SW*

J Clin Anesth. 2016 Aug;32:172-80.. Epub 2016 Apr 20

Voor abstract zie: *Chirurgie - Pouwels S*

impactfactor: *1.284*

Teijink JA (Joep)

Cost-effectiveness of supervised exercise therapy compared with endovascular revascularization for intermittent claudication

van den Houten MM*, Lauret GJ, Fakhry F, Fokkenrood HJ, van Asselt AD, Hunink MG, Teijink JA*

Br J Surg. 2016 Nov;103(12):1616-1625

Voor abstract zie: *Chirurgie - Houten MM van den*

impactfactor: *5.596*

Teijink JA (Joep)

Development of quality indicators for physiotherapy for patients with PAOD in the Netherlands: a Delphi study

Gijsbers HJ, Lauret GJ*, van Hofwegen A, van Dockum TA, Teijink JA*, Hendriks HJ

Physiotherapy. 2016 Jun;102(2):196-201. Epub 2015 Jun 19

Voor abstract zie: *Chirurgie - Lauret GJ*

impactfactor: *1.814*

Teijink JA (Joep)

Dialysis catheter placement via the left internal jugular vein: risk of brachiocephalic vein perforation

Winkes MB, Loos MJ, Scheltinga MR, Teijink JA*

J Vasc Access. 2016 Jul 12;17(4):e75-8

PURPOSE: We discuss a case of a brachiocephalic vein (BCV) perforation after Tesio® central venous catheter insertion.

METHOD AND RESULTS: An 80-year-old patient underwent an ultrasound-guided hemodialysis (HD) catheter placement via his left internal jugular vein (IJV). One day postoperatively, the patient became hemodynamically unstable immediately after HD initiation. As a vascular event was feared, an emergency CT scan was performed demonstrating a BCV perforation. The patient underwent a sternotomy, the lines were removed and the venous laceration was closed. The patient recovered well. CONCLUSIONS: In spite of ultrasound guidance, fluoroscopy for guidewire and sheath advancement, venous blood aspiration and a normal appearing postoperative x-ray, traumatic central venous catheter placement is still possible. Tenting of the BCV wall during catheter advancement possibly caused the venous perforation. A 'how-to' for correct catheter placement via the IJV is provided and potential pitfalls during each procedural step are discussed.

impactfactor: 1.535

Teijink JA (Joep)

Disease Combinations Associated with Physical Activity Identified

Dörenkamp S, Mesters I, Schepers J, Vos R, van den Akker M, Teijink J*, de Bie R, Biomed Res Int. 2016;2016:9053578. Epub 2016 Jan 4

In the search of predictors of inadequate physical activity, an investigation was conducted into the association between multimorbidity and physical activity (PA). So far the sum of diseases used as a measure of multimorbidity reveals an inverse association. How specific combinations of chronic diseases are associated with PA remains unclear. The objective of this study is to identify clusters of multimorbidity that are associated with PA. Cross-sectional data of 3,386 patients from the 2003 wave of the Dutch cohort study SMILE were used. Ward's agglomerative hierarchical clustering was executed to establish multimorbidity clusters. Chi-square statistics were used to assess the association between clusters of chronic diseases and PA, measured in compliance with the Dutch PA guideline. The highest rate of PA guideline compliance was found in patients the majority of whom suffer from liver disease, back problems, rheumatoid arthritis, osteoarthritis, and inflammatory joint disease (62.4%). The lowest rate of PA guideline compliance was reported in patients with heart disease, respiratory disease, and diabetes mellitus (55.8%). Within the group of people with multimorbidity, those suffering from heart disease, respiratory disease, and/or diabetes mellitus may constitute a priority population as PA has proven to be effective in the prevention and cure of all three disorders.

impactfactor: 2.134

Teijink JA (Joep)

How Well Do Randomized Controlled Trials Reflect Standard Care: A Comparison between Scientific Research Data and Standard Care Data in Patients with Intermittent Claudication undergoing Supervised Exercise Therapy

Dörenkamp S, Mesters EP, Nijhuis-van der Sanden MW, Teijink JA*, de Bie RA, Hoogeboom TJ

PLoS One. 2016 Jun 23;11(6):e0157921. eCollection 2016

OBJECTIVE: The aim of the present study was to assess the degree and impact of patient selection of patients with intermittent claudication undergoing supervised exercise therapy in Randomized Controlled Trials (RCTs) by describing commonly used exclusion criteria, and by comparing baseline characteristics and treatment response measured as improvement in maximum walking distance of patients included in RCTs and patients treated in standard care.

METHODS: We compared data from RCTs with unselected standard care data. First, we systematically reviewed RCTs that investigated the effect of supervised exercise therapy in patients with intermittent claudication. For each of the RCTs, we extracted and categorized the eligibility criteria and their justifications. To assess whether people in RCTs (n = 1,440) differed from patients treated in daily practice (n = 3,513), in terms of demographics, comorbidity and walking capacity, we assessed between group-differences using t-tests. To assess differences in treatment response, we compared walking distances at three and six months between groups using t-tests. Differences of =15% were set as a marker for a clinically relevant difference.

RESULTS: All 20 included RCTs excluded large segments of patients with intermittent claudication. One-third of the RCTs eligibility criteria were justified. Despite, the numerous eligibility criteria, we found that baseline characteristics were largely comparable. A statistically significant and (borderline) clinically relevant difference in treatment response after three and six months between trial participants and standard care patients was found. Improvements in maximum walking distance after three and six months were significantly and clinically less in trial participants.

CONCLUSIONS: The finding that baseline characteristics of patients included in RCTs and patients treated in standard care were comparable, may indicate that RCT eligibility criteria are used implicitly by professionals when referring patients to standard physiotherapy care. The larger treatment response reported in standard physiotherapy care compared to clinical trials, might suggest that scientific studies underestimate the benefits of supervised exercise therapy in patients with intermittent claudication.

impactfactor: *3.057*

Teijink JA (Joep)

Late single-center outcome of the Talent Abdominal Stent Graft after a decade of follow-up

't Mannetje YW*, Broos PP*, van Poppel RF*, van Sambeek MR*, Teijink JA*, Cuypers PW* J Vasc Surg. 2016 Sep;64(3):557-62. Epub 2016 Mar 16

Voor abstract zie: *Chirurgie - Mannetje Y 't*

impactfactor: *3.454*

Teijink JA (Joep)

Minimal correlation between physical exercise capacity and daily activity in patients with intermittent claudication

Gommans LN*, Hageman D*, Jansen I*, de Gee R*, van Lummel RC, Verhofstad N*, Scheltinga MR, Teijink JA*

J Vasc Surg. 2016 Apr;63(4):983-9. Epub 2016 Jan 21

Voor abstract zie: *Chirurgie - Gommans LN*

impactfactor: *3.454.*

Teijink JA (Joep)

Minimally Important Difference of the Absolute and Functional Claudication Distance in Patients with Intermittent Claudication

van den Houten MM*, Gommans LN*, van der Wees PJ, Teijink JA*

Eur J Vasc Endovasc Surg. 2016 Mar;51(3):404-9. Epub 2015 Dec 20

OBJECTIVE: Disease severity and treatment outcomes in patients with intermittent claudication (IC) are commonly assessed using walking distance measured with a standardized treadmill test. It is unclear what improvement or deterioration in walking distance constitutes a meaningful, clinically relevant, change from the patients' perspective.

The purpose of the present study was to estimate the minimally important difference (MID) for the absolute claudication distance (ACD) and functional claudication distance (FCD) in patients with IC.

METHOD: The MIDs were estimated using an anchor based approach with a previously defined clinical anchor derived from scores of the walking impairment questionnaire (WIQ) in a similar IC population. Baseline and 3 month follow up data on WIQ scores and walking distances (ACD and FCD) were used from 202 patients receiving supervised exercise therapy from the 2010 EXITPAD randomized controlled trial. The external WIQ anchor was used to form three distinct categories: patients with "clinically relevant improvement," "clinically relevant deterioration," and "no clinically relevant change." The MIDs for improvement and deterioration were defined by the upper and lower limits of the 95% confidence interval of the mean change in ACD and FCD, for the group of IC patients that remained unchanged according to the WIQ anchor.

RESULTS: For the estimation of the MID of the ACD and FCD, 102 and 101 patients were included, respectively. The MID for the ACD was 305 m for improvement, and 147 m for deterioration. The MID for the FCD was 250 m for improvement, and 120 m for deterioration.

CONCLUSION: The MIDs for the treadmill measured ACD and FCD can be used to interpret the clinical relevance of changes in walking distances after supervised exercise therapy and may be used in both research and individual care.

Voor abstract zie: *Chirurgie - Houten MM van den*

impactfactor: *2.912*

Teijink JA (Joep)

Motorcycle racer with unilateral forearm flexor and extensor chronic exertional compartment syndrome

Winkes MB, Teijink JA*, Scheltinga MR

BMJ Case Rep. 2016 Apr 14;2016:10.1136/bcr-2016-214739

We discuss a case of a 26-year-old man, a motorcycle racer, who presented with progressive pain, weakness and swelling of his right forearm and loss of power in his index finger, experienced during motor racing. Chronic exertional compartment syndrome (CECS) of both flexor and extensor compartments of his forearm was diagnosed by dynamic intracompartmental muscle pressure measurements. After fasciotomies, all symptoms were resolved and the patient was able to improve on his preinjury racing skills, without any limitations. A literature review and a surgical 'how-to' for correct release of the extensor and deep flexor compartments of the forearm are provided.

impactfactor: --

Teijink JA (Joep)

Patient Characteristics and Comorbidities Influence Walking Distances in Symptomatic Peripheral Arterial Disease: A Large One-Year Physiotherapy Cohort Study

Dörenkamp S, Mesters I, de Bie R, Teijink J*, van Breukelen G

PLoS One. 2016 Jan 11;11(1):e0146828

OBJECTIVES: The aim of this study is to investigate the association between age, gender, body-mass index, smoking behavior, orthopedic comorbidity, neurologic comorbidity, cardiac comorbidity, vascular comorbidity, pulmonic comorbidity, internal comorbidity and Initial Claudication Distance during and after Supervised Exercise Therapy at 1, 3, 6 and 12 months in a large sample of patients with Intermittent Claudication.

METHODS: Data was prospectively collected in standard physiotherapy care. Patients received Supervised Exercise Therapy according to the guideline Intermittent Claudication of the Royal Dutch Society for Physiotherapy. Three-level mixed linear regression analysis was carried out to analyze the association between patient characteristics, comorbidities and Initial Claudication Distance at 1, 3, 6 and 12 months.

RESULTS: Data from 2995 patients was analyzed. Results showed that being female, advanced age and a high body-mass index were associated with lower Initial Claudication Distance at all-time points (p = 0.000). Besides, a negative association between cardiac comorbidity and Initial Claudication Distance was revealed (p = 0.011). The interaction time by age, time by body-mass index and time by vascular comorbidity were significantly associated with Initial Claudication Distance (p= 0.05). Per year increase in age (range: 33-93 years), the reduction in Initial Claudication Distance was 8m after 12 months of Supervised Exercise Therapy. One unit increase in body-mass index (range: 16-44 kg/m2) led to 10 m less improvement in Initial Claudication Distance after 12 months and for vascular comorbidity the reduction in improvement was 85 m after 12 months.

CONCLUSIONS: This study reveals that females, patients at advanced age, patients with a high body-mass index and cardiac comorbidity are more likely to show less improvement in Initial Claudication Distances (ICD) after 1, 3, 6 and 12 months of Supervised Exercise Therapy. Further research should elucidate treatment adaptations that optimize treatment outcomes for these subgroups.

impactfactor: 3.057

Teijink JA (Joep)

Patient-specific Rehearsal Before EVAR: Influence on Technical and Nontechnical Operative Performance. A Randomized Controlled Trial

Desender LM, Van Herzeele I, Lachat ML, Rancic Z, Duchateau J, Rudarakanchana N, Bicknell CD, Heyligers JM, Teijink JA*, Vermassen FE; PAVLOV Study Group

Ann Surg. 2016 Nov;264(5):703-709

OBJECTIVE: To assess the effect of patient-specific virtual reality rehearsal (PsR) before endovascular infrarenal aneurysm repair (EVAR) on technical performance and procedural errors. BACKGROUND: Endovascular procedures, including EVAR, are executed in a complex multidisciplinary environment, often treating high-risk patients. Consequently, this may lead to patient harm and procedural inefficiency. PsR enables the endovascular team to evaluate and practice the case in a virtual environment before treating the real patient.

METHODS: A multicenter, prospective, randomized controlled trial recruited 100 patients with a nonruptured infrarenal aortic or iliac aneurysm between September 2012 and June 2014. Cases were randomized to preoperative PsR or standard care (no PsR). Primary outcome measures were errors during the real procedure and technical operative metrics (total endovascular and fluoroscopy time, contrast volume, number of angiograms, and radiation dose). RESULTS: There was a 26% [95% confidence interval (CI) 9%-40%, P = 0.004) reduction in minor errors, a 76% (95% CI 30%-92%, P = 0.009) reduction in major errors, and a 27% (95% CI 8.2%-42%, P = 0.007) reduction in errors causing procedural delay in the PsR group. The number of angiograms performed to visualize proximal and distal landing zones was 23% (95% CI 8%-36%, P = 0.005) and 21% (95% CI 7%-32%, P = 0.004) lower in the PsR group. CONCLUSIONS: PsR before EVAR can be used in different hospital settings by teams with various EVAR experience. It reduces perioperative errors and the number of angiograms required to deploy the stent graft, thereby reducing delays. Ultimately, it may improve patient safety and procedural efficiency.

impactfactor: 8.569

Teijink JA Joep

Predicting reinterventions after open and endovascular aneurysm repair using the St George's Vascular Institute score

de Bruin JL, Karthikesalingam A, Holt PJ, Prinssen M, Thompson MM, Blankensteijn JD; Dutch Randomised Endovascular Aneurysm Management (DREAM) Study Group: Cuypers PW*, Sambeek MR*, Tielbeek AV*, Teijink JA*

J Vasc Surg. 2016 Jun;63(6):1428-1433.e1. Epub 2016 Mar 19

Voor abstract zie: *Chirurgie - Cuypers PhW*

impactfactor: *3.454*

Teijink JA (Joep)

Preoperative exercise therapy in surgical care: a scoping review

Pouwels S*, Hageman D*, Gommans LN, Willigendael EM, Nienhuijs SW*, Scheltinga MR, Teijink JA*

J Clin Anesth. 2016 Sep;33:476-90

Voor abstract zie: *Chirurgie - Pouwels S*

impactfactor: *1.284*

Teijink JA (Joep)

Prognostic value of cardiovascular MR imaging biomarkers on outcome in peripheral arterial disease: a 6-year follow-up pilot study

van den Bosch H*, Westenberg J, Setz-Pels W*, Kersten E*, Tielbeek A*, Duijm L, Post J*, Teijink J*, de Roos A

Int J Cardiovasc Imaging. 2016 Aug;32(8):1281-8. Epub 2016 May 21

Voor abstract zie: *Radiologie - Bosch H van den*

impactfactor: *1.880*

Teijink JA (Joep)

Quality of life from a randomized trial of open and endovascular repair for abdominal aortic aneurysm

de Bruin JL, Groenwold RH, Baas AF, Brownrigg JR, Prinssen M, Grobbee DE, Blankensteijn JD; Dutch Randomised Endovascular Aneurysm Management (DREAM) Study Group: Cuypers PW*, Sambeek MR*, Tielbeek AV*, Teijink JA*

Br J Surg. 2016 Jul;103(8):995-1002. Epub 2016 Apr 5

Voor abstract zie: *Chirurgie - Cuypers PhW*

impactfactor: *5.596*

Teijink JA (Joep)

Shared Genetic Risk Factors of Intracranial, Abdominal, and Thoracic Aneurysms

van 't Hof FN, Ruigrok YM, Lee CH, Ripke S, Anderson G, de Andrade M, Baas AF, Blankensteijn JD, Böttinger EP, Bown MJ, Broderick J, Bijlenga P, Carrell DS, Crawford DC, Crosslin DR, Ebeling C, Eriksson JG, Fornage M, Foroud T, von Und Zu Fraunberg M, Friedrich CM, Gaál EI, Gottesman O, Guo DC, Harrison SC, Hernesniemi J, Hofman A, Inoue I, Jääskeläinen JE, Jones GT, Kiemeney LA, Kivisaari R, Ko N, Koskinen S, Kubo M, Kullo IJ, Kuivaniemi H, Kurki MI, Laakso A, Lai D, Leal SM, Lehto H, LeMaire SA, Low SK, Malinowski J, McCarty CA, Milewicz DM, Mosley TH, Nakamura Y, Nakaoka H, Niemelä M, Pacheco J, Peissig PL, Pera J, Rasmussen-Torvik L, Ritchie MD, Rivadeneira F, van Rij AM, Santos-Cortez RL, Saratzis A, Slowik A, Takahashi A,

Tromp G, Uitterlinden AG, Verma SS, Vermeulen SH, Wang GT; Aneurysm Consortium; Vascular Research Consortium of New Zealand, Han B, Rinkel GJ, de Bakker PI.. Collaborator: Teijink JA*

J Am Heart Assoc. 2016 Jul 14;5(7). pii: e002603

BACKGROUND: Intracranial aneurysms (IAs), abdominal aortic aneurysms (AAAs), and thoracic aortic aneurysms (TAAs) all have a familial predisposition. Given that aneurysm types are known to co-occur, we hypothesized that there may be shared genetic risk factors for IAs, AAAs, and TAAs.

METHODS AND RESULTS: We performed a mega-analysis of 1000 Genomes Project-imputed genome-wide association study (GWAS) data of 4 previously published aneurysm cohorts: 2 IA cohorts (in total 1516 cases, 4305 controls), 1 AAA cohort (818 cases, 3004 controls), and 1 TAA cohort (760 cases, 2212 controls), and observed associations of 4 known IA, AAA, and/or TAA risk loci (9p21, 18q11, 15q21, and 2q33) with consistent effect directions in all 4 cohorts. We calculated polygenic scores based on IA-, AAA-, and TAA-associated SNPs and tested these scores for association to case-control status in the other aneurysm cohorts; this revealed no shared polygenic effects. Similarly, linkage disequilibrium-score regression analyses did not show significant correlations between any pair of aneurysm subtypes. Last, we evaluated the evidence for 14 previously published aneurysm risk single-nucleotide polymorphisms through collaboration in extended aneurysm cohorts, with a total of 6548 cases and 16 843 controls (IA) and 4391 cases and 37 904 controls (AAA), and found nominally significant associations for IA risk locus 18q11 near RBBP8 to AAA (odds ratio [OR]=1.11; P=4.1×10(-5)) and for TAA risk locus 15q21 near FBN1 to AAA (OR=1.07; P=1.1×10(-3)).

CONCLUSIONS: Although there was no evidence for polygenic overlap between IAs, AAAs, and TAAs, we found nominally significant effects of two established risk loci for IAs and TAAs in AAAs. These two loci will require further replication.

impactfactor: --

Teijink JA (Joep)

Symptomatic abdominal aortic aneurysm repair: to wait or not to wait

Ten Bosch JA, Koning SW, Willigendael EM, Van Sambeek MR H M*, Stokmans RA*, Prins MH, Teijink JA W*

J Cardiovasc Surg (Torino). 2016 Dec;57(6):830-838

Voor abstract zie: *Chirurgie - Sambeek MR van*

impactfactor: *1.632*

Teijink JA (Joep)

Synergistic Effects of Six Chronic Disease Pairs on Decreased Physical Activity: The SMILE Cohort Study

Dörenkamp S, Mesters I, Vos R, Schepers J, van den Akker M, Teijink J*, de Bie R

Biomed Res Int. 2016;2016:9427231. Epub 2016 May 5

Little is known about whether and how two chronic diseases interact with each other in modifying the risk of physical inactivity. The aim of the present study is to identify chronic disease pairs that are associated with compliance or noncompliance with the Dutch PA guideline recommendation and to study whether specific chronic disease pairs indicate an extra effect on top of the effects of the diseases individually. Cross-sectional data from 3,386 participants of cohort study SMILE were used and logistic regression analysis was performed to study the joint effect of the two diseases of each chronic disease pair for compliance with the Dutch PA guideline. For six chronic disease pairs, patients suffering from both diseases belonging to these disease pairs in

question show a higher probability of noncompliance to the Dutch PA guideline, compared to what one would expect based on the effects of each of the two diseases alone. These six chronic disease pairs were chronic respiratory disease and severe back problems; migraine and inflammatory joint disease; chronic respiratory disease and severe kidney disease; chronic respiratory disease and inflammatory joint disease; inflammatory joint disease and rheumatoid arthritis; and rheumatoid arthritis and osteoarthritis of the knees, hips, and hands.

impactfactor: *2.134*

Teijink JA (Joep)

Treatment of upper-extremity outflow thrombosis

van den Houten MM*, van Grinsven R*, Pouwels S*, Yo LS*, van Sambeek MR*, Teijink JA*. Phlebology. 2016 Mar;31(1 Suppl):28-33

Voor abstract zie: *Chirurgie - Houten MM van*

impactfactor: *1.413*

Verhofstad N (Nicolle)

Minimal correlation between physical exercise capacity and daily activity in patients with intermittent claudication

Gommans LN*, Hageman D*, Jansen I*, de Gee R*, van Lummel RC, Verhofstad N*, Scheltinga MR, Teijink JA*

J Vasc Surg. 2016 Apr;63(4):983-9. Epub 2016 Jan 21

Voor abstract zie: *Chirurgie - Gommans LN*

impactfactor: *3.454*

Vermeer TA (Thomas)

Clinicopathological characteristics predict lymph node metastases in ypT0-2 rectal cancer after chemoradiotherapy

Bosch SL, Vermeer TA*, West NP, Swellengrebel HA, Marijnen CA, Cats A, Verhoef C, van Lijnschoten I*, de Wilt JH, Rutten HJ*, Nagtegaal ID

Histopathology. 2016 Nov;69(5):839-848. Epub 2016 Jul 26

AIMS: Changes in rectal cancer treatment include increasing emphasis on organ preservation. Local excision after chemoradiotherapy (CRT) for rectal cancer with excellent clinical response reduces morbidity and mortality compared to total mesorectal excision, although residual lymph node metastases (LNM) may cause local recurrence. Our aim is to identify clinicopathological factors predicting the presence of residual LNM in rectal cancer patients with ypT0-2 tumours after neoadjuvant CRT. These risk factors may help to select patients who can be spared radical surgery without compromising oncological outcomes.

METHODS AND RESULTS: Rectal cancer patients with ypT0-2 tumours after CRT and radical resection from five centres treated between June 1999 and February 2012 were included. Histopathology was reviewed extensively. Clinicopathological characteristics and their association with residual LNM were investigated. Of 657 consecutive CRT-treated rectal cancer patients 210 with ypT0-2 disease were included. Residual nodal disease was found in 44 cases (21.0%). Independent predictors of LNM were clinical nodal involvement (cN+) [odds ratio (OR): 2.79, 95% confidence interval (CI): 1.04-7.48, P = 0.042], high-grade histopathology assessed in the post-CRT resection specimen (OR: 6.46, 95% CI: 1.23-34.02, P = 0.028) and residual tumour diameter (RTD) =10 mm (OR: 2.54, 95% CI: 1.06-6.09, P = 0.036). An algorithm combining these factors stratified patients adequately according to LNM risk, independently of ypT category.

CONCLUSIONS: Clinical nodal involvement, high-grade histopathology and RTD =10 mm are strong and independent predictors of residual nodal disease in rectal cancer patients with ypT0-2 tumours after CRT. Risk stratification based on these factors may help to identify patients suitable for organ preserving therapy and should be validated in appropriately selected populations.

impactfactor: 3.425

Vermeer TA (Thomas)

Stoma placement in obstructive rectal cancer prior to neo-adjuvant treatment and definitive surgery: A practical guideline

Vermeer TA*, Orsini RG*, Nieuwenhuijzen GA*, Rutten HJ*, Daams F

Eur J Surg Oncol. 2016 Feb;42(2):273-80. Epub 2015 Nov 22

INTRODUCTION: Mechanical bowel obstruction in rectal cancer is a common problem, requiring stoma placement to decompress the colon and permit neo-adjuvant treatment. The majority of patients operated on in our hospital are referred; after stoma placement at the referring centre without overseeing final type of surgery. Stoma malpositioning and its effects on rectal cancer care are described.

METHODS: All patients who underwent surgery for locally advanced or locally recurrent rectal cancer between 2000 and 2013 in our tertiary referral centre were reviewed and included if they received a stoma before curative surgery. Patients with recurrent rectal cancer were only included if the stomas from the primary surgery had been restored. The main outcome measures are stoma malpositioning, postoperative and stoma-related complications.

RESULTS: A total of 726 patients were included; of these, 156 patients (21%) had a stoma before curative surgery. In the majority of patients, acute or pending large bowel obstruction was the main indication for emergent stoma creation; some of the patients had tumour-related fistulae. In 53 patients (34%), the stoma required revision during definitive surgery. No significant differences were found regarding postoperative complications. CONCLUSION: One-third of the previously placed emergency stomas were considered to be located inappropriately and required revision. We were able to avoid increased complication rates in patients with a malpositioned stoma, however unnecessary surgery for an inappropriately placed stoma should be avoided to decrease patient inconvenience and risks. An algorithm is proposed for the placement of a suitable stoma.

impactfactor: 2.940

Verwaal VJ (Vic)

A comprehensive treatment for peritoneal metastases from gastric cancer with curative intent

Yonemura Y, Canbay E, Li Y, Coccolini F, Glehen O, Sugarbaker PH, Morris D, Moran B, Gonzaletz-Moreno S, Deraco M, Piso P, Elias D, Batlett D, Ishibashi H, Mizumoto A, Verwaal V*, Mahtem H

Eur J Surg Oncol. 2016 Aug;42(8):1123-31. Epub 2016 Apr 9

Recently, Peritoneal Surface Oncology Group International (PSOGI) developed a novel comprehensive treatment consisting of cytoreductive surgery (CRS) and perioperative chemotherapy (POC) for the treatment of peritoneal metastases (PM) from gastric cancer with curative intent. This article reviews the results of this treatment and verifies its indication. In this strategy, peritoneal cancer index (PCI) is determined by laparoscopy, and a peritoneal port is placed. Neoadjuvant bidirectional intraperitoneal/systemic chemotherapy (NIPS) is performed for 3 cycles, and then laparotomy is performed. Cytoreductive surgery with peritonectomy procedures and hyperthermic intraperitoneal chemoperfusion (HIPEC)

are performed. Multivariate analyses showed that completeness of cytoreduction, pathologic response to NIPS and PCI level and cytologic status after NIPS, as independent prognostic factors. PCI less than cut-off level after NIPS, negative cytology after NIPS, and positive response to NIPS were identified as the indications for comprehensive treatment. Patients who hold these criteria should be considered as the candidates for CRS and HIPEC.

impactfactor: *2.940*

Verwaal VJ (Vic)

Angiogenesis-Related Markers and Prognosis After Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemotherapy for Metastatic Colorectal Cancer

de Cuba EM, de Hingh IH*, Sluiter NR, Kwakman R, Coupé VM, Beliën JA, Verwaal VJ*, Meijerink WJ, Delis-van Diemen PM, Bonjer HJ, Meijer GA, Te Velde EA

Ann Surg Oncol. 2016 May;23(5):1601-8. Epub 2016 Jan 4

Voor abstract zie: *Chirurgie - Hingh IH de*

impactfactor: *3.655*

Vugts G (Guusje)

Axillary Response Monitoring After Neoadjuvant Chemotherapy in Breast Cancer: Can We Avoid the Morbidity of Axillary Treatment?

Vugts G*, Schipper RJ*, Maaskant-Braat AJ*, Smidt ML, Nieuwenhuijzen GA*

Ann Surg. 2016 Feb;263(2):e28-9.Epub 2014 Nov 17

Geen abstract beschikbaar

impactfactor: *8.569*

Vugts G (Guusje)

Differences in Response and Surgical Management with Neoadjuvant Chemotherapy in Invasive Lobular Versus Ductal Breast Cancer

Truin W, Vugts G*, Roumen RM, Maaskant-Braat AJ*, Nieuwenhuijzen GA*, van der Heiden-van der Loo M, Tjan-Heijnen VC, Voogd AC

Ann Surg Oncol. 2016 Jan;23(1):51-7.Epub 2015 May 16

BACKGROUND: This study was conducted to determine the impact of neoadjuvant chemotherapy (NAC) on the likelihood of breast-conserving surgery (BCS) performed for patients with invasive lobular breast carcinoma (ILC) and invasive ductal carcinoma (IDC). METHODS: Female patients with a diagnosis of ILC or IDC in The Netherlands between July 2008 and December 2012 were identified through the population-based Netherlands Cancer Registry.

RESULTS: A total of 466 ILC patients received NAC compared with 3622 IDC patients. Downstaging by NAC was seen in 49.7 % of the patients with ILC and in 69.6 % of the patients with IDC, and a pathologic complete response (pCR) was observed in 4.9 and 20.2 % of these patients, respectively ($P < 0.0001$). Breast-conserving surgery was performed for 24.4 % of the patients with ILC receiving NAC versus 39.4 % of the patients with IDC. In the ILC group, 8.2 % of the patients needed surgical reinterventions after BCS due to tumor-positive resection margins compared with 3.4 % of the patients with IDC ($P < 0.0001$). Lobular histology was independently associated with a higher mastectomy rate (odds ratio 1.91; 95 % confidence interval 1.49-2.44). Among the patients with clinical T2 and T3 disease, BCS was achieved more often when NAC was administered in ILC as well as IDC. CONCLUSION: The patients with ILC receiving NAC were less likely to experience a pCR and less likely to undergo BCS than the patients with IDC. With regard to BCS, the impact of NAC for ILC patients was lower than for patients receiving surgery without NAC. However, despite

the high number to treating in order to achieve BCS, a small subset of ILC patients, especially cT2 and cT3 patients, still may benefit from NAC.

impactfactor: 3.655

Vugts G (Guusje)

Management of the axilla after neoadjuvant chemotherapy for clinically node positive breast cancer: A nationwide survey study in The Netherlands

Vugts G*, Maaskant-Braat AJ, de Roos WK, Voogd AC, Nieuwenhuijzen GA*

Eur J Surg Oncol. 2016 Jul;42(7):956-64. Epub 2016 Apr 12

BACKGROUND: Axillary pathologic complete response (pCR) to neoadjuvant chemotherapy (NAC) is achieved in a substantial part of clinically node positive breast cancer patients. Treatment of the axilla after NAC varies widely, and new techniques to spare patients from an axillary lymph node dissection (ALND) are being introduced.

METHODS: this Dutch nationwide survey regarding treatment of the initially clinically node positive axilla in patients receiving NAC was conducted amongst 148 surgical oncologists during November 2014-June 2015, to survey the diagnostic work-up, axillary mapping and willingness to omit ALND.

RESULTS: Axillary ultrasound was considered a standard procedure in the diagnostic work-up by 99% of participants. The majority of 70% of participants stated that ALND could possibly be omitted in node positive patients with a favourable response to NAC. A positive correlation was observed between the total amount of patients treated, versus patients receiving NAC ($P < 0.01$). A total of 93 respondents performed axillary response evaluation after NAC, using imaging (72%), excision of localized lymph nodes (56%) or sentinel node biopsy (SNB; 45%). Decision-making in omitting ALND was influenced by the presence of N2-3 disease, patient age and type of breast surgery. Multivariable analysis showed that clinicians who administered NAC more often, were more likely to omit ALND ($P < 0.01$).

DISCUSSION: The majority of surgeons are inclined to omit ALND in case of an axillary pCR. A large variety of techniques is being used to identify a pCR. The lack of consensus on this topic indicates the need for guidelines based on the best available evidence.

impactfactor: 2.940

Vugts G (Guusje)

Patterns of Care in the Administration of Neo-adjuvant Chemotherapy for Breast Cancer. A Population-Based Study

Vugts G*, Maaskant-Braat AJ, Nieuwenhuijzen GA*, Roumen RM, Luiten EJ, Voogd AC

Breast J. 2016 May;22(3):316-21. Epub 2016 Mar 4

Neo-adjuvant chemotherapy (NAC) is used to facilitate radical surgery for initially irresectable or locally advanced breast cancer. The indication for NAC has been extended to clinically node negative (cN0) patients in whom adjuvant systemic therapy is foreseen. A population-based study was conducted to evaluate the increasing use of NAC, breast conserving surgery (BCS) after NAC and timing of the sentinel node biopsy (SNB). All female breast cancer patients, treated in 10 hospitals in the Eindhoven Cancer Registry area in the Netherlands between January 2003 and June 2012 were included (N = 18,427). In total, 1,402 patients (7.6%) received NAC. The administration increased from 2.5% in 2003 to 13.0% in 2011 ($p < 0.001$). Use of NAC increased from 0.5% to 2.3% for cT1 tumors, from 2.8% to 27.0% for cT2, from 30.6% to 70.9% for cT3, and from 40.5% to 58.1% for cT4 tumors ($p < 0.001$). In cN0 patients, use of NAC increased from 1.0% to 4.4% and in clinically node positive patients from 12.0% to 57.5% ($p < 0.001$). Downsizing of the tumor and BCS are achieved increasingly. In 2011, in three hospitals NAC was administered in <10% of patients, in five hospitals in 10-15% and in two hospitals the proportion of patients receiving NAC was

>20% (p < 0.001). Of the 1,402 patients with NAC, 495 patients underwent SNB, 91.5% of whom prior to NAC. In the Netherlands up to one in eight patients receive NAC. The administration of NAC and the percentage of BCS increased over the past decade, especially in cT2 tumors. Considerable hospital variation in the administration of NAC exists.

impactfactor: 1.920

Weijs TJ (Teus)

Aortic Calcification Increases the Risk of Anastomotic Leakage After Ivor-Lewis Esophagectomy

Goense L, van Rossum PS, Weijs TJ*, van Det MJ, Nieuwenhuijzen GA*, Luyer MD*, van Leeuwen MS, van Hillegersberg R, Ruurda JP, Kouwenhoven EA

Ann Thorac Surg. 2016 Jul;102(1):247-52. Epub 2016 Apr 25

BACKGROUND: Anastomotic leakage is associated with increased morbidity and mortality after esophagectomy. Calcification of the arteries supplying the gastric tube has been identified as a risk factor for leakage of the cervical anastomosis, but its potential contribution to the risk of intrathoracic anastomotic leakage has not been elucidated. This study evaluated the relationship between calcification and the occurrence of leakage of the intrathoracic anastomosis after Ivor-Lewis esophagectomy.

METHODS: Consecutive patients who underwent minimally invasive esophagectomy for cancer at 2 institutions were analyzed. Diagnostic computed tomography images were used to detect calcification of the arteries supplying the gastric tube (eg, aorta, celiac axis). Multivariable logistic regression analysis was used to determine the relationship between vascular calcification and anastomotic leakage.

RESULTS: Of 167 included patients, anastomotic leakage occurred in 40 (24%). In univariable analysis, leakage was most frequently observed in patients with calcification of the aorta (major calcification: 37% leakage [16 of 43]; minor calcification: 32% [18 of 56]; no calcification: 9% [6 of 70], p < 0.001). Calcification of other studied arteries was not significantly associated with leakage. A significant association with leakage remained for minor (odds ratio, 5.4; 95% confidence interval, 1.7 to 16.5) and major (odds ratio, 7.0; 95% confidence interval, 1.9 to 26.4) aortic calcifications in multivariable analysis.

CONCLUSIONS: Atherosclerotic calcification of the aorta is an independent risk factor for leakage of the intrathoracic anastomosis after Ivor-Lewis esophagectomy for cancer. The calcification scoring system may aid in patient selection and lead to earlier diagnosis of this potentially fatal complication.

impactfactor: 2.975

Weijs TJ (Teus)

Immediate Postoperative Oral Nutrition Following Esophagectomy: A Multicenter Clinical Trial

Weijs TJ*, Berkelmans GH*, Nieuwenhuijzen GA*, Dolmans AC*, Kouwenhoven EA, Rosman C, Ruurda JP, van Workum F, van Det MJ, Silva Corten LC, van Hillegersberg R, Luyer MD*

Ann Thorac Surg. 2016 Oct;102(4):1141-8. doi: Epub 2016 Jun 17

BACKGROUND: Immediate start of oral intake is beneficial following colorectal surgery. However, following esophagectomy the safety and feasibility of immediate oral intake is unclear, thus these patients are still kept nil by mouth. This study therefore aimed to determine the feasibility and safety of oral nutrition immediately after esophagectomy.

METHODS: A multicenter, prospective trial was conducted in 3 referral centers between August 2013 and May 2014, including 50 patients undergoing a minimally invasive esophagectomy. Oral nutrition was started postoperatively immediately (clear liquids on

postoperative day [POD] 0, liquid nutrition on POD 1 to 6, solid food from POD 7). Nonoral enteral nutrition was started when <50% of caloric need was met on postoperative day POD 5 or when oral intake was impossible. A comparison was made with a retrospective cohort (n = 50) with a per-protocol delayed start of oral intake until POD 4 to 7.

RESULTS: The median caloric intake at POD 5 was 58% of required. In 38% of the patients nonoral nutrition was started, mainly due to complications (36%). The pneumonia rate was 28% following immediate oral intake and 40% following delayed oral intake (p = 0.202). The aspiration pneumonia rate was 4% in both groups. The anastomotic leakage rate was 14% after immediate oral intake versus 24% following delayed oral intake (p = 0.202). The 90-day mortality rate was 2% in both groups. Hospital stay and intensive care unit stay were significantly shorter following immediate oral intake.

CONCLUSIONS: Immediate start of oral nutrition following esophagectomy seems to be feasible and does not increase complications compared to a retrospective cohort and literature. However, if complications arise an alternative nutritional route is required. This explorative study shows that a randomized controlled trial is needed.

impactfactor: *2.975*

Weijs TJ (Teus)

Internal and External Validation of a multivariable Model to Define Hospital-Acquired Pneumonia After Esophagectomy

Weijs TJ*, Seesing MF, van Rossum PS, Koëter M*, van der Sluis PC, Luyer MD*, Ruurda JP, Nieuwenhuijzen GA*, van Hillegersberg R

J Gastrointest Surg. 2016 Apr;20(4):680-7. Epub 2016 Feb 16

BACKGROUND: Pneumonia is an important complication following esophagectomy; however, a wide range of pneumonia incidence is reported. The lack of one generally accepted definition prevents valid inter-study comparisons. We aimed to simplify and validate an existing scoring model to define pneumonia following esophagectomy.

PATIENTS AND METHODS: The Utrecht Pneumonia Score, comprising of pulmonary radiography findings, leucocyte count, and temperature, was simplified and internally validated using bootstrapping in the dataset (n?=?185) in which it was developed. Subsequently, the intercept and (shrunk) coefficients of the developed multivariable logistic regression model were applied to an external dataset (n?=?201) RESULTS: In the revised Uniform Pneumonia Score, points are assigned based on the temperature, the leucocyte, and the findings of pulmonary radiography. The model discrimination was excellent in the internal validation set and in the external validation set (C-statistics 0.93 and 0.91, respectively); furthermore, the model calibrated well in both cohorts.

CONCLUSION: The revised Uniform Pneumonia Score (rUPS) can serve as a means to define post-esophagectomy pneumonia. Utilization of a uniform definition for pneumonia will improve inter-study comparability and improve the evaluations of new therapeutic strategies to reduce the pneumonia incidence.

impactfactor: *2.807*

Weijs TJ (Teus)

Nutritional route in oesophageal resection trial II (NUTRIENT II): study protocol for a multicentre open-label randomised controlled trial

Berkelmans GH*, Wilts BJ*, Kouwenhoven EA, Kumagai K, Nilsson M, Weijs TJ*, Nieuwenhuijzen GA*, van Det MJ, Luyer MD*

BMJ Open. 2016 Aug 5;6(8):e011979

Voor abstract zie: *Chirurgie - Berkelmans GH*

impactfactor: *2.562*

Wezenbeek MR van (Martin)

A Specifically Designed Stent for Anastomotic Leaks after Bariatric Surgery: Experiences in a Tertiary Referral Hospital

van Wezenbeek MR*, de Milliano MM*, Nienhuijs SW*, Friederich P*, Gilissen LP*

Obes Surg. 2016 Aug;26(8):1875-80. Epub 2015 Dec 24

BACKGROUND: The management of anastomotic leakage after either laparoscopic Roux-en-Y gastric bypass (LGBP) or laparoscopic sleeve gastrectomy (LSG) remains a burden. Various options are available for the treatment of these leaks. A newer and less invasive option for the treatment of leaks is the use of endoluminal stents. The main drawback for this treatment is stent migration. The current study describes the outcome of a new, specifically designed stent for the treatment of anastomotic leaks after bariatric surgery.

METHODS: For this retrospective observational study, the medical charts of patients undergoing bariatric surgery between October 1, 2010 and July 1, 2013 were reviewed. All patients with anastomotic leakage, treated with the bariatric Hanarostent, were included.

RESULTS: Twelve patients were included out of a total of 1702 bariatric patients in the described period. Seven had a leakage after LSG, five after LGBP. An average of 2.4 endoscopic procedures and 1.25 stents were used per patient. Successful treatment was seen in nine out of 12 patients (75 %). Most common complication was dislocation or migration of the stent, occurring in eight patients (66.7 %).

CONCLUSIONS: The ECBB Hanarostent®, which was specifically designed for post bariatric leakages, shows equal but not favorable success rates in this small series compared to previous reports on other types of stenting techniques. Despite the stent design, the complication rate is not reduced and the main future goal should be to target the high stent migration rate.

impactfactor: 3.346

Wezenbeek MR van (Martin)

Long-term results after revisions of failed primary vertical banded gastroplasty

van Wezenbeek MR*, Smulders FJ*, de Zoete JP*, Luyer MD*, van Montfort G*, Nienhuijs SW*

World J Gastrointest Surg. 2016 Mar 27;8(3):238-45

AIM: To compare the results after revision of primary vertical banded gastroplasty (Re-VBG) and conversion to sleeve gastrectomy (cSG) or gastric bypass (cRYGB).

METHODS: In this retrospective single-center study, all patients with a failed VBG who underwent revisional surgery were included. Medical charts were reviewed and additional postal questionnaires were sent to update follow-up. Weight loss, postoperative complications and long-term outcome were assessed.

RESULTS: A total 152 patients were included in this study, of which 21 underwent Re-VBG, 16 underwent cSG and 115 patients underwent cRYGB. Sixteen patients necessitated a second revisional procedure. No patients were lost-to-follow-up. Two patients deceased during the follow-up period, 23 patients did not return the questionnaire. Main reasons for revision were dysphagia/vomiting, weight regain and insufficient weight loss. Excess weight loss (%EWL) after Re-VBG, cSG and cRYGB was, respectively, 45%, 57% and 72%. Eighteen patients (11.8%) reported postoperative complications and 27% reported long-term complaints.

CONCLUSION: In terms of additional weight loss, postoperative complaints and reintervention rate, Roux-en-Y gastric bypass seems feasible as a revision for a failed VBG.

impactfactor: 2.807

Wezenbeek MR van (Martin)

Predictors for the occurrence of major complications after primary Roux-en-Y gastric bypass surgery

Van Wezenbeek MR*, Smulders FJ*, Luyer MD*, Van Montfort G*, Vanhimbeeck FJ*, Nienhuijs SW*

Minerva Chir. 2016 Oct;71(5):286-92. Epub 2016 Jun 29

BACKGROUND: The risk of developing postoperative complications after primary Roux-en-Y gastric bypass (RYGB) is relatively low. Nevertheless, postoperative complications can have serious consequences in terms of severe morbidity and health care costs. Identification of potential predictors is useful for further reduction of the postoperative complication rate. METHODS: This retrospective study included all patients undergoing primary RYGB between January 2010 and December 2013, using data from a prospectively collected database. Patients' characteristics, operative details and perioperative outcome were analyzed.

RESULTS: A total of 773 patients (14.5% male) were included for analysis, with a mean age of 42.1±10.4 years and a mean Body Mass Index of 42.8±4.3 kg/m2. A total of 66 (8.5%) direct postoperative complications occurred. Clavien-Dindo grade 3a and higher occurred in 55 patients. Univariate analysis identified age (P=0.013), gender (P=0.017), BMI over 50 kg/m2 (P=0.096), hypertension (P=0.099), chronic obstructive pulmonary disease (P=0.002) and previous upper gastrointestinal surgery (P=0.095) as potential predictors. Multivariate logistic regression analysis showed that male gender (OR 2.412; 95%CI [1.212-4.797]) and chronic obstructive pulmonary disease (COPD) (OR 3.716; 95%CI [1.543-8.949]) were found to be independent predictors for the occurrence of major complications after primary RYGB. CONCLUSIONS: This study showed a number of potential predictors, of which male gender and COPD after multivariate regression analysis were found to be independent predictive factors for the occurrence of major complications after primary RYGB.

impactfactor: 0.877

Wezenbeek MR van (Martin)

Transection versus preservation of the neurovascular bundle of the lesser omentum in primary Roux-en-Y gastric bypass surgery

van Wezenbeek MR*, van Oudheusden TR*, Smulders JF*, Nienhuijs SW*, Luyer MD*

Surg Obes Relat Dis. 2016 Feb;12(2):283-9. Epub 2015 Aug 3

BACKGROUND: A gastric pouch in Roux-en-Y gastric bypass (RYGB) surgery can be created after transection of the perigastric neurovascular bundle or by preserving these structures. Some surgeons choose to transect the neurovascular bundle (NBT), containing branches of the vagus nerve, because this might be related to additional weight loss, whereas others advocate preservation (NBP) to reduce postoperative complications. OBJECTIVES: This study assessed the effect of both techniques after primary RYGB.

SETTING: All patients undergoing primary RYGB in a large bariatric center in the Netherlands between January 2010 and December 2013 were included.

METHODS: Patient demographic characteristics, operative details, postoperative complications and weight loss after 1 year were retrospectively analyzed. RESULTS: A total of 773 consecutive patients were included (85.5% female). NBT was performed in 407 patients (52.7%), whereas NBP was performed in 366 patients. There were no missing data and 81.2% of patients completed the 1-year follow-up. Postoperative complications were found in 66 patients (8.5%). A total of 49 patients (6.3%) either had an anastomotic leakage, postoperative bleeding, or intraabdominal abscess (NBT 8.8% versus NBP 3.6%, P = .003). Percentage total weight loss (NBT 34.5%±6.9% versus NBP 33.4%±6.9%; P = .011) differed to a lesser extent between groups, although this was significant.

Neurovascular bundle transection was identified as independent factor among others for occurrence of leakage, bleeding, and abscess development (OR 2.886; 95% CI [1.466-5.683]; P = .002).

CONCLUSIONS: Transection of the neurovascular bundle in RYGB is associated with more complications. Furthermore, weight loss is not relevantly increased. Further research is necessitated to substantiate these findings.

impactfactor: *3.540*

Wilts BJ (Bas)

Nutritional route in oesophageal resection trial II (NUTRIENT II): study protocol for a multicentre open-label randomised controlled trial

Berkelmans GH*, Wilts BJ*, Kouwenhoven EA, Kumagai K, Nilsson M, Weijs TJ*, Nieuwenhuijzen GA*, van Det MJ, Luyer MD*

BMJ Open. 2016 Aug 5;6(8):e011979

Voor abstract zie: *Chirurgie - Berkelmans GH*

impactfactor: *2.562*

Zoete JP de (Jean-Paul)

Long-term results after revisions of failed primary vertical banded gastroplasty

van Wezenbeek MR*, Smulders FJ*, de Zoete JP*, Luyer MD*, van Montfort G*, Nienhuijs SW*

World J Gastrointest Surg. 2016 Mar 27;8(3):238-45

Voor abstract zie: *Chirurgie - Wezenbeek MR van*

impactfactor: *2.807*

Zoggel DM (Desley)

Local Recurrence in the Lateral Lymph Node Compartment: Improved Outcomes with Induction Chemotherapy Combined with Multimodality Treatment

Kusters M*, Bosman SJ*, Van Zoggel DM*, Nieuwenhuijzen GA*, Creemers GJ*, Van den Berg HA*, Rutten HJ*

Ann Surg Oncol. 2016 Jun;23(6):1883-9

Voor abstract zie: *Chirurgie - Kusters M*

impactfactor: *3.655*

** = Werkzaam in het Catharina Ziekenhuis*

Dermatologie

Arits AH (Aimée)

Acute hemorrhagic oedema of infancy

Van Poppelen K, Arits A

Nederlands tijdschrift voor Dermatologie en Veneorologie, 2016;26(8):471-72

Geen abstract beschikbaar

impactfactor: --

Arits AH (Aimée)

Subtiele pustels

Chandeck C, Dodemont S, Arits A

Nederlands tijdschrift voor Dermatologie en Veneorologie, 2016;26(8):469-70

Geen abstract beschikbaar

impactfactor: --

Arits AH (Aimée)

Three-Year Follow-Up Results of Photodynamic Therapy vs. Imiquimod vs. Fluorouracil for Treatment of Superficial Basal Cell Carcinoma: A Single-Blind, Noninferiority, Randomized Controlled Trial

Roozeboom MH, Arits AH*, Mosterd K, Sommer A, Essers BA, de Rooij MJ, Quaedvlieg PJ, Steijlen PM*, Nelemans PJ, Kelleners-Smeets NW

J Invest Dermatol. 2016 Aug;136(8):1568-74. Epub 2016 Apr 23

A randomized controlled trial including 601 patients previously showed that the effectiveness of imiquimod and fluorouracil cream were not inferior to methyl aminolevulinate photodynamic therapy (MAL-PDT) in patients with superficial basal cell carcinoma after 1 year of follow-up. We now present the 3-year follow-up results. The probability of tumor-free survival at 3 years post-treatment was 58.0% for MAL-PDT (95% confidence interval [CI] = 47.8-66.9), 79.7% for imiquimod (95% CI = 71.6-85.7), and 68.2% for fluorouracil (95% CI = 58.1-76.3). The hazard ratio for treatment failure comparing imiquimod with MAL-PDT was 0.50 (95% CI = 0.33-0.76, P = 0.001). Comparison of fluorouracil with MAL-PDT and fluorouracil with imiquimod showed hazard ratios of 0.73 (95% CI = 0.51-1.05, P = 0.092) and 0.68 (95% CI = 0.44-1.06, P = 0.091), respectively. Subgroup analysis showed a higher probability of treatment success for imiquimod versus MAL-PDT in all subgroups with the exception of elderly patients with superficial basal cell carcinoma on the lower extremities. In this subgroup, the risk difference in tumor-free survival was 57.6% in favor of MAL-PDT. In conclusion, according to results at 3 years post-treatment, imiquimod is superior and fluorouracil not inferior to MAL-PDT in treatment of superficial basal cell carcinoma.

impactfactor: *6.915*

Dodemont S (Sharon)

Aquariumgranuloom

Vredeborg A, Dodemont S, Sobczak C

Nederlands tijdschrift voor Dermatologie en Veneorologie, 2016;26(8):472-73

Geen abstract beschikbaar

impactfactor: --

Dodemont S (Sharon)
Subtiele pustels
Chandeck C, Dodemont S*, Arits A*
Nederlands tijdschrift voor Dermatologie en Veneorologie, 2016;26(8):469-70
Geen abstract beschikbaar
impactfactor: --

Hacking MN (Michelle)
Soft yellowish papules on the neck: a clinicopathological challenge
Frencken KJ, Hacking MN*, Brinkhuizen T, Abdul Hamid MA, Martens H*
Clin Exp Dermatol. 2016 Mar;41(2):218-20. Epub 2015 Aug 4
Geen abstract beschikbaar
impactfactor: *1.315*

Kelleners - Smeets N (Nicole)
Laser-mediated Photodynamic Therapy: An Alternative Treatment for Actinic Keratosis?
Kessels JP, Nelemans PJ, Mosterd K, Kelleners-Smeets NW*, Krekels GA, Ostertag JU
Acta Derm Venereol. 2016 Mar;96(3):351-4
Photodynamic therapy (PDT) with light emitting diode (LED) illumination is a frequently used treatment modality for actinic keratosis (AK) with excellent cosmetic outcome. A major disadvantage, however, is the high pain score. Use of illumination using pulsed dye laser (PDL) has been suggested, but the long-term efficacy of this treatment is unknown. In this split-face study we prospectively treated 61 patients with AK, with both LED-PDT and PDL-PDT. The mean change in the number of lesions between the end of follow-up and start of therapy was -4.25 (95% confidence interval (95% CI) -5.07; -3.43) for LED-PDT and -3.88 (95% CI -4,76; -2.99) for PDL-PDT, with a non-significant difference (p?=?0.258) of -0.46 (95% CI -1.28; 0.35). The percentage decrease from baseline in the total number of AK was 55.8% and 47.8%, respectively, at 12-month follow-up. Visual analogue scale (VAS) pain score was lower after PDL (mean 2.64) compared with LED illumination (mean 6.47). These findings indicate that PDL-PDT is an effective alternative illumination source for AK when pain is a limiting factor for regular LED-PDT.
impactfactor: *3.638*

Martens H (Herman)
Soft yellowish papules on the neck: a clinicopathological challenge
Frencken KJ, Hacking MN*, Brinkhuizen T, Abdul Hamid MA, Martens H*
Clin Exp Dermatol. 2016 Mar;41(2):218-20. Epub 2015 Aug 4
Geen abstract beschikbaar
impactfactor: *1.315*

Sobczak C (Cas)
Aquariumgranuloom
Vredeborg A, Dodemont S*, Sobczak C*
Nederlands tijdschrift voor Dermatologie en Veneorologie, 2016;26(8):472-73
Geen abstract beschikbaar
impactfactor: --

Steijlen P (Peter)

Clustered unilateral trichoepitheliomas indicate Type 1 segmental manifestation of multiple familial trichoepithelioma

Parren LJ, Munte K, Winnepenninckx V, van Geel M, Steijlen PM*, Frank J, van Steensel MA*

Clin Exp Dermatol. 2016 Aug;41(6):682-4. Epub 2016 Jun 24

Geen abstract beschikbaar

impactfactor: 1.315

Steijlen P (Peter)

Three-Year Follow-Up Results of Photodynamic Therapy vs. Imiquimod vs. Fluorouracil for Treatment of Superficial Basal Cell Carcinoma: A Single-Blind, Noninferiority, Randomized Controlled Trial

Roozeboom MH, Arits AH*, Mosterd K, Sommer A, Essers BA, de Rooij MJ, Quaedvlieg PJ, Steijlen PM*, Nelemans PJ, Kelleners-Smeets NW

J Invest Dermatol. 2016 Aug;136(8):1568-74. Epub 2016 Apr 23

Voor abstract zie: Dermatologie - Arits AH

impactfactor: 6.915

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Dietetiek

Smelt HJ (Marieke)

Comparison Between Different Intramuscular Vitamin B12 Supplementation Regimes: a retrospective matched cohort study

Smelt HJ*, Pouwels S*, Said M*, Berghuis KA*, Boer AK*, Smulders JF*

Obes Surg. 2016 Dec;26(12):2873-2879

BACKGROUND: The incidence of vitamin B12 deficiency after bariatric surgery can range from 26 to 70 %. There is no consensus on optimal vitamin B12 supplementation in postbariatric patients. The objective of this study was to compare three different regimes.

METHODS: In this retrospective matched cohort study, we included 63 patients with methylmalonic acid (MMA) levels =300 nmol/L. Group A (n?=?21) received 6 intramuscular (im) vitamin B12 injections including a loading dose, group B (n?=?21) received 3 im vitamin B12 injections without loading dose and group C (n?=?21) received no im vitamin B12 injections.

RESULTS: The total post-bariatric patient population consisted of 14 males (22.2 %) and 49 women (77.8 %) with a mean current body mass index of 30.6?±?8.0 kg/m2. There was no significant difference in vitamin B12 and MMA levels between 3 groups at baseline. There was a significant difference in follow-up vitamin B12 levels of group A compared to group B (p?=?0.02) and group A compared to group C (p?=?0.03). In the follow-up results, there is also a significant decrease in MMA levels of group A compared to group B (p?=?0.02), group A compared to group C (p?<?0.001), and group B compared to group C (p?<?0.01).

CONCLUSIONS: In this study, a shorter injection regime is probably not sufficient to treat a vitamin B12 deficiency. An injection regime with 6 injections recovered all vitamin B12 deficiencies biochemically. MMA levels cannot recover spontaneously over time without additional im injection regime.

impactfactor: 3.346

Smelt HJ (Marieke)

Different Supplementation Regimes to Treat Perioperative Vitamin B12 Deficiencies in Bariatric Surgery: a Systematic Review

Smelt HJ*, Pouwels S*, Smulders JF*

Obes Surg. 2017 Jan;27(1):254-262

Vitamin B12 dosage in multivitamin supplementation in the current literature is quite variable. There is no consensus about the optimal treatment of vitamin B12 deficiency. A systematic literature search on different supplementation regimes to treat perioperative vitamin B12 deficiencies in bariatric surgery was performed. The methodological quality of ten included studies was rated using the Newcastle Ottawa scale and ranged from moderate to good. The agreement between the reviewers was assessed with a Cohen's kappa (0.69). The current literature suggests that 350 µg oral vitamin B12 is the appropriate dose to correct low vitamin B12 levels in many patients. Further research must focus on a better diagnosis of a vitamin B12 deficiency, the optimal dose vitamin B12 supplementation, and clinical relevance next to biochemical data.

impactfactor: 3.346

Smelt HJ (Marieke)

Improving Bariatric Patient Aftercare Outcome by Improved Detection of a Functional Vitamin B12 Deficiency

Smelt HJ*, Smulders JF*, Said M*, Nienhuijs SW*, Boer AK*

Obes Surg. 2016 Jul;26(7):1500-4. Epub 2015 Nov 4

BACKGROUND: Vitamin B12 deficiency is common after bariatric surgery. Vitamin B12 is a poor predictor of functional vitamin B12 status, since deficiencies might even occur within the reference limits. Therefore, vitamin B12 deficiencies with serum vitamin B12 levels are between 140 and 200 pmol/L remain undetected. Methylmalonic acid (MMA), however, will detect these deficiencies as accumulates due to functional intracellular vitamin B12 deficiencies. MMA is a relative expensive analysis and is therefore not generally available. To lower the costs, we only request MMA when vitamin B12 levels are between these levels. As a result, more biochemical deficiencies are found. However, it was not known whether bariatric patients with vitamin B12 levels between 140 and 200 pmol/L would benefit from supplementation.

METHOD: Bariatric patients with vitamin B12 levels between 140 and 200 pmol/L with (n?=?45) and without (n?=?45) intramuscular hydroxocobalamin injections were compared.

RESULTS: Treated patients showed a significant increase of vitamin B12 levels (P?<?0.001) and a significant decrease in MMA levels (P?<?0.001). Biochemical improvement occurs in both patients with and without clinical symptoms. The control group showed a significant increase of MMA levels (P?<?0.001). To examine whether biochemical benefits of vitamin B12 supplementation are correlated with clinical improvement, patient records were checked for complaints. Complaints were disappeared after treatment, while no improvement was seen in untreated patients.

CONCLUSION: This study shows that all bariatric patients with vitamin B12 levels between 140 and 200 pmol/L benefit clinical and biochemical from vitamin B12 supplementation, regardless the MMA levels.

impactfactor: 3.346

Smelt HJ (Marieke)

The Clinical Dilemma of Calcium Supplementation After Bariatric Surgery: Calcium Citrate or Calcium Carbonate That Is the Question?

Smelt HJ*, Pouwels S*, Smulders JF*

Obes Surg. 2016 Nov;26(11):2781-2782.

geen abstract beschikbaar

impactfactor: 3.346

** = Werkzaam in het Catharina Ziekenhuis*

Geriatrie

Barmentlo-Andringa KM (Karin)

Comparing compliance of two communication methods of CDSS-generated advices communicated by professionals with different background qualifications on a geriatric ward - [Vergelijking van opvolgingspercentages bij twee communicatiemethoden en invloed van adviesfunctionaris bij de presentatie van adviezen uit een klinisch beslis singsondersteunend systeem op een afdeling geriatrie]

Barmentlo-Andringa, K.M.* , Wasylewicz, A.T.M.*, Schols, J.M.G.A., Grouls, R.J.E.*, Van Der Linden, C.M.J.*

Pharmaceutisch Weekblad , Volume 151, Issue 3, 22 January 2016, Pages 23-28

OBJECTIVE: To determine whether two active alert communication methods-telephone intervention or live intervention-and communication by differently qualified persons, lead to differences in alert compliance on a geriatric ward. DESIGN: Prospective intervention study. METHODS: All patients admitted to the geriatric department of a Dutch hospital were included. The clinical decision support system (CDSS], Gaston, generated alerts using eighteen clinical rules. Relevant alerts were communicated with preseribers using two communication methods: telephone intervention, where the alerts were communicated by the hospital pharmacist by telephone, and live intervention, where the alerts were communicated by a medical research student on the ward. If the correct action occurred after alert communication, this was scored as alert compliance. A review session was used to evaluate the correctness of the alert classification during the study. RESULTS: The CDSS generated 148 unique alerts during both study periods. Alert compliance was 29% (n = 17/58) for telephone intervention and 31% (n = 27/90] for live intervention. Expressed as percentage of relevant alerts, telephone intervention [61%, n = 14/28) resulted in better alert compliance than live intervention (44%, n = 27/62, P = 0.131). The review session showed that of 20 reviewed alerts 8 (40%) were classified differently compared with the initial alert classification for both alert methods. CONCLUSION: This study showed no preference for either telephone intervention or live intervention as the better alert communication method. The results demonstrate that profession and knowledge of the person who judged the alerts affects the quality of alert classification.

impactfactor: --

Cox C (Claudia)

Psychotropic Drug Prescription and the Risk of Falls in Nursing Home Residents

Cox CA*, van Jaarsveld HJ, Houterman S*, van der Stegen JC, Wasylewicz AT*, Grouls RJ*, van der Linden CM*

J Am Med Dir Assoc. 2016 Dec 1;17(12):1089-1093. Epub 2016 Sep 16

BACKGROUND: Falling is a common and serious problem in the elderly. Previous studies suggest that the use of psychotropic drugs increases the risk of falling. However, the contribution of these drugs on fall risk has not been quantified on a daily basis among the general population of nursing homes until now.

OBJECTIVE: To assess the association between fall incidence and the prescription of psychotropic drugs and different categories of psychotropic drugs (antipsychotics, antidepressants, and benzodiazepines) among a general nursing home population. DESIGN: Retrospective observational study, data collection per person-day. SETTING: 9 nursing homes in Eindhoven, the Netherlands.

PARTICIPANTS: 2368 nursing home residents, resulting in 538,575 person-days.

MAIN OUTCOME MEASURE: Association between the prescription of psychotropic drugs and falls.

RESULTS: A total of 2368 nursing home residents were included, which resulted in a data set of 538,575 person-days. Prescription of at least 1 psychotropic drug per day occurred during a total of 318,128 person-days (59.1%). Scheduled prescriptions with or without an as-needed prescription were involved in a total of 270,781 person-days (50.3%). The prescription of psychotropic drugs on a scheduled basis was found to be associated with almost a 3-fold increase in fall incidence (OR 2.88; 95% CI 1.52-5.44). An increase in fall incidence was found following the prescription of antipsychotics (OR 1.97; 95% CI 1.51-2.59) and antidepressants (OR 2.26; 95% CI 1.73-2.95). This increased fall risk was found for prescriptions on a scheduled basis as well as for prescriptions on an as-needed basis. CONCLUSION: The prescription of psychotropic drugs is associated with a strongly increased risk of falling among nursing home residents. To our knowledge, this is the first study among the general nursing home population in which the association between daily falls and daily prescriptions of psychotropic drugs and groups of psychotropic drugs was specified.

impactfactor: *6.616*

Linden CM van der (Carolien)

Comparing compliance of two communication methods of CDSS-generated advices communicated by professionals with different background qualifications on a geriatric ward – [Vergelijking van opvolgingspercentages bij twee communicatiemethoden en invloed van adviesfunctionaris bij de presentatie van adviezen uit een klinisch beslis singsondersteunend systeem op een afdeling geriatrie]

Barmentlo-Andringa, K.M.* , Wasylewicz, A.T.M.*, Schols, J.M.G.A., Grouls, R.J.E.*, Van Der Linden, C.M.J.*

Pharmaceutisch Weekblad , Volume 151, Issue 3, 22 January 2016, Pages 23-28

Voor abstract zie: *Geriatrie - Barmentlo-Andringa KM*

impactfactor: --

Linden CM van der (Carolien)

Psychotropic Drug Prescription and the Risk of Falls in Nursing Home Residents

Cox CA*, van Jaarsveld HJ, Houterman S*, van der Stegen JC, Wasylewicz AT*, Grouls RJ*, van der Linden CM*

J Am Med Dir Assoc. 2016 Dec 1;17(12):1089-1093. Epub 2016 Sep 16

Voor abstract zie: *Geriatrie - Cox C*

impactfactor: *6.616*

Nijboer, H (Harmke)

Haloperidol Use Among Elderly Patients Undergoing Surgery: A Retrospective 1-Year Study in a Hospital Population

Nijboer H*, Lefeber G, McLullich A, van Munster B

Drugs Real World Outcomes. 2016;3:83-88. Epub 2016 Mar 3

Erratum in:Drugs Real World Outcomes. 2016 Jun;3(2):239

BACKGROUND: Haloperidol, frequently used for delirium, can lead to serious side effects, of which QTc prolongation is the most worrisome since it is associated with an increased risk of fatal cardiac arrhythmia.

OBJECTIVES: The aim of this study was to measure the frequency of haloperidol use after procedures in patients aged =65 years in a hospital in the Netherlands. METHODS: This was a retrospective study among patients hospitalized in the Netherlands who were aged =65 years and who underwent a procedure between January 2008 and

January 2009. The hospital's electronic drug database was used to identify the use of haloperidol during hospital admission.

RESULTS: A total of 7782 procedures took place in 5946 elderly patients, and 1357 patients were readmitted for a second procedure in the same year. The overall frequency of haloperidol use was 5.4 %. Procedures were classified as elective (90 %) and as major (18 %). A total of 28 % (n = 570) of patients who underwent acute procedures and 24 % (n = 1086) of patients who underwent major procedures received haloperidol. Patients receiving haloperidol had a significantly longer hospital stay (14 vs. 1 day, $p < 0.001$) than patients without haloperidol. Haloperidol users were more likely to have more than one intervention than non-users (16.0 vs. 1.7 %, $p < 0.001$). In multivariable analysis, haloperidol use was associated with older age (odds ratio [OR] 1.09; 95 % confidence interval [CI] 1.07-1.11, $p < 0.001$), acute surgery (OR 2.09; 95 % CI 1.65-2.94, $p < 0.001$), and major procedures (OR 15.4; 95 % CI 11.5-21.5, $p < 0.001$).

CONCLUSION: We show a frequency of haloperidol use of 5.4 %. Based on this high frequency, surveillance of adverse events in hospital should be performed systematically, particularly in the high-risk population that undergoes acute major surgery.

impactfactor: --

** = Werkzaam in het Catharina Ziekenhuis*

Gynaecologie

Abbink K (Karin)

A postpartum woman with toxic shock syndrome: group A streptococcal infection, a much feared postpartum complication

Abbink K*, Kortekaas JC*, Buise MP*, Dokter J, Kuppens SM*, Hasaart TH*

Ned Tijdschr Geneeskd. 2016;160(0):D185

impactfactor: --

Benali F

Cyst of Nuck: The Importance of Histopathological Evaluation

Benali F*, Gooszen AD*, Wetzels C*, Piek JMJ*

Obstet Gynecol Int J, 2016; 5(2): 00152

A cyst of Nuck or hydrocele of Nuck, also called the forgotten diagnosis, [1] is a rare anatomical anomaly in women. Because of its rarity it is often misdiagnosed and due to the treatment pittfalls it is important to properly diagnose this tumour. Clinical examination and imaging must be performed to differentiate and diagnose the cyst correctly. However, even these modalities are not specific enough as we present in this case of a 28 year old woman with a suspected abscess of Nuck that was shown to be a cyst of Bartholin by histopathological examination. Furthermore, we reviewed the literature on this subject.

impactfactor: --

Boll D (Dorry)

High Incidence of Erysipelas After Surgical Treatment for Vulvar Carcinoma: An Observational Study

Leermakers ME, Pleunis N, Boll D*, Hermans RH*, Ezendam NP, Pijnenborg JM

Int J Gynecol Cancer. 2016 Mar;26(3):582-7

OBJECTIVES: Vulvar carcinoma is mainly treated surgically and has an overall good prognosis. Despite the development of minimally invasive surgical procedures in recent years, morbidity remains significant. The aim of the study was to determine the incidence and risk factors of erysipelas after surgical treatment for vulvar carcinoma.

METHODS: This retrospective observational study was performed within the Comprehensive Cancer Centre South. The study included patients (N = 116) who underwent surgery for primary vulvar carcinoma between 2005 and 2012. Patients with International Federation of Gynecology and Obstetrics stage IA and IV were excluded. Clinical and histopathological data were analyzed using logistic regression, ?(2) tests, Fisher exact tests, independent t tests, and nonparametric tests. Primary outcome was the incidence of postoperative erysipelas and determination of risk factors for erysipelas. Secondary outcome included other comorbidities.

RESULTS: A total of 23 patients (20%) with vulvar carcinoma had 1 or more episodes of erysipelas. The risk of developing erysipelas was significantly higher in patients who underwent lymph node dissection than in those who underwent sentinel node biopsy (36% [n = 12] and 14% [n = 11], respectively, P = 0.008) and in patients with lymphedema than in those without (30% [n = 7] and 12% [n = 11], respectively, P = 0.048). Patients with diabetes tended to have a higher incidence of erysipelas than those without (28% vs 18%, P = 0.27).

CONCLUSIONS: Erysipelas occurs frequently in patients who undergo surgical treatment for vulvar carcinoma. The risk of erysipelas is 3 times higher in patients who undergo lymph node dissection and in those with lymphedema than in those without, and it tends to be high in patients with diabetes.

impactfactor: 2.116

Boll D (Dorry)

MMP-14 and CD44 in Epithelial-to-Mesenchymal Transition (EMT) in ovarian cancer

Vos MC, Hollemans E, Ezendam N, Feijen H, Boll D*, Pijlman B, van der Putten H*, Klinkhamer P*, van Kuppevelt TH, van der Wurff AA, Massuger LF

J Ovarian Res. 2016 Sep 2;9(1):53

BACKGROUND: To investigate the expression of MMP-14 and CD44 as well as epithelial-to-mesenchymal transition(EMT)-like changes in ovarian cancer and to determine correlations with clinical outcome.

METHODS: In 97 patients with ovarian cancer, MMP-14 and CD44 expression as determined by immunohistochemistry was investigated in relation to EMT-like changes. To determine this, immunohistochemical staining of E-cadherin and vimentin was performed.

RESULTS: Patients with expression of both MMP-14 and CD44 in their tumors had a poor prognosis despite complete debulking. Serous histology in advanced-stage tumors (FIGO IIB-IV) correlated with CD44 (rho .286, p?<?0.01). Also, CD44 correlated with percentage vimentin expression (rho .217, p?<?0.05). In logistic regression analysis with complete debulking as the outcome parameter, CD44 expression was found to be significant (OR 3,571 (95 % Confidence Interval 1,112-11,468) p?=?0.032), though this was not the case for MMP-14 and EMT parameters.

CONCLUSION: The subgroup of patients with double expression of MMP-14 and CD44 had a poor prognosis despite complete debulking. Serous subtype in advanced-stage patients and CD44 expression were found to be correlated with vimentin expression, and CD44 expression was found to be significantly correlated with complete debulking. However, a significant correlation between EMT and clinical parameters was not found.

impactfactor: 2.502

Boll D (Dorry)

Paper-Based Survivorship Care Plans May be Less Helpful for Cancer Patients Who Search for Disease-Related Information on the Internet: Results of the Registrationsystem Oncological Gynecology (ROGY) Care Randomized Trial

Nicolaije KA, Ezendam NP, Pijnenborg JM, Boll D*, Vos MC, Kruitwagen RF, van de Poll-Franse LV. J Med Internet Res. 2016 Jul 8;18(7):e162

BACKGROUND: The Institute of Medicine recommends Survivorship Care Plans (SCPs) for all cancer survivors. However, it is unclear whether certain patient groups may or may not benefit from SCPs.

OBJECTIVE: The aim was to assess whether the effects of an automatically generated paper SCP on patients' satisfaction with information provision and care, illness perceptions, and health care utilization were moderated by disease-related Internet use.

METHODS: Twelve hospitals were randomized to either SCP care or usual care in the pragmatic cluster randomized Registrationsystem Oncological GYnecology (ROGY) Care trial. Newly diagnosed endometrial cancer patients completed questionnaires after diagnosis (N=221; response: 74.7%, 221/296), 6 months (n=158), and 12 months (n=147), including patients' satisfaction with information provision and care, illness perceptions, health care utilization (how many times patients visited a medical specialist or primary care physician about their cancer in the past 6 months), and disease-related Internet use (whether patients used the Internet to look for information about cancer).

RESULTS: In total, 80 of 221 (36.2%) patients used the Internet to obtain disease-related information. Disease-related Internet use moderated the SCP care effect on the amount of information received about the disease (P=.03) and medical tests (P=.01), helpfulness of the information (P=.01), and how well patients understood their illness (P=.04). All stratified

analyses were not statistically significant. However, it appeared that patients who did not seek disease-related information on the Internet in the SCP care arm reported receiving more information about their disease (mean 63.9, SD 20.1 vs mean 58.3, SD 23.7) and medical tests (mean 70.6, SD 23.5 vs mean 64.7, SD 24.9), finding the information more helpful (76.7, SD 22.9 vs mean 67.8, SD 27.2; scale 0-100), and understanding their illness better (mean 6.6, SD 3.0 vs mean 6.1, SD 3.2; scale 1-10) than patients in the usual care arm did. In addition, although all stratified analyses were not significant, patients who did seek disease-related information on the Internet in the SCP care arm appeared to receive less information about their disease (mean 65.7, SD 23.4 vs mean 67.1, SD 20.7) and medical tests (mean 72.4, SD 23.5 vs mean 75.3, SD 21.6), did not find the information more helpful (mean 78.6, SD 21.2 vs mean 76.0, SD 22.0), and reported less understanding of their illness (mean 6.3, SD 2.8 vs mean 7.1, SD 2.7) than patients in the usual care arm did.

CONCLUSIONS: Paper SCPs appear to improve the amount of information received about the disease and medical tests, the helpfulness of the information, and understanding of the illness for patients who do not search for disease-related information on the Internet. In contrast, paper SCPs do not seem beneficial for patients who do seek disease-related information on the Internet.

impactfactor: 4.532

Ten tijde van publicatie verbonden aan: Gynecologic Cancer Center South, Department of Gynecology, Elisabeth-TweeSteden Hospital, Tilburg and Waalwijk

Boll D (Dorry)

Vulvar mucinous adenocarcinoma with neuroendocrine differentiation: A case report and review of the literature

van Rosmalen MH, Reijnen C, Boll D*, Pijnenborg JM, van der Wurff AA, Piek JM*
Pathol Res Pract. 2016 Mar;212(3):234-7. Epub 2016 Jan 22

BACKGROUND: There are limited cases in literature of patients with mucinous adenocarcinoma of the vulva with neuroendocrine differentiation have. With this new case, we aim to provide an overview of the existing literature and present a tool with relevant markers for the pathologist in the differential diagnosis.

CASE DESCRIPTION: A 92-year-old multiparous, Caucasian woman presented with a 8 cm spherical tumor of the left major labium. Since the initial punch biopsy was not conclusive, a local resection was performed. Histopathological examination showed mucus production, large pools of mucin with trabeculae and cribriform glandular structures with strongly atypical columnar epithelium. Additional immunohistochemical analysis demonstrated expression of: CEA, CK7, EMA, and the neuroendocrine markers synaptophysin and chromogranin supporting the diagnosis.

CONCLUSION: In this report, we present a new case of a mucinous adenocarcinoma of the vulva with neuroendocrine differentiation based immunohistochemical analysis. Due to the indolent tumor behavior, partial vulvectomy is the therapy of choice.

impactfactor: 1.388

Hasaart TH (Tom)

A postpartum woman with toxic shock syndrome: group A streptococcal infection, a much feared postpartum complication

Abbink K*, Kortekaas JC*, Buise MP*, Dokter J, Kuppens SM*, Hasaart TH* Ned Tijdschr Geneeskd. 2016;160(0):D185

Voor abstract zie: Gynaecologie - Abbink K
impactfactor: --

Hasaart TH (Tom)

Development and Measurement of Guidelines-Based Quality Indicators of Caesarean Section Care in the Netherlands: A RAND-Modified Delphi Procedure and Retrospective Medical Chart Review

Melman S, Schoorel EC, de Boer K, Burggraaf H, Derks JB, van Dijk D, van Dillen J, Dirksen CD, Duvekot JJ, Franx A, Hasaart TH*, Huisjes AJ, Kolkman D, van Kuijk S, Kwee A, Mol BW, van Pampus MG, de Roon-Immerzeel A, van Roosmalen JJ, Roumen FJ, Smid-Koopman E, Smits L, Spaans WA, Visser H, van Wijngaarden WJ, Willekes C, Wouters MG, Nijhuis JG, Hermens RP, Scheepers HC

PLoS One. 2016 Jan 19;11(1):e0145771

BACKGROUND: There is an ongoing discussion on the rising CS rate worldwide. Suboptimal guideline adherence may be an important contributor to this rise. Before improvement of care can be established, optimal CS care in different settings has to be defined. This study aimed to develop and measure quality indicators to determine guideline adherence and identify target groups for improvement of care with direct effect on caesarean section (CS) rates.

METHOD: Eighteen obstetricians and midwives participated in an expert panel for systematic CS quality indicator development according to the RAND-modified Delphi method. A multi-center study was performed and medical charts of 1024 women with a CS and a stratified and weighted randomly selected group of 1036 women with a vaginal delivery were analysed. Quality indicator frequency and adherence were scored in 2060 women with a CS or vaginal delivery.

RESULTS: The expert panel developed 16 indicators on planned CS and 11 indicators on unplanned CS. Indicator adherence was calculated, defined as the number of women in a specific obstetrical situation in which care was performed as recommended in both planned and unplanned CS settings. The most frequently occurring obstetrical situations with low indicator adherence were: 1) suspected fetal distress (frequency 17%, adherence 46%), 2) non-progressive labour (frequency 12%, CS performed too early in over 75%), 3) continuous support during labour (frequency 88%, adherence 37%) and 4) previous CS (frequency 12%), with adequate counselling in 15%.

CONCLUSIONS: We identified four concrete target groups for improvement of obstetrical care, which can be used as a starting point to reduce CS rates worldwide

impactfactor: *3.057*

Hermans RH (Ralph)

High Incidence of Erysipelas After Surgical Treatment for Vulvar Carcinoma: An Observational Study

Leermakers ME, Pleunis N, Boll D*, Hermans RH*, Ezendam NP, Pijnenborg JM

Int J Gynecol Cancer. 2016 Mar;26(3):582-7

Voor abstract zie: *Gynaecologie - Boll D*

impactfactor: *2.116*

Hermans RH (Ralph)

Sentinel nodes in vulvar cancer: Long-term follow-up of the Groningen INternational study on sentinel nodes in vulvar cancer (GROINSS-V) I

Te Grootenhuis NC, van der Zee AG, van Doorn HC, van der Velden J, Vergote I, Zanagnolo V, Baldwin PJ, Gaarenstroom KN, van Dorst EB, Trum JW, Slangen BF, Runnebaum IB, Tamussino K, Hermans RH*, Provencher DM, de Bock GH, de Hullu JA, Oonk MH

Gynecol Oncol. 2016 Jan;140(1):8-14. Epub 2015 Sep 30

Geen abstract beschikbaar

impactfactor: 4.198

Kortekaas JC (Joep)

A postpartum woman with toxic shock syndrome: group A streptococcal infection, a much feared postpartum complication

Abbink K*, Kortekaas JC*, Buise MP*, Dokter J, Kuppens SM*, Hasaart TH*

Ned Tijdschr Geneeskd. 2016;160(0):D185

Voor abstract zie: Gynaecologie - Abbink K

impactfactor: --

Kuijsters N (Nienke)

Therapeutic hysteroscopy in an outpatient office-based setting compared to conventional inpatient treatment: superior? a cohort study

Smits RM*, Kuijsters NPM*, Braam L*, van Vliet HAAM*, Schoot BC*

Gynecol Surg, 2016; 13(4): 339-44

Voor abstract zie: Gynaecologie - Smits RM

impactfactor: --

Kuppens SM (Simone)

A postpartum woman with toxic shock syndrome: group A streptococcal infection, a much feared postpartum complication

Abbink K*, Kortekaas JC*, Buise MP*, Dokter J, Kuppens SM*, Hasaart TH*

Ned Tijdschr Geneeskd. 2016;160(0):D185

Voor abstract zie: Gynaecologie - Abbink K

impactfactor: --

Perdok H (Hilde)

Opinions of maternity care professionals and other stakeholders about integration of maternity care: a qualitative study in the Netherlands

Perdok H* Jans S, Verhoeven C, Henneman L, Wiegers T, Mol BW, Schellevis F, de Jonge A

BMC Pregnancy Childbirth. 2016 Jul 26;16(1):188

BACKGROUND: This study aims to give insight into the opinions of maternity care professionals and other stakeholders on the integration of midwife-led care and obstetrician-led care and on the facilitating and inhibiting factors for integrating maternity care.

METHODS: Qualitative study using interviews and focus groups from November 2012 to February 2013 in the Netherlands. Seventeen purposively selected stakeholder

representatives participated in individual semi-structured interviews and 21 in focus groups. One face-to-face focus group included a combined group of midwives, obstetricians and a paediatrician involved in maternity care. Two online focus groups included a group of primary care midwives and a group of clinical midwives respectively. Thematic analysis was performed using Atlas.ti. Two researchers independently coded the interview and focus group transcripts by means of a mind map and themes and relations between them were described.

RESULTS: Three main themes were identified with regard to integrating maternity care: client-centred care, continuity of care and task shifting between professionals. Opinions differed regarding the optimal maternity care organisation model. Participants considered the current payment structure an inhibiting factor, whereas a new modified payment structure based on the actual amount of work performed was seen as a facilitating factor. Both midwives and obstetricians indicated that they were afraid to loose autonomy.

CONCLUSIONS: An integrated maternity care system may improve client-centred care, provide continuity of care for women during labour and birth and include a shift of responsibilities between health care providers. However, differences of opinion among professionals and other stakeholders with regard to the optimal maternity care organisation model may complicate the implementation of integrated care. Important factors for a successful implementation of integrated maternity care are an appropriate payment structure and maintenance of the autonomy of professionals.

impactfactor: *2.180*

Piek JW (Jurgen)

Cyst of Nuck: The Importance of Histopathological Evaluation

Benali F*, Gooszen AD*, Wetzels C*, Piek JMJ*

Obstet Gynecol Int J, 2016; 5(2): 00152

Voor abstract zie: *Gynaecologie - Benali F*

impactfactor: --

Piek JW (Jurgen)

Vulvar mucinous adenocarcinoma with neuroendocrine differentiation: A case report and review of the literature

van Rosmalen MH, Reijnen C, Boll D*, Pijnenborg JM, van der Wurff AA, Piek JM*

Pathol Res Pract. 2016 Mar;212(3):234-7. Epub 2016 Jan 22

impactfactor: *1.388*

Putten HW van der (Hans)

MMP-14 and CD44 in Epithelial-to-Mesenchymal Transition (EMT) in ovarian cancer

Vos MC, Hollemans E, Ezendam N, Feijen H, Boll D*, Pijlman B, van der Putten H*, Klinkhamer P*, van Kuppevelt TH, van der Wurff AA, Massuger LF

J Ovarian Res. 2016 Sep 2;9(1):53

Voor abstract zie: *Gynaecologie - Boll D*

impactfactor: *2.502*

Rumste MM van (Minouche)

Ovarian Stimulation for In Vitro Fertilization and Long-term Risk of Breast Cancer

van den Belt-Dusebout AW, Spaan M, Lambalk CB, Kortman M, Laven JS, van Santbrink EJ, van der Westerlaken LA, Cohlen BJ, Braat DD, Smeenk JM, Land JA, Goddijn M, van Golde RJ, van Rumste MM*, Schats R, Józwiak K1, Hauptmann M, Rookus MA, Burger CW, van Leeuwen FE

JAMA. 2016 Jul 19;316(3):300-12

IMPORTANCE: Previous studies of breast cancer risk after in vitro fertilization (IVF) treatment were inconclusive due to limited follow-up.

OBJECTIVE: To assess long-term risk of breast cancer after ovarian stimulation for IVF.

DESIGN, SETTING, AND PARTICIPANTS: Historical cohort (OMEGA study) with complete follow-up through December 2013 for 96% of the cohort. The cohort included 19,158 women who started IVF treatment between 1983 and 1995 (IVF group) and 5950 women starting other fertility treatments between 1980 and 1995 (non-IVF group) from all 12 IVF clinics in the Netherlands. The median age at end of follow-up was 53.8 years for the IVF group and 55.3 years for the non-IVF group.

EXPOSURES: Information on ovarian stimulation for IVF, other fertility treatments, and potential confounders was collected from medical records and through mailed questionnaires. MAIN OUTCOMES AND MEASURES: Incidence of invasive and in situ breast cancers in women who underwent fertility treatments was obtained through linkage with the Netherlands Cancer Registry (1989-2013). Breast cancer risk in the IVF group was compared with risks in the general population (standardized incidence ratios [SIRs]) and the non-IVF group (hazard ratios [HRs]).

RESULTS: Among 25,108 women (mean age at baseline, 32.8 years; mean number of IVF cycles, 3.6), 839 cases of invasive breast cancer and 109 cases of in situ breast cancer occurred after a median follow-up of 21.1 years. Breast cancer risk in IVF-treated women was not significantly different from that in the general population (SIR, 1.01 [95% CI, 0.93-1.09]) and from the risk in the non-IVF group (HR, 1.01 [95% CI, 0.86-1.19]). The cumulative incidences of breast cancer at age 55 were 3.0% for the IVF group and 2.9% for the non-IVF group (P?=?.85). The SIR did not increase with longer time since treatment (=20 years) in the IVF group (0.92 [95% CI, 0.73-1.15]) or in the non-IVF group (1.03 [95% CI, 0.82-1.29]). Risk was significantly lower for those who underwent 7 or more IVF cycles (HR, 0.55 [95% CI, 0.39-0.77]) vs 1 to 2 IVF cycles and after poor response to the first IVF cycle (HR, 0.77 [95% CI, 0.61-0.96] for <4 vs =4 collected oocytes).

CONCLUSIONS AND RELEVANCE: Among women undergoing fertility treatment in the Netherlands between 1980 and 1995, IVF treatment compared with non-IVF treatment was not associated with increased risk of breast cancer after a median follow-up of 21 years. Breast cancer risk among IVF-treated women was also not significantly different from that in the general population. These findings are consistent with absence of a significant increase in long-term risk of breast cancer among IVF-treated women.

impactfactor: 37.684

Schoot BC (Dick)

Hysteroscopic Morcellation Versus Loop Resection for Removal of Placental Remnants: A Randomized Trial

Hamerlynck TW, van Vliet HA*, Beerens AS, Weyers S, Schoot BC*

J Minim Invasive Gynecol. 2016 Nov - Dec;23(7):1172-1180. Epub 2016 Aug 30

Voor abstract zie: Gynaecologie - Vliet HA van

impactfactor: 2.390

Schoot BC (Dick)

Hysteroscopy before in-vitro fertilisation (inSIGHT): a multicentre, randomised controlled trial

Smit JG, Kasius JC, Eijkemans MJ, Koks CA, van Golde R, Nap AW, Scheffer GJ, Manger PA, Hoek A, Schoot BC*, van Heusden AM, Kuchenbecker WK, Perquin DA, Fleischer K, Kaaijk EM, Sluijmer A, Friederich J, Dykgraaf RH, van Hooff M, Louwe LA, Kwee J, de Koning CH, Janssen IC, Mol F, Mol BW, Broekmans F, Torrance HL

Lancet. 2016 Jun 25;387(10038):2622-9. Epub 2016 Apr 27

BACKGROUND: Hysteroscopy is often done in infertile women starting in-vitro fertilisation (IVF) to improve their chance of having a baby. However, no data are available from randomised controlled trials to support this practice. We aimed to assess whether routine hysteroscopy before the first IVF treatment cycle increases the rate of livebirths.

METHODS: We did a pragmatic, multicentre, randomised controlled trial in seven university hospitals and 15 large general hospitals in the Netherlands. Women with a normal transvaginal ultrasound of the uterine cavity and no previous hysteroscopy who were scheduled for their first IVF treatment were randomly assigned (1:1) to either hysteroscopy with treatment of detected intracavitary abnormalities before starting IVF (hysteroscopy group) or immediate start of the IVF treatment (immediate IVF group). Randomisation was done with web-based concealed allocation and was stratified by centre with variable block sizes. Participants, doctors, and outcome assessors were not masked to the assigned group. The primary outcome was ongoing pregnancy (detection of a fetal heartbeat at >12 weeks of gestation) within 18 months of randomisation and resulting in livebirth. Analysis was by intention to treat. This trial is registered with ClinicalTrials.gov, number NCT01242852.

FINDINGS: Between May 25, 2011, and Aug 27, 2013, we randomly assigned 750 women to receive either hysteroscopy (n=373) or immediate IVF (n=377). 209 (57%) of 369 women eligible for assessment in the hysteroscopy group and 200 (54%) of 373 in the immediate IVF group had a livebirth from a pregnancy during the trial period (relative risk 1·06, 95% CI 0·93-1·20; p=0·41). One (<1%) woman in the hysteroscopy group developed endometritis after hysteroscopy.

INTERPRETATION: Routine hysteroscopy does not improve livebirth rates in infertile women with a normal transvaginal ultrasound of the uterine cavity scheduled for a first IVF treatment. Women with a normal transvaginal ultrasound should not be offered routine hysteroscopy.

impactfactor: *44.002*

Schoot BC (Dick)

Therapeutic hysteroscopy in an outpatient office-based setting compared to conventional inpatient treatment: superior? a cohort study

Smits RM*, Kuijsters NPM*, Braam L*, van Vliet HAAM*, Schoot BC*

Gynecol Surg, 2016; 13(4): 339-44

Voor abstract zie: *Gynaecologie - Smits RM*

impactfactor: --

Slappendel E (Els)

A randomized controlled, non-inferiority trial of modified natural versus artificial cycle for cryo-thawed embryo transfer

Groenewoud ER, Cohlen BJ, Al-Oraiby A, Brinkhuis EA, Broekmans FJ, de Bruin JP, van den Dool G, Fleisher K, Friederich J, Goddijn M, Hoek A, Hoozemans DA, Kaaijk EM, Koks CA, Laven JS, van der Linden PJ, Manger AP, Slappendel E*, Spinder T, Kollen BJ, Macklon NS

Hum Reprod. 2016 Jul;31(7):1483-92. Epub 2016 May 13

STUDY QUESTION: Are live birth rates (LBRs) after artificial cycle frozen-thawed embryo transfer (AC-FET) non-inferior to LBRs after modified natural cycle frozen-thawed embryo transfer (mNC-FET)?

SUMMARY ANSWER: AC-FET is non-inferior to mNC-FET with regard to LBRs, clinical and ongoing pregnancy rates (OPRs) but AC-FET does result in higher cancellation rates.

WHAT IS ALREADY KNOWN: Pooling prior retrospective studies of AC-FET and mNC-FET results in comparable pregnancy and LBRs. However, these results have not yet been confirmed by a prospective randomized trial.

STUDY DESIGN, SIZE AND DURATION: In this non-inferiority prospective randomized controlled trial (acronym 'ANTARCTICA' trial), conducted from February 2009 to April 2014, 1032 patients were included of which 959 were available for analysis. The primary outcome of the study was live birth. Secondary outcomes were clinical and ongoing pregnancy, cycle cancellation and endometrium thickness. A cost-efficiency analysis was performed.

PARTICIPANT/MATERIALS, SETTING, METHODS: This study was conducted in both secondary and tertiary fertility centres in the Netherlands. Patients included in this study had to be 18-40 years old, had to have a regular menstruation cycle between 26 and 35 days and frozen-thawed embryos to be transferred had to derive from one of the first three IVF or IVF-ICSI treatment cycles. Patients with a uterine anomaly, a contraindication for one of the prescribed medications in this study or patients undergoing a donor gamete procedure were excluded from participation. Patients were randomized based on a 1:1 allocation to either one cycle of mNC-FET or AC-FET. All embryos were cryopreserved using a slow-freeze technique.

MAIN RESULTS AND THE ROLE OF CHANCE: LBR after mNC-FET was 11.5% (57/495) versus 8.8% in AC-FET (41/464) resulting in an absolute difference in LBR of -0.027 in favour of mNC-FET (95% confidence interval (CI) -0.065-0.012; P = 0.171). Clinical pregnancy occurred in 94/495 (19.0%) patients in mNC-FET versus 75/464 (16.0%) patients in AC-FET (odds ratio (OR) 0.8, 95% CI 0.6-1.1, P = 0.25). 57/495 (11.5%) mNC-FET resulted in ongoing pregnancy versus 45/464 (9.6%) AC-FET (OR 0.7, 95% CI 0.5-1.1, P = 0.15). ?(2) test confirmed the lack of superiority. Significantly more cycles were cancelled in AC-FET (124/464 versus 101/495, OR 1.4, 95% CI 1.1-1.9, P = 0.02). The costs of each of the endometrial preparation methods were comparable (€617.50 per cycle in NC-FET versus €625.73 per cycle in AC-FET, P = 0.54).

LIMITATIONS, REASONS FOR CAUTION: The minimum of 1150 patients required for adequate statistical power was not achieved. Moreover, LBRs were lower than anticipated in the sample size calculation.

WIDER IMPLICATIONS OF THE FINDINGS: LBRs after AC-FET were not inferior to those achieved by mNC-FET. No significant differences in clinical and OPR were observed. The costs of both treatment approaches were comparable.

impactfactor: 4.621

Slappendel E (Els)

Influence of embryo culture medium (G5 and HTF) on pregnancy and perinatal outcome after IVF: a multicenter RCT

Kleijkers SH, Mantikou E, Slappendel E*, Consten D, van Echten-Arends J, Wetzels AM, van Wely M, Smits LJ, van Montfoort AP, Repping S, Dumoulin JC, Mastenbroek S

Hum Reprod. 2016 Oct;31(10):2219-30

STUDY QUESTION: Does embryo culture medium influence pregnancy and perinatal outcome in IVF?

SUMMARY ANSWER: Embryo culture media used in IVF affect treatment efficacy and the birthweight of newborns.

WHAT IS KNOWN ALREADY: A wide variety of culture media for human preimplantation embryos in IVF/ICSI treatments currently exists. It is unknown which medium is best in terms of clinical outcomes. Furthermore, it has been suggested that the culture medium used for the in vitro culture of embryos affects birthweight, but this has never been demonstrated by large randomized trials.

STUDY DESIGN, SIZE, DURATION: We conducted a multicenter, double-blind RCT comparing the use of HTF and G5 embryo culture media in IVF. Between July 2010 and May 2012, 836 couples (419 in the HTF group and 417 in the G5 group) were included. The allocated medium (1:1 allocation) was used in all treatment cycles a couple received within 1 year after randomization, including possible transfers with frozen-thawed embryos. The primary outcome was live birth rate.

PARTICIPANTS/MATERIALS, SETTING, METHODS: Couples that were scheduled for an IVF or an ICSI treatment at one of the six participating centers in the Netherlands or their affiliated clinics.

MAIN RESULTS AND THE ROLE OF CHANCE: The live birth rate was higher, albeit nonsignificantly, in couples assigned to G5 than in couples assigned to HTF (44.1% (184/417) versus 37.9% (159/419); RR: 1.2; 95% confidence interval (CI): 0.99-1.37; P = 0.08). Number of utilizable embryos per cycle (2.8 ± 2.3 versus 2.3 ± 1.8; P < 0.001), implantation rate after fresh embryo transfer (20.2 versus 15.3%; P < 0.001) and clinical pregnancy rate (47.7 versus 40.1%; RR: 1.2; 95% CI: 1.02-1.39; P = 0.03) were significantly higher for couples assigned to G5 compared with those assigned to HTF. Of the 383 live born children in this trial, birthweight data from 380 children (300 singletons (G5: 163, HTF: 137) and 80 twin children (G5: 38, HTF: 42)) were retrieved. Birthweight was significantly lower in the G5 group compared with the HTF group, with a mean difference of 158 g (95% CI: 42-275 g; P = 0.008). More singletons were born preterm in the G5 group (8.6% (14/163) versus 2.2% (3/137), but singleton birthweight adjusted for gestational age and gender (z-score) was also lower in the G5 than in the HTF group (-0.13 ± 0.08 versus 0.17 ± 0.08; P = 0.008).

LIMITATIONS, REASONS FOR CAUTION: This study was powered to detect a 10% difference in live births while a smaller difference could still be clinically relevant. The effect of other culture media on perinatal outcome remains to be determined.

WIDER IMPLICATIONS OF THE FINDINGS: Embryo culture media used in IVF affect not only treatment efficacy but also perinatal outcome. This suggests that the millions of human embryos that are cultured in vitro each year are sensitive to their environment. These findings should lead to increased awareness, mechanistic studies and legislative adaptations to protect IVF offspring during the first few days of their existence.

impactfactor: 4.621

Smits RM (Roos)

Therapeutic hysteroscopy in an outpatient office-based setting compared to conventional inpatient treatment: superior? a cohort study

Smits RM*, Kuijsters NPM*, Braam L*, van Vliet HAAM*, Schoot BC*

Gynecol Surg, 2016; 13(4): 339-44

Since the introduction of smaller instruments, hysteroscopy is increasingly performed in an office-based setting. The aim of this cohort study was to compare operative hysteroscopy in an office-based setting with inpatient procedures to evaluate differences in procedure and analgesia-related parameters. All office-based hysteroscopic procedures during February 2014 to October 2015 were entered for analysis. Included were morcellation of fibroids, polyps and pregnancy remnants, synechiolysis, diagnostic hysteroscopy, and endometrial ablation. Comparative cases of patients undergoing hysteroscopic surgery in the operating room were searched during the years prior to initiation of the office-based setting (2012 and 2013). During the outpatient surgical procedures, patients were moderate to deeply sedated with propofol and alfentanyl. Two groups of 129 patients were analysed. Median operation time was significantly shorter in the office-based group (11 min [range 1–37]) compared to the operating room group (20 min [range 2–73], $p < 0.01$). Median admission time was also shorter in the office-based group (135 min [range 60–150] versus 455 min [range 240–2865] ($p < 0.01$)). The number of incomplete procedures was similar (3.9 % versus 2.3 %, $p = 0.473$). No significant difference in surgical or anaesthesiology complications was observed. Overall complication rate was 4.7 % in the office-based setting and 3.9 % in the operating room setting. Financial analysis showed that procedures in an office-based setting are at least half of the costs as compared to a clinical setting. Office-based hysteroscopic procedures under procedural sedation and analgesia demonstrate a low complication rate as well as shorter operation and admission time compared to outpatient procedures. Office-based hysteroscopic procedures showed lower healthcare costs.

impactfactor: --

Vliet HA van (Huib)

Hysteroscopic Morcellation Versus Loop Resection for Removal of Placental Remnants: A Randomized Trial

Hamerlynck TW, van Vliet HA*, Beerens AS, Weyers S, Schoot BC*

J Minim Invasive Gynecol. 2016 Nov - Dec;23(7):1172-1180. Epub 2016 Aug 30

STUDY OBJECTIVE: To compare hysteroscopic morcellation with loop resection for the removal of placental remnants in terms of procedure time, adverse events, tissue availability, histology results, short-term effectiveness, and postoperative adhesions.

DESIGN: A randomized controlled trial (Canadian Task Force classification I).

SETTING: A teaching and university hospital.

PATIENTS: Women with placental remnants.

INTERVENTIONS: Hysteroscopic morcellation with the TRUCLEAR 8.0 Tissue Removal System (Smith & Nephew, Inc, Andover, MA) or loop resection with a rigid 8.5-mm bipolar resectoscope (Karl Storz GmbH, Tuttlingen, Germany).

MEASUREMENTS AND MAIN RESULTS: Forty-six and 40 women were included in the hysteroscopic morcellation and resection groups, respectively. The median operating time was significantly shorter for hysteroscopic morcellation compared with loop resection (6.2 minutes [interquartile range, 4.0-11.2 minutes] vs 10.0 minutes [5.8-16.4 minutes], $p = .023$). Both operating time and total procedure time, corrected for the diameter of the placental remnants, were significantly reduced for hysteroscopic morcellation compared with loop resection, by 40% (95% confidence interval, 15%-58%; $p = .005$) and 22% (95% CI, 5%-37%; p

= .014), respectively. No adverse events occurred during hysteroscopic removal. Perforation at dilation in 8 cases of the hysteroscopic morcellation group resulted in 2 procedure discontinuations and 1 incomplete procedure. Incomplete removal was found in 1 uncomplicated hysteroscopic morcellation procedure and 2 resection procedures. Pathology results confirmed the presence of placental remnants in 27 of 40 (67.5%) and 26 of 37 (70%) patients in the hysteroscopic morcellation and resection groups, respectively. Second-look hysteroscopy showed de novo intrauterine adhesions in 1 of 35 patients (3%) in the hysteroscopic morcellation group and 1 of 30 (3%) patients in the resection group.

CONCLUSION: Hysteroscopic morcellation is a faster alternative than loop resection. Both techniques are safe and show high rates of complete removal and tissue availability and low rates of de novo intrauterine adhesions.

impactfactor: 2.390

Vliet HA van (Huib)

Induction of labour at term with oral misoprostol versus a Foley catheter (PROBAAT-II): a multicentre randomised controlled non-inferiority trial

Ten Eikelder ML, Oude Rengerink K, Jozwiak M, de Leeuw JW, de Graaf IM, van Pampus MG, Holswilder M, Oudijk MA, van Baaren GJ, Pernet PJ, Bax C, van Unnik GA, Martens G, Porath M, van Vliet H*, Rijnders RJ, Feitsma AH, Roumen FJ, van Loon AJ, Versendaal H, Weinans MJ, Woiski M, van Beek E, Hermsen B, Mol BW, Bloemenkamp KW

Lancet. 2016 Apr 16;387(10028):1619-28. Epub 2016 Feb 3

BACKGROUND: Labour is induced in 20-30% of all pregnancies. In women with an unfavourable cervix, both oral misoprostol and Foley catheter are equally effective compared with dinoprostone in establishing vaginal birth, but each has a better safety profile. We did a trial to directly compare oral misoprostol with Foley catheter alone.

METHODS: We did an open-label randomised non-inferiority trial in 29 hospitals in the Netherlands. Women with a term singleton pregnancy in cephalic presentation, an unfavourable cervix, intact membranes, and without a previous caesarean section who were scheduled for induction of labour were randomly allocated to cervical ripening with 50 µg oral misoprostol once every 4 h or to a 30 mL transcervical Foley catheter. The primary outcome was a composite of asphyxia (pH =7·05 or 5-min Apgar score <7) or post-partum haemorrhage (=1000 mL). The non-inferiority margin was 5%. The trial is registered with the Netherlands Trial Register, NTR3466.

FINDINGS: Between July, 2012, and October, 2013, we randomly assigned 932 women to oral misoprostol and 927 women to Foley catheter. The composite primary outcome occurred in 113 (12·2%) of 924 participants in the misoprostol group versus 106 (11·5%) of 921 in the Foley catheter group (adjusted relative risk 1·06, 90% CI 0·86-1·31). Caesarean section occurred in 155 (16·8%) women versus 185 (20·1%; relative risk 0·84, 95% CI 0·69-1·02, p=0·067). 27 adverse events were reported in the misoprostol group versus 25 in the Foley catheter group. None were directly related to the study procedure.

INTERPRETATION: In women with an unfavourable cervix at term, induction of labour with oral misoprostol and Foley catheter has similar safety and effectiveness.

impactfactor: 44.002

Vliet HA van (Huib)

Therapeutic hysteroscopy in an outpatient office-based setting compared to conventional inpatient treatment: superior? a cohort study

Smits RM*, Kuijsters NPM*, Braam L*, van Vliet HAAM*, Schoot BC*

Gynecol Surg, 2016; 13(4): 339-44

Voor abstract zie: *Gynaecologie - Smits RM*

impactfactor: *--*

Wilms FF (Femke)

Quantitative fetal fibronectin testing in combination with cervical length measurement in the prediction of spontaneous preterm delivery in symptomatic women

Bruijn M, Vis JY, Wilms FF*, Oudijk MA, Kwee A, Porath MM, Oei G, Scheepers H, Spaanderman M, Bloemenkamp K, Haak MC, Bolte AC, Vandenbussche F, Woiski MD, Bax CJ, Cornette J, Duvekot JJ, Nij Bijvanck B, van Eyck J, Franssen M, Sollie KM, van der Post J, Bossuyt P, Opmeer BC, Kok M, Mol B, van Baaren GJ

BJOG. 2016 Nov;123(12):1965-1971. Epub 2015 Dec 15

OBJECTIVE: To evaluate whether in symptomatic women, the combination of quantitative fetal fibronectin (fFN) testing and cervical length (CL) improves the prediction of preterm delivery (PTD) within 7 days compared with qualitative fFN and CL.

DESIGN: Post hoc analysis of frozen fFN samples of a nationwide cohort study.

SETTING: Ten perinatal centres in the Netherlands.

POPULATION: Symptomatic women between 24 and 34 weeks of gestation.

METHODS: The risk of PTD <7 days was estimated in predefined CL and fFN strata. We used logistic regression to develop a model including quantitative fFN and CL, and one including qualitative fFN (threshold 50 ng/ml) and CL. We compared the models' capacity to identify women at low risk (<5%) for delivery within 7 days using a reclassification table.

MAIN OUTCOME MEASURES: Spontaneous delivery within 7 days after study entry.

RESULTS: We studied 350 women, of whom 69 (20%) delivered within 7 days. The risk of PTD in <7 days ranged from 2% in the lowest fFN group (<10 ng/ml) to 71% in the highest group (>500 ng/ml). Multivariable logistic regression showed an increasing risk of PTD in <7 days with rising fFN concentration [10-49 ng/ml: odds ratio (OR) 1.3, 95% confidence interval (95% CI) 0.23-7.0; 50-199 ng/ml: OR 3.2, 95% CI 0.79-13; 200-499 ng/ml: OR 9.0, 95% CI 2.3-35; >500 ng/ml: OR 39, 95% CI 9.4-164] and shortening of the CL (OR 0.86 per mm, 95% CI 0.82-0.90). Use of quantitative fFN instead of qualitative fFN resulted in reclassification of 18 (5%) women from high to low risk, of whom one (6%) woman delivered within 7 days.

CONCLUSION: In symptomatic women, quantitative fFN testing does not improve the prediction of PTD within 7 days compared with qualitative fFN testing in combination with CL measurement in terms of reclassification from high to low (<5%) risk, but it adds value across the risk range.

TWEETABLE ABSTRACT: Quantitative fFN testing adds value to qualitative fFN testing with CL measurement in the prediction of PTD.

impactfactor: *4.039*

** = Werkzaam in het Catharina Ziekenhuis*

Hygiëne en Infectiepreventie

Laros IF (Ilse)

Crystallization in the waterjet channel in colonoscopes due to simethicone

van Stiphout SH*, Laros IF*, van Wezel RA*, Gilissen LP*

Endoscopy. 2016 0;48(S 01):E394-E395

geen abstract beschikbaar

impactfactor: 5.634

** = Werkzaam in het Catharina Ziekenhuis*

Intensive Care

Geerse DA (Daniel)

Diagnosis of acute myocardial infarction in hemodialysis patients may be feasible by comparing variation of cardiac troponins during acute presentation to baseline variation

van Berkel M*, Dekker MJ*, Bogers H*, Geerse DA*, Konings CJ*, Scharnhorst V*

Clin Chim Acta. 2016 May 1;456:36-41. Epub 2016 Feb 11

Voor abstract zie: *Algemeen Klinisch Laboratorium - Berkel M van*

impactfactor: *2.799*

Mestrom E (Eveline)

Early treatment with intravenous lipid emulsion in a potentially lethal hydroxychloroquine intoxication

Ten Broeke R*, Mestrom E*, Woo L*, Kreeftenberg H*

Neth J Med. 2016 Jun;74(5):210-4

Voor abstract zie: *Apotheek - Broeke R ten*

impactfactor: *1.489*

Roos AN (Arnout)

Beneficial Effects of Early Enteral Nutrition After Major Rectal Surgery: A Possible Role for Conditionally Essential Amino Acids? Results of a Randomized Clinical Trial

van Barneveld KW, Smeets BJ*, Heesakkers FF*, Bosmans JW, Luyer MD*, Wasowicz D, Bakker JA, Roos AN*, Rutten HJ*, Bouvy ND, Boelens PG*

Crit Care Med. 2016 Jun;44(6):e353-61

Voor abstract zie: *Chirurgie - Smeets B*

impactfactor: *7.422*

** = Werkzaam in het Catharina Ziekenhuis*

Inwendige geneeskunde

Ammerlaan H (Heidi)

Intestinale tuberculose die zich presenteert als de ziekte van Crohn

Pijls PA*, Ammerlaan HS*, Nederend J*, Huysentruyt CJ*, Gilissen LP*, Friederich PF*

Tijdschrift voor Infectieziekten, 2016;11:96-101

Voor abstract zie: *maag-darm-leverziekten - Pijls PA*

impactfactor: --

Bernards N (Nienke)

Does long-term survival exist in pancreatic adenocarcinoma?

Zijlstra M*, Bernards N*, de Hingh IH*, van de Wouw AJ, Goey SH, Jacobs EM, Lemmens VE, Creemers GJ*

Acta Oncol. 2016;55(3):259-64. Epub 2015 Nov 11

Voor abstract zie: *Inwendige Geneeskunde - Zijlstra M*

impactfactor: *3.730*

Bernards N (Nienke)

Improvement in survival for patients with synchronous metastatic esophageal cancer in the south of the Netherlands from 1994 to 2013

Bernards N*, Haj Mohammad N, Creemers GJ*, Rozema T, Roukema JA, Nieuwenhuijzen GA*, van Laarhoven HW, van der Sangen M*, Lemmens VE

Acta Oncol. 2016 Sep-Oct;55(9-10):1161-1167. Epub 2016 May 13

BACKGROUND: We assessed the use of external beam radiotherapy, brachytherapy chemoradiotherapy and chemotherapy in patients with metastatic esophageal cancer and evaluated the effect on overall survival.

METHODS: We included all patients diagnosed with synchronous metastatic esophageal cancer in the south of the Netherlands between 1 January 1994 and 31 December 2013. Proportions of patients treated with external beam radiotherapy, brachytherapy, chemoradiotherapy and chemotherapy were described with respect to the period of diagnosis, patient and tumor characteristics. Independent risk factors for death were discriminated.

RESULTS: A total of 1020 patients were included, 61.5% of these patients received palliative treatment with external beam radiotherapy, chemoradiotherapy, brachytherapy and/or chemotherapy. The use of external beam radiotherapy decreased from 44.5% in 1994 to 22.2% in 2013 (p?=?0.0001), whereas the use of chemoradiotherapy increased from 2.9% in 1994 to 19.1% in 2013 (p?<?0.0001). The prescription of systemic chemotherapy as single modality increased from 13.9% to 30.5% (p?<?0.0001). The use of brachytherapy decreased from 20.9% in 1994 to 7.4% in 2013 (p?=?0.0013). The odds of receiving external beam radiotherapy, brachytherapy, chemoradiotherapy and chemotherapy were influenced by different tumor and patient characteristics, such as age, gender, histologic subtype and number of metastatic sites. The median overall survival in patients with metastatic esophageal cancer significantly improved over time from 18 weeks (one-year survival rate 14.4%) in 1994-1998 to 25 weeks (one-year survival rate 22.4%) in 2009-2013. Patients treated with chemoradiotherapy had the most favorable prognosis, followed by patients treated with chemotherapy as a single modality.

CONCLUSION: The median overall survival of patients diagnosed with metastatic esophageal cancer improved from 18 weeks in 1994-1998 to 25 weeks in 2009-2013. Although this increase could be attributed to stage migration, our population-based study suggests that major changes in treatment strategies and appropriate patient selection might have played a role as well.

impactfactor: *3.730*

Bernards N (Nienke)

Phase II study of docetaxel, cisplatin and capecitabine as preoperative chemotherapy in resectable gastric cancer

Dassen AE, Bernards N*, Lemmens VE, van de Wouw YA, Bosscha K, Creemers GJ*, Pruijt HJ.

World J Gastrointest Surg. 2016 Oct 27;8(10):706-712

AIM: To investigate the feasibility of preoperative docetaxel, cisplatin and capecitabine (DCC) in patients with resectable gastric cancer. METHODS: Patients with resectable gastric cancer fulfilling the inclusion criteria, were treated with 4 cycles of docetaxel (60 mg/m2), cisplatin (60 mg/m2) and capecitabine (1.875 mg/m2 orally on day 1-14, two daily doses) repeated every three weeks, followed by surgery. Primary end point was the feasibility and toxicity/safety profile of DCC, secondary endpoints were pathological complete resection rate and pathological complete response (pCR) rate. RESULTS: All of the patients (51) were assessable for the feasibility and safety of the regimen. The entire preoperative regimen was completed by 68.6% of the patients. Grade III/IV febrile neutropenia occurred in 10% of all courses. Three patients died due to treatment related toxicity (5.9%), one of them (also) because of refusing further treatment for toxicity. Of the 45 patients who were evaluable for secondary endpoints, four developed metastatic disease and 76.5% received a curative resection. In 3 patients a pCR was seen (5.9%), two patients underwent a R1 resection (3.9%). CONCLUSION: Four courses of DCC as a preoperative regimen for patients with primarily resectable gastric cancer is highly demanding. The high occurrence of febrile neutropenia is of concern. To decrease the occurrence of febrile neutropenia the prophylactic use of granulocyte colony-stimulating factor (G-CSF) should be explored. A curative resection rate of 76.5% is acceptable. The use of DCC without G-CSF support as preoperative regimen in resectable gastric cancer is debatable.

impactfactor: *2.807*

Bernards N (Nienke)

Trends in incidence, treatment and survival of small bowel adenocarcinomas between 1999 and 2013: a population-based study in The Netherlands

Legué LM*, Bernards N*, Gerritse SL, van Oudheusden TR*, de Hingh IH*, Creemers GJ*, Ten Tije AJ, Lemmens VE

Acta Oncol. 2016 Sep-Oct;55(9-10):1183-1189. Epub 2016 May 12

Voor abstract zie: *Inwendige geneeskunde - Legue LM*

impactfactor: *3.730*

Bernards N (Nienke)

Volume matters in the systemic treatment of metastatic pancreatic cancer: a population-based study in the Netherlands

Haj Mohammad N, Bernards N*, Besselink MG, Busch OR, Wilmink JW, Creemers GJ*, De Hingh IH*, Lemmens VE, van Laarhoven HW

J Cancer Res Clin Oncol. 2016 Jun;142(6):1353-60. Epub 2016 Mar 19

PURPOSE: In pancreatic surgery, a relation between surgical volume and postoperative mortality and overall survival (OS) has been recognized, with high-volume centers reporting significantly better survival rates. We aimed to explore the influence of hospital volume on administration of palliative chemotherapy and OS in the Netherlands.

METHODS: Patients diagnosed between 2007 and 2011 with metastatic pancreatic cancer were identified in the Netherlands Cancer Registry. Three types of high-volume centers were defined: high-volume (1) incidence center, based on the number of patients diagnosed with metastatic pancreatic cancer, (2) treatment center based on number of patients with

metastatic pancreatic cancer who started treatment with palliative chemotherapy and (3) surgical center based on the number of resections with curative intent for pancreatic cancer. Independent predictors of administration of palliative chemotherapy were evaluated by means of logistic regression analysis. The multivariable Cox proportional hazard model was used to assess the impact of being diagnosed or treated in high-volume centers on survival.
RESULTS: A total of 5385 patients presented with metastatic pancreatic cancer of which 24 % received palliative chemotherapy. Being treated with chemotherapy in a high-volume chemotherapy treatment center was associated with improved survival (HR 0.76, 95 % CI 0.67-0.87). Also, in all patients with metastatic pancreatic cancer, being diagnosed in a high-volume surgical center was associated with improved survival (HR 0.74, 95 % CI 0.66-0.83).
CONCLUSIONS: Hospital volume of palliative chemotherapy for metastatic pancreatic cancer was associated with improved survival, demonstrating that a volume-outcome relationship, as described for pancreatic surgery, may also exist for pancreatic medical oncology.

impactfactor: *3.141*

Bogers H (Hanneke)

Diagnosis of acute myocardial infarction in hemodialysis patients may be feasible by comparing variation of cardiac troponins during acute presentation to baseline variation

van Berkel M*, Dekker MJ*, Bogers H*, Geerse DA*, Konings CJ*, Scharnhorst V*
Clin Chim Acta. 2016 May 1;456:36-41. Epub 2016 Feb 11

Voor abstract zie: *Algemeen Klinisch Laboratorium - Berkel M van*
impactfactor: *2.799*

Brands AV (Angelique)

Incidentie en klinische relevantie van geneesmiddel-interacties bij parenterale chemotherapie. Het belang van lokale afhandeling

D.C. van Renswouw, R. ten Broeke, A.V.M. Brands-Nijenhuis en R.J.E. Grouls
Nederlands Platform voor Farmaceutisch Onderzoek 2016; 1; a1612

Voor abstract zie: *Apotheek - Renswouw DC van*
impactfactor: *--*

Creemers GJ (Geert-Jan)

Age-related systemic treatment and survival of patients with metachronous metastases from colorectal cancer

Razenberg LG*, Creemers GJ*, Beerepoot LV, Vos AH, van de Wouw AJ, Maas HA, Lemmens VE
Acta Oncol. 2016 Dec;55(12):1443-1449. Epub 2016 Sep 1

Voor abstract zie: *Inwendige geneeskunde - Razenberg GJ*
impactfactor: *3.730*

Creemers GJ (Geert-Jan)

Bevacizumab for metachronous metastatic colorectal cancer: a reflection of community based practice

Razenberg LG*, van Gestel YR, de Hingh IH*, Loosveld OJ, Vreugdenhil G, Beerepoot LV, Creemers GJ*, Lemmens VE
BMC Cancer. 2016 Feb 16;16:110

Voor abstract zie: *Inwendige geneeskunde - Razenberg LG*
impactfactor: *3.365*

Creemers GJ (Geert-Jan)

Bevacizumab in Addition to Palliative Chemotherapy for Patients With Peritoneal Carcinomatosis of Colorectal Origin

Razenberg LG*, van Gestel YR, Lemmens VE, de Hingh IH*, Creemers GJ*

Clin Colorectal Cancer. 2016 Jun;15(2):e41-6. Epub 2015 Dec 17

Voor abstract zie: *Inwendige geneeskunde - Razenberg LG*

impactfactor: *3.090*

Creemers GJ (Geert-Jan)

Challenging the dogma of colorectal peritoneal metastases as an untreatable condition: Results of a population-based study

Razenberg LG*, Lemmens VE, Verwaal VJ, Punt CJ, Tanis PJ, Creemers GJ*, de Hingh IH*

Eur J Cancer. 2016 Sep;65:113-20. Epub 2016 Aug 3

Voor abstract zie: *inwendige geneeskunde - Razenberg LG*

impactfactor: *6.163*

Creemers GJ (Geert-Jan)

Delaying surgery after neoadjuvant chemoradiotherapy does not significantly influence postoperative morbidity or oncological outcome in patients with oesophageal adenocarcinoma

Kathiravetpillai N*, Koëter M*, van der Sangen MJ*, Creemers GJ*, Luyer MD*, Rutten HJ*, Nieuwenhuijzen GA*

Eur J Surg Oncol. 2016 Aug;42(8):1183-90. Epub 2016 Apr 19

Voor abstract zie: *Chirurgie - Kathiravetpillai N*

impactfactor: *2.940*

Creemers GJ (Geert-Jan)

Developing a core set of patient-reported outcomes in pancreatic cancer: A Delphi survey

Gerritsen A, Jacobs M, Henselmans I, van Hattum J, Efficace F, Creemers GJ*, de Hingh IH*, Koopman M, Molenaar IQ, Wilmink HW, Busch OR, Besselink MG, van Laarhoven HW; Dutch Pancreatic Cancer Group

Eur J Cancer. 2016 Apr;57:68-77

BACKGROUND: Patient-reported outcomes (PROs) are amongst the most relevant outcome measures in pancreatic cancer care and research. However, it is unknown which out of the numerous PROs are most important to patients and health care professionals (HCPs) in this setting. The aim of this study was to identify a core set of PROs to be incorporated in a nationwide prospective multidisciplinary pancreatic cancer registry.

PATIENTS AND METHODS: We performed a two-round Delphi survey among 150 patients diagnosed with pancreatic or periampullary cancer (treated either with curative intent or in palliative setting) and 78 HCPs (surgeons, medical oncologists, gastroenterologists, radiotherapists, nurses, and dietitians) in The Netherlands. In round 1, participants were invited to rate the importance of 53 PROs, which were extracted from 17 different PRO measures and grouped into global domains, on a 1-9 Likert scale. PROs rated as very important (score 7-9) by the majority (= 80%) of curative and/or palliative patients as well as HCPs were considered sufficiently important to be incorporated in the core set. PROs not fulfilling these criteria in round 1 were presented again to the participants in round 2 along with individual and group feedback.

RESULTS: A total of 97 patients (94%) in curative-intent setting, 38 patients (81%) in palliative setting and 73 HCPs (94%) completed both rounds 1 and 2. After the first round, 7 PROs were included in the core set: general quality of life, general health, physical ability, satisfaction with caregivers, satisfaction with services and care organisation, coping and defecation. After the second round, 10 additional PROs were added: appetite, ability to work/do usual activities, medication use, weight changes, fatigue, negative feelings, positive feelings, fear of recurrence, relationship with partner/family, and pancreatic enzyme replacement therapy use.

CONCLUSION: This study provides a core set of PROs selected by patients and HCPs, which may be incorporated in pancreatic cancer care and research. Validation outside the Dutch context is recommended for generalisation and use in international studies.

impactfactor: 6.163

Creemers GJ (Geert-Jan)

Does long-term survival exist in pancreatic adenocarcinoma?

Zijlstra M*, Bernards N*, de Hingh IH*, van de Wouw AJ, Goey SH, Jacobs EM, Lemmens VE, Creemers GJ*

Acta Oncol. 2016;55(3):259-64. Epub 2015 Nov 11

Voor abstract zie: Inwendige Geneeskunde - Zijlstra M

impactfactor: 3.730

Creemers GJ (Geert-Jan)

Histological subtype and systemic metastases strongly influence treatment and survival in patients with synchronous colorectal peritoneal metastases

Simkens GA*, Razenberg LG*, Lemmens VE, Rutten HJ*, Creemers GJ*, de Hingh IH*

Eur J Surg Oncol. 2016 Jun;42(6):794-800. Epub 2016 Mar 28

Voor abstract zie: Chirurgie - Simkens GA

impactfactor: 2.940

Creemers GJ (Geert-Jan)

Improvement in survival for patients with synchronous metastatic esophageal cancer in the south of the Netherlands from 1994 to 2013

Bernards N*, Haj Mohammad N, Creemers GJ*, Rozema T, Roukema JA, Nieuwenhuijzen GA*, van Laarhoven HW, van der Sangen M*, Lemmens VE

Acta Oncol. 2016 Sep-Oct;55(9-10):1161-1167. Epub 2016 May 13

Voor abstract zie: Inwendige geneeskunde - Bernards N

impactfactor: 3.730

Creemers GJ (Geert-Jan)

Increased Survival of Patients with Synchronous Colorectal Peritoneal Metastases Receiving Preoperative Chemotherapy Before Cytoreductive Surgery and Hyperthermic Intraperitoneal Chemotherapy

Devilee RA*, Simkens GA*, van Oudheusden TR*, Rutten HJ*, Creemers GJ*, Ten Tije AJ, de Hingh IH*

Ann Surg Oncol. 2016 Sep;23(9):2841-8. Epub 2016 Apr 4

Voor abstract zie: Chirurgie - Devilee RA

impactfactor: 3.655

Creemers GJ (Geert-Jan)

Intensity of adjuvant chemotherapy regimens and grade III-V toxicities among elderly stage III colon cancer patients

van Erning FN, Razenberg LG, Lemmens VE, Creemers GJ*, Pruijt JF, Maas HA, Janssen-Heijnen ML

Eur J Cancer. 2016 Jul;31(7):1483-92. Epub 2016 May 13

PURPOSE: The aim of this study was to provide insight in the use, intensity and toxicity of therapy with capecitabine and oxaliplatin (CAPOX) and capecitabine monotherapy (CapMono) among elderly stage III colon cancer patients treated in everyday clinical practice.

METHODS: Data from the Netherlands Cancer Registry were used. All stage III colon cancer patients aged =70 years diagnosed in the southeastern part between 2005 and 2012 and treated with CAPOX or CapMono were included. Differences in completion of all planned cycles, cumulative dosages and toxicity between both regimens were evaluated.

RESULTS: One hundred ninety-three patients received CAPOX and 164 patients received CapMono; 33% (n = 63) of the patients receiving CAPOX completed all planned cycles of both agents, whereas 55% (n = 90) of the patients receiving CapMono completed all planned cycles (P < 0.0001). The median cumulative dosage capecitabine was lower for patients treated with CAPOX (163,744 mg/m(2), interquartile range [IQR] 83,397-202,858 mg/m(2)) than for patients treated with CapMono (189,195 mg/m(2), IQR 111,667-228,125 mg/m(2), P = 0.0003); 54% (n = 105) of the patients treated with CAPOX developed grade III-V toxicity, whereas 38% (n = 63) of the patients treated with CapMono developed grade III-V toxicity (P = 0.0026). After adjustment for patient and tumour characteristics, CapMono was associated with a lower odds of developing grade III-V toxicity than CAPOX (odds ratio 0.54, 95% confidence interval 0.33-0.89). For patients treated with CAPOX, the most common toxicities were gastrointestinal (29%), haematological (14%), neurological (11%) and other toxicity (13%). For patients treated with CapMono, dermatological (17%), gastrointestinal (13%) and other toxicity (11%) were the most common.

CONCLUSION: CAPOX is associated with significantly more grade III-V toxicities than CapMono, which had a pronounced impact on the cumulative dosage received and completion of all planned cycles. In this light, CapMono seems preferable over CAPOX.

impactfactor: *6.163*

Creemers GJ (Geert-Jan)

Local Recurrence in the Lateral Lymph Node Compartment: Improved Outcomes with Induction Chemotherapy Combined with Multimodality Treatment

Kusters M*, Bosman SJ*, Van Zoggel DM*, Nieuwenhuijzen GA*, Creemers GJ*, Van den Berg HA*, Rutten HJ*

Ann Surg Oncol. 2016 Jun;23(6):1883-9

Voor abstract zie: *Chirurgie - Kusters M*

impactfactor: *3.655*

Creemers GJ (Geert-Jan)

Phase II study of docetaxel, cisplatin and capecitabine as preoperative chemotherapy in resectable gastric cancer

Dassen AE, Bernards N*, Lemmens VE, van de Wouw YA, Bosscha K, Creemers GJ*, Pruijt HJ. World J Gastrointest Surg. 2016 Oct 27;8(10):706-712

Voor abstract zie: *Inwendige geneeskunde - Creemers GJ*

impactfactor: *2.807*

Creemers GJ (Geert-Jan)

Poor concordance between CA-125 and RECIST at the time of disease progression in patients with platinum-resistant ovarian cancer

Lindemann K, Kristensen G, Mirza MR, Davies L, Hilpert F, Romero I, Ayhan A, Burges A, Rubio MJ, Raspagliesi F, Huizing M, Creemers GJ*, Lykka M, Lee CK, Gebski V, Pujade-Lauraine E

Ann Oncol. 2016 Aug;27(8):1505-10. Epub 2016 Jul 11

BACKGROUND: Data on CA-125 as a predictor of disease progression (PD) in ovarian cancer come predominantly from patients with platinum-sensitive disease receiving chemotherapy alone. We assessed concordance between CA-125-defined and RECIST-defined PD using data from the Gynecologic Cancer InterGroup (GCIG) randomized phase III AURELIA trial in platinum-resistant ovarian cancer (PROC).

PATIENTS AND METHODS: Patients with PROC were randomized to receive single-agent chemotherapy with or without bevacizumab. PD by CA-125 was defined according to GCIG criteria (except that confirmatory CA-125 measurement was not required). This exploratory analysis included patients with RECIST PD and a CA-125 reading =28 days before and =21 days after RECIST-defined PD.

RESULTS: Of 218 eligible patients, only 94 (43%, 95% confidence interval 36% to 50%) had concordant RECIST and CA-125 PD status (42% in the chemotherapy-alone arm; 45% in the bevacizumab combination arm, P = 0.6). There was no evidence of CA-125-defined PD in the remaining 124 patients despite PD according to imaging. There were no significant differences in baseline characteristics between patients with PD defined by both RECIST and CA-125 and those with RECIST-only PD. CA-125 was even less sensitive in detecting PD in patients with early (<8 weeks after randomization) compared with later RECIST-defined PD (69% versus 53%, respectively, not meeting CA-125 criteria; P = 0.053). There was no significant difference in survival after PD in patients with concordant PD by RECIST and CA-125 versus those with PD only by RECIST. We validated our findings in an independent study population of PROC.

CONCLUSIONS: In this platinum-resistant population, PD was typically detected earlier by imaging than by CA-125, irrespective of bevacizumab treatment. Disease status by CA-125 at the time of PD was not prognostic for overall survival. Regular radiologic assessment as well as symptom benefit assessment should be considered during PROC follow-up.

impactfactor: 9.269

Creemers GJ (Geert-Jan)

Prospectively measured lifestyle factors and BMI explain differences in health-related quality of life between colorectal cancer patients with and without comorbid diabetes

Vissers PA, Thong MS, Pouwer F, Creemers GJ*, Slooter GD, van de Poll-Franse LV

Support Care Cancer. 2016 Jun;24(6):2591-601.Epub 2015 Dec 30

PURPOSE:This study aimed to assess the longitudinal association between lifestyle factors, body mass index (BMI), and health-related quality of life (HRQoL) among colorectal cancer patients with (CRCDM+) and without diabetes (CRCDM-).

METHODS:Data from a longitudinal study among CRC patients diagnosed between 2000 and 2009 were used. Clinical characteristics were retrieved from the Netherlands Cancer Registry and questionnaires were sent in 2010, 2011, and 2012 using the Patient Reported Outcomes Following Initial Treatment and Long term Evaluation of Survivorship (PROFILES) registry. Lifestyle (including moderate-to-vigorous physical activity (MVPA), smoking and alcohol use), BMI, diabetes status, and HRQoL were assessed in the questionnaire.

RESULTS:One thousand seven hundred thirty-nine (49 %) patients responded to =2 questionnaires, of whom 126 CRCDM+ and 789 CRCDM- patients were included. CRCDM+ patients had a higher BMI (29.1?±?4.2 vs. 26.4?±?3.7 kg/m(2)), whereas the number of alcohol users was lower (50 vs. 70 %, p value <0.0001) among CRCDM+ as compared to CRCDM- patients. Analyses adjusted for sociodemographic and cancer characteristics showed that CRCDM+ patients reported statistically significantly lower physical function (beta?=?-5.76; SE?=?1.67), global QoL (beta?=?-4.31; SE?=?1.48), and more symptoms of fatigue (beta?=?5.38; SE?=?1.95) than CRCDM- patients. However, these effects disappeared after adjustments for lifestyle factors and BMI which were all significant predictors of HRQoL. Additional adjustment for comorbidity further attenuated the main effect of DM on HRQoL.

CONCLUSIONS:Diabetes was not independently associated with HRQoL but deteriorated HRQoL among CRCDM+ patients seem to be explained by an unhealthier lifestyle and other comorbid conditions. Moreover, residual confounding cannot be ruled out.

impactfactor: 2.535

Creemers GJ (Geert-Jan)

The use of adjuvant chemotherapy for pancreatic cancer varies widely between hospitals: a nationwide population-based analysis

Bakens MJ*, van der Geest LG, van Putten M, van Laarhoven HW, Creemers GJ*, Besselink MG, Lemmens VE, de Hingh IH*; Dutch Pancreatic Cancer Group

Cancer Med. 2016 Oct;5(10):2825-2831

Voor abstract zie: Chirurgie - Bakens MJ

impactfactor: --

Creemers GJ (Geert-Jan)

Trends in incidence, treatment and survival of small bowel adenocarcinomas between 1999 and 2013: a population-based study in The Netherlands

Legué LM*, Bernards N*, Gerritse SL, van Oudheusden TR*, de Hingh IH*, Creemers GJ*, Ten Tije AJ, Lemmens VE

Acta Oncol. 2016 Sep-Oct;55(9-10):1183-1189. Epub 2016 May 12

Voor abstract zie: Inwendige geneeskunde - Legue LM

impactfactor: 3.730

Creemers GJ (Geert-Jan)

Volume matters in the systemic treatment of metastatic pancreatic cancer: a population-based study in the Netherlands

Haj Mohammad N, Bernards N*, Besselink MG, Busch OR, Wilmink JW, Creemers GJ*, De Hingh IH*, Lemmens VE, van Laarhoven HW

J Cancer Res Clin Oncol. 2016 Jun;142(6):1353-60. Epub 2016 Mar 19

Voor abstract zie: Inwendige geneeskunde - Bernards N

impactfactor: 3.141

Dekker MJ (Marijke)

Diagnosis of acute myocardial infarction in hemodialysis patients may be feasible by comparing variation of cardiac troponins during acute presentation to baseline variation

van Berkel M*, Dekker MJ*, Bogers H*, Geerse DA*, Konings CJ*, Scharnhorst V*

Clin Chim Acta. 2016 May 1;456:36-41. Epub 2016 Feb 11

Voor abstract zie: *Algemeen Klinisch Laboratorium - Berkel M van*

impactfactor: *2.799*

Dekker MJ (Marijke)

High-Flux Hemodialysis and High-Volume Hemodiafiltration Improve Serum Calcification Propensity

Dekker M, Pasch A, van der Sande F, Konings C*, Bachtler M, Dionisi M, Meier M, Kooman J, Canaud B

PLoS One. 2016;11(4):e0151508. Erratum in: PLoS One. 2016

BACKGROUND: Calciprotein particles (CPPs) may play an important role in the calcification process. The calcification propensity of serum (T50) is highly predictive of all-cause mortality in chronic kidney disease patients. Whether T50 is therapeutically improvable, by high-flux hemodialysis (HD) or hemodiafiltration (HDF), has not been studied yet.

METHODS: We designed a cross-sectional single center study, and included stable prevalent in-center dialysis patients on HD or HDF. Patients were divided into two groups based on dialysis modality, were on a thrice-weekly schedule, had a dialysis vintage of > 3 months and vascular access providing a blood flow rate > 300 ml/min. Calcification propensity of serum was measured by the time of transformation from primary to secondary CPP (T50 test), by time-resolved nephelometry.

RESULTS: We included 64 patients, mean convective volume was 21.7L (SD 3.3L). In the pooled analysis, T50 levels increased in both the HD and HDF group with pre- and post-dialysis (mean (SD)) of 244(64) - 301(57) and 253(55) - 304(61) min respectively (P = 0.43(HD vs. HDF)). The mean increase in T50 was 26.29% for HD and 21.97% for HDF patients (P = 0.61 (HD vs. HDF)). The delta values (?) of calcium, phosphate and serum albumin were equal in both groups. Baseline T50 was negatively correlated with phosphate, and positively correlated with serum magnesium and fetuin-A. The ?T50 was mostly influenced by ? phosphate (r = -0.342; P = 0.002 HD and r = -0.396; P<0.001 HDF) in both groups.

CONCLUSIONS: HD and HDF patients present with same baseline T50 calcification propensity values pre-dialysis. Calcification propensity is significantly improved during both HD and HDF sessions without significant differences between both modalities.

impactfactor: *3.057*

Dekker MJ (Marijke)

Unraveling the relationship between mortality, hyponatremia, inflammation and malnutrition in hemodialysis patients: results from the international MONDO initiative

Dekker MJ*, Marcelli D, Canaud B, Konings CJ*, Leunissen KM, Levin NW, Carioni P, Maheshwari V, Raimann JG, van der Sande FM, Usvyat LA, Kotanko P, Kooman JP

Eur J Clin Nutr. 2016 Jul;70(7):779-84. Epub 2016 Apr 20

BACKGROUND/OBJECTIVES: Hyponatremia is a risk factor for mortality in hemodialysis (HD) patients. It is not well known to which extent the comorbidities, malnutrition, fluid status imbalance and inflammation are related to hyponatremia and affect outcomes.

SUBJECTS/METHODS: We studied 8883 patients from the European subset of the international MONitoring Dialysis Outcomes initiative. Nutritional and fluid statuses were

assessed by bioimpedance spectroscopy. Fluid depletion was defined as overhydration?-1.1?l and fluid overload as overhydration>+1.1?l, respectively. Malnutrition was defined as a lean tissue index below the 10th percentile of age- and gender-matched healthy controls. Hyponatremia and inflammation were defined as serum sodium levels <135?mEq/l and C-reactive protein levels>6.0?mg/l, respectively. We used logistic regression to test for predictors of hyponatremia and Cox proportional hazards analysis to assess the association with all-cause mortality.

RESULTS: Hyponatremia was predicted by the presence of malnutrition (odds ratio (OR)=1.49 (95% confidence interval (CI)=1.30-1.70), inflammation (OR=1.44 (95% CI=1.26-1.64)) and fluid overload ((>+1.1?l to +2.5?l) OR=0.73 (95% CI=0.62-0.85)) but not by fluid depletion (OR=1.34 (95% CI=0.92-1.96)). Malnutrition, inflammation, fluid overload, fluid depletion and hyponatremia (hazard ratio=1.70 (95% CI=1.46-1.99)) were independent predictors for all-cause mortality.

CONCLUSIONS: In HD patients, hyponatremia is associated with malnutrition, inflammation and fluid overload. Hyponatremia maintained predictive for all-cause mortality after adjustment for malnutrition, inflammation and fluid status abnormalities. The presence of hyponatremia may assist in identifying HD patients at increased risk of death.

impactfactor: 2.935

Jansen SW (Steffy)

Association between the rs7903146 Polymorphism in the TCF7L2 Gene and Parameters Derived with Continuous Glucose Monitoring in Individuals without Diabetes

van der Kroef S, Noordam R, Deelen J, Akintola AA, Jansen SW*, Postmus I, Wijsman CA, Beekman M, Mooijaart SP, Slagboom PE, van Heemst D

PLoS One. 2016 Feb 25;11(2):e0149992

BACKGROUND: The rs7903146-T allele in the transcription factor 7-like 2 (TCF7L2) gene has been associated with impaired pancreatic insulin secretion, enhanced liver glucose production, and an increased risk of type 2 diabetes. Nevertheless, the impact of rs7903146 on daily glucose trajectories remains unclear. Continuous glucose monitoring (CGM) can estimate glycemia and glycemic variability based on consecutive glucose measurements collected over several days. The purpose of the present study was to investigate the associations of rs7903146 with glycemia and glycemic variability in middle-aged participants without diabetes.

METHODS: Complete data from 235 participants without diabetes from the Leiden Longevity Study were available. Participants were divided into two groups based on rs7903146 genotype; rs7903146-CC genotype carriers (N = 123) and rs7903146-CT/TT genotype carriers (N = 112). Validated parameters of glycemia (e.g., mean 24h glucose level) and glycemic variability (e.g., 24h standard deviation) were derived from data collected with a CGM system for a 72-hour period.

RESULTS: The study population was on average 64.7 years old (standard deviation = 5.9) and composed of 49.8% of women. Compared with rs7903146-CC carriers, rs7903146-CT/TT carriers exhibited a trend towards a higher mean 24-hour glucose level (5.21 versus 5.32 mmol/L; p-value = 0.15) and a significantly higher mean nocturnal glucose (3:00am- 6:00am; 4.48 versus 4.67 mmol/L; p-value = 0.03) that was explained for 34.6% by body weight and percentage body fat. No differences in measures of glycemic variability between the genotype groups were observed.

CONCLUSION: Despite limited sample size, our study indicates that the rs7903146-T allele in TCF7L2 was associated with a higher mean nocturnal glucose dependent on body

composition, which might suggest that rs7902146 affects liver-specific aspects of glucose metabolism.

impactfactor: 3.057

Ten tijde van publicatie verbonden aan: Department of Gerontology and Geriatrics, Leiden University Medical Center, Leiden.

Jansen SW (Steffy)

Familial Longevity Is Not Associated with Major Differences in the Hypothalamic-Pituitary-Gonadal Axis in Healthy Middle-Aged Men

van der Spoel E, Roelfsema F, Jansen SW, Akintola AA, Ballieux BE, Cobbaert CM, Blauw GJ, Slagboom PE, Westendorp RG, Pijl H, van Heemst D.

Front Endocrinol (Lausanne). 2016 Nov 9;7:143. eCollection 2016

CONTEXT: A trade-off between fertility and longevity possibly exists. The association of the male hypothalamic-pituitary-gonadal (HPG) axis with familial longevity has not yet been investigated.

OBJECTIVE: To study 24-h hormone concentration profiles of the HPG axis in men enriched for familial longevity and controls.

DESIGN: We frequently sampled blood over 24?h in 10 healthy middle-aged male offspring of nonagenarian participants from the Leiden Longevity Study together with 10?male age-matched controls. Individual 24-h luteinizing hormone (LH) and testosterone concentration profiles were analyzed by deconvolution analyses to estimate secretion parameters. Furthermore, the temporal relationship between LH and testosterone was assessed by cross-correlation analysis. We used (cross-)approximate entropy to quantify the strength of feedback and/or feedforward control of LH and testosterone secretion.

RESULTS: Mean [95% confidence interval (CI)] total LH secretion of the offspring was 212 (156-268) U/L/24?h, which did not differ significantly (p?=?0.51) from the total LH secretion of controls [186 (130-242) U/L/24?h]. Likewise, mean (95% CI) total testosterone secretion of the offspring [806 (671-941) nmol/L/24?h] and controls [811 (676-947) nmol/L/24?h] were similar (p?=?0.95). Other parameters of LH and testosterone secretion were also not significantly different between offspring and controls. The temporal relationship between LH and testosterone and the strength of feedforward/feedback regulation within the HPG axis were similar between offspring of long-lived families and controls.

CONCLUSION: This relatively small study suggests that in healthy male middle-aged participants, familial longevity is not associated with major differences in the HPG axis. Selection on both fertility and health may in part explain the results.

impactfactor: --

Ten tijde van publicatie verbonden aan: Section Gerontology and Geriatrics, Department of Internal Medicine, Leiden University Medical Center, Leiden

Jansen SW (Steffy)

Growth hormone secretion is diminished and tightly controlled in humans enriched for familial longevity

van der Spoel E, Jansen SW*, Akintola AA, Ballieux BE, Cobbaert CM, Slagboom PE, Blauw GJ, Westendorp RG, Pijl H, Roelfsema F, van Heemst D

Aging Cell., 2016; 15(6):1126-31. Epub 2016 Sep 7

Reduced growth hormone (GH) signaling has been consistently associated with increased health and lifespan in various mouse models. Here, we assessed GH secretion and its control in relation with human familial longevity. We frequently sampled blood over 24 h in 19 middle-aged offspring of long-living families from the Leiden Longevity Study together with 18 of their partners as controls. Circulating GH concentrations were measured every 10 min

and insulin-like growth factor 1 (IGF-1) and insulin-like growth factor binding protein 3 (IGFBP3) every 4 h. Using deconvolution analysis, we found that 24-h total GH secretion was 28% lower (P = 0.04) in offspring [172 (128-216) mU L-1] compared with controls [238 (193-284) mU L-1]. We used approximate entropy (ApEn) to quantify the strength of feedback/feedforward control of GH secretion. ApEn was lower (P = 0.001) in offspring [0.45 (0.39-0.53)] compared with controls [0.66 (0.56-0.77)], indicating tighter control of GH secretion. No significant differences were observed in circulating levels of IGF-1 and IGFBP3 between offspring and controls. In conclusion, GH secretion in human familial longevity is characterized by diminished secretion rate and more tight control. These data imply that the highly conserved GH signaling pathway, which has been linked to longevity in animal models, is also associated with human longevity.

impactfactor: 5.760

Ten tijde van publicatie verbonden aan: Section Gerontology and Geriatrics, Department of Internal Medicine, Leiden University Medical Center, Leiden

Jansen SW (Steffy)

Physiological responding to stress in middle-aged males enriched for longevity: a social stress study

Jansen SW*, van Heemst D, van der Grond J, Westendorp R, Oei NY

Stress. 2016;19(1):28-36. Epub 2015 Nov 9

Individuals enriched for familial longevity display a lower prevalence of age-related diseases, such as cardiovascular- and metabolic diseases. Since these diseases are associated with stress and increased cortisol levels, one of the underlying mechanisms that may contribute to healthy longevity might be a more adaptive response to stress. To investigate this, male middle-aged offspring from long-lived families (n?= 31) and male non-offspring (with no familial history of longevity) (n?= 26) were randomly allocated to the Trier Social Stress Test or a control condition in an experimental design. Physiological (cortisol, blood pressure, heart rate) and subjective responses were measured during the entire procedure. The results showed that Offspring had lower overall cortisol levels compared to Non-offspring regardless of condition, and lower absolute cortisol output (AUCg) during stress compared to Non-Offspring, while the increase (AUCi) did not differ between groups. In addition, systolic blood pressure in Offspring was lower compared to Non-offspring during the entire procedure. At baseline, Offspring had significantly lower systolic blood pressure and reported less subjective stress than Non-offspring and showed a trend towards lower heart rate. Offspring from long-lived families might thus be less stressed prior to potentially stressful events and consequently show overall lower levels in physiological responses. Although attenuated physiological responding cannot be ruled out, lower starting points and a lower peak level in physiological responding when confronted with an actual stressor, might already limit damage due to stress over a lifetime. Lower physiological responding may also contribute to the lower prevalence of cardiovascular diseases and other stress-related diseases in healthy longevity.

impactfactor: 2.383

Ten tijde van publicatie verbonden aan: Section Gerontology and Geriatrics, Department of Internal Medicine, Leiden University Medical Center, Leiden

Konings CJ (Stijn)

Diagnosis of acute myocardial infarction in hemodialysis patients may be feasible by comparing variation of cardiac troponins during acute presentation to baseline variation

van Berkel M*, Dekker MJ*, Bogers H*, Geerse DA*, Konings CJ*, Scharnhorst V*

Clin Chim Acta. 2016 May 1;456:36-41. Epub 2016 Feb 11

Voor abstract zie: *Algemeen Klinisch Laboratorium - Berkel M van*

impactfactor: *2.799*

Konings CJ (Stijn)

High-Flux Hemodialysis and High-Volume Hemodiafiltration Improve Serum Calcification Propensity

Dekker M*, Pasch A, van der Sande F, Konings C*, Bachtler M, Dionisi M, Meier M, Kooman J, Canaud B

PLoS One. 2016;11(4):e0151508. Erratum in: PLoS One. 2016

BACKGROUND: Calciprotein particles (CPPs) may play an important role in the calcification process. The calcification propensity of serum (T50) is highly predictive of all-cause mortality in chronic kidney disease patients. Whether T50 is therapeutically improvable, by high-flux hemodialysis (HD) or hemodiafiltration (HDF), has not been studied yet.

METHODS: We designed a cross-sectional single center study, and included stable prevalent in-center dialysis patients on HD or HDF. Patients were divided into two groups based on dialysis modality, were on a thrice-weekly schedule, had a dialysis vintage of > 3 months and vascular access providing a blood flow rate > 300 ml/min. Calcification propensity of serum was measured by the time of transformation from primary to secondary CPP (T50 test), by time-resolved nephelometry.

RESULTS: We included 64 patients, mean convective volume was 21.7L (SD 3.3L). In the pooled analysis, T50 levels increased in both the HD and HDF group with pre- and post-dialysis (mean (SD)) of 244(64) - 301(57) and 253(55) - 304(61) min respectively (P = 0.43(HD vs. HDF)). The mean increase in T50 was 26.29% for HD and 21.97% for HDF patients (P = 0.61 (HD vs. HDF)). The delta values (?) of calcium, phosphate and serum albumin were equal in both groups. Baseline T50 was negatively correlated with phosphate, and positively correlated with serum magnesium and fetuin-A. The ?T50 was mostly influenced by ? phosphate (r = -0.342; P = 0.002 HD and r = -0.396; P<0.001 HDF) in both groups.

CONCLUSIONS: HD and HDF patients present with same baseline T50 calcification propensity values pre-dialysis. Calcification propensity is significantly improved during both HD and HDF sessions without significant differences between both modalities.

impactfactor: *3.057*

Konings CJ (Stijn)

Low-Sodium Versus Standard-Sodium Peritoneal Dialysis Solution in Hypertensive Patients: A Randomized Controlled Trial

Rutkowski B, Tam P, van der Sande FM, Vychytil A, Schwenger V, Himmele R, Gauly A; Low Sodium Balance Study Group: Konings CJ

Am J Kidney Dis. 2016 May;67(5):753-61. Epub 2015 Sep 20

BACKGROUND: Peritoneal dialysis (PD) solutions with reduced sodium content may have advantages for hypertensive patients; however, they have lower osmolarity and solvent drag, so the achieved Kt/Vurea may be lower. Furthermore, the increased transperitoneal membrane sodium gradient can influence sodium balance with consequences for blood pressure (BP) control.

STUDY DESIGN: Prospective, randomized, double-blind clinical trial to prove the noninferiority of total weekly Kt/Vurea with low-sodium versus standard-sodium PD solution, with the lower confidence limit above the clinically accepted difference of -0.5.
SETTING & PARTICIPANTS: Hypertensive patients (= 1 antihypertensive drug, including diuretics, or office systolic BP = 130 mmHg) on continuous ambulatory PD therapy from 17 sites.
INTERVENTION: 108 patients were randomly assigned (1:1) to 6-month treatments with either low-sodium (125 mmol/L of sodium; 1.5%, 2.3%, or 4.25% glucose; osmolarity, 338-491 mOsm/L) or standard-sodium (134 mmol/L of sodium; 1.5%, 2.3%, or 4.25% glucose; osmolarity, 356-509 mOsm/L) PD solution.
OUTCOMES: Primary end point: weekly total Kt/Vurea; secondary outcomes: BP control, safety, and tolerability.
MEASUREMENTS: Total Kt/Vurea was determined from 24-hour dialysate and urine collection; BP, by office measurement.
RESULTS: Total Kt/Vurea after 12 weeks was 2.53 ± 0.89 in the low-sodium group (n = 40) and 2.97 ± 1.58 in the control group (n = 42). The noninferiority of total Kt/Vurea could not be confirmed. There was no difference for peritoneal Kt/Vurea (1.70 ± 0.38 with low sodium, 1.77 ± 0.44 with standard sodium), but there was a difference in renal Kt/Vurea (0.83 ± 0.80 with low sodium, 1.20 ± 1.54 with standard sodium). Mean daily sodium removal with dialysate at week 12 was 1.188 g higher in the low-sodium group (P < 0.001). BP changed marginally with standard-sodium solution, but decreased with low-sodium PD solution, resulting in less antihypertensive medication.
LIMITATIONS: Broader variability of study population than anticipated, particularly regarding residual kidney function.
CONCLUSIONS: The noninferiority of the low-sodium PD solution for total Kt/Vurea could not be proved; however, it showed beneficial clinical effects on sodium removal and BP.

impactfactor: *6.269*

Konings CJ (Stijn)

Safety and long-term effects of renal denervation: Rationale and design of the Dutch registry

Sanders MF, Blankestijn PJ, Voskuil M, Spiering W, Vonken EJ, Rotmans JI, van der Hoeven BL, Daemen J, van den Meiracker AH, Kroon AA, de Haan MW, Das M, Bax M, van der Meer IM, van Overhagen H, van den Born BJ, van Brussel PM, van der Valk PH, Smak Gregoor PJ, Meuwissen M, Gomes ME, Oude Ophuis T, Troe E*, Tonino WA*, Konings CJ*, de Vries PA, van Balen A, Heeg JE, Smit JJ, Elvan A, Steggerda R, Niamut SM, Peels JO, de Swart JB, Wardeh AJ, Groeneveld JH, van der Linden E, Hemmelder MH, Folkeringa R, Stoel MG, Kant GD, Herrman JP, van Wissen S, Deinum J, Westra SW, Aengevaeren WR, Parlevliet KJ, Schramm A, Jessurun GA, Rensing BJ, Winkens MH, Wierema TK, Santegoets E, Lipsic E, Houwerzijl E, Kater M, Allaart CP, Nap A, Bots ML
Neth J Med. 2016 Jan;74(1):5-15

Voor abstract zie: *Inwendige geneeskunde - Troe E*

impactfactor: *1.489*

Konings CJ (Stijn)

Unraveling the relationship between mortality, hyponatremia, inflammation and malnutrition in hemodialysis patients: results from the international MONDO initiative

Dekker MJ*, Marcelli D, Canaud B, Konings CJ*, Leunissen KM, Levin NW, Carioni P, Maheshwari V, Raimann JG, van der Sande FM, Usvyat LA, Kotanko P, Kooman JP

Eur J Clin Nutr. 2016 Jul;70(7):779-84. Epub 2016 Apr 20

Voor abstract zie: *Inwendige geneeskunde - Dekker MJ*

impactfactor: *2.935*

Kreeftenberg HG (Herman)

Early treatment with intravenous lipid emulsion in a potentially lethal hydroxychloroquine intoxication

Ten Broeke R*, Mestrom E*, Woo L*, Kreeftenberg H*

Neth J Med. 2016 Jun;74(5):210-4

Voor abstract zie: *Apotheek - Broeke R ten*

impactfactor: *1.489*

Legue LM (Laura)

Trends in incidence, treatment and survival of small bowel adenocarcinomas between 1999 and 2013: a population-based study in The Netherlands

Legué LM*, Bernards N*, Gerritse SL, van Oudheusden TR*, de Hingh IH*, Creemers GJ*, Ten Tije AJ, Lemmens VE

Acta Oncol. 2016 Sep-Oct;55(9-10):1183-1189. Epub 2016 May 12

BACKGROUND: We conducted a population-based study to establish the incidence, treatment and overall survival over time of patients with small bowel adenocarcinoma.

MATERIAL AND METHODS: All patients diagnosed with small bowel adenocarcinoma in the Netherlands between 1999 and 2013 were included (n?=?1775). Age-standardized incidence rates were calculated per 100 000 person-years using the European standardized population rate. The influence of patient and tumor characteristics on the administration of chemotherapy was analyzed by means of a multivariable logistic regression analysis. The Cochran-Armitage trend test was conducted to evaluate trends in treatment and survival and the Cox proportional hazards model was used to identify prognostic factors of overall survival.

RESULTS: The incidence of small bowel adenocarcinomas increased, mainly due to an almost twofold increase of duodenal adenocarcinomas. Patients with locoregional duodenal tumors were less likely to undergo surgery (58%), towards 95% of the locoregional jejunal and ileal tumors (p?<?0.0001). The use of chemotherapy doubled for adjuvant (7-15%) and palliative chemotherapy (19-37%). Median overall survival of patients with locoregional disease increased from 19 to 34 months (p?=?0.0006), whereas median overall survival of patients with metastatic disease remained 4-5 months. Favorable prognostic factors for prolonged survival in locoregional disease, identified by multivariable survival analysis, included age?<60 years, tumor stage I or II, diagnosis in 2009-2013, surgical treatment and chemotherapy. Favorable prognostic factors for prolonged survival in metastatic disease were age?<50 years, jejunal tumors, surgical treatment and chemotherapy.

CONCLUSION: Small bowel adenocarcinomas are rare tumors with an increasing incidence. The administration of adjuvant and palliative chemotherapy doubled, but median overall survival only increased for patients with locoregional disease. Given the rarity and dismal prognosis, it is important to develop international studies to determine the optimal treatment for these patients.

impactfactor: 3.730

Oosterwerff MM (Mirjam)

Associations of vitamin D status and vitamin D-related polymorphisms with sex hormones in older men

Rafiq R, van Schoor NM, Sohl E, Zillikens MC, Oosterwerff MM*, Schaap L, Lips P, de Jongh RT J Steroid Biochem Mol Biol. 2016 Nov;164:11-17. Epub 2015 Nov 21

OBJECTIVE: Evidence regarding relationships of serum 25-hydroxyvitamin D (25(OH)D) with sex hormones and gonadotropin concentrations remains inconsistent. Polymorphisms in vitamin D-related genes may underly these relationships. Our aim was to examine the relationship of vitamin D status and polymorphisms in vitamin D-related genes with sex hormone and gonadotropin levels.

DESIGN AND MEASUREMENTS: We analysed data from the Longitudinal Aging Study Amsterdam, an ongoing population-based cohort study of older Dutch individuals (65-89 years). We included data of men with measurements of serum 25-hydroxyvitamin D (25(OH)D) (n=643) and determination of vitamin D-related gene polymorphisms (n=459). 25(OH)D concentrations were classified into four categories: <25, 25-50, 50-75 and >75nmol/L. Outcome measures were total testosterone, calculated bioavailable and free fraction testosterone, SHBG, estradiol, LH and FSH concentrations. Hypogonadism was defined as a total testosterone level <8.0nmol/L.

RESULTS: Serum 25(OH)D was positively associated with total and bioavailable testosterone levels. After adjustments for confounders, men with serum 25(OH)D less than 25 (n=56), 25-50 (n=199) and 50-75nmol/L (n=240) had lower total testosterone levels compared to men with serum 25(OH)D higher than 75nmol/L (n=148) (ß (95% confidence interval): -2.1 (-3.7 to -0.4nmol/L), -0.8 (-1.9 to 0.4nmol/L) and -1.4 (-2.4 to -0.3nmol/L), respectively). For bioavailable testosterone the association was significant only for men with serum 25(OH)D less than 25nmol/L (-0.8 (-1.4 to -0.1nmol/L)) compared to men with serum 25(OH)D >75nmol/L. Serum 25(OH)D was not related to SHBG, estradiol or gonadotropin levels. Hypogonadism (n=29) was not associated with lower serum 25(OH)D. No significant differences were found in hormone levels between the different genotypes of the vitamin D-related gene polymorphisms. Also, the polymorphisms did not modify the relationships of serum 25(OH)D with sex hormones or gonadotropins.

CONCLUSION: Vitamin D status is positively associated with testosterone levels. No association was found between vitamin D-related gene polymorphisms and hormone levels.

impactfactor: 3.985

Ten tijde van publicatie verbonden aan: Department of Internal Medicine and Endocrinology, VU University Medical Center, Amsterdam

Razenberg LG (Lieke)

Age-related systemic treatment and survival of patients with metachronous metastases from colorectal cancer

Razenberg LG*, Creemers GJ*, Beerepoot LV, Vos AH, van de Wouw AJ, Maas HA, Lemmens VE

Acta Oncol. 2016 Dec;55(12):1443-1449. Epub 2016 Sep 1

BACKGROUND: Although the spectrum of systemic treatment for metastatic colorectal cancer (mCRC) has widened, there is a paucity of evidence for the feasibility and optimal use of these systemic agents in elderly patients. The present study provides real world data on the age-related systemic treatment and survival of CRC patients with non-resectable metachronous metastases.
METHODS: All consecutive patients with non-resectable metastases from primary resected CRC were extracted from the Eindhoven area of the Netherlands Cancer Registry (NCR). Patients receiving palliative systemic therapy were enrolled (n?=?385). Systemic treatment and survival were analyzed according to age at diagnosis of metastases.
RESULTS: Patients aged?=75 years more often received first-line single-agent chemotherapy than their younger counterparts (63% vs. 32%, p?<?.0001). First-line single-agent chemotherapy was often prescribed without additional targeted therapy (78%). Advanced age (=75 years) was associated with a lower probability of receiving all active cytotoxic agents compared to patients aged <60 years at time of diagnosis of metastases (odds ratio (OR) 0.2, 95% CI 0.10-0.77). In a multivariable Cox regression analysis with adjustment for age and other relevant prognostic factors, the total number of received systemic agents was the only predictor of death (hazard ratio (HR) 0.7, 95% CI 0.61-0.81).
CONCLUSION: The beneficial effect of treatment with all active systemic agents on survival (simultaneously or sequentially prescribed) should be taken into account when considering systemic therapy in patients with mCRC. In light of our results, future studies are warranted to clarify the role of potential targeted therapy in elderly mCRC patients, who are often not candidates for combination chemotherapy and treatment with all active cytotoxic agents.
impactfactor: 3.730

Razenberg LG (Lieke)

Bevacizumab for metachronous metastatic colorectal cancer: a reflection of community based practice

Razenberg LG*, van Gestel YR, de Hingh IH*, Loosveld OJ, Vreugdenhil G, Beerepoot LV, Creemers GJ*, Lemmens VE

BMC Cancer. 2016 Feb 16;16:110

BACKGROUND: Although the efficacy of bevacizumab has been established in patients with metastatic colorectal cancer (mCRC), population-based studies are needed to gain insight into the actual implementation of bevacizumab in daily practice. Since these studies are lacking for patients with metachronous metastases, the aim of this study is to evaluate the current role of bevacizumab in the treatment of metachronous metastases of CRC.
METHODS: Data on the use of bevacizumab as palliative treatment of metachronous metastases were collected for patients diagnosed with M0 CRC between 2003 and 2008 in the Eindhoven Cancer Registry (n = 361). Median follow up was 5.3 years.
RESULTS: One hundred eighty-five patients received bevacizumab in addition to first-line palliative chemotherapy (51%), ranging from 36% to 80% between hospitals of diagnosis (p < 0.0001). Combined cytostatic regimens (CAPOX/FOLFOX in 97%) were prescribed in the majority of patients (63%) and were associated with a higher odds for additional treatment with bevacizumab than single-agent cytostatic regimens (OR 9.9, 95% CI 5.51-18.00). Median overall survival (OS) rates were 21.6 and 13.9 months with and without the addition of bevacizumab to palliative systemic treatment respectively (p < 0.0001). The addition of bevacizumab to palliative chemotherapy was associated with a reduced hazard ratio for death (HR 0.6, 95% CI 0.45-0.73) after adjustment for patient- and tumor characteristics and the prescribed chemotherapeutic regimen.
CONCLUSION: Bevacizumab is adopted as a therapeutic option for metachronous metastasized CRC mainly in addition to first-line oxaliplatin-based regimens, and was

associated with a reduced risk of death. The presence of inter-hospital differences in the prescription of bevacizumab reflected important differences in attitude and policies in clinical practice. Ongoing efforts should be made to further define the position of targeted agents in the treatment of metastatic colorectal cancer.

impactfactor: 3.365

Razenberg LG (Lieke)

Bevacizumab in Addition to Palliative Chemotherapy for Patients With Peritoneal Carcinomatosis of Colorectal Origin

Razenberg LG*, van Gestel YR, Lemmens VE, de Hingh IH*, Creemers GJ*

Clin Colorectal Cancer. 2016 Jun;15(2):e41-6. Epub 2015 Dec 17

BACKGROUND: Most patients with colorectal cancer (CRC) presenting with peritoneal carcinomatosis (PC) rely on palliative systemic treatment options. However, data on the use and effect of systemic treatment strategies, including targeted agents for the palliative treatment of colorectal PC, are lacking. We conducted a nationwide population-based study with data from the period in which the targeted agent bevacizumab was introduced in the Netherlands.

PATIENTS AND METHODS: The present study included all patients diagnosed from 2007 to 2014 with synchronous PC from CRC treated with only palliative systemic therapy. We assessed the use of bevacizumab, the standard choice of targeted treatment, in addition to first-line chemotherapy. Multivariable logistic regression analyses were performed to calculate the predictors for the additional prescription of bevacizumab. Survival estimates were calculated, and multivariable Cox analyses were performed to estimate the hazard ratios (HRs) of death stratified by the treatment received.

RESULTS: A total of 1235 patients received palliative chemotherapy, of whom 436 also received bevacizumab (35%). Patients aged = 75 years and patients with PC from colonic tumors were less likely to receive chemotherapy plus bevacizumab. The addition of bevacizumab to palliative chemotherapy was associated with an improved overall median survival of 7.5 versus 11 months in both patients with isolated PC and those with concomitant extraperitoneal metastases. The improvement remained after adjustment for patient and tumor characteristics (HR, 0.7; 95% confidence interval, 0.64-0.83).

CONCLUSION: The results of the present nationwide population-based study support the rationale for bevacizumab in addition to palliative chemotherapy for patients with PC of CRC and underline the need for ongoing efforts to precisely determine the role of targeted therapy in the treatment of PC.

impactfactor: 3.090

Razenberg LG (Lieke)

Challenging the dogma of colorectal peritoneal metastases as an untreatable condition: Results of a population-based study

Razenberg LG*, Lemmens VE, Verwaal VJ, Punt CJ, Tanis PJ, Creemers GJ*, de Hingh IH*

Eur J Cancer. 2016 Sep;65:113-20. Epub 2016 Aug 3

PURPOSE: To determine the impact of the implementation of novel systemic regimens and locoregional treatment modalities on survival at population level in colorectal cancer (CRC) patients presenting with peritoneal metastases (PMs).

METHODS: All consecutive CRC patients with synchronous PM (<3 months) between 1995 and 2014 were extracted from the Eindhoven area of the Netherlands Cancer Registry. Trends in treatment and overall survival were assessed in four time periods. Multivariable

regression analysis was used to analyse the impact of systemic and locoregional treatment modalities on survival.

RESULTS: A total of 37,036 patients were diagnosed with primary CRC between 1995 and 2014. Synchronous PM was diagnosed in 1,661 patients, of whom 55% had also metastases at other sites (n = 917) and 77% received anticancer therapy (n = 1,273). Treatment with systemic therapy increased from 23% in 1995-1999 to 56% in 2010-2014 ($p < 0.0001$). Cytoreductive surgery with hyperthermic intraperitoneal chemotherapy (CRS-HIPEC) was applied since 2005 and increased from 10% in 2005-2009 to 23% in 2010-2014. Surgery for lymphatic or haematogenous metastases increased from 2% to 10% in these periods. Median overall survival of the complete cohort improved from 6.0 months in 1995-2000 to 12.5 months in 2010-2014 ($p < 0.0001$), with a doubling of survival for both PM alone and PM with other involved sites. The influence of year of diagnosis on survival (hazard ratio, 2010-2014 versus 1995-1999; 0.5, 95% confidence interval: 0.43-0.62; $p < 0.0001$) disappeared after including systemic therapy and locoregional treatment modalities in subsequent multivariable models.

CONCLUSION: CRC patients presenting with PM are increasingly offered a multidisciplinary treatment approach, resulting in an increased overall survival for the entire cohort.

impactfactor: *6.163*

Razenberg LG (Lieke)

Histological subtype and systemic metastases strongly influence treatment and survival in patients with synchronous colorectal peritoneal metastases

Simkens GA*, Razenberg LG*, Lemmens VE, Rutten HJ*, Creemers GJ*, de Hingh IH*
Eur J Surg Oncol. 2016 Jun;42(6):794-800. Epub 2016 Mar 28

Voor abstract zie: *Chirurgie - Simkens GA*

impactfactor: *2.940*

Troe E (Eva)

Safety and long-term effects of renal denervation: Rationale and design of the Dutch registry

Sanders MF, Blankestijn PJ, Voskuil M, Spiering W, Vonken EJ, Rotmans JI, van der Hoeven BL, Daemen J, van den Meiracker AH, Kroon AA, de Haan MW, Das M, Bax M, van der Meer IM, van Overhagen H, van den Born BJ, van Brussel PM, van der Valk PH, Smak Gregoor PJ, Meuwissen M, Gomes ME, Oude Ophuis T, Troe E*, Tonino WA*, Konings CJ*, de Vries PA, van Balen A, Heeg JE, Smit JJ, Elvan A, Steggerda R, Niamut SM, Peels JO, de Swart JB, Wardeh AJ, Groeneveld JH, van der Linden E, Hemmelder MH, Folkeringa R, Stoel MG, Kant GD, Herrman JP, van Wissen S, Deinum J, Westra SW, Aengevaeren WR, Parlevliet KJ, Schramm A, Jessurun GA, Rensing BJ, Winkens MH, Wierema TK, Santegoets E, Lipsic E, Houwerzijl E, Kater M, Allaart CP, Nap A, Bots ML
Neth J Med. 2016 Jan;74(1):5-15

BACKGROUND: Percutaneous renal denervation (RDN) has recently been introduced as a treatment for therapy-resistant hypertension. Also, it has been suggested that RDN may be beneficial for other conditions characterised by increased sympathetic nerve activity. There are still many uncertainties with regard to efficacy, safety, predictors for success and long-term effects. To answer these important questions, we initiated a Dutch RDN registry aiming to collect data from all RDN procedures performed in the Netherlands.

METHODS: The Dutch RDN registry is an ongoing investigator-initiated, prospective, multicentre cohort study. Twenty-six Dutch hospitals agreed to participate in this registry. All patients who undergo RDN, regardless of the clinical indication or device that is used, will be

included. Data are currently being collected on eligibility and screening, treatment and follow-up.

RESULTS: Procedures have been performed since August 2010. At present, data from 306 patients have been entered into the database. The main indication for RDN was hypertension (n = 302, 99%). Patients had a mean office blood pressure of 177/100 (±29/16) mmHg with a median use of three (range 0-8) blood pressure lowering drugs. Mean 24-hour blood pressure before RDN was 157/93 (±18/13) mmHg. RDN was performed with different devices, with the Simplicity™ catheter currently used most frequently.

CONCLUSION: Here we report on the rationale and design of the Dutch RDN registry. Enrolment in this investigator-initiated study is ongoing. We present baseline characteristics of the first 306 participants.

impactfactor: *1.489*

Vriens BE (Birgit)

Ultrasound is at least as good as magnetic resonance imaging in predicting tumour size post-neoadjuvant chemotherapy in breast cancer

Vriens BE*, de Vries B, Lobbes MB, van Gastel SM, van den Berkmortel FW, Smilde TJ, van Warmerdam LJ*, de Boer M, van Spronsen DJ, Smidt ML, Peer PG, Aarts MJ, Tjan-Heijnen VC; INTENS Study Group

Eur J Cancer. 2016 Jan;52:67-76.. Epub 2015 Nov 30

BACKGROUND: The aim of this study was to evaluate the accuracy of clinical imaging of the primary breast tumour post-neoadjuvant chemotherapy (NAC) related to the post-neoadjuvant histological tumour size (gold standard) and whether this varies with breast cancer subtype. In this study, results of both magnetic resonance imaging (MRI) and ultrasound (US) were reported.

METHODS: Patients with invasive breast cancer were enrolled in the INTENS study between 2006 and 2009. We included 182 patients, of whom data were available for post-NAC MRI (n=155), US (n=123), and histopathological tumour size.

RESULTS: MRI estimated residual tumour size with <10-mm discordance in 54% of patients, overestimated size in 28% and underestimated size in 18% of patients. With US, this was 63%, 20% and 17%, respectively. The negative predictive value in hormone receptor-positive tumours for both MRI and US was low, 26% and 33%, respectively. The median deviation in clinical tumour size as percentage of pathological tumour was 63% (P25=26, P75=100) and 49% (P25=22, P75=100) for MRI and US, respectively (P=0.06).

CONCLUSIONS: In this study, US was at least as good as breast MRI in providing information on residual tumour size post-neoadjuvant chemotherapy. However, both modalities suffered from a substantial percentage of over- and underestimation of tumour size and in addition both showed a low negative predictive value of pathologic complete remission

impactfactor: *6.163*

Warmerdam LJ van (Laurence)

Radium-223 dichloride in the treatment of metastatic prostate cancer

D.N.J. Wyndaele, MD*; R. van der Voort, PhD; E.L. Koldewijn, MD, PhD*; L.J.C. van Warmerdam, MD, PhD*

Tijdschr Nucl Geneesk 2016; 38(4):1655-1659

Voor abstract zie: *Nucleaire geneeskunde - Wyndaele D*

impactfactor: *--*

Warmerdam LJ van (Laurence)

Ultrasound is at least as good as magnetic resonance imaging in predicting tumour size post-neoadjuvant chemotherapy in breast cancer

Vriens BE*, de Vries B, Lobbes MB, van Gastel SM, van den Berkmortel FW, Smilde TJ, van Warmerdam LJ*, de Boer M, van Spronsen DJ, Smidt ML, Peer PG, Aarts MJ, Tjan-Heijnen VC; INTENS Study Group

Eur J Cancer. 2016 Jan;52:67-76. Epub 2015 Nov 30

Voor abstract zie: *Inwendige geneeskunde - Vriens BE*

impactfactor: *6.163*

Zijlstra M (Myrte)

Does long-term survival exist in pancreatic adenocarcinoma?

Zijlstra M*, Bernards N*, de Hingh IH*, van de Wouw AJ, Goey SH, Jacobs EM, Lemmens VE, Creemers GJ*

Acta Oncol. 2016;55(3):259-64. Epub 2015 Nov 11

BACKGROUND: We conducted a population-based study to investigate long-term survival in patients diagnosed with a (suspected) pancreatic adenocarcinoma.

METHODS: All patients diagnosed with a pancreatic adenocarcinoma or with a pathologically unverified tumour of the pancreas between 1993 and 2008 in the South of the Netherlands were selected from the Netherlands Cancer Registry (NCR). Medical charts of patients who were alive five years or longer since diagnosis were reviewed.

RESULTS: A total of 2?564 patients were included, of whom 1?365 had a pancreatic adenocarcinoma and 1?199 had a pathologically unverified pancreatic tumour. Five-year survival of patients with pathologically verified adenocarcinomas was 1.7% (24 of 1?365 patients). Twenty-one-one of these 24 long-term survivors were among the 207 cases that underwent surgical resection as initial treatment; five-year survival after resection thus being 10.1%. Half of the long-term survivors who underwent surgical resection still eventually died of recurrent disease. Five-year survival among patients with clinically suspected but microscopically unverified pancreatic tumours was 1.3% (16 of 1?199 patients). In 15 of these 16 long-term survivors the initial clinical diagnosis was revised: 14 had benign disease and one a premalignant tumour.

CONCLUSIONS: Long-term survival among patients with pancreatic adenocarcinoma is extremely rare. As long-term survival in clinically suspected but pathologically unverified cancer is very unlikely, repeated fine needle aspiration or, preferably, histological biopsy is recommended in order to establish an alternative diagnosis in patients who survive longer than expected (more than 6-12 months).

impactfactor: *3.730*

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Keel- , Neus- en Oorheelkunde

Tabor M (Maarten)

Unilateral Vocal Cord Paralysis following Insertion of a Supreme Laryngeal Mask in a Patient with Sjögren's Syndrome

Masarwa TO*, Herold IH*, Tabor M*, Bouwman RA*

Case Rep Anesthesiol. 2016;2016:8185628. Epub 2016 Nov 27

Voor abstract zie: *Anesthesiologie - Masarwa TO*

impactfactor: --

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Kindergeneeskunde

Aken MH van (Marijke)

A neonatal supracondylar humeral fracture resembling a plexus injury

Van plexuslaesie naar supracondylaire humerusfractuur
Verhees RA*, Besselaar AT*, van Aken MH*, Jansen FH*, Pelleboer RA*
Ned Tijdschr Geneeskd. 2016;160:A9427
Voor abstract zie: Kindergeneeskunde - Verhees RA
impactfactor: --

Brackel HJ (Hein)

Cost-effectiveness of FENO-based and web-based monitoring in paediatric asthma management: a randomised controlled trial

Beerthuizen T, Voorend-van Bergen S, van den Hout WB, Vaessen-Verberne AA, Brackel HJ*, Landstra AM, van den Berg NJ, de Jongste JC, Merkus PJ, Pijnenburg MW, Sont JK
Thorax. 2016 Jul;71(7):607-13. Epub 2016 Apr 5

BACKGROUND: In children with asthma, web-based monitoring and inflammation-driven therapy may lead to improved asthma control and reduction in medications. However, the cost-effectiveness of these monitoring strategies is yet unknown.

OBJECTIVE: We assessed the cost-effectiveness of web-based monthly monitoring and of 4-monthly monitoring of FENO as compared with standard care.

METHODS: An economic evaluation was performed alongside a randomised controlled multicentre trial with a 1-year follow-up. Two hundred and seventy-two children with asthma, aged 4-18 years, were randomised to one of three strategies. In standard care, treatment was adapted according to Asthma Control Test (ACT) at 4-monthly visits, in the web-based strategy also according to web-ACT at 1 month intervals, and in the FENO-based strategy according to ACT and FENO at 4-monthly visits. Outcome measures were patient utilities, healthcare costs, societal costs and incremental cost per quality-adjusted life year (QALY) gained.

RESULTS: No statistically significant differences were found in QALYs and costs between the three strategies. The web-based strategy had 77% chance of being most cost-effective from a healthcare perspective at a willingness to pay a generally accepted €40 000/QALY. The FENO-based strategy had 83% chance of being most cost-effective at €40 000/QALY from a societal perspective.

CONCLUSIONS: Economically, web-based monitoring was preferred from a healthcare perspective, while the FENO-based strategy was preferred from a societal perspective, although in QALYs and costs no statistically significant changes were found as compared with standard care. As clinical outcomes also favoured the web-based and FENO-based strategies, these strategies may be useful additions to standard care.

impactfactor: 8.121

Miedema CJ (Carien)

Small Fiber Neuropathy in Children: Two Case Reports Illustrating the Importance of Recognition

Hoeijmakers JG, Faber CG, Miedema CJ*, Merkies IS, Vles JS*
Pediatrics. 2016 Oct;138(4). pii: e20161215

Small fiber neuropathy (SFN) is a debilitating condition that often leads to pain and autonomic dysfunction. In the last few decades, SFN has been gaining more attention, particularly in adults. However, literature about SFN in children remains limited. The present article reports the cases of 2 adolescent girls diagnosed with SFN. The first patient (14 years of age) complained about painful itch and tingling in her legs, as well as dysautonomia

symptoms for years. She also reported a red/purple-type discoloration of her legs aggravated by warmth and standing, compatible with erythromelalgia. The diagnosis of SFN was confirmed by a reduced intraepidermal nerve fiber density (IENFD) in skin biopsy sample. No underlying conditions were found. Symptomatic neuropathic pain treatment was started with moderate effect. The second patient (16 years of age) developed painful sensations in both feet and hands 6 weeks after an ICU admission for diabetic ketoacidosis, which included dysautonomia symptoms. She also exhibited some signs of erythromelalgia. The patient was diagnosed with predominant SFN (abnormal IENFD and quantitative sensory testing) as well as minor large nerve fiber involvement. Treatment with duloxetine, combined with a rehabilitation program, resulted in a marked improvement in her daily functioning. Although the SFN diagnosis in these 2 cases could be established according to the definition of SFN used in adults, additional diagnostic tools are needed that may be more appropriate for children. Additional information about the course of SFN in children may result in better treatment options.

impactfactor: *5.196*

Pelleboer RA (Rolf)

A neonatal supracondylar humeral fracture resembling a plexus injury

Van plexuslaesie naar supracondylaire humerusfractuur

Verhees RA*, Besselaar AT*, van Aken MH*, Jansen FH*, Pelleboer RA*

Ned Tijdschr Geneeskd. 2016;160:A9427

Voor abstract zie: *Kindergeneeskunde - Verhees RA*

impactfactor: *--*

Roeleveld-Versteegh AB (Angelique)

Implementation of quality of life monitoring in Dutch routine care of adolescents with type 1 diabetes: appreciated but difficult

Eilander M, de Wit M, Rotteveel J, Maas-van Schaaijk N*, Roeleveld-Versteegh A*, Snoek FPediatr Diabetes. 2016 Mar;17(2):112-9. Epub 2015 Jan 7

Voor abstract zie: *Psychologie - Maas-van Schaaijk NM*

impactfactor: *3.488*

Verhees RA (Ruud)

A neonatal supracondylar humeral fracture resembling a plexus injury

Van plexuslaesie naar supracondylaire humerusfractuur

Verhees RA*, Besselaar AT*, van Aken MH*, Jansen FH*, Pelleboer RA*

Ned Tijdschr Geneeskd. 2016;160:A9427

BACKGROUND: A supracondylar fracture of the distal humerus in the newborn is a rare injury that can occur during a traumatic partus. It can be difficult to make the correct diagnosis soon after birth.

CASE DESCRIPTION: A neonate, born by a short fundal delivery in an otherwise minimally traumatic partus had reduced movement in the lower left arm on the first day of life. Physical examination and conventional radiography did not reveal any other abnormalities, suggesting a brachial plexus injury. As the arm movement did not improve, two weeks after birth radiographic investigations were repeated and a supracondylar humeral fracture was diagnosed. After a period of immobilisation without a plaster cast, the function of the elbow was completely restored in this otherwise healthy child.

CONCLUSION: In neonates with a supracondylar humeral fracture clear clinical or radiological signs may be absent. According to the literature, ultrasonography is effective in

revealing these fractures at an early stage. Generally, these fractures heal well without a plaster cast.

impactfactor: --

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Klinische Fysica

Dries W (Wim)

Distributed learning: Developing a predictive model based on data from multiple hospitals without data leaving the hospital - A real life proof of concept

Jochems A, Deist TM, van Soest J, Eble M, Bulens P, Coucke P, Dries W*, Lambin P, Dekker A

Radiother Oncol. 2016; 121(3): 459-67. Epub 2016 Oct 28

PURPOSE: One of the major hurdles in enabling personalized medicine is obtaining sufficient patient data to feed into predictive models. Combining data originating from multiple hospitals is difficult because of ethical, legal, political, and administrative barriers associated with data sharing. In order to avoid these issues, a distributed learning approach can be used. Distributed learning is defined as learning from data without the data leaving the hospital.

PATIENTS AND METHODS: Clinical data from 287 lung cancer patients, treated with curative intent with chemoradiation (CRT) or radiotherapy (RT) alone were collected from and stored in 5 different medical institutes (123 patients at MAASTRO (Netherlands, Dutch), 24 at Jessa (Belgium, Dutch), 34 at Liege (Belgium, Dutch and French), 48 at Aachen (Germany, German) and 58 at Eindhoven (Netherlands, Dutch)). A Bayesian network model is adapted for distributed learning (watch the animation: http://youtu.be/nQpqMIuHyOk). The model predicts dyspnea, which is a common side effect after radiotherapy treatment of lung cancer.

RESULTS: We show that it is possible to use the distributed learning approach to train a Bayesian network model on patient data originating from multiple hospitals without these data leaving the individual hospital. The AUC of the model is 0.61 (95%CI, 0.51-0.70) on a 5-fold cross-validation and ranges from 0.59 to 0.71 on external validation sets.

CONCLUSION: Distributed learning can allow the learning of predictive models on data originating from multiple hospitals while avoiding many of the data sharing barriers. Furthermore, the distributed learning approach can be used to extract and employ knowledge from routine patient data from multiple hospitals while being compliant to the various national and European privacy laws.

impactfactor: 4.817

Hurkmans CW (Coen)

A source document and case report form for prospective documentation of breast cancer radiotherapy parameters for use in trials or studies

Russell NS, Westenberg AH, Hurkmans CW*, van Leeuwen-Stok E

Radiother Oncol. 2016 Jan;118(1):214. Epub 2015 Dec 18

Geen abstract beschikbaar

impactfactor: 4.817

Hurkmans CW (Coen)

Beam Output Audit results within the EORTC Radiation Oncology Group network

Hurkmans CW*, Christiaens M, Collette S, Weber DC

Radiat Oncol. 2016 Dec 15;11(1):160

Beam Output Auditing (BOA) is one key process of the EORTC radiation therapy quality assurance program. Here the results obtained between 2005 and 2014 are presented and compared to previous results.For all BOA reports the following parameters were scored: centre, country, date of audit, beam energies and treatment machines audited, auditing organisation, percentage of agreement between stated and measured dose.Four-hundred and sixty-one BOA reports were analyzed containing the results of 1790 photon and 1366

electron beams, delivered by 755 different treatment machines. The majority of beams (91.1%) were within the optimal limit of?=?3%. Only 13 beams (0.4%; n?=?9 electrons; n?=?4 photons), were out of the range of acceptance of?=?5%. Previous reviews reported a much higher percentage of 2.5% or more of the BOAs with >5% deviation.The majority of EORTC centres present beam output variations within the 3% tolerance cutoff value and only 0.4% of audited beams presented with variations of more than 5%. This is an important improvement compared to previous BOA results.

impactfactor: *2.466*

Hurkmans CW (Coen)

Lungtech, a phase II EORTC trial of SBRT for centrally located lung tumours - a clinical physics perspective

Lambrecht M*, Melidis C, Sonke JJ, Adebahr S, Boellaard R, Verheij M, Guckenberger M, Nestle U, Hurkmans C*

Radiat Oncol. 2016 Jan 20;11:7

BACKGROUND: The EORTC has launched a phase II trial to assess safety and efficacy of SBRT for centrally located NSCLC: The EORTC 22113-08113-Lungtech trial. Due to neighbouring critical structures, these tumours remain challenging to treat. To guarantee accordance to protocol and treatment safety, an RTQA procedure has been implemented within the frame of the EORTC RTQA levels. These levels are here expanded to include innovative tools beyond protocol compliance verification: the actual dose delivered to each patient will be estimated and linked to trial outcomes to enable better understanding of dose related response and toxicity.

METHOD: For trial participation, institutions must provide a completed facility questionnaire and beam output audit results. To insure ability to comply with protocol specifications a benchmark case is sent to all centres. After approval, institutions are allowed to recruit patients. Nonetheless, each treatment plan will be prospectively reviewed insuring trial compliance consistency over time. As new features, patient's CBCT images and applied positioning corrections will be saved for dose recalculation on patient's daily geometry. To assess RTQA along the treatment chain, institutions will be visited once during the time of the trial. Over the course of this visit, end-to-end tests will be performed using the 008ACIRS-breathing platform with two separate bodies. The first body carries EBT3 films and an ionization chamber. The other body newly developed for PET- CT evaluation is fillable with a solution of high activity. 3D or 4D PET-CT and 4D-CT scanning techniques will be evaluated to assess the impact of motion artefacts on target volume accuracy. Finally, a dosimetric evaluation in static and dynamic conditions will be performed.

DISCUSSION: Previous data on mediastinal toxicity are scarce and source of cautiousness for setting-up SBRT treatments for centrally located NSCLC. Thanks to the combination of documented patient related outcomes and CBCT based dose recalculation we expect to provide improved models for dose response and dose related toxicity.

CONCLUSION: We have developed a comprehensive RTQA model for trials involving modern radiotherapy. These procedures could also serve as examples of extended RTQA for future radiotherapy trials involving quantitative use of PET and tumour motion.

impactfactor: *2.466*

Schuring D (Danny)

Accuracy of dose calculations on kV cone beam CT images of lung cancer patients de Smet M*, Schuring D*, Nijsten S, Verhaegen F

Med Phys. 2016 Nov;43(11):5934

Voor abstract zie: *Radiotherapie - Smet M de*

impactfactor: *2.496*

Schuring D (Danny)

The NCS code of practice for the quality assurance and control for volumetric modulated arc therapy

Mans A, Schuring D*, Arends MP, Vugts CA, Wolthaus JW, Lotz HT, Admiraal M, Louwe RJ, Öllers MC, van de Kamer JB

Phys Med Biol. 2016 Oct 7;61(19):7221-7235. Epub 2016 Sep 20

In 2010, the NCS (Netherlands Commission on Radiation Dosimetry) installed a subcommittee to develop guidelines for quality assurance and control for volumetric modulated arc therapy (VMAT) treatments. The report (published in 2015) has been written by Dutch medical physicists and has therefore, inevitably, a Dutch focus. This paper is a condensed version of these guidelines, the full report in English is freely available from the NCS website www.radiationdosimetry.org. After describing the transition from IMRT to VMAT, the paper addresses machine quality assurance (QA) and treatment planning system (TPS) commissioning for VMAT. The final section discusses patient specific QA issues such as the use of class solutions, measurement devices and dose evaluation methods.

impactfactor: *2.811*

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Longgeneeskunde

Smeenk FW (Frank)

Comparative analysis of respiratory muscle strength before and after bariatric surgery using 5 different predictive equations

Pouwels S*, Buise MP*, Smeenk FW*, Teijink JA*, Nienhuijs SW*

J Clin Anesth. 2016 Aug;32:172-80.. Epub 2016 Apr 20

Voor abstract zie: *Chirurgie - Pouwels S*

impactfactor: *1.284*

Smeenk FW (Frank)

Perioperative respiratory care in obese patients undergoing bariatric surgery: Implications for clinical practice

Pouwels S*, Smeenk FW*, Manschot L*, Lascaris B*, Nienhuijs S*, Bouwman RA*, Buise MP*

Respir Med. 2016 Aug;117:73-80. Epub 2016 Jun 7

Voor abstract zie: *Chirurgie - Pouwels S*

impactfactor: *3.036*

** = Werkzaam in het Catharina Ziekenhuis*

Maag- Darm- Leverziekten

Curvers WL (Wouter)

A new paradigm shift in endoscopy: From interpretation to automated image analysis?

Curvers WL*, Bergman JJ

Gastrointest Endosc. 2016 Jan;83(1):115-6. doi: 10.1016/j.gie.2015.08.057.

Geen abstract beschikbaar

impactfactor: 6.217

Curvers WL (Wouter)

Antibacterial gauzes are effective in preventing infections after percutaneous endoscopic gastrostomy placement: a retrospective analysis

Strijbos D*, Schoon EJ*, Curvers W*, Friederich P*, Flink HJ*, Stronkhorst A*, Gilissen LP*

Eur J Gastroenterol Hepatol. 2016 Mar;28(3):297-304

Voor abstract zie: Maag-darm-leverziekten - Strijbos D

impactfactor: 2.093

Curvers WL (Wouter)

Computer-aided detection of early neoplastic lesions in Barrett's esophagus

van der Sommen F, Zinger S, Curvers WL*, Bisschops R, Pech O, Weusten BL, Bergman JJ, de With PH, Schoon EJ*

Endoscopy. 2016 Jul;48(7):617-24. Epub 2016 Apr 21

BACKGROUND AND STUDY AIMS: Early neoplasia in Barrett's esophagus is difficult to detect and often overlooked during Barrett's surveillance. An automatic detection system could be beneficial, by assisting endoscopists with detection of early neoplastic lesions. The aim of this study was to assess the feasibility of a computer system to detect early neoplasia in Barrett's esophagus.

PATIENTS AND METHODS: Based on 100 images from 44 patients with Barrett's esophagus, a computer algorithm, which employed specific texture, color filters, and machine learning, was developed for the detection of early neoplastic lesions in Barrett's esophagus. The evaluation by one endoscopist, who extensively imaged and endoscopically removed all early neoplastic lesions and was not blinded to the histological outcome, was considered the gold standard. For external validation, four international experts in Barrett's neoplasia, who were blinded to the pathology results, reviewed all images.

RESULTS: The system identified early neoplastic lesions on a per-image analysis with a sensitivity and specificity of 0.83.?At the patient level, the system achieved a sensitivity and specificity of 0.86 and 0.87, respectively. A trade-off between the two performance metrics could be made by varying the percentage of training samples that showed neoplastic tissue.

CONCLUSION: The automated computer algorithm developed in this study was able to identify early neoplastic lesions with reasonable accuracy, suggesting that automated detection of early neoplasia in Barrett's esophagus is feasible. Further research is required to improve the accuracy of the system and prepare it for real-time operation, before it can be applied in clinical practice.

impactfactor: 5.634

Curvers WL (Wouter)

Detection of buried Barrett's glands after radiofrequency ablation with volumetric laser endomicroscopy

Swager AF, Boerwinkel DF, de Bruin DM, Faber DJ, van Leeuwen TG, Weusten BL, Meijer SL, Bergman JJ, Curvers WL*

Gastrointest Endosc. 2016 Jan;83(1):80-8. Epub 2015 Jun 26

BACKGROUND AND AIMS: The prevalence and clinical relevance of buried Barrett's glands (BB) after radiofrequency ablation (RFA) in Barrett's esophagus (BE) are debated. Recent optical coherence tomography studies demonstrated a high prevalence of BBs. Direct histological correlation, however, has been lacking. Volumetric laser endomicroscopy (VLE) is a second-generation optical coherence tomography system capable of scanning a large surface of the esophageal wall layers with low-power microscopy resolution. The aim was to evaluate whether post-RFA subsquamous glandular structures (SGSs), detected with VLE, actually correspond to BBs by pursuing direct histological correlation with VLE images.

METHODS: In vivo VLE was performed to detect SGSs in patients with endoscopic regression of BE post-RFA. A second in vivo VLE scan was performed to confirm correct delineation of the SGSs. After endoscopic resection, the specimens were imaged ex vivo with VLE. Extensive histological sectioning of SGS areas was performed, and all histology slides were evaluated by an expert BE pathologist.

RESULTS: Seventeen patients underwent successful in vivo VLE (histological diagnosis before endoscopic treatment: early adenocarcinoma in 8 patients and high-grade dysplasia in 9). In 4 of 17 patients, no SGSs were identified during VLE, and a random resection was performed. In the remaining 13 patients (76%), VLE detected SGS areas, which were all confirmed on a second in vivo VLE scan and subsequently resected. Most SGSs identified by VLE corresponded to normal histological structures (eg, dilated glands and blood vessels). However, 1 area containing BBs was found on histology. No specific VLE features to distinguish between BBs and normal SGSs were identified.

CONCLUSIONS: VLE is able to detect subsquamous esophageal structures. One area showed BBs beneath endoscopically normal-appearing neosquamous epithelium; however, most post-RFA SGSs identified by VLE correspond to normal histological structures. (Clinical trial registration number: NTR4056.).

impactfactor: 6.217

Curvers WL (Wouter)

Diagnosis by Endoscopy and Advanced Imaging of Barrett's Neoplasia

Swager AF, Curvers WL*, Bergman JJ

Adv Exp Med Biol. 2016;908:81-98

Evaluation of patients with Barrett's esophagus (BE) using dye-based chromoendoscopy, optical chromoendoscopy, autofluorescence imaging, or confocal laser endomicroscopy does not significantly increase the number of patients with a diagnosis of early neoplasia compared with high-definition white light endoscopy (HD-WLE) with random biopsy analysis. These newer imaging techniques are not more effective in standard surveillance of patients with BE because the prevalence of early neoplasia is low and HD-WLE with random biopsy analysis detects most cases of neoplasia. The evaluation and treatment of patients with BE and early stage neoplasia should be centralized in tertiary referral centers, where procedures are performed under optimal conditions, by expert endoscopists. Lesions that require resection are almost always detected by HD-WLE, although advanced imaging techniques can detect additional flat lesions. However, these are of limited clinical significance because they are effectively eradicated by ablation therapy. No endoscopic

imaging technique can reliably assess submucosal or lymphangio invasion. Endoscopic resection of early stage neoplasia in patients with BE is important for staging and management. Optical chromoendoscopy can also be used to evaluate lesions before endoscopic resection and in follow-up after successful ablation therapy.

impactfactor: 1.953

Curvers WL (Wouter)

In vitro assessment of the performance of a new multiband mucosectomy device for endoscopic resection of early upper gastrointestinal neoplasia

Schölvinck DW, Belghazi K, Pouw RE, Curvers WL*, Weusten BL, Bergman JJ

Surg Endosc. 2016 Feb;30(2):471-9. Epub 2015 May 28

BACKGROUND AND STUDY AIMS: Multiband mucosectomy (MBM) is widely used for the endoscopic resection of early neoplasia in the upper gastrointestinal tract. A new MBM-device may have advantages over the current MBM-device with improved visualization, easier passage of accessories, and higher suction power due to different trip wire and cap.

METHODS: Rubber bands were released one by one for both MBM-devices while endoscopic images were collected. First, free endoscopic view was assessed by computer-assisted measurements (quantitative) and by ranking the images by a panel of 11 endoscopists (qualitative). Second, using a visual analog scale, three 'blinded' endoscopists assessed introduction and advancement of three types of endoscopic devices through the working channel of a diagnostic endoscope with the MBM-devices assembled. Third, suction power was evaluated by a manometer attached to the cap of the assembled MBM-devices in four endoscopes. Negative pressures were measured after 5 and 10 s of suction and repeated five times. The passage and suction experiments were performed with dry trip wires and repeated after soaking with bloody, mucous fluids.

RESULTS: With all bands present, endoscopic views were 90 and 40 % in the new and current MBM-device, respectively. With the release of more bands, differences slowly disappeared. The panel scored a better endoscopic view in the new MBM-device ($p = 0.03$). Passage of all accessories was considered significantly easier in the new MBM-device. With the associated snare in the working channel, suction power was significantly better with the new MBM-device.

CONCLUSION: Compared to the currently available MBM-device, the new MBM-device provides improved endoscopic visibility, smoother passage of accessories, and higher suction power.

impactfactor: 3.256

Curvers WL (Wouter)

Volumetric laser endomicroscopy in Barrett's esophagus: a feasibility study on histological correlation

Swager A, Boerwinkel DF, de Bruin DM, Weusten BL, Faber DJ, Meijer SL, van Leeuwen TG, Curvers WL*, Bergman JJ

Dis Esophagus. 2016 Aug;29(6):505-12. d Epub 2015 May 8

Volumetric laser endomicroscopy (VLE) is a novel balloon-based optical coherence tomography (OCT) imaging technique that may improve detection of early neoplasia in Barrett's esophagus (BE). Most OCT studies lack a direct correlation between histology and OCT images. The aim is to investigate the optimal approach for achieving one-to-one correlation of ex-vivo VLE images of endoscopic resection (ER) specimens with histology. BE patients with and without early neoplasia underwent ER after delineating areas with electrocoagulation markers (ECM). After ER, specimens underwent additional ex-vivo

marking with several different markers (ink, pin, Gold Probe) followed by ex-vivo VLE scanning. ER specimens were carefully sectioned into tissue blocks guided by the markers. Histology and VLE slides were considered a match if = 2 markers were visible on both modalities and mucosal patterns aside from these markers matched on both histology and VLE. From 16 ER specimens 120 tissue blocks were sectioned of which 23 contained multiple markers. Fourteen histology-VLE matches were identified. ECMs and ink markers proved to be the most effective combination for matching. The last 6/16 ER specimens yielded 9/14 matches, demonstrating a learning curve due to methodological improvements in marker placement and tissue block sectioning. One-to-one correlation of VLE and histology is complex but feasible. The groundwork laid in this study will provide high-quality histology-VLE correlations that will allow further research on VLE features of early neoplasia in BE.

impactfactor: *2.146*

Flink HJ (Hajo)

Antibacterial gauzes are effective in preventing infections after percutaneous endoscopic gastrostomy placement: a retrospective analysis

Strijbos D*, Schoon EJ*, Curvers W*, Friederich P*, Flink HJ*, Stronkhorst A*, Gilissen LP*

Eur J Gastroenterol Hepatol. 2016 Mar;28(3):297-304

Voor abstract zie: *Maag-darm-leverziekten - Strijbos D*

impactfactor: *2.093*

Friederich P (Pieter)

A Specifically Designed Stent for Anastomotic Leaks after Bariatric Surgery: Experiences in a Tertiary Referral Hospital

van Wezenbeek MR*, de Milliano MM*, Nienhuijs SW*, Friederich P*, Gilissen LP*Obes Surg. 2016 Aug;26(8):1875-80. Epub 2015 Dec 24.

Voor abstract zie: *Chirurgie - Wezenbeek MR van*

impactfactor: *3.346*

Friederich P (Pieter)

Adherence to ribavirin in chronic hepatitis C patients on antiviral treatment: Results from a randomized controlled trial using real-time medication monitoring

van Vlerken LG, Lieveld FI, van Meer S, Koek GH, van Nieuwkerk KM, Friederich P*, Arends JE, Siersema PD, Burger DM, van Erpecum KJ

Clin Res Hepatol Gastroenterol. 2016 Nov;40(5):622-630

BACKGROUND AND OBJECTIVE: Adherence is essential in antiviral therapy for chronic hepatitis C. We investigated the effect of real-time medication monitoring on adherence to ribavirin.

METHODS: In this randomized controlled trial, patients in the intervention group received a medication dispenser that monitored ribavirin intake real-time during 24 weeks PEG-interferon/ribavirin±boceprevir or telaprevir. Patients in the control group received standard-of-care. Adherence was also measured by pill count.

RESULTS: Seventy-two patients were assigned to either intervention (n=35) or control groups (n=37). Median adherence by pill count was 96% (range: 43%-100%) with 30 (94%) of patients exhibiting=80% adherence. Perfect adherence (i.e. 100%) was similar in intervention and control groups: 22 (85%) vs. 15 (75%) (P=0.47). Adherences by real-time medication monitoring and by pill count did not correlate (R=0.19, P=0.36). No predictors of poor

adherence could be identified. Ribavirin trough levels after 8 weeks (median: 2.4 vs. 2.7mg/L, P=0.30) and 24 weeks (median: 3.0 vs. 3.0mg/L, P=0.69), and virological responses did not differ between intervention and control groups.

CONCLUSIONS: Adherence to ribavirin during PEG-interferon containing therapy in chronic hepatitis C is high. Real-time medication monitoring did not influence adherence to ribavirin, plasma ribavirin levels or virological responses.

impactfactor: *1.872*

Friederich P (Pieter)

Antibacterial gauzes are effective in preventing infections after percutaneous endoscopic gastrostomy placement: a retrospective analysis

Strijbos D*, Schoon EJ*, Curvers W*, Friederich P*, Flink HJ*, Stronkhorst A*, Gilissen LP*

Eur J Gastroenterol Hepatol. 2016 Mar;28(3):297-304

Voor abstract zie: *Maag-darm-leverziekten - Strijbos D*

impactfactor: *2.093*

Friederich P (Pieter)

Clinical impact of five large-scale screening projects for chronic hepatitis B in Chinese migrants in the Netherlands

Coenen S, van Meer S, Vrolijk JM, Richter C, van Erpecum KJ, Mostert MC, Veldhuijzen IK, Reijnders JG, van Soest H, Dirksen K, Drenth JP, Koene RP, Bosschart M, Friederich P*, Ter Borg MJ, Daemen RH, Arends JE, Verhagen MA, Schout C, Spanier BW

Liver Int. 2016 Oct;36(10):1425-32. Epub 2016 May 2

BACKGROUND & AIMS: In low-endemic countries it is debated whether first-generation migrants should be screened for chronic hepatitis B infection. We describe the clinical impact of five large-scale Dutch screening projects for hepatitis B in first-generation Chinese migrants.

METHODS: Between 2009 and 2013 five independent outreach screening projects for hepatitis B targeting first-generation Chinese migrants were conducted in five main Dutch regions. To explore the relevance of our screening we defined clinical impact as the presence of an indication for: (i) antiviral therapy, (ii) strict follow-up because of high hepatitis B DNA levels and/or (iii) surveillance for hepatocellular carcinoma.

RESULTS: In total, 4423 persons participated in the projects of whom 6.0% (n = 264) were HBsAg positive. One hundred and twenty-nine newly diagnosed HBsAg-positive patients were analysed in specialist care. Among these patients prevalence of cirrhosis was 6.9% and antiviral therapy for hepatitis B was started in 32 patients (25%). In patients without a treatment indication, strict follow-up because of high hepatitis B DNA levels and/or surveillance for hepatocellular carcinoma was considered indicated in 64 patients (50%).

CONCLUSIONS: In our screening project in first-generation Chinese migrants, antiviral treatment, strict follow-up because of high hepatitis B DNA levels and/or surveillance for hepatocellular carcinoma were considered indicated in three of four analysed HBsAg-positive patients. These data show that detection of hepatitis B in Chinese migrants can have considerable impact on patient care.

impactfactor: *4.470*

Friederich P (Pieter)

Intestinale tuberculose die zich presenteert als de ziekte van Crohn

Pijls PA*, Ammerlaan HS*, Nederend J*, Huysentruyt CJ*, Gilissen LP*, Friederich PF*

Tijdschrift voor Infectieziekten, 2016;11:96-101

Voor abstract zie: *maag-darm-leverziekten - Pijls PA*

impactfactor: --

Friederich P (Pieter)

Limited Generalizability of Registration Trials in Hepatitis C

Berden FA, de Knegt RJ, Blokzijl H, Kuiken SD, van Erpecum KJ, Willemse SB, den Hollander J, van Vonderen MG, Friederich P*, van Hoek B, van Nieuwkerk CM, Drenth JP, Kievit W

PLoS One. 2016 Sep 6;11(9):e0161821

BACKGROUND: Approval of drugs in chronic hepatitis C is supported by registration trials. These trials might have limited generalizability through use of strict eligibility criteria. We compared effectiveness and safety of real world hepatitis C patients eligible and ineligible for registration trials.

METHODS: We performed a nationwide, multicenter, retrospective cohort study of chronic hepatitis C patients treated in the real world. We applied a combined set of inclusion and exclusion criteria of registration trials to our cohort to determine eligibility. We compared effectiveness and safety in eligible vs. ineligible patients, and performed sensitivity analyses with strict criteria. Further, we used log binomial regression to assess relative risks of criteria on outcomes.

RESULTS: In this cohort (n = 467) 47% of patients would have been ineligible for registration trials. Main exclusion criteria were related to hepatic decompensation and co-morbidity (cardiac disease, anemia, malignancy and neutropenia), and were associated with an increased risk for serious adverse events (RR 1.45-2.31). Ineligible patients developed significantly more serious adverse events than eligible patients (27% vs. 11%, p< 0.001). Effectiveness was decreased if strict criteria were used.

CONCLUSIONS: Nearly half of real world hepatitis C patients would have been excluded from registration trials, and these patients are at increased risk to develop serious adverse events. Hepatic decompensation and co-morbidity were important exclusion criteria, and were related to toxicity. Therefore, new drugs should also be studied in these patients, to genuinely assess benefits and risk of therapy in the real world population.

impactfactor: *3.057*

Gilissen LP (Lennard)

A Specifically Designed Stent for Anastomotic Leaks after Bariatric Surgery: Experiences in a Tertiary Referral Hospital

van Wezenbeek MR*, de Milliano MM*, Nienhuijs SW*, Friederich P*, Gilissen LP*

Obes Surg. 2016 Aug;26(8):1875-80. Epub 2015 Dec 24

Voor abstract zie: *Chirurgie - Wezenbeek MR van*

impactfactor: *3.346*

Gilissen LP (Lennard)

Antibacterial gauzes are effective in preventing infections after percutaneous endoscopic gastrostomy placement: a retrospective analysis

Strijbos D*, Schoon EJ*, Curvers W*, Friederich P*, Flink HJ*, Stronkhorst A*, Gilissen LP*

Eur J Gastroenterol Hepatol. 2016 Mar;28(3):297-304

Voor abstract zie: *Maag-darm-leverziekten - Strijbos D*
impactfactor: *2.093*

Gilissen LP (Lennard)

Crystallization in the waterjet channel in colonoscopes due to simethicone

van Stiphout SH*, Laros IF*, van Wezel RA*, Gilissen LP*

Endoscopy. 2016 0;48(S 01):E394-E395

geen abstract beschikbaar
impactfactor: *5.634*

Gilissen LP (Lennard)

Curious Endoscopy Corner: Indrukwekkend netwerk van grote en kleine fistelopeningen

M van den Heuvel, JWM Tjhie-Wensing, LPL Gilissen

Gastro-enterologie 2016 maart; 5(1), 9

Geen abstract beschikbaar
impactfactor: --

Gilissen LP (Lennard)

Expanded allogeneic adipose-derived mesenchymal stem cells (Cx601) for complex perianal fistulas in Crohn's disease: a phase 3 randomised, double-blind controlled trial

Panés J, García-Olmo D, Van Assche G, Colombel JF, Reinisch W, Baumgart DC, Dignass A, Nachury M, Ferrante M, Kazemi-Shirazi L, Grimaud JC, de la Portilla F, Goldin E, Richard MP, Leselbaum A, Danese S; ADMIRE CD Study Group Collaborators: Gilissen LP, Montfort G van

Lancet. 2016 Sep 24;388(10051):1281-90

BACKGROUND: Complex perianal fistulas in Crohn's disease are challenging to treat. Allogeneic, expanded, adipose-derived stem cells (Cx601) are a promising new therapeutic approach. We aimed to assess the safety and efficacy of Cx601 for treatment-refractory complex perianal fistulas in patients with Crohn's disease.

METHODS: We did this randomised, double-blind, parallel-group, placebo-controlled study at 49 hospitals in seven European countries and Israel from July 6, 2012, to July 27, 2015. Adult patients (=18 years) with Crohn's disease and treatment-refractory, draining complex perianal fistulas were randomly assigned (1:1) using a pre-established randomisation list to a single intralesional injection of 120 million Cx601 cells or 24 mL saline solution (placebo), with stratification according to concomitant baseline treatment. Treatment was administered by an unmasked surgeon, with a masked gastroenterologist and radiologist assessing the therapeutic effect. The primary endpoint was combined remission at week 24 (ie, clinical assessment of closure of all treated external openings that were draining at baseline, and absence of collections >2 cm of the treated perianal fistulas confirmed by

masked central MRI). Efficacy was assessed in the intention-to-treat (ITT) and modified ITT populations; safety was assessed in the safety population. This study is registered with ClinicalTrials.gov, number NCT01541579.

FINDINGS: 212 patients were randomly assigned: 107 to Cx601 and 105 to placebo. A significantly greater proportion of patients treated with Cx601 versus placebo achieved combined remission in the ITT (53 of 107 [50%] vs 36 of 105 [34%]; difference 15·2%, 97·5% CI 0·2-30·3; p=0·024) and modified ITT populations (53 of 103 [51%] vs 36 of 101 [36%]; 15·8%, 0·5-31·2; p=0·021). 18 (17%) of 103 patients in the Cx601 group versus 30 (29%) of 103 in the placebo group experienced treatment-related adverse events, the most common of which were anal abscess (six in the Cx601 group vs nine in the placebo group) and proctalgia (five vs nine).

INTERPRETATION: Cx601 is an effective and safe treatment for complex perianal fistulas in patients with Crohn's disease who did not respond to conventional or biological treatments, or both.

Impactfactor: *44.002*

Gilissen LP (Lennard)

Intestinale tuberculose die zich presenteert als de ziekte van Crohn

Pijls PA*, Ammerlaan HS*, Nederend J*, Huysentruyt CJ*, Gilissen LP*, Friederich PF*

Tijdschrift voor Infectieziekten, 2016;11:96-101

Voor abstract zie: *maag-darm-leverziekten - Pijls PA*

impactfactor: --

Gilissen LP (Lennard)

Safety and efficacy of a fully covered large-diameter self-expanding metal stent for the treatment of upper gastrointestinal perforations, anastomotic leaks, and fistula

van den Berg MW, Kerbert AC, van Soest EJ, Schwartz MP, Bakker CM, Gilissen LP*, van Hooft JE

Dis Esophagus. 2016 Aug;29(6):572-9. Epub 2015 Apr 20

Upper gastrointestinal perforations, fistula, and anastomotic leaks are severe conditions with high mortality. Temporary endoscopic placement of fully covered self-expanding metal stent (fSEMS) has emerged as treatment option. Stent migration is a major drawback of currently used stents. Migration is often attributed to a relatively too small stent diameter as esophageal stents were initially intended for the treatment of strictures. This study aimed to investigate the safety and efficacy of a large-diameter fSEMS for treatment of these conditions. Data were retrospectively collected from patients who received this stent in the Netherlands between March 2011 and August 2013. Clinical success was defined as sufficient leak closure after stent removal as confirmed by endoscopy or X-ray with oral contrast without surgical intervention or placement of another type of stent. Adverse events were graded according a standardized grading system. Stent placement was performed in 34 patients for the following indications: perforation (n = 6), anastomotic leak (n = 26), and fistula (n = 2). Technical success rate was 97% (33/34). Clinical success rate was 44% (15/34) after one stent and 50% (17/34) after an additional stent. There were no severe adverse events and stent-related mortality. The overall adverse event rate was 50% (all graded 'moderate'). There were 14 (41%) stent migrations (complete n = 8, partial n = 6). Other adverse events were bleeding (n = 2) and aspiration pneumonia (n = 1). Reinterventions for failure of the large-diameter fSEMS were placement of another type of fSEMS (n = 4), surgical repair (n = 3), or esophagectomy (n = 1). Eleven patients (32%) died in-hospital because of persisting intrathoracic sepsis (n = 10) or preexistent bowel ischemia (n = 1). This

study suggests that temporary placement of a large-diameter fSEMS for the treatment of upper gastrointestinal perforations, fistula, and anastomotic leaks is safe in terms of severe adverse events and stent-related mortality. The larger diameter does not seem to prevent stent migration.

impactfactor: *2.146*

Gilissen LP (Lennard)

Vedolizumab is an effective alternative in inflammatory bowel disease patients with anti-TNF-alpha therapy-induced dermatological side effects

Pijls PA*, Gilissen LP*

Dig Liver Dis. 2016 Nov;48(11):1391-1393

Voor abstract zie: *Maag-darm-leverziekten - Pijls PA*

impactfactor: *2.719*

Milliano MM de (Martine)

A Specifically Designed Stent for Anastomotic Leaks after Bariatric Surgery: Experiences in a Tertiary Referral Hospital

van Wezenbeek MR*, de Milliano MM*, Nienhuijs SW*, Friederich P*, Gilissen LP*

Obes Surg. 2016 Aug;26(8):1875-80. Epub 2015 Dec 24

Voor abstract zie: *Chirurgie - Wezenbeek MR van*

impactfactor: *3.346*

Pijls PA (Philippe)

Intestinale tuberculose die zich presenteert als de ziekte van Crohn

Pijls PA*, Ammerlaan HS*, Nederend J*, Huysentruyt CJ*, Gilissen LP*, Friederich PF*

Tijdschrift voor Infectieziekten, 2016;11:96-101

Een 20-jarige Vietnamese man met in de voorgeschiedenis de ziekte van Crohn werd opgenomen in verband met verdenking op een exacerbatie. Bij opname werd naast inflammatie van het ileocoecum ook cervicale lymfadenopathie geconstateerd. Op verdenking van intestinale tuberculose werd een mantouxtest verricht, die positief was. Een aanvullende Quantiferon®-TB Gold-test bleek niet interpreteerbaar. Aangezien in colonbiopten echter geen zuurvaste staven werden aangetoond en een PCR-analyse op het Mycobacterium tuberculosis complex negatief was, werd de patiënt behandeld voor een exacerbatie van de ziekte van Crohn. Bij heropname twee maanden later bleek er nog steeds sprake van cervicale lymfadenopathie en bij een CT-scan werd een abdominaal abces geconstateerd. Opnieuw werd intestinale tuberculose overwogen en er volgden een auraminekleuring, PCR-analyse en kweek van het abcesvocht en een cervicaal lymfeklierbiopt. De auraminekleuring en PCR-analyse toonden geen afwijkingen, maar de kweken waren positief voor Mycobacterium tuberculosis. Deze casus illustreert hoe intestinale tuberculose zich kan presenteren als de ziekte van Crohn en dat het onderscheid tussen de ziektebeelden lastig is. In dit artikel wordt nader ingegaan op de epidemiologie, pathofysiologie, diagnostiek en behandeling van intestinale tuberculose en het onderscheid met de ziekte van Crohn.

impactfactor: --

Pijls PA (Philippe)

Vedolizumab is an effective alternative in inflammatory bowel disease patients with anti-TNF-alpha therapy-induced dermatological side effects

Pijls PA*, Gilissen LP*

Dig Liver Dis. 2016 Nov;48(11):1391-1393

BACKGROUND: The treatment of patients with inflammatory bowel diseases has been revolutionized by the introduction of biological therapy with TNF-alpha blockers. However, TNF-alpha blockers are also associated with a wide variety of dermatological side effects, such as local skin infections, psoriasis and eczema. A new biological therapy, targeting the gut-specific adhesion molecule alpha4beta7 integrin, is the humanized monoclonal IgG1 antibody vedolizumab. Vedolizumab prevents leukocyte migration to the gastrointestinal tract, thereby reducing inflammation. This gut-specific therapy has the potential to reduce systemic side effects, including dermatological ones.

METHODS: We describe 3 inflammatory bowel disease patients who experience anti-TNF-alpha therapy-induced dermatological side effects, consisting of hidradenitis suppurativa, a folliculitis, scalp psoriasis and a dissecting folliculitis.

RESULTS: In all patients, anti-TNF-alpha therapy-induced dermatological side effects diminished after switching to vedolizumab.

CONCLUSION: Vedolizumab may be a viable alternative biological therapy in inflammatory bowel disease patients who experience anti-TNF-alpha therapy-induced dermatological side effects.

impactfactor: *2.719*

Schoon EJ (Erik)

Antibacterial gauzes are effective in preventing infections after percutaneous endoscopic gastrostomy placement: a retrospective analysis

Strijbos D*, Schoon EJ*, Curvers W*, Friederich P*, Flink HJ*, Stronkhorst A*, Gilissen LP*

Eur J Gastroenterol Hepatol. 2016 Mar;28(3):297-304

Voor abstract zie: *Maag-darm-leverziekten - Strijbos D*
impactfactor: *2.093*

Schoon EJ (Erik)

Computer-aided detection of early neoplastic lesions in Barrett's esophagus

van der Sommen F, Zinger S, Curvers WL*, Bisschops R, Pech O, Weusten BL, Bergman JJ, de With PH, Schoon EJ*

Endoscopy. 2016 Jul;48(7):617-24. Epub 2016 Apr 21

Voor abstract zie: *Maag-darm-leverziekten - Curvers WL*
impactfactor: *5.634*

Schoon EJ (Erik)

Detection of palisade vessels as a landmark for Barrett's esophagus in a Western population

Schölvinck DW, Goto O, Seldenrijk CA, Bisschops R, Horii J, Ochiai Y, Schoon EJ*, Schenk BE, Uraoka T, van Oijen MG, Bergman JJ, Yahagi N, Weusten BL

J Gastroenterol. 2016 Jul;51(7):682-90. Epub 2015 Nov 4

BACKGROUND: In Japan, palisade vessels (PV) are used to distinguish the esophagogastric junction (EGJ). Elsewhere, the EGJ is defined by the upper end of the gastric folds (GF) and

PV are considered difficult to detect. This study evaluated the detection rate of PV in Western patients with Barrett's esophagus (BE) using white light imaging (WLI) and narrow band imaging (NBI), and quantified any discordance between Western and Japanese criteria for the EGJ.

METHODS: In 25 BE patients, the presence and location of PV and GF were determined and biopsies were obtained. High-quality images of the EGJ were collected under different conditions (insufflations-desufflation, WLI-NBI, forward-retroflex approach), resulting in eight different images per patient. The presence of PV on each still image was assessed by a panel of six Western and Japanese endoscopists with expertise in BE.

RESULTS: PV were observed in = 1 images by a majority of the panel (= 4 raters) in 100 % of patients during insufflation versus 60 % during desufflation ($p < 0.001$). WLI and NBI detected PV in 100 and 92 %, respectively ($p = 0.50$). Interobserver agreement of the panel was 'moderate' (? = 0.51). During endoscopy PV were located a median of 1 cm distal of the GF in 15 patients (63 %), with intestinal metaplasia (IM) in this discordant zone, in 27 % of patients.

CONCLUSIONS: PV are visible in most Western BE patients and are best inspected during insufflation. The location of the GF and PV differed in a substantial group of patients, partially with IM in this discordant zone.

impactfactor: 4.414

Schoon EJ (Erik)

Development and validation of the WASP classification system for optical diagnosis of adenomas, hyperplastic polyps and sessile serrated adenomas/polyps

IJspeert JE, Bastiaansen BA, van Leerdam ME, Meijer GA, vanEeden S, Sanduleanu S, Schoon EJ*, Bisseling TM, Spaander MC, van Lelyveld N, Bargeman M, Wang J, Dekker E; Dutch Workgroup serrAted polypS & Polyposis (WASP)

Gut. 2016 Jun;65(6):963-70. Epub 2015 Mar 9

OBJECTIVE: Accurate endoscopic differentiation would enable to resect and discard small and diminutive colonic lesions, thereby increasing cost-efficiency. Current classification systems based on narrow band imaging (NBI), however, do not include neoplastic sessile serrated adenomas/polyps (SSA/Ps). We aimed to develop and validate a new classification system for endoscopic differentiation of adenomas, hyperplastic polyps and SSA/Ps <10 mm.

DESIGN: We developed the Workgroup serrAted polypS and Polyposis (WASP) classification, combining the NBI International Colorectal Endoscopic classification and criteria for differentiation of SSA/Ps in a stepwise approach. Ten consultant gastroenterologists predicted polyp histology, including levels of confidence, based on the endoscopic aspect of 45 polyps, before and after participation in training in the WASP classification. After 6 months, the same endoscopists predicted polyp histology of a new set of 50 polyps, with a ratio of lesions comparable to daily practice.

RESULTS: The accuracy of optical diagnosis was 0.63 (95% CI 0.54 to 0.71) at baseline, which improved to 0.79 (95% CI 0.72 to 0.86, $p<0.001$) after training. For polyps diagnosed with high confidence the accuracy was 0.73 (95% CI 0.64 to 0.82), which improved to 0.87 (95% CI 0.80 to 0.95, $p<0.01$). The accuracy of optical diagnosis after 6 months was 0.76 (95% CI 0.72 to 0.80), increasing to 0.84 (95% CI 0.81 to 0.88) considering high confidence diagnosis. The combined negative predictive value with high confidence of diminutive neoplastic lesions (adenomas and SSA/Ps together) was 0.91 (95% CI 0.83 to 0.96).

CONCLUSIONS: We developed and validated the first integrative classification method for endoscopic differentiation of small and diminutive adenomas, hyperplastic polyps and SSA/Ps. In a still image evaluation setting, introduction of the WASP classification

significantly improved the accuracy of optical diagnosis overall as well as SSA/P in particular, which proved to be sustainable after 6 months.

impactfactor: 14.921

Schoon EJ (Erik)

Increased Belching After Sleeve Gastrectomy

Burgerhart JS, van de Meeberg PC, Mauritz FA, Schoon EJ*, Smulders JF*, Siersema PD, Smout AJ

Obes Surg. 2016 Jan;26(1):132-7. Epub 2015 Jun 23

INTRODUCTION: Laparoscopic sleeve gastrectomy (LSG) is considered to be an effective procedure for patients with morbid obesity. Belching is frequently reported after this procedure, but it has not been well studied in the bariatric population. This study aims to assess the changes in belching before and after sleeve gastrectomy, as measured with impedance monitoring.

METHODS: In a prospective study, patients underwent 24-h pH-impedance monitoring before and 3 months after LSG. Using this technique, belches can be identified. Preoperative and postoperative upper gastrointestinal symptoms were assessed using the Reflux Disease Questionnaire (RDQ).

RESULTS: Fifteen patients (1 M/14 F, mean age 42.2?±?11.0 years, mean weight 134.5?±?21.1 kg, mean BMI 46.4?±?6.0 kg/m2) participated in this study. Belching occurred significantly more often after LSG, with an increase in symptom score from 2.9?±?2.6 before to 5.3?±?3.5 3 months after LSG (p?=?0.04). The total number of gastric belches increased from 29.7?±?11.7 before to 59.5?±?38.3/24 h 3 months after LSG (p?=?0.03). The total number of supragastric belches did not change after LSG. The number of swallows decreased from 746.9?±?302.4 before to 555.7?±?172.5 3 months after the procedure (p?=?0.03). The number of air swallows tended to decrease (p?=?0.08). Esophageal acid exposure increased significantly, from 3.7?±?2.9 % before to 12.6?±?10.5 % after LSG (p?=?0.01).

CONCLUSION: Subjectively (as reported by patients) and objectively (as measured by impedance monitoring), an increase in gastric belches is seen after LSG, while the number of (air) swallows tends to decrease after the procedure and the incidence of supragastric belches remains constant. The altered anatomy as well as increased gastroesophageal reflux after LSG may play a role in the increase of belching.

impactfactor: 3.346

Schoon EJ (Erik)

Multimodality endoscopic eradication for neoplastic Barrett oesophagus: results of an European multicentre study (EURO-II)

Phoa KN, Pouw RE, Bisschops R, Pech O, Ragunath K, Weusten BL, Schumacher B, Rembacken B, Meining A, Messmann H, Schoon EJ*, Gossner L, Mannath J, Seldenrijk CA, Visser M, Lerut T, Seewald S, Ten Kate FJ, Ell C, Neuhaus H, Bergman JJ

Gut. 2016 Apr;65(4):555-62. Epub 2015 Mar 2

OBJECTIVE: Focal endoscopic resection (ER) followed by radiofrequency ablation (RFA) safely and effectively eradicates Barrett's oesophagus (BO) containing high-grade dysplasia (HGD) and/or early cancer (EC) in smaller studies with limited follow-up. Herein, we report long-term outcomes of combined ER and RFA for BO (HGD and/or EC) from a single-arm multicentre interventional study.

DESIGN: In 13 European centres, patients with BO=12 cm with HGD and/or EC on 2 separate endoscopies were eligible for inclusion. Visible lesions (<2 cm length; <50% circumference)

were removed with ER, followed by serial RFA every 3 months (max 5 sessions). Follow-up endoscopy was scheduled at 6 months after the first negative post-treatment endoscopic control and annually thereafter. Outcomes: complete eradication of neoplasia (CE-neo) and intestinal metaplasia (CE-IM); durability of CE-neo and CE-IM (once achieved) during follow-up. Biopsy and resection specimens underwent centralised pathology review.

RESULTS: 132 patients with median BO length C3M6 were included. After entry-ER in 119 patients (90%) and a median of 3 RFA (IQR 3-4) treatments, CE-neo was achieved in 121/132 (92%) and CE-IM in 115/132 patients (87%), per intention-to-treat analysis. Per-protocol analysis, CE-neo and CE-IM were achieved in 98% and 93%, respectively. After a median of 27 months following the first negative post-treatment endoscopic control, neoplasia and IM recurred in 4% and 8%, respectively. Mild-to-moderate adverse events occurred in 25 patients (19%); all managed conservatively or endoscopically.

CONCLUSIONS: In patients with early Barrett's neoplasia, intensive multimodality endotherapy consisting of ER combined with RFA is safe and highly effective, and the treatment effect appears to be durable during mid-term follow-up.

impactfactor: 14.921

Stiphout SH van (Stephan)

Crystallization in the waterjet channel in colonoscopes due to simethicone

van Stiphout SH*, Laros IF*, van Wezel RA*, Gilissen LP*

Endoscopy. 2016 0;48(S 01):E394-E395

geen abstract beschikbaar

impactfactor: 5.634

Strijbos D (Denise)

Antibacterial gauzes are effective in preventing infections after percutaneous endoscopic gastrostomy placement: a retrospective analysis

Strijbos D*, Schoon EJ*, Curvers W*, Friederich P*, Flink HJ*, Stronkhorst A*, Gilissen LP*

Eur J Gastroenterol Hepatol. 2016 Mar;28(3):297-304

OBJECTIVES: The most common complication after percutaneous endoscopic gastrostomy (PEG) placement is peristomal wound infection (up to 40% without antibiotic prophylaxis). Single-dose parenteral prophylactic antibiotics as advised by current guidelines decrease the infection rate to 9-15%. We assume a prolonged effect of local antibiotic treatment with antibacterial gauzes. This study is the first to describe the effect of antibacterial gauzes in preventing infections in PEG without the use of antibiotics.

METHODS: A retrospective data analysis was carried out of all patients with PEG insertion between January 2009 and October 2014 in the Catharina Hospital Eindhoven. Data include placement and the period of the first 2 weeks after PEG placement, and long-term follow-up. All patients received a locally applied antibacterial gauze polyhexamethylene biguanide immediately following PEG insertion for 3 days. No other antibiotics were administered. The main outcomes were wound infection, peritonitis, and necrotizing fasciitis; secondary outcomes included other complications.

RESULTS: A total of 331 patients with only antibacterial gauzes were analyzed. The total number of infections 2 weeks after PEG insertion was 9.4%, including 8.2% minor and 1.2% major infections (peritonitis). No wound infection-related mortality or bacterial resistance was found. Costs are five times lower than antibiotics, and gauzes are more practical and patient friendly for use.

CONCLUSION: Retrospectively, antibacterial gauzes are at least comparable with literature data on parenteral antibiotics in preventing peristomal wound infection after PEG placement, with an infection rate of 9.4%. Rates of other complications found in this study were comparable with current literature data.

impactfactor: 2.093

Stronkhorst A (Arnold)

Antibacterial gauzes are effective in preventing infections after percutaneous endoscopic gastrostomy placement: a retrospective analysis

Strijbos D*, Schoon EJ*, Curvers W*, Friederich P*, Flink HJ*, Stronkhorst A*, Gilissen LP*

Eur J Gastroenterol Hepatol. 2016 Mar;28(3):297-304

Voor abstract zie: Maag-darm-leverziekten - Strijbos D

impactfactor: 2.093

Wlazlo N (Nick)

Between analyser differences in chloride measurements and thus anion gap cause different interpretations of the acid-base balance

Geerts N*, Wlazlo N*, Scharnhorst V*

Clin Chem Lab Med. 2016 Mar;54(3):e81-4

Geen Abstract beschikbaar

impactfactor: 3.017

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Medische Psychologie

Boonman J (Jacko)

The effectiveness of neurofeedback on cognitive functioning in patients with Alzheimer's disease: Preliminary results

Luijmes RE*, Pouwels S*, Boonman J*

Neurophysiol Clin. 2016 Jun;46(3):179-87. Epub 2016 Jun 30

Voor abstract zie: *Medische Psychologie - Luijmes RE*

impactfactor: *1.479*

Luijmes RE (Robin)

Clinical importance of smiling in patients with a peripheral facial palsy

Pouwels S*, Beurskens CH, Luijmes RE*, Ingels KJJ

Plast Reconstr Aesthet Surg. 2016 Sep;69(9):1305-6

geen abstract beschikbaar

impactfactor: *1.743*

Luijmes RE (Robin)

The effectiveness of neurofeedback on cognitive functioning in patients with Alzheimer's disease: Preliminary results

Luijmes RE*, Pouwels S*, Boonman J*

Neurophysiol Clin. 2016 Jun;46(3):179-87. Epub 2016 Jun 30

OBJECTIVES: Alzheimer's disease (AD) is the most common form of dementia. In quantified EEG (qEEG), the AD patients have a greater amount of theta activity compared with normal elderly individuals. Little is known about the effect of neurofeedback in patients with dementia. The objective of this study was to examine whether neurofeedback has a positive effect on cognitive performance in patients with AD.

METHODS: Ten patients with qEEG meeting criteria for AD received neurofeedback training. Participants were aged between 61 and 90 years. All patients underwent the CAMCOG test designed to assess cognitive functioning pre- and post-treatment.

RESULTS: The individual results, analyzed with a reliable change index (RCI), showed that patients who received neurofeedback treatment had stable cognitive functions. These patients showed improvement in memory after neurofeedback and other cognitive functions were stable. In addition, an improvement was observed in recall of information and recognition.

CONCLUSION: Patients with AD who received neurofeedback treatment had stable or improved cognitive performance. Future research should focus on the design of high quality randomized controlled trials to assess whether neurofeedback has a place in the treatment of AD.

impactfactor: *1.479*

Maas-van Schaaijk NM (Nienke)

Implementation of quality of life monitoring in Dutch routine care of adolescents with type 1 diabetes: appreciated but difficult

Eilander M, de Wit M, Rotteveel J, Maas-van Schaaijk N*, Roeleveld-Versteegh A*, Snoek F

Pediatr Diabetes. 2016 Mar;17(2):112-9. Epub 2015 Jan 7

OBJECTIVE: Monitoring quality of life (QoL) improves well-being and care satisfaction of adolescents with type 1 diabetes. We set out to evaluate the implementation of the program DAWN (Diabetes Attitudes Wishes and Needs) MIND-Youth (Monitoring Individual Needs in Young People With Diabetes) (DM-Y), in which Dutch adolescents' QoL is assessed with the

MIND Youth Questionnaire (MY-Q) and its outcomes are discussed. Successful implementation of DM-Y warrants close study of experienced barriers and facilitators as experienced by diabetes care teams as well as adolescents and parents.
METHODS: The study was conducted in 11 self-selected Dutch pediatric diabetes clinics. A mixed methods approach was used. Ten diabetes teams (26 members) were interviewed; 36 team members, 29 adolescents, and 66 parents completed an online survey.
RESULTS: Two of 10 teams successfully implemented DM-Y. Whereas 92% of teams valued DM-Y as a useful addition to routine care, most clinics were not able to continue because of logistical problems (lack of time and manpower). Still, all teams had the ambition to make DM-Y integral part of routine care in the nearby future. Seventy-nine percentage of the parents and 41% of the adolescents appreciated the usage of MY-Q, same percentage of adolescents neutral.
CONCLUSIONS: DM-Y is highly appreciated by teams, as well as adolescents and parents, but for most clinics it is difficult to implement. More effort should be paid to resolve logistic problems in order to facilitate dissemination of DM-Y in care nationwide

impactfactor: 3.488

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Mondziekten en Kaakchirurgie

Pijpe J (Justin)

The clinical value of membranes in bone augmentation procedures in oral implantology: A systematic review of randomised controlled trials

Jonker BP, Roeloffs MW, Wolvius EB, Pijpe J*

Eur J Oral Implantol. 2016;9(4):335-365

PURPOSE: To determine the clinical value of membranes in bone augmentation procedures such as ridge augmentation with simultaneous (one-stage) and delayed (two-stage) implant placement, sinus augmentation surgery, ridge preservation and immediate implant placement.

MATERIALS AND METHODS: In April 2016, Embase, Medline (Ovid-SP), Cochrane Central, Web of Science and PubMed (as supplied by the publisher) were searched. There were no restrictions regarding language or publication date. Randomised controlled trials that reported membranes in bone augmentation procedures with a minimum follow-up period of 6 months after implant loading or that described geometrical changes of the bone graft at re-entry were included. Membrane placement had to be the only variable in the procedure. Outcomes were implant failure, complications, horizontal bone gain and resorption, graft resorption, defect height reduction, marginal bone loss around implants, aesthetic results and patient satisfaction. The results were pooled using fixed-effect models with mean differences (MDs) for continuous outcomes and odds ratios (ORs) for dichotomous outcomes.

RESULTS: After screening the titles and abstracts of 1843 papers, 32 potentially eligible articles were selected. Seventeen articles involving 10 trials were included in this review. These studies presented outcome data for 355 patients. Seven trials were considered to be at a high risk of bias, two at a low risk of bias and one at an unclear risk of bias. Insufficient evidence was found to determine whether there were differences in implant failure rates, marginal bone level changes, aesthetic results or patient satisfaction. For one-stage ridge augmentation (two trials; n = 52), there was evidence of more horizontal bone gain (MD: 0.84 mm, 95% CI: 0.46 to 1.21, P < 0.00001; two trials), defect height reduction (MD: 18.36%, 95% CI: 10.23 to 26.50, P < 0.00001; two trials), and prevention of graft resorption (P = 0.004; one trial) in favour of the membrane-covered group, although substantial heterogeneity was found for horizontal bone gain (Chi2; P = 0.05, I2=74%). There was insufficient evidence to determine whether any differences exist in two-stage ridge augmentation (three trials; n = 81), sinus augmentation (one trial; n = 104) and ridge preservation (one trial; n = 20). For immediate implant placement (three trials; n = 98), there was evidence of an increased defect height reduction in favour of the membrane-covered groups (MD: 6.25%, 95% CI: 1.67 to 10.82, P = 0.007; two trials), although with substantial heterogeneity (Chi2; P = 0.03, I2 = 79%). More complications were observed when a membrane was used (OR: 2.52, 95% CI: 1.07 to 5.93, P = 0.03; three trials).

CONCLUSIONS: There is insufficient evidence regarding the effects of membranes on bone augmentation procedures to support any definitive conclusions. Only 10 studies were included; they had limited sample sizes and short follow-up periods, and the majority were at a high risk of bias. However, no difference in implant failure was found, and the possible clinical value is still unknown, as long-term clinical parameters such as marginal bone loss, aesthetic results and patient satisfaction have been insufficiently studied.

impactfactor: 2.328

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Neurologie

Hanse MC (Monique)

Identification of Patients with Recurrent Glioblastoma Who May Benefit from Combined Bevacizumab and CCNU Therapy: A Report from the BELOB Trial

Erdem-Eraslan L, van den Bent MJ, Hoogstrate Y, Naz-Khan H, Stubbs A, van der Spek P, Böttcher R, Gao Y, de Wit M, Taal W, Oosterkamp HM, Walenkamp A, Beerepoot LV, Hanse MC*, Buter J, Honkoop AH, van der Holt B, Vernhout RM, Sillevis Smitt PA, Kros JM, French PJ

Cancer Res. 2016 Feb 1;76(3):525-34. Epub 2016 Jan 13

The results from the randomized phase II BELOB trial provided evidence for a potential benefit of bevacizumab (beva), a humanized monoclonal antibody against circulating VEGF-A, when added to CCNU chemotherapy in patients with recurrent glioblastoma (GBM). In this study, we performed gene expression profiling (DASL and RNA-seq) of formalin-fixed, paraffin-embedded tumor material from participants of the BELOB trial to identify patients with recurrent GBM who benefitted most from beva+CCNU treatment. We demonstrate that tumors assigned to the IGS-18 or "classical" subtype and treated with beva+CCNU showed a significant benefit in progression-free survival and a trend toward benefit in overall survival, whereas other subtypes did not exhibit such benefit. In particular, expression of FMO4 and OSBPL3 was associated with treatment response. Importantly, the improved outcome in the beva+CCNU treatment arm was not explained by an uneven distribution of prognostically favorable subtypes as all molecular glioma subtypes were evenly distributed along the different study arms. The RNA-seq analysis also highlighted genetic alterations, including mutations, gene fusions, and copy number changes, within this well-defined cohort of tumors that may serve as useful predictive or prognostic biomarkers of patient outcome. Further validation of the identified molecular markers may enable the future stratification of recurrent GBM patients into appropriate treatment regimens.

impactfactor: 8.556

Keizer K (Koos)

CT angiography and CT perfusion improve prediction of infarct volume in patients with anterior circulation stroke

van Seeters T, Biessels GJ, Kappelle LJ, van der Schaaf IC, Dankbaar JW, Horsch AD, Niesten JM, Luitse M, Majoie CB, Vos JA, Schonewille WJ, van Walderveen MA, Wermer MJ, Duijm LE, Keizer K*, Bot JC, Visser MC, van der Lugt A, Dippel DW, Kesselring FO, Hofmeijer J, Lycklama À Nijeholt GJ, Boiten J, van Rooij WJ, de Kort PL, Roos YB, Meijer FJ, Pleiter CC, Mali WP, van der Graaf Y, Velthuis BK; Dutch acute stroke study (DUST) investigators.

Neuroradiology. 2016 Apr;58(4):327-37. Epub 2016 Jan 14

INTRODUCTION: We investigated whether baseline CT angiography (CTA) and CT perfusion (CTP) in acute ischemic stroke could improve prediction of infarct presence and infarct volume on follow-up imaging.

METHODS: We analyzed 906 patients with suspected anterior circulation stroke from the prospective multicenter Dutch acute stroke study (DUST). All patients underwent baseline non-contrast CT, CTA, and CTP and follow-up non-contrast CT/MRI after 3 days. Multivariable regression models were developed including patient characteristics and non-contrast CT, and subsequently, CTA and CTP measures were added. The increase in area under the curve (AUC) and R (2) was assessed to determine the additional value of CTA and CTP.

RESULTS: At follow-up, 612 patients (67.5%) had a detectable infarct on CT/MRI; median infarct volume was 14.8 mL (interquartile range (IQR) 2.8-69.6). Regarding infarct presence, the AUC of 0.82 (95% confidence interval (CI) 0.79-0.85) for patient characteristics and non-contrast CT was improved with addition of CTA measures (AUC 0.85 (95% CI 0.82-0.87); p?<?0.001) and was even higher after addition of CTP measures (AUC 0.89 (95% CI 0.87-0.91); p?<?0.001) and combined CTA/CTP measures (AUC 0.89 (95% CI 0.87-0.91); p?<?0.001). For infarct volume, adding combined CTA/CTP measures (R (2)?=?0.58) was superior to patient characteristics and non-contrast CT alone (R (2)?=?0.44) and to addition of CTA alone (R (2)?=?0.55) or CTP alone (R (2)?=?0.54; all p?<?0.001).

CONCLUSION: In the acute stage, CTA and CTP have additional value over patient characteristics and non-contrast CT for predicting infarct presence and infarct volume on follow-up imaging. These findings could be applied for patient selection in future trials on ischemic stroke treatment.

impactfactor: 2.274

Keizer K (Koos)

Time to Reperfusion and Treatment Effect for Acute Ischemic Stroke: A Randomized Clinical Trial

Fransen PS, Berkhemer OA, Lingsma HF, Beumer D, van den Berg LA, Yoo AJ, Schonewille WJ, Vos JA, Nederkoorn PJ, Wermer MJ, van Walderveen MA, Staals J, Hofmeijer J, van Oostayen JA, Lycklama À Nijeholt GJ, Boiten J, Brouwer PA, Emmer BJ, de Bruijn SF, van Dijk LC, Kappelle LJ, Lo RH, van Dijk EJ, de Vries J, de Kort PL, van den Berg JS, van Hasselt BA, Aerden LA, Dallinga RJ, Visser MC, Bot JC, Vroomen PC, Eshghi O, Schreuder TH, Heijboer RJ, Keizer K*, Tielbeek AV*, den Hertog HM, Gerrits DG, van den Berg-Vos RM, Karas GB, Steyerberg EW, Flach HZ, Marquering HA, Sprengers ME, Jenniskens SF, Beenen LF, van den Berg R, Koudstaal PJ, van Zwam WH, Roos YB, van Oostenbrugge RJ, Majoie CB, van der Lugt A, Dippel DW; Multicenter Randomized Clinical Trial of Endovascular Treatment of Acute Ischemic Stroke in the Netherlands Investigators.

JAMA Neurol. 2016 Feb;73(2):190-6

IMPORTANCE: Intra-arterial treatment (IAT) for acute ischemic stroke caused by intracranial arterial occlusion leads to improved functional outcome in patients treated within 6 hours after onset. The influence of treatment delay on treatment effect is not yet known.

OBJECTIVE: To evaluate the influence of time from stroke onset to the start of treatment and from stroke onset to reperfusion on the effect of IAT.

DESIGN, SETTING, AND PARTICIPANTS: The Multicenter Randomized Clinical Trial of Endovascular Treatment of Acute Ischemic Stroke in the Netherlands (MR CLEAN) was a multicenter, randomized clinical open-label trial of IAT vs no IAT in 500 patients. The time to the start of treatment was defined as the time from onset of symptoms to groin puncture (TOG). The time from onset of treatment to reperfusion (TOR) was defined as the time to reopening the vessel occlusion or the end of the procedure in cases for which reperfusion was not achieved. Data were collected from December 3, 2010, to June 3, 2014, and analyzed (intention to treat) from July 1, 2014, to September 19, 2015.

MAIN OUTCOMES AND MEASURES:

Main outcome was the modified Rankin Scale (mRS) score for functional outcome (range, 0 [no symptoms] to 6 [death]). Multiple ordinal logistic regression analysis estimated the effect of treatment and tested for the interaction of time to randomization, TOG, and TOR with treatment. The effect of treatment as a risk difference on reaching independence (mRS

score, 0-2) was computed as a function of TOG and TOR. Calculations were adjusted for age, National Institutes of Health Stroke Scale score, previous stroke, atrial fibrillation, diabetes mellitus, and intracranial arterial terminus occlusion.

RESULTS: Among 500 patients (58% male; median age, 67 years), the median TOG was 260 (interquartile range [IQR], 210-311) minutes; median TOR, 340 (IQR, 274-395) minutes. An interaction between TOR and treatment (P =?.04) existed, but not between TOG and treatment (P =?.26). The adjusted risk difference (95% CI) was 25.9% (8.3%-44.4%) when reperfusion was reached at 3 hours, 18.8% (6.6%-32.6%) at 4 hours, and 6.7% (0.4%-14.5%) at 6 hours.

CONCLUSION AND RELEVANCE: For every hour of reperfusion delay, the initially large benefit of IAT decreases; the absolute risk difference for a good outcome is reduced by 6% per hour of delay. Patients with acute ischemic stroke require immediate diagnostic workup and IAT in case of intracranial arterial vessel occlusion.

impactfactor: 8.230

Nuenen BF van (Bart)

Intact working memory in non-manifesting LRRK2 carriers - an fMRI study

Thaler A, Helmich RC, Or-Borichev A, van Nuenen BF*, Shapira-Lichter I, Gurevich T, Orr-Urtreger A, Marder K, Bressman S, Bloem BR, Giladi N, Hendler T, Mirelman A

Eur J Neurosci. 2016 Jan;43(1):106-12. Epub 2015 Dec 18

Cognitive impairments are prevalent in patients with Parkinson's disease. Mutations in the leucine rich repeat kinase 2 (LRRK2) gene are the most common cause of genetic Parkinsonism. Non-manifesting carriers of the G2019S mutation in the LRRK2 gene were found to have lower executive functions as measured by the Stroop task. This exploratory study aimed to assess whether the cognitive impairment in non-manifesting carriers is specific for executive functions or includes other cognitive domains such as working memory. We recruited 77 non-manifesting first degree relatives of Parkinson's disease patients (38 carriers). A block-design, fMRI N-back task, with 0-back, 2-back and 3-back conditions was used in order to assess working memory. Participants were well matched on the Montreal Cognitive Assessment, University of Pennsylvania Smell Identification Test, Unified Parkinson's Disease Rating Scale part III, digit span, age, gender and Beck Depression Inventory. The task achieved the overall expected effect in both groups with longer reaction times and lower accuracy rates with increasing task demands. However, no whole-brain or region-of-interest between-group differences were found on any of the task conditions. These results indicate that non-manifesting carriers of the G2019S mutation in the LRRK2 gene have a specific cognitive profile with executive functions, as assessed by the Stroop task, demonstrating significant impairment while working memory, as assessed with the N-back task, remaining relatively intact. These finding shed light on the pre-motor cognitive changes in this unique "at risk" population and should enable more focused cognitive assessments of these cohorts.

impactfactor: 2.975

Vles JS

Small Fiber Neuropathy in Children: Two Case Reports Illustrating the Importance of Recognition

Hoeijmakers JG, Faber CG, Miedema CJ*, Merkies IS, Vles JS*

Pediatrics. 2016 Oct;138(4). pii: e20161215

Voor abstract zie: Kindergeneeskunde – Miedema CJ

impactfactor: 5.196

* *= Werkzaam in het Catharina Ziekenhuis*

Nucleaire Geneeskunde

Huysmans DA (Dyde)

124I PET/CT to predict the outcome of blind 131I treatment in patients with biochemical recurrence of differentiated thyroid cancer; results of a multicenter diagnostic cohort study (THYROPET)

Kist JW, de Keizer B, van der Vlies M, Brouwers AH, van der Zant FM, Hermsen R, Huysmans D*, Stokkel MP, Hoekstra OS, Vogel WV

J Nucl Med. 2016 May;57(5):701-7. Epub 2015 Nov 25

Patients with suspected recurrence from differentiated thyroid carcinoma (DTC), based on an increased thyroglobulin (Tg) level and negative neck ultrasound (US), pose a clinical dilemma. Since standard imaging has a low yield identifying potential recurrence, 'blind' 131I treatment is often applied. However, a tumor-negative 131I whole body scintigraphy (WBS) prevails in 38-50% of patients. We performed a prospective multicenter observational cohort study to test the hypothesis that 124I PET/CT can identify the patients with a tumor negative post-therapy 131I WBS.

METHODS: Our study was designed to include 100 patients with detectable Tg and a negative neck US, who were planned for 'blind' 131I therapy. All patients underwent 124I PET/CT after rhTSH stimulation. Subsequently, after 4-6 weeks of thyroid hormone withdrawal patients were treated with 5.5-7.4 GBq 131I, followed by WBS a week later. The primary endpoint was the number of 131I therapies that could have been omitted using the predicted outcome of the 124I PET/CT, operationalized as the concordance of tumor detection by 124I PET/CT, using post-131I therapy WBS as the reference test. The study would be terminated if three patients had a negative 124I PET/CT and a positive post-therapy 131I.

RESULTS: After inclusion of 17 patients we terminated the study preliminarily, as the stopping rule had been met. Median Tg-level at 131I therapy was 28 µg/L (interquartile range: 129). Eight post-therapy WBS were negative (47%), all of which correctly predicted by negative 124I PET/CT. Nine post-therapy WBS showed iodine avid tumor, of which four also had positive 124I PET/CT findings. Sensitivity, specificity, negative predictive value and positive predictive value of 124I PET/CT were 44% (CI 14-79%), 100% (CI 63-100%), 62% (CI 32-86%) and 100% (CI 40-100%), respectively. Implementation of 124I PET in this setting would have led to 47% (8/17) less futile 131I treatments, but 29% of patients (5/17) would have been denied potentially effective therapy.

CONCLUSION: In patients with biochemical evidence of recurrent DTC and a tumor negative neck ultrasound, the high false negative rate of rhTSH stimulated 124I PET/CT as implemented in this study precludes its use as a scouting procedure to prevent futile blind 131I therapy.

impactfactor: 5.849

Wyndaele D (Dirk)

Radium-223 dichloride in the treatment of metastatic prostate cancer

D.N.J. Wyndaele, MD*; R. van der Voort, PhD; E.L. Koldewijn, MD, PhD*; L.J.C. van Warmerdam, MD, PhD*

Tijdschr Nucl Geneesk 2016; 38(4):1655-1659

The recent introduction of a number of effective therapies has greatly improved the treatment of metastatic castrationresistant prostate cancer. In addition to chemotherapy and hormonal therapy, also treatment with the radiopharmaceutical radium-223 dichloride contributed to this improvement, especially in patients with symptomatic bone metastases. Consequently, nuclear medicine physicians are increasingly involved in the multidisciplinary management of metastatic

castrationresistant prostate cancer. This review article summarises the results of key clinical studies and provides an overview of the current treatment options in metastatic prostate cancer, with a special focus on radium-223.

impactfactor: --

* = *Werkzaam in het Catharina Ziekenhuis*

Onderwijs & Onderzoek

Houterman S (Saskia)

A 15-Year Single-Center Experience of Endovascular Repair for Elective and Ruptured Abdominal Aortic Aneurysms

Broos PP*, 't Mannetje YW*, Stokmans RA*, Houterman S*, Corte G, Cuypers PW*, Teijink JA*, van Sambeek MR*

J Endovasc Ther. 2016 Aug;23(4):566-73. Epub 2016 May 13

Voor abstract zie: *Chirurgie - Broos PP*
impactfactor: *3.128*

Houterman S (Saskia)

Challenging the knowledge base and skillset for providing surgical consent by orthopedic and plastic surgeons in the Netherlands: an identified area of improvement in patient safety

Leclercq WK, Sloot S, Keulers BJ, Houterman S*, Legemaate J, Veerman M, Thomas L, Scheltinga MR

Patient Saf Surg. 2016 Oct 22;10:21. eCollection 2016

BACKGROUND: Successfully completing a surgical informed consent process is an important element of the preoperative consult. A previous study of Dutch general surgeons demonstrated that the implementation of SIC did not meet acceptable standards. However, the quality of the SIC process in the orthopedic surgical or plastic surgical arena is unknown.

METHODS: Following ethical approval, an online survey investigating specifics of surgical informed consent was performed among members of the Dutch Scientific Association of Orthopedic Surgeons and the Dutch Society for Plastic Surgery.

RESULTS: A total of 335 responses from a majority of departments of orthopedic (86 %) and plastic surgery (78 %) were eligible for analysis. Scores on knowledge were poor as only 50 % recognized the three basic elements of surgical informed consent (competence, exchange of information and consent). The orthopedic group used more tools in the surgical informed consent process, such as instruction movies and websites or specialized nursing staff, compared to plastic surgery (orthopedic: 31-50 % vs. plastic: 6-30 %, p?=?0.05-?<?0.001). In contrast, surgical informed consent forms were used more frequently by the plastic surgical group (orthopedic 21 % vs. plastic:42 % p?<?0.001). Control of the efficacy of the surgical informed consent process was low, 36 % in both groups. One in every seven orthopedic or plastic surgeons was faced with an official surgical informed consent-related complaint in the previous five years.

CONCLUSIONS: Similar to general surgeons, Dutch orthopedic and plastic surgeons demonstrate poor knowledge and skills regarding surgical informed consent. Increased awareness, better training and use of modern tools including standard forms and online software programs will improve the SIC process and will optimize patient care.

impactfactor: *--*

Houterman S (Saskia)

Development of the A-DIVA Scale: A Clinical Predictive Scale to Identify Difficult Intravenous Access in Adult Patients Based on Clinical Observations

van Loon FH*, Puijn LA*, Houterman S*, Bouwman AR*

Medicine (Baltimore). 2016 Apr;95(16):e3428

Voor abstract zie: *Anesthesiologie - Loon FH van*
impactfactor: *1.206*

Houterman S (Saskia)

Mid-term haemodynamic and clinical results after aortic valve replacement using the Freedom Solo stentless bioprosthesis versus the Carpentier Edwards Perimount stented bioprosthesis

van der Straaten EP*, Rademakers LM*, van Straten AH*, Houterman S*, Tan ME*, Soliman Hamad MA*

Eur J Cardiothorac Surg. 2016 Apr;49(4):1174-80. Epub 2015 Jul 29

Voor abstract zie: *Cardiothoracale Chirurgie- Straaten EP van der*
impactfactor: *2.803*

Houterman S (Saskia)

Psychotropic Drug Prescription and the Risk of Falls in Nursing Home Residents

Cox CA*, van Jaarsveld HJ, Houterman S*, van der Stegen JC, Wasylewicz AT*, Grouls RJ*, van der Linden CM*

J Am Med Dir Assoc. 2016 Dec 1;17(12):1089-1093. Epub 2016 Sep 16

Voor abstract zie: *Geriatrie - Cox C*
impactfactor: *6.616*

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Operatiekamers

Stepaniak PS (Pieter)

Constraints on the scheduling of urgent and emergency surgical cases: Surgeon, equipment, and anesthesiologist availability

Pieter S. Stepaniak*, Franklin Dexter

Perioperative Care and Operating Room Management, 2016; 3 : 6–11

Introduction: Computer simulation is used to evaluate use of dedicated operating rooms (ORs) for urgent and emergency (add-on) surgical cases versus the same amount of OR time interspersed throughout the day in many ORs and/or at the end of the day. Simulations are limited because of absence of prior quantitative data on the relative incidence of surgeon, equipment, and anesthesiologist availability as a constraint influencing when cases start.

Methods: We prospectively obtained a series of 6 weeks (N=30 days) of add-on cases announced (submitted) in the period 7:30 a.m. through 4:59 p.m. Monday through Friday at an 18 OR Level 1 trauma teaching hospital in The Netherlands. When an urgent or emergency case (add-on) was announced, the OR scheduler evaluated which of the ORs were both clinically suitable for the procedure and either currently open or would be open within 30 min.

Results: The ratio of mean cases per day with surgeon versus OR availability as a constraint was 96.1% (99% confidence interval 64.6% to 127.8%). The ratio can be considered (in simulation) as equaling 1.0 (P=0.83, mean 1.02±0.10 [SE], median 1.00, N=30 days). The ratios of mean cases each day with equipment as constraint (e.g., C-arm) versus OR availability as a constraint was negligible (mean 0.03±0.02, median 0.00, P<0.0001 relative to 1.0). Lack of an anesthesiologist limiting when the add-on case starts could be neglected entirely (P<0.0001, ratios mean 0.00±0.00, median 0.00).

Conclusions: Surgeon and OR availability can be equally (1:1) limiting when cases start. Before individual hospitals apply current papers that are based on ORs being constraints, some hospitals may need also to consider surgeon availability as limiting.

impactfactor: --

Stepaniak PS (Pieter)

Implementing enhanced recovery after bariatric surgery protocol: a retrospective study

Proczko M, Kaska L, Twardowski P, Stepaniak P*

J Anesth. 2016 Feb;30(1):170-3. Epub 2015 Oct 24

While the demand for bariatric surgery is increasing, hospital capacity remains limited. The ERABS (Enhanced Recovery After Bariatric Surgery) protocol has been implemented in a number of bariatric centers. We retrospectively compared the operating room logistics and postoperative complications between pre-ERABS and ERABS periods in an academic hospital. The primary endpoint was the length of stay in hospital. The secondary endpoints were turnover times-the time required for preparing the operating room for the next case, induction time (from induction of anesthesia until a patient is ready for surgery), surgical time (duration of surgery), procedure time (duration of stay in the operating room), and the incidence of re-admissions, re-operations and complications during admission and within 30 days after surgery. Of a total of 374 patients, 228 and 146 received surgery following the pre-ERABS and ERABS protocols, respectively. The length of hospital stay was significantly shortened from 3.7 (95 % confidence interval [CI] 3.1-4.7) days to 2.1 (95 % CI 1.6-2.6) days (P < 0.001). Procedure (surgical) times were shortened by 15 (7) min and 12 (5) min for gastric bypass and gastric sleeve surgery, respectively (P < 0.001 for both), by introducing the ERABS protocol. Induction times were reduced from 15.2 (95 % CI 14.3-16.1) min to 12.5 (95 % CI 11.7-13.3) min (P < 0.001).Turnover times were shortened significantly from 38 (95 % CI

44-32) min to 11 (95 % CI 8-14) min. The incidence of re-operations, re-admissions and complications did not change.

impactfactor: 1.343

Stepaniak PS (Pieter)

Results of Implementing an Enhanced Recovery After Bariatric Surgery (ERABS) Protocol

Mannaerts GH, van Mil SR, Stepaniak PS*, Dunkelgrün M, de Quelerij M, Verbrugge SJ, Zengerink HF, Biter LU

Obes Surg. 2016 Feb;26(2):303-12

BACKGROUND: With the increasing prevalence of morbid obesity and healthcare costs in general, interest is shown in safe, efficient, and cost-effective bariatric care. This study describes an Enhanced Recovery After Bariatric Surgery (ERABS) protocol and the results of implementing such protocol on procedural times, length of stay in hospital (LOS), and the number of complications, such as readmissions and reoperations.

METHODS: Results of implementing an ERABS protocol were analyzed by comparing a cohort treated according to the ERABS protocol (2012-2014) with a cohort treated before implementing ERABS (2010-2012). Differences between both cohorts were analyzed using independent t tests and chi-squared tests.

RESULTS: A total of 1.967 patients (mean age 43.3 years, 80% female) underwent a primary bariatric procedure between 2010 and 2014, of which 1.313 procedures were performed after implementation of ERABS. A significant decrease of procedural times and a significantly decreased LOS, from 3.2 to 2.0 nights (p?<?0.001), were seen after implementation of ERABS. Significantly more complications were seen post-ERABS (16.1 vs. 20.7%, p?=?0.013), although no significant differences were seen in the number of major complications.

CONCLUSION: Implementation of ERABS can result in shorter procedural times and a decreased LOS, which may lead to more efficient and cost-effective bariatric care. The increase in complications was possibly due to better registration of complications. The main goal of an ERABS protocol is efficient, safe, and evidence-based bariatric care, which can be achieved by standardization of the total process.

impactfactor: 3.346

Stepaniak PS (Pieter)

The RAQET Study: the Effect of Eating a Popsicle Directly After Bariatric Surgery on the Quality of Patient Recovery; a Randomised Controlled Trial

Sjaak Pouwels*, Pieter S. Stepaniak*, Marc P. Buise* R. Arthur Bouwman*
Simon W. Nienhuijs*

Indian Journal of Surgery 2016 , pp 1–7

Voor abstract zie: Chirurgie - Pouwels S
impactfactor: 0.353

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Orthopedie

Baat P de (Paul)

Complications After Percutaneous Pedicle Screw Fixation for the Treatment of Unstable Spinal Metastases

Versteeg AL, Verlaan JJ, de Baat P*, Jiya TU, Stadhouder A, Diekerhof CH, van Solinge GB, Oner FC

Ann Surg Oncol. 2016 Jul;23(7):2343-9. Epub 2016 Mar 10

BACKGROUND: Complications after surgical stabilization for the treatment of unstable spinal metastases are common. Less invasive surgical (LIS) procedures are potentially associated with a lower risk of complications; however, little is known regarding the complications after LIS procedures for the treatment of spinal metastases. Our primary objective was to determine the characteristics and rate of complications after percutaneous pedicle screw fixation (PPSF) for the treatment of mechanically unstable spinal metastases. The secondary objective was to identify factors associated with the occurrence of complications and survival.

METHODS: A retrospective multicenter cohort study of patients who underwent PPSF between 2009 and 2014 for the treatment of unstable spinal metastases was performed. Patient data pertaining to demographics, diagnosis, treatment, neurologic function, complications, and survival were collected.

RESULTS: A total of 101 patients were identified, 45 men (45 %) and 56 women (55 %) with a mean age of 60.3 ± 11.2 years. The median operating time was 122 (range 57-325) minutes with a median blood loss of 100 ml (based on 41 subjects). Eighty-eight patients (87 %) ambulated within the first 3 days after surgery. An overall median survival of 11.0 (range 0-70) months was observed, with 79 % of the patients alive at 3 months after treatment. Eighteen patients experienced a total of 30 complications; nonsurgical complications were the most commonly encountered. Prolonged operating time was independently associated with an increased risk of complications.

CONCLUSIONS: A complication rate of 18 % was found after PPSF for unstable spinal metastases. Potential advantages of less invasive treatment are limited blood loss and high early ambulation rate.

impactfactor: 3.655

Baat P de (Paul)

The (putative) pathological impact of fibromyalgia on the orofacial system - De (vermeende) pathologische invloed van fibromyalgie op het orofaciale systeem

de Baat C, Gerritsen AE, de Baat-Ananta M, de Baat P*

Ned Tijdschr Tandheelkd. 2016 Mar;123(3):148-53

Fibromyalgia is a syndrome without apparent aetiology, characterised by pain, fatigue, memory disorders, mood disorders, and sleep disturbances. The syndrome is considered to be one of the rheumatic diseases. In the general population, the prevalence varies from 2 to 8%, with a women-men ratio of about 2:1. Suspicion of fibromyalgia arises when a patient has pain at multiple locations that cannot be attributed to trauma or inflammation, and when the pain is especially musculoskeletal. Primary management includes explaining the syndrome and offering reassurance. In addition, one can also attempt to increase mobility, avoid overloading, and improve physical condition and the level of activity, and to activate problem-solving skills. Subsequently, behavioural therapy and pharmacotherapy may be considered. The most important manifestations of fibromyalgia in the orofacial and occlusal system seem to be temporomandibular dysfunction, headache, xerostomia, hyposalivation, burning mouth and dysgeusia.

However, with respect to the precise relation of fibromyalgia with the orofacial system, much needs to be elucidated.

impactfactor: --

Besselaar AT (Arnold)

A neonatal supracondylar humeral fracture resembling a plexus injury - Van plexuslaesie naar supracondylaire humerusfractuur

Verhees RA*, Besselaar AT*, van Aken MH*, Jansen FH*, Pelleboer RA*

Ned Tijdschr Geneeskd. 2016;160:A9427

Voor abstract zie: *Kindergeneeskunde - Verhees RA*

impactfactor: --

Besselaar AT (Arnold)

Determination of dabigatran and rivaroxaban by ultra-performance liquid chromatography-tandem mass spectrometry and coagulation assays after major orthopaedic surgery

Schellings MW, Boonen K, Schmitz EM, Jonkers F*, van den Heuvel DJ*, Besselaar A*, Hendriks JG, van de Kerkhof D*

Thromb Res. 2016 Mar;139:128-34. Epub 2016 Jan 18

Voor abstract zie: *Orthopedie - Jonkers F*

impactfactor: *2.320*

Bos J (Janneke)

Outcomes in chevron osteotomy for Hallux Valgus in a large cohort

van Groningen B, van der Steen MC*, Reijman M, Bos J*, Hendriks JG*

Foot (Edinb). 2016 Dec;29:18-24

Voor abstract zie: *Orthopedie - Steen MC van der*

impactfactor: --

Hendriks JG (Hans)

Outcomes in chevron osteotomy for Hallux Valgus in a large cohort

van Groningen B, van der Steen MC*, Reijman M, Bos J*, Hendriks JG*

Foot (Edinb). 2016 Dec;29:18-24

Voor abstract zie: *Orthopedie - Steen MC van der*

impactfactor: --

Jonkers F (Frank)

Determination of dabigatran and rivaroxaban by ultra-performance liquid chromatography-tandem mass spectrometry and coagulation assays after major orthopaedic surgery

Schellings MW, Boonen K, Schmitz EM, Jonkers F*, van den Heuvel DJ*, Besselaar A*, Hendriks JG, van de Kerkhof D*

Thromb Res. 2016 Mar;139:128-34. Epub 2016 Jan 18

Major orthopaedic surgery is associated with an increased risk of venous thromboembolism. Direct oral anticoagulants (DOACs) are recommended as thromboprophylactic agents after orthopaedic surgery. Although routine monitoring of DOACs in general is not required, measuring DOAC concentration may be necessary in clinical settings. The effects of DOACs

on routine coagulation assays in spiked material are studied extensively, however, few data are available on DOAC concentration in patients after major orthopaedic surgery. We measured trough and peak DOAC concentrations with UPLC-MS/MS and routine coagulation tests in a prospective study including 40 patients receiving thromboprophylactic treatment with dabigatran 220mg od and 40 patients receiving rivaroxaban 10mg od after major orthopaedic surgery. For rivaroxaban, the median trough concentration with UPLC-MS/MS was 17.1ng/mL and median peak concentration was 149ng/mL. The anti-Xa assay displayed a good correlation, but a positive bias in comparison to the reference method. Furthermore, trough levels were mostly below the LOD of the anti-Xa assay. For dabigatran, the median trough concentration with UPLC-MS/MS was 12.1ng/mL, and median peak level was 80.8ng/mL. A positive bias was found when results from coagulation assays were compared to UPLC-MS/MS data. However, the addition of glucuronidated metabolites to dabigatran concentration UPLC-MS/MS data generally resolved most of this bias. Age was found to have a significant influence on dabigatran pharmacokinetics, irrespective of kidney function, whereas no effect of age was found during rivaroxaban treatment. In both treatment groups, female subjects displayed faster pharmacokinetics in comparison to male subjects, although not reaching significance. We conclude that UPLC-MS/MS is the method of choice to measure trough concentrations of DOACs in patients after orthopaedic surgery. Current coagulation assays are not suited for this purpose. We found large heterogeneity in both peak and trough concentrations of DOACs, and showed that pharmacokinetics of novel oral anticoagulants may be influenced by age and gender. Whether patients with high or low trough concentrations are at increased risk for bleeding or thromboembolic events respectively remains to be established.

impactfactor: *2.320*

Kempen R van (Robin)

Bilateral periprosthetic joint infection with Ureaplasma urealyticum in an immunocompromised patient

Roerdink RL, Douw CM, Leenders AC, Dekker RS, Dietvorst M, Oosterbos CJ*, Roerdink HT, Kempen RW*, Bom LP

Infection. 2016 Dec;44(6):807-810. Epub 2016 May 28

Voor abstract zie: *Orthopedie - Oosterbos CW*

impactfactor: *2.294*

Oosterbos CJ (Kees)

Bilateral periprosthetic joint infection with Ureaplasma urealyticum in an immunocompromised patient

Roerdink RL, Douw CM, Leenders AC, Dekker RS, Dietvorst M, Oosterbos CJ*, Roerdink HT, Kempen RW*, Bom LP

Infection. 2016 Dec;44(6):807-810. Epub 2016 May 28

This case study discusses how we diagnosed and treated a patient with a late haematogenous bilateral periprosthetic joint infection (PJI) after total knee arthroplasties caused by Ureaplasma urealyticum. This has never been reported before. We will discuss how we used a PET-CT, synovial fluid cell count, and synovial fluid analysis by 16S rRNA gene sequencing to diagnose this PJI. We will also discuss how we treated this patient to obtain full recovery.

impactfactor: *2.294*

Steen MC van der (Marieke)

Outcomes in chevron osteotomy for Hallux Valgus in a large cohort

van Groningen B, van der Steen MC*, Reijman M, Bos J, Hendriks JG*

Foot (Edinb). 2016 Dec;29:18-24

Clinical and radiological related outcomes have been reported for Chevron osteotomy as correction for mild to moderate hallux valgus, but only for relatively small patient series. Moreover, evaluation of the patient's point of view has mostly been conducted by means of more physician-based outcome measures. The goal of this study was to evaluate the effect of the Chevron osteotomy for hallux valgus on patients' daily lives using the Foot and Ankle Outcome Score (FAOS) as a validated and a hallux valgus specific patient reported outcome measure (PROM). Secondary outcome measures were radiological correction, complication rate, and re-operations. All 438 Chevron procedures (336 patients), at two surgical hospital sites in the period between January 2010 and October 2014, were retrospectively evaluated with a follow-up of at least 6 months. Patients were invited to fill in a cross-sectional online FAOS. For the FAOS, a total response of 60% was achieved. The FAOS ranged between 71 and 88 with a follow-up of on average 36 months. Patients with an undercorrection of their hallux valgus (11.6% of the procedures) scored significantly lower on three subscales of the FAOS (range between 61 and 77 versus 72-84). Patients who had a reoperation (12.6% of the procedures) also scored significantly lower on four subscales: 58-100 versus 73-89. Postoperative radiological measurements improved significantly with a mean difference of 6.1 (5.9; 6.4) degrees for the intermetatarsal angle and 13.7 (13.0; 14.5) degrees for the hallux valgus angle. In this large study cohort, Chevron osteotomy for hallux valgus offers good PROM scores on FAOS. These scores were significantly lower in patients with radiological undercorrection or with a reoperation. Results of the FAOS appear to modulate with physician based outcomes and therapeutic incidents. Improvement of outcome may therefore well be possible by increased attention on these surgical details.

impactfactor: --

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Pamm

Beek M van (Mike)

Impact of Age at Primary Breast Cancer on Contralateral Breast Cancer Risk in BRCA1/2 Mutation Carriers

van den Broek AJ, van 't Veer LJ, Hooning MJ, Cornelissen S, Broeks A, Rutgers EJ, Smit VT, Cornelisse CJ, van Beek M, Janssen-Heijnen ML, Seynaeve C, Westenend PJ, Jobsen JJ, Siesling S, Tollenaar RA, van Leeuwen FE, Schmidt MK

J Clin Oncol. 2016 Feb 10;34(5):409-18. Epub 2015 Dec 23

PURPOSE: To determine prospectively overall and age-specific estimates of contralateral breast cancer (CBC) risk for young patients with breast cancer with or without BRCA1/2 mutations.

PATIENTS AND METHODS: A cohort of 6,294 patients with invasive breast cancer diagnosed under 50 years of age and treated between 1970 and 2003 in 10 Dutch centers was tested for the most prevalent BRCA1/2 mutations. We report absolute risks and hazard ratios within the cohort from competing risk analyses.

RESULTS: After a median follow-up of 12.5 years, 578 CBCs were observed in our study population. CBC risk for BRCA1 and BRCA2 mutation carriers was two to three times higher than for noncarriers (hazard ratios, 3.31 [95% CI, 2.41 to 4.55; P < .001] and 2.17 [95% CI,1.22 to 3.85; P = .01], respectively). Ten-year cumulative CBC risks were 21.1% (95% CI, 15.4 to 27.4) for BRCA1, 10.8% (95% CI, 4.7 to 19.6) for BRCA2 mutation carriers and 5.1% (95% CI, 4.5 to 5.7) for noncarriers. Age at diagnosis of the first breast cancer was a significant predictor of CBC risk in BRCA1/2 mutation carriers only; those diagnosed before age 41 years had a 10-year cumulative CBC risk of 23.9% (BRCA1: 25.5%; BRCA2: 17.2%) compared with 12.6% (BRCA1: 15.6%; BRCA2: 7.2%) for those 41 to 49 years of age (P = .02); our review of published studies showed ranges of 24% to 31% before age 40 years (BRCA1: 24% to 32%; BRCA2:17% to 29%) and 8% to 21% after 40 years (BRCA1: 11% to 52%; BRCA2: 7% to 18%), respectively.

CONCLUSION: Age at first breast cancer is a strong risk factor for cumulative CBC risk in BRCA1/2 mutation carriers. Considering the available evidence, age-specific risk estimates should be included in counseling.

impactfactor: 20.982

Bree A van (Anita)

Automatic Digital Analysis of Chromogenic Media for Vancomycin-Resistant-Enterococcus Screens Using Copan WASPLab

Faron ML, Buchan BW, Coon C, Liebregts T, van Bree A*, Jansz AR*, Soucy G, Korver J, Ledeboer NA

J Clin Microbiol. 2016 Oct;54(10):2464-9

Vancomycin-resistant enterococci (VRE) are an important cause of health care-acquired infections (HAIs). Studies have shown that active surveillance of high-risk patients for VRE colonization can aid in reducing HAIs; however, these screens generate a significant cost to the laboratory and health care system. Digital imaging capable of differentiating negative and "nonnegative" chromogenic agar can reduce the labor cost of these screens and potentially improve patient care. In this study, we evaluated the performance of the WASPLab Chromogenic Detection Module (CDM) (Copan, Brescia, Italy) software to analyze VRE chromogenic agar and compared the results to technologist plate reading. Specimens collected at 3 laboratories were cultured using the WASPLab CDM and plated to each site's standard-of-care chromogenic media, which included Colorex VRE (BioMed Diagnostics, White City, OR) or Oxoid VRE (Oxoid, Basingstoke, United Kingdom). Digital images were

scored using the CDM software after 24 or 40 h of growth, and all manual reading was performed using digital images on a high-definition (HD) monitor. In total, 104,730 specimens were enrolled and automation agreed with manual analysis for 90.1% of all specimens tested, with sensitivity and specificity of 100% and 89.5%, respectively. Automation results were discordant for 10,348 specimens, and all discordant images were reviewed by a laboratory supervisor or director. After a second review, 499 specimens were identified as representing missed positive cultures falsely called negative by the technologist, 1,616 were identified as containing borderline color results (negative result but with no package insert color visible), and 8,234 specimens were identified as containing colorimetric pigmentation due to residual matrix from the specimen or yeast (Candida). Overall, the CDM was accurate at identifying negative VRE plates, which comprised 84% (87,973) of the specimens in this study.

impactfactor: *3.631*

Huysentruyt CJ (Clement)

Intestinale tuberculose die zich presenteert als de ziekte van Crohn

Pijls PA*, Ammerlaan HS*, Nederend J*, Huysentruyt CJ*, Gilissen LP*, Friederich PF

Tijdschrift voor Infectieziekten, 2016;11:96-101

Voor abstract zie: *maag-darm-leverziekten - Pijls PA*

impactfactor: --

Jansz AR (Arjan)

Automated Scoring of Chromogenic Media for Detection of Methicillin-Resistant Staphylococcus aureus by Use of WASPLab Image Analysis Software

Faron ML, Buchan BW, Vismara C, Lacchini C, Bielli A, Gesu G, Liebregts T, van Bree A, Jansz A*, Soucy G, Korver J, Ledeboer NA

J Clin Microbiol. 2016 Mar;54(3):620-4. Epub 2015 Dec 30

Recently, systems have been developed to create total laboratory automation for clinical microbiology. These systems allow for the automation of specimen processing, specimen incubation, and imaging of bacterial growth. In this study, we used the WASPLab to validate software that discriminates and segregates positive and negative chromogenic methicillin-resistant Staphylococcus aureus (MRSA) plates by recognition of pigmented colonies. A total of 57,690 swabs submitted for MRSA screening were enrolled in the study. Four sites enrolled specimens following their standard of care. Chromogenic agar used at these sites included MRSASelect (Bio-Rad Laboratories, Redmond, WA), chromID MRSA (bioMérieux, Marcy l'Etoile, France), and CHROMagar MRSA (BD Diagnostics, Sparks, MD). Specimens were plated and incubated using the WASPLab. The digital camera took images at 0 and 16 to 24 h and the WASPLab software determined the presence of positive colonies based on a hue, saturation, and value (HSV) score. If the HSV score fell within a defined threshold, the plate was called positive. The performance of the digital analysis was compared to manual reading. Overall, the digital software had a sensitivity of 100% and a specificity of 90.7% with the specificity ranging between 90.0 and 96.0 across all sites. The results were similar using the three different agars with a sensitivity of 100% and specificity ranging between 90.7 and 92.4%. These data demonstrate that automated digital analysis can be used to accurately sort positive from negative chromogenic agar cultures regardless of the pigmentation produced.

impactfactor: *3.631*

Klinkhamer PJ (Paul)

MMP-14 and CD44 in Epithelial-to-Mesenchymal Transition (EMT) in ovarian cancer

Vos MC, Hollemans E, Ezendam N, Feijen H, Boll D*, Pijlman B, van der Putten H*, Klinkhamer P*, van Kuppevelt TH, van der Wurff AA, Massuger LF

J Ovarian Res. 2016 Sep 2;9(1):53

Voor abstract zie: *Gynaecologie - Boll D*
impactfactor: *2.502*

Lijnschoten G van (Ineke)

Clinicopathological characteristics predict lymph node metastases in ypT0-2 rectal cancer after chemoradiotherapy

Bosch SL, Vermeer TA*, West NP, Swellengrebel HA, Marijnen CA, Cats A, Verhoef C, van Lijnschoten I*, de Wilt JH, Rutten HJ*, Nagtegaal ID

Histopathology. 2016 Nov;69(5):839-848. Epub 2016 Jul 26

Voor abstract zie: *Chirurgie - Vermeer TA*
impactfactor: *3.425*

Overdevest IT (Ilse)

Prolonged colonisation with Escherichia coli O25:ST131 versus other extended-spectrum beta-lactamase-producing E. coli in a long-term care facility with high endemic level of rectal colonisation, the Netherlands, 2013 to 2014

Overdevest I*, Haverkate M, Veenemans J, Hendriks Y, Verhulst C, Mulders A, Couprie W, Bootsma M, Johnson J, Kluytmans J

Euro Surveill. 2016 Oct 20;21(42)

The extended-spectrum beta-lactamase (ESBL)-producing Escherichia coli clone ST131 (ESBL-ST131) has spread in healthcare settings worldwide. The reasons for its successful spread are unknown, but might include more effective transmission and/or longer persistence. We evaluated the colonisation dynamics of ESBL-producing E. coli (ESBL-EC), including ESBL-ST131, in a long-term care facility (LTCF) with an unusually high prevalence of rectal ESBL-EC colonisation. During a 14-month period, rectal or faecal samples were obtained from 296 residents during six repetitive prevalence surveys, using ESBL-selective culture. Transmission rates, reproduction numbers, and durations of colonisation were compared for ESBL-ST131 vs other ESBL-EC. Furthermore, the likely time required for ESBL-ST131 to disappear from the LTCF was estimated. Over time, the endemic level of ESBL-ST131 remained elevated whereas other ESBL-EC returned to low-level prevalence, despite comparable transmission rates. Survival analysis showed a half-life of 13 months for ESBL-ST131 carriage, vs two to three months for other ESBL-EC (p?<?0.001). Per-admission reproduction numbers were 0.66 for ESBL-ST131 vs 0.56 for other ESBL-EC, predicting a mean time of three to four years for ESBL-ST131 to disappear from the LTCF under current conditions. Transmission rates were comparable for ESBL-ST131 vs other ESBL-EC. Prolonged rectal carriage explained the persistence of ESBL-ST131 in the LTCF.

impactfactor: *5.983*

Wegdam-Blans MC (Marjolijn)

Genetic variation in TLR10 is not associated with chronic Q fever, despite the inhibitory effect of TLR10 on Coxiella burnetii-induced cytokines in vitro

Ammerdorffer A, Stappers MH, Oosting M, Schoffelen T, Hagenaars JC, Bleeker-Rovers CP, Wegdam-Blans MC*, Wever PC, Roest HJ, van de Vosse E, Netea MG, Sprong T, Joosten LA

Cytokine. 2016 Jan;77:196-202. Epub 2015 Sep 11

Coxiella burnetii, the causative agent of Q fever, is recognized by TLR2. TLR10 can act as an inhibitory receptor on TLR2-derived immune responses. Therefore, we investigated the role of TLR10 on C. burnetii-induced cytokine production and assessed whether genetic polymorphisms in TLR10 influences the development of chronic Q fever. HEK293 cells, transfected with TLR2, TLR10 or TLR2/TLR10, and human peripheral blood mononuclear cells (PBMCs) in the presence of anti-TLR10, were stimulated with C. burnetii. In both assays, the absence of TLR10 resulted in increased cytokine responses after C. burnetii stimulation. In addition, the effect of single nucleotide polymorphisms (SNPs) in TLR10 was examined in healthy volunteers whose PBMCs were stimulated with C. burnetii Nine Mile or the Dutch outbreak isolate C. burnetii 3262. Individuals bearing SNPs in TLR10 displayed increased cytokine production upon C. burnetii 3262 stimulation. Furthermore, 139 chronic Q fever patients and 220 controls were genotyped for TLR10 N241H, I775V and I369L. None of these polymorphisms were associated with increased susceptibility to chronic Q fever. In conclusion, TLR10 has an inhibitory effect on in vitro cytokine production by C. burnetii, but the presence of TLR10 polymorphisms does not lead to an increased risk of developing chronic Q fever.

impactfactor: 2.940

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Plastische Chirurgie

Boer H de (Herman)

Open Reduction of the Dislocated Pisiform Bone

Letsch MT*, de Boer HL*, Nguyen DT*

J Hand Microsurg. 2016 Dec;8(3):183-184. Epub 2016 Sep 8

Geen abstract beschikbaar

impactfactor: --

Dijk MM van (Martine)

Complications of Lower Body Lift Surgery in Postbariatric Patients

Poodt IG*, van Dijk MM*, Klein S*, Hoogbergen MM*

Plast Reconstr Surg Glob Open. 2016 Sep 29;4(9):e1030. eCollection 2016

Voor abstract zie: *Plastische Chirurgie - Poodt IG*

impactfactor: --

Haj M (Mona)

Long-term outcome of the cheek advancement flap, a report of 41 cases

van Onna MA, Haj M*, Smit JM*, Hoogbergen MM*

J Plast Surg Hand Surg. 2016 Dec;50(6):354-358. Epub 2016 May 31

BACKGROUND: Due to incidental occurrence of ectropion as a late complication of cheek advancement flaps, this study investigated the long-term effects of these flaps for post-Mohs' reconstruction of the cheek aesthetic.

METHODS: All the patients who underwent a cheek advancement flap in the Catharina Hospital Eindhoven between January 2006 and January 2013 where included and assessed by means of a retrospective chart review and a survey about the long-term outcome and patient satisfaction.

RESULTS: A retrospective chart review was performed on all 54 eligible patients, and 41 (76%) of these patients participated in the study. The mean follow-up was 3.5 years (SD?=?2.0, range?=?1-7 years). Early complications were ectropion (6%), infection (2%), dog-ears (1%), haematoma (4%), and distal tip necrosis (2%). Late outcome and complications were sensory neuropathies (41%), late ectropion (7%), hypopigmentation of scars (29%), contractures (27%), and abnormal hair distribution (17%). Patients rated their reconstruction as good or excellent in 87% of cases.

CONCLUSIONS: The cheek advancement flap is a suitable technique for reconstruction of large cheek skin defects after excision of skin malignancies. However, patients should be informed that long-term complications, including ectropion, can occur. Additional follow-up might lead to an early detection of these late effects.

impactfactor: *0.791*

Hoogbergen MM (Maarten)

Complications of Lower Body Lift Surgery in Postbariatric Patients

Poodt IG*, van Dijk MM*, Klein S*, Hoogbergen MM*

Plast Reconstr Surg Glob Open. 2016 Sep 29;4(9):e1030. eCollection 2016

Voor abstract zie: *Plastische Chirurgie - Poodt IG*

impactfactor: --

Hoogbergen MM (Maarten)

Long-term outcome of the cheek advancement flap, a report of 41 cases

van Onna MA, Haj M*, Smit JM*, Hoogbergen MM*

J Plast Surg Hand Surg. 2016 Dec;50(6):354-358. Epub 2016 May 31

Voor abstract zie: *Plastische Chirurgie - Haj M*

impactfactor: *0.791*

Kerver AL (Anton)

Anatomical study of the dorsal cutaneous branch of the ulnar nerve (DCBUN) and its clinical relevance in TFCC repair

Poublon AR, Kraan G, Lau SP, Kerver AL*, Kleinrensink GJ J Plast Reconstr Aesthet Surg. 2016 Jul;69(7):983-7. Epub 2016 Feb 15

The aim of this study was to define a detailed description of the dorsal cutaneous branch of the ulnar nerve (DCBUN) in particular in relevance to triangular fibrocartilage complex (TFCC) repairs. In 20 formalin-embalmed arms, the DCBUN was dissected, and the course in each arm was mapped and categorized. Furthermore, the point of origin of the DCBUN, that is, from the ulnar nerve in association with the ulnar styloid process, was defined. Finally, the distance between the ulnar styloid process and the branching of the radial-ulnar communicating branch (RUCB) and the first branch of DCBUN was measured. The distance between the origin of the DCBUN in relation to the ulnar styloid process ranges from 55 to 111 mm (mean 87 mm; STD 14 mm). The distance between the ulnar styloid process and the RUCB ranges from 1 to 54 mm (mean 19 mm; STD 12 mm). Finally, the distance between the ulnar styloid process and the lateral distal branch shows a range of -6 to 28 mm (mean 10 mm; STD 9 mm). In general, three dorsal digital nerves (medial, intermediate, and lateral branch), run at the dorsal ulnar aspect of the hand. The RUCB is often less abundant and shows a large amount of variation. No complete safe zone could be identified; the course of the DCBUN suggests a longitudinal incision for the 6R portal. In fact, a more dorsal incision also prevents damage to the main branches of the DCBUN.

impactfactor: *1.743*

Klein S (Steven)

Complications of Lower Body Lift Surgery in Postbariatric Patients

Poodt IG*, van Dijk MM*, Klein S*, Hoogbergen MM*

Plast Reconstr Surg Glob Open. 2016 Sep 29;4(9):e1030. eCollection 2016.

Voor abstract zie: *Plastische Chirurgie - Poodt IG*

impactfactor: *--*

Letsch MT (Maarten)

Open Reduction of the Dislocated Pisiform Bone

Letsch MT*, de Boer HL*, Nguyen DT*

J Hand Microsurg. 2016 Dec;8(3):183-184. Epub 2016 Sep 8

Geen abstract beschikbaar

impactfactor: *--*

Nguyen, DT (Duy Thuan)

Open Reduction of the Dislocated Pisiform Bone

Letsch MT*, de Boer HL*, Nguyen DT*

J Hand Microsurg. 2016 Dec;8(3):183-184. Epub 2016 Sep 8

Geen abstract beschikbaar

impactfactor: --

Poodt IG (Ingrid)

Complications of Lower Body Lift Surgery in Postbariatric Patients

Poodt IG*, van Dijk MM*, Klein S*, Hoogbergen MM*

Plast Reconstr Surg Glob Open. 2016 Sep 29;4(9):e1030. eCollection 2016

There is an exponential rise of patients with massive weight loss because of bariatric surgery or lifestyle changes. The result is an increase of patients with folds of redundant skin that may cause physical and psychological problems. The lower body lift is a procedure to correct deformities in the abdomen, mons, flanks, lateral thighs, and buttocks. Complication rates are quite high and could negatively affect the positive outcomes. The purpose of this study is to assess complication rates and to identify predictors of complications to optimize outcomes for patients after lower body lift surgery.

METHODS: A retrospective analysis of 100 patients who underwent a lower body lift procedure was performed. The patients were reviewed for complications, demographic data, comorbidities, smoking, highest lifetime body mass index, body mass index before lower body lift surgery, percentage of excess weight loss, and amount of tissue excised.

RESULTS: The overall complication rate was 78%. Twenty-two percent of the patients had major complications and 56% had minor complications. There is a linear relationship between body mass index before lower body lift surgery and complications (P = 0.03). The percentage of excess weight loss (odds ratio [OR] 0.97; 95% confidence interval [CI] 0.92-1.00), highest lifetime body mass index (OR 1.08; 95% CI 1.01-1.15), body mass index before lower body lift surgery (OR 1.17; 95% CI 1.02-1.33), and smoking (OR 7.74; CI 0.98-61.16) are significantly associated with the development of complications.

CONCLUSIONS: This study emphasizes the importance of a good weight status before surgery and cessation of smoking to minimize the risk of complications.

impactfactor: --

Smit JM (Jeroen)

Long-term outcome of the cheek advancement flap, a report of 41 cases

van Onna MA, Haj M*, Smit JM*, Hoogbergen MM*

J Plast Surg Hand Surg. 2016 Dec;50(6):354-358. Epub 2016 May 31

Voor abstract zie: *Plastische Chirurgie - Haj M*

impactfactor: *0.791*

* = *Werkzaam in het Catharina Ziekenhuis*

Radiologie

Bommel RM van (Rob)

Characteristics and prognosis of interval cancers after biennial screen-film or full-field digital screening mammography

Weber RJ*, van Bommel RM*, Louwman MW, Nederend J*, Voogd AC, Jansen FH*, Tjan-Heijnen VC, Duijm LE

Breast Cancer Res Treat. 2016 Aug;158(3):471-83. Epub 2016 Jul 8

Voor abstract zie: *Radiologie - Weber R*

impactfactor: *4.085*

Bommel RM van (Rob)

Type and Extent of Surgery for Screen-Detected and Interval Cancers at Blinded Versus Nonblinded Double-Reading in a Population-Based Screening Mammography Program

Weber RJ*, van Bommel RM*, Setz-Pels W*, Voogd AC, Klompenhouwer EG*, Louwman MW, Strobbe LJ, Tjan-Heijnen VC, Duijm LE

Ann Surg Oncol. 2016 Nov;23(12):3822-3830. Epub 2016 Jun 22

Voor abstract zie: *Radiologie - Weber RJ*

impactfactor: *3.655*

Bosch HC van den (Harrie)

Model-Based Characterization of the Transpulmonary Circulation by Dynamic Contrast-Enhanced Magnetic Resonance Imaging in Heart Failure and Healthy Volunteers

Saporito S, Herold IH*, Houthuizen P*, van Den Bosch HC*, Den Boer JA, Korsten HH*, van Assen HC, Mischi M

Invest Radiol. 2016 Nov;51(11):720-727

Voor abstract zie: *Anesthesiologie - Herold IH*

impactfactor: *4.887*

Bosch HC van den (Harrie)

Prognostic value of cardiovascular MR imaging biomarkers on outcome in peripheral arterial disease: a 6-year follow-up pilot study

van den Bosch H*, Westenberg J, Setz-Pels W*, Kersten E*, Tielbeek A*, Duijm L, Post J*, Teijink J*, de Roos A

Int J Cardiovasc Imaging. 2016 Aug;32(8):1281-8. Epub 2016 May 21

The objective of this pilot study was to explore the prognostic value of outcome of cardiovascular magnetic resonance (MR) imaging biomarkers in patients with symptomatic peripheral arterial disease (PAD) in comparison with traditional risk factors. Forty-two consecutive patients (mean age 64?±?11 years, 22 men) referred for contrast-enhanced MR angiography (CE-MRA) were included. At baseline a comprehensive cardiovascular MRI examination was performed: CE-MRA of the infra-renal aorta and run-off vessels, carotid vessel wall imaging, cardiac cine imaging and aortic pulse wave velocity (PWV) assessment. Patients were categorized for outcome at 72?±?5 months follow-up. One patient was lost to follow-up. Over 6 years, six patients had died (mortality rate 14.6?%), six patients (14.6?%) had experienced a cardiac event and three patients (7.3?%) a cerebral event. The mean MRA stenosis class (i.e., average stenosis severity visually scored over 27 standardized segments) was a significant independent predictor for all-cause mortality (beta 3.0?±?standard error 1.3, p?=?0.02). Descending aorta PWV, age and diabetes mellitus were interrelated with stenosis severity but none of these were significant independent predictors. For cardiac morbidity, left ventricular ejection fraction (LVEF) and mean MRA stenosis class were

associated, but only LVEF was a significant independent predictor (beta -0.14?±?0.05, p?=?0.005). Diabetes mellitus was a significant independent predictor for cerebral morbidity (beta 2.8?±?1.3, p?=?0.03). Significant independent predictors for outcome in PAD are mean MRA stenosis class for all-cause mortality, LVEF for cardiac morbidity and diabetes mellitus for cerebral morbidity.

impactfactor: *1.880*

Bosch HC van den (Harrie)

Pulmonary transit time measurement by contrast-enhanced ultrasound in left ventricular dyssynchrony

Herold IH*, Saporito S, Mischi M, van Assen HC, Bouwman RA*, de Lepper AG*, van den Bosch HC*, Korsten HH*, Houthuizen P*

Echo Res Pract. 2016 Jun;3(2):35-43. doi: 10.1530/ERP-16-0011. Epub 2016 May 16.

BACKGROUND: Pulmonary transit time (PTT) is an indirect measure of preload and left ventricular function, which can be estimated using the indicator dilution theory by contrast-enhanced ultrasound (CEUS). In this study, we first assessed the accuracy of PTT-CEUS by comparing it with dynamic contrast-enhanced magnetic resonance imaging (DCE-MRI). Secondly, we tested the hypothesis that PTT-CEUS correlates with the severity of heart failure, assessed by MRI and N-terminal pro-B-type natriuretic peptide (NT-proBNP).

METHODS AND RESULTS: Twenty patients referred to our hospital for cardiac resynchronization therapy (CRT) were enrolled. DCE-MRI, CEUS, and NT-proBNP measurements were performed within an hour. Mean transit time (MTT) was obtained by estimating the time evolution of indicator concentration within regions of interest drawn in the right and left ventricles in video loops of DCE-MRI and CEUS. PTT was estimated as the difference of the left and right ventricular MTT. Normalized PTT (nPTT) was obtained by multiplication of PTT with the heart rate. Mean PTT-CEUS was 10.5±2.4s and PTT-DCE-MRI was 10.4±2.0s (P=0.88). The correlations of PTT and nPTT by CEUS and DCE-MRI were strong; r=0.75 (P=0.0001) and r=0.76 (P=0.0001), respectively. Bland-Altman analysis revealed a bias of 0.1s for PTT. nPTT-CEUS correlated moderately with left ventricle volumes. The correlations for PTT-CEUS and nPTT-CEUS were moderate to strong with NT-proBNP; r=0.54 (P=0.022) and r=0.68 (P=0.002), respectively.

CONCLUSIONS: (n)PTT-CEUS showed strong agreement with that by DCE-MRI. Given the good correlation with NT-proBNP level, (n)PTT-CEUS may provide a novel, clinically feasible measure to quantify the severity of heart failure.

impactfactor: --

Daniels-Gooszen A (Alette)

Cyst of Nuck: The Importance of Histopathological Evaluation

Benali F*, Gooszen AD*, Wetzels C*, Piek JMJ*

Obstet Gynecol Int J, 2016; 5(2): 00152

Voor abstract zie: *Gynaecologie - Benali F*

impactfactor: --

Jansen FH (Frits)

A neonatal supracondylar humeral fracture resembling a plexus injury

Van plexuslaesie naar supracondylaire humerusfractuur

Verhees RA*, Besselaar AT*, van Aken MH*, Jansen FH*, Pelleboer RA*

Ned Tijdschr Geneeskd. 2016;160:A9427

Voor abstract zie: Kindergeneeskunde - Verhees RA

impactfactor: --

Jansen FH (Frits)

Characteristics and prognosis of interval cancers after biennial screen-film or full-field digital screening mammography

Weber RJ*, van Bommel RM*, Louwman MW, Nederend J*, Voogd AC, Jansen FH*, Tjan-Heijnen VC, Duijm LE

Breast Cancer Res Treat. 2016 Aug;158(3):471-83. Epub 2016 Jul 8

Voor abstract zie: *Radiologie - Weber R*

impactfactor: *4.085*

Kersten E (Erik)

Prognostic value of cardiovascular MR imaging biomarkers on outcome in peripheral arterial disease: a 6-year follow-up pilot study.

van den Bosch H*, Westenberg J, Setz-Pels W*, Kersten E*, Tielbeek A*, Duijm L, Post J*, Teijink J*, de Roos A

Int J Cardiovasc Imaging. 2016 Aug;32(8):1281-8. Epub 2016 May 21

Voor abstract zie: *Radiologie - Bosch H van den*

impactfactor: *1.880*

Klompenhouwer E (Lisa)

Type and Extent of Surgery for Screen-Detected and Interval Cancers at Blinded Versus Nonblinded Double-Reading in a Population-Based Screening Mammography

ProgramWeber RJ*, van Bommel RM*, Setz-Pels W*, Voogd AC, Klompenhouwer EG*, Louwman MW, Strobbe LJ, Tjan-Heijnen VC, Duijm LE

Ann Surg Oncol. 2016 Nov;23(12):3822-3830. Epub 2016 Jun 22

Voor abstract zie: *Radiologie - Weber RJ*

impactfactor: *3.655*

Lambrecht M (Marie)

Lungtech, a phase II EORTC trial of SBRT for centrally located lung tumours - a clinical physics perspective

Lambrecht M*, Melidis C, Sonke JJ, Adebahr S, Boellaard R, Verheij M, Guckenberger M, Nestle U, Hurkmans C*

Radiat Oncol. 2016 Jan 20;11:7

BACKGROUND: The EORTC has launched a phase II trial to assess safety and efficacy of SBRT for centrally located NSCLC: The EORTC 22113-08113-Lungtech trial. Due to neighbouring critical structures, these tumours remain challenging to treat. To guarantee accordance to protocol and treatment safety, an RTQA procedure has been implemented within the frame of the EORTC RTQA levels. These levels are here expanded to include innovative tools beyond protocol compliance verification: the actual dose delivered to each patient will be estimated and linked to trial outcomes to enable better understanding of dose related response and toxicity.

METHOD: For trial participation, institutions must provide a completed facility questionnaire and beam output audit results. To insure ability to comply with protocol specifications a benchmark case is sent to all centres. After approval, institutions are allowed to recruit patients. Nonetheless, each treatment plan will be prospectively reviewed insuring trial compliance consistency over time. As new features, patient's CBCT images and applied positioning corrections will be saved for dose recalculation on patient's daily geometry. To assess RTQA along the treatment chain, institutions will be visited once during the time of the trial. Over the course of this visit, end-to-end tests will be performed using the 008ACIRS-breathing platform with two separate bodies. The first body carries EBT3 films and

an ionization chamber. The other body newly developed for PET- CT evaluation is fillable with a solution of high activity. 3D or 4D PET-CT and 4D-CT scanning techniques will be evaluated to assess the impact of motion artefacts on target volume accuracy. Finally, a dosimetric evaluation in static and dynamic conditions will be performed.

DISCUSSION: Previous data on mediastinal toxicity are scarce and source of cautiousness for setting-up SBRT treatments for centrally located NSCLC. Thanks to the combination of documented patient related outcomes and CBCT based dose recalculation we expect to provide improved models for dose response and dose related toxicity.

CONCLUSION: We have developed a comprehensive RTQA model for trials involving modern radiotherapy. These procedures could also serve as examples of extended RTQA for future radiotherapy trials involving quantitative use of PET and tumour motion.

impactfactor: *2.466*

Nederend J (Joost)

Characteristics and prognosis of interval cancers after biennial screen-film or full-field digital screening mammography

Weber RJ*, van Bommel RM*, Louwman MW, Nederend J*, Voogd AC, Jansen FH*, Tjan-Heijnen VC, Duijm LE

Breast Cancer Res Treat. 2016 Aug;158(3):471-83. Epub 2016 Jul 8

Voor abstract zie: *Radiologie - Weber R*

impactfactor: *4.085*

Nederend J (Joost)

Intestinale tuberculose die zich presenteert als de ziekte van Crohn

Pijls PA*, Ammerlaan HS*, Nederend J*, Huysentruyt CJ*, Gilissen LP*, Friederich PF*

Tijdschrift voor Infectieziekten, 2016;11:96-101

Voor abstract zie: *maag-darm-leverziekten - Pijls PA*

impactfactor: *--*

Nerad E (Elias)

Diagnostic Accuracy of CT for Local Staging of Colon Cancer: A Systematic Review and Meta-Analysis

Nerad E*, Lahaye MJ, Maas M, Nelemans P, Bakers FC, Beets GL, Beets-Tan RG AJR Am J Roentgenol. 2016 Nov;207(5):984-995. Epub 2016 Aug 4

OBJECTIVE: The purpose of this article is to determine the accuracy of CT in the detection of tumor invasion beyond the bowel wall and nodal involvement of colon carcinomas. A literature search was performed to identify studies describing the accuracy of CT in the staging of colon carcinomas. Studies including rectal carcinomas that were inseparable from colon carcinomas were excluded. Publication bias was explored by using a Deeks funnel plot asymmetry test. A hierarchic summary ROC model was used to construct a summary ROC curve and to calculate summary estimates of sensitivity, specificity, and diagnostic odds ratios (ORs).

CONCLUSION: On the basis of a total of 13 studies, pooled sensitivity, specificity, and diagnostic ORs for detection of tumor invasion beyond the bowel wall (T3-T4) were 90% (95% CI, 83-95%), 69% (95% CI, 62-75%), and 20.6 (95% CI, 10.2-41.5), respectively. For detection of tumor invasion depth of 5 mm or greater (T3cd-T4), estimates from four studies were 77% (95% CI, 66-85%), 70% (95% CI, 53-83%), and 7.8 (95% CI, 4.2-14.2), respectively. For nodal involvement (N+), 16 studies were included with values of 71% (95% CI, 59-81%), 67% (95% CI, 46-83%), and 4.8 (95% CI, 2.5-9.4), respectively. Two studies using CT colonography were included with sensitivity and specificity of 97% (95% CI, 90-99%) and 81%

(95% CI, 65-91%), respectively, for detecting T3-T4 tumors. CT has good sensitivity for the detection of T3-T4 tumors, and evidence suggests that CT colonography increases its accuracy. Discriminating between T1-T3ab and T3cd-T4 cancer is challenging, but data were limited. CT has a low accuracy in detecting nodal involvement.

impactfactor: *2.660*

Setz-Pels W (Wikke)

Prognostic value of cardiovascular MR imaging biomarkers on outcome in peripheral arterial disease: a 6-year follow-up pilot study

van den Bosch H*, Westenberg J, Setz-Pels W*, Kersten E*, Tielbeek A*, Duijm L, Post J*, Teijink J*, de Roos A

Int J Cardiovasc Imaging. 2016 Aug;32(8):1281-8. Epub 2016 May 21

Voor abstract zie: *Radiologie - Bosch H van den*

impactfactor: *1.880*

Setz-Pels W (Wikke)

Type and Extent of Surgery for Screen-Detected and Interval Cancers at Blinded Versus Nonblinded Double-Reading in a Population-Based Screening Mammography Program Weber RJ*, van Bommel RM*, Setz-Pels W*, Voogd AC, Klompenhouwer EG*, Louwman MW, Strobbe LJ, Tjan-Heijnen VC, Duijm LE

Ann Surg Oncol. 2016 Nov;23(12):3822-3830. Epub 2016 Jun 22

Voor abstract zie: *Radiologie - Weber RJ*

impactfactor: *3.655*

Tielbeek AV (Xander)

Automated Entire Thrombus Density Measurements for Robust and Comprehensive Thrombus Characterization in Patients with Acute Ischemic Stroke

Santos EM, Niessen WJ, Yoo AJ, Berkhemer OA, Beenen LF, Majoie CB, Marquering HA; MR CLEAN investigators.: Collaborator: Tielbeek AV

PLoS One. 2016 Jan 14;11(1):e0145641. eCollection 2016

BACKGROUND AND PURPOSE: In acute ischemic stroke (AIS) management, CT-based thrombus density has been associated with treatment success. However, currently used thrombus measurements are prone to inter-observer variability and oversimplify the heterogeneous thrombus composition. Our aim was first to introduce an automated method to assess the entire thrombus density and then to compare the measured entire thrombus density with respect to current standard manual measurements.

MATERIALS AND METHOD: In 135 AIS patients, the density distribution of the entire thrombus was determined. Density distributions were described using medians, interquartile ranges (IQR), kurtosis, and skewedness. Differences between the median of entire thrombus measurements and commonly applied manual measurements using 3 regions of interest were determined using linear regression.

RESULTS: Density distributions varied considerably with medians ranging from 20.0 to 62.8 HU and IQRs ranging from 9.3 to 55.8 HU. The average median of the thrombus density distributions (43.5 ± 10.2 HU) was lower than the manual assessment (49.6 ± 8.0 HU) ($p<0.05$). The difference between manual measurements and median density of entire thrombus decreased with increasing density ($r = 0.64$; $p<0.05$), revealing relatively higher manual measurements for low density thrombi such that manual density measurement tend overestimates the real thrombus density.

CONCLUSIONS: Automatic measurements of the full thrombus expose a wide variety of thrombi density distribution, which is not grasped with currently used manual measurement.

Furthermore, discrimination of low and high density thrombi is improved with the automated method.

impactfactor: 3.057

Tielbeek AV (Xander)

Clot Burden Score on Baseline Computerized Tomographic Angiography and Intra-Arterial Treatment Effect in Acute Ischemic Stroke

Treurniet KM, Yoo AJ, Berkhemer OA, Lingsma HF, Boers AM, Fransen PS, Beumer D, van den Berg LA, Sprengers ME, Jenniskens SF, Lycklama À Nijeholt GJ, van Walderveen MA, Bot JC, Beenen LF, van den Berg R, van Zwam WH, van der Lugt A, van Oostenbrugge RJ, Dippel DW, Roos YB, Marquering HA, Majoie CB; MR CLEAN Investigators: Tielbeek AV

Stroke. 2016 Dec;47(12):2972-2978. Epub 2016 Nov 8

BACKGROUND AND PURPOSE: A high clot burden score (CBS) is associated with favorable outcome after intravenous treatment for acute ischemic stroke. The added benefit of intra-arterial treatment might be less in these patients. The aim of this exploratory post hoc analysis was to assess the relation of CBS with neurological improvement and endovascular treatment effect.

METHODS: For 499 of 500 patients in the MR CLEAN study (Multicenter Randomized Clinical Trial of Endovascular Treatment for Acute Ischemic Stroke in the Netherlands), the CBS was determined. Ordinal logistic regression models with and without main baseline prognostic variables were used to assess the association between CBS (continuous or dichotomized at CBS of 6) and a shift toward better outcome on the modified Rankin Scale. The model without main baseline prognostic variables only included treatment allocation and CBS. Models with and without a multiplicative interaction term of CBS and treatment were compared using the ?2 test to assess treatment effect modification by CBS.

RESULTS: Higher CBS was associated with a shift toward better outcome on the modified Rankin Scale; adjusted common odds ratio per point CBS was 1.12 (95% confidence interval, 1.04-1.20]. Dichotomized CBS had an adjusted common odds ratio of 1.67 (95% confidence interval, 1.12-2.51). Both effect estimates were slightly attenuated by adding baseline prognostic variables. The addition of the interaction terms did not significantly improve the fit of the models. There was a small and insignificant increase of intra-arterial treatment efficacy in the high CBS group.

CONCLUSIONS: A higher CBS is associated with improved outcome and may be used as a prognostic marker. We found no evidence that CBS modifies the effect of intra-arterial treatment.

impactfactor: 5.787

Tielbeek AV (Xander)

Collateral Status on Baseline Computed Tomographic Angiography and Intra-Arterial Treatment Effect in Patients With Proximal Anterior Circulation Stroke

Berkhemer OA, Jansen IG, Beumer D, Fransen PS, van den Berg LA, Yoo AJ, Lingsma HF, Sprengers ME, Jenniskens SF, Lycklama À Nijeholt GJ, van Walderveen MA, van den Berg R, Bot JC, Beenen LF, Boers AM, Slump CH, Roos YB, van Oostenbrugge RJ, Dippel DW, van der Lugt A, van Zwam WH, Marquering HA, Majoie CB; MR CLEAN Investigators.: Collaborator: Tielbeek AV

Stroke. 2016 Mar;47(3):768-76. 115.011788. Epub 2016 Jan 28

BACKGROUND AND PURPOSE: Recent randomized trials have proven the benefit of intra-arterial treatment (IAT) with retrievable stents in acute ischemic stroke. Patients with poor or absent collaterals (preexistent anastomoses to maintain blood flow in case of a primary

vessel occlusion) may gain less clinical benefit from IAT. In this post hoc analysis, we aimed to assess whether the effect of IAT was modified by collateral status on baseline computed tomographic angiography in the Multicenter Randomized Clinical Trial of Endovascular Treatment of Acute Ischemic Stroke in the Netherlands (MR CLEAN).

METHODS: MR CLEAN was a multicenter, randomized trial of IAT versus no IAT. Primary outcome was the modified Rankin Scale at 90 days. The primary effect parameter was the adjusted common odds ratio for a shift in direction of a better outcome on the modified Rankin Scale. Collaterals were graded from 0 (absent) to 3 (good). We used multivariable ordinal logistic regression analysis with interaction terms to estimate treatment effect modification by collateral status.

RESULTS: We found a significant modification of treatment effect by collaterals (P=0.038). The strongest benefit (adjusted common odds ratio 3.2 [95% confidence intervals 1.7-6.2]) was found in patients with good collaterals (grade 3). The adjusted common odds ratio was 1.6 [95% confidence intervals 1.0-2.7] for moderate collaterals (grade 2), 1.2 [95% confidence intervals 0.7-2.3] for poor collaterals (grade 1), and 1.0 [95% confidence intervals 0.1-8.7] for patients with absent collaterals (grade 0).

CONCLUSIONS: In MR CLEAN, baseline computed tomographic angiography collateral status modified the treatment effect. The benefit of IAT was greatest in patients with good collaterals on baseline computed tomographic angiography. Treatment benefit appeared less and may be absent in patients with absent or poor collaterals.

impactfactor: 5.787

Tielbeek AV (Xander)

Early effect of intra-arterial treatment in ischemic stroke on aphasia recovery in MR CLEAN

Crijnen YS, Nouwens F, de Lau LM, Visch-Brink EG, van de Sandt-Koenderman MW, Berkhemer OA, Fransen PS, Beumer D, van den Berg LA, Lingsma HF, Roos YB, van der Lugt A, van Oostenbrugge RJ, van Zwam WH, Majoie CB, Dippel DW; MR CLEAN investigators: Collaborator: Tielbeek AV

Neurology. 2016 May 31;86(22):2049-55. Epub 2016 May 11

OBJECTIVE: To investigate the effect of intra-arterial treatment (IAT) on early recovery from aphasia in acute ischemic stroke. We hypothesized that the early effect of IAT on aphasia is smaller than the effect on motor deficits.

METHODS: We included patients with aphasia from the Multicenter Randomized Clinical Trial of Endovascular Treatment for Acute Ischemic Stroke in the Netherlands (MR CLEAN), in which 500 patients with a proximal anterior circulation stroke were randomized to usual care plus IAT (<6 hours after stroke, mainly stent retrievers) or usual care alone. We estimated the effect of IAT on the shift on the NIH Stroke Scale (NIHSS) item language and the NIHSS item motor arm at 24 hours and 1 week after stroke with multivariable ordinal logistic regression as a common odds ratio, adjusted for prognostic variables (acOR). Differences between the effect of IAT on aphasia and on motor deficits were tested in a multilevel model with a multiplicative interaction term.

RESULTS: Of the 288 patients with aphasia, 126 were assigned to IAT and 162 to usual care alone. The acOR for improvement of language score at 24 hours was 1.65 (95% confidence interval [CI] 1.05-2.60), and at 1 week 1.86 (95% CI 1.18-2.94). The acOR for improvement of motor deficit at 24 hours was 2.44 (95% CI 1.54-3.88), and at 1 week 2.32 (95% CI 1.43-3.77). The effect of IAT on language deficits was significantly different from the effect on motor deficits at 24 hours and 1 week ($p = 0.005$ and $p = 0.011$).

CONCLUSIONS: IAT results in better early recovery from aphasia than usual care alone. The early effect of IAT on aphasia is smaller than the effect on motor deficits.

CLASSIFICATION OF EVIDENCE: This study provides Class II evidence that for patients with acute ischemic stroke IAT increases early recovery from aphasia and that the early effect on aphasia, as measured by the NIHSS, is smaller than the effect on motor deficits.

impactfactor: *8.166*

Tielbeek AV (Xander)

Observer variability of absolute and relative thrombus density measurements in patients with acute ischemic stroke

Santos EM, Yoo AJ, Beenen LF, Berkhemer OA, den Blanken MD, Wismans C, Niessen WJ, Majoie CB, Marquering HA; MR CLEAN investigators.: Collaborator: Tielbeek AV Neuroradiology. 2016 Feb;58(2):133-9. Epub 2015 Oct 22

INTRODUCTION: Thrombus density may be a predictor for acute ischemic stroke treatment success. However, only limited data on observer variability for thrombus density measurements exist. This study assesses the variability and bias of four common thrombus density measurement methods by expert and non-expert observers.

METHODS: For 132 consecutive patients with acute ischemic stroke, three experts and two trained observers determined thrombus density by placing three standardized regions of interest (ROIs) in the thrombus and corresponding contralateral arterial segment. Subsequently, absolute and relative thrombus densities were determined using either one or three ROIs. Intraclass correlation coefficient (ICC) was determined, and Bland-Altman analysis was performed to evaluate interobserver and intermethod agreement. Accuracy of the trained observer was evaluated with a reference expert observer using the same statistical analysis.

RESULTS: The highest interobserver agreement was obtained for absolute thrombus measurements using three ROIs (ICCs ranging from 0.54 to 0.91). In general, interobserver agreement was lower for relative measurements, and for using one instead of three ROIs. Interobserver agreement of trained non-experts and experts was similar. Accuracy of the trained observer measurements was comparable to the expert interobserver agreement and was better for absolute measurements and with three ROIs. The agreement between the one ROI and three ROI methods was good.

CONCLUSION: Absolute thrombus density measurement has superior interobserver agreement compared to relative density measurement. Interobserver variation is smaller when multiple ROIs are used. Trained non-expert observers can accurately and reproducibly assess absolute thrombus densities using three ROIs.

impactfactor: *2.274*

Tielbeek AV (Xander)

Predicting reinterventions after open and endovascular aneurysm repair using the St George's Vascular Institute score

de Bruin JL, Karthikesalingam A, Holt PJ, Prinssen M, Thompson MM, Blankensteijn JD; Dutch Randomised Endovascular Aneurysm Management (DREAM) Study Group: Cuypers PW, Sambeek MR, Tielbeek AV, Teijink JA J Vasc Surg. 2016 Jun;63(6):1428-1433.e1. Epub 2016 Mar 19

Voor abstract zie: *Chirurgie - Cuypers PhW*

impactfactor: *3.454*

Tielbeek AV (Xander)

Prognostic value of cardiovascular MR imaging biomarkers on outcome in peripheral arterial disease: a 6-year follow-up pilot study

van den Bosch H*, Westenberg J, Setz-Pels W*, Kersten E*, Tielbeek A*, Duijm L, Post J*, Teijink J*, de Roos A

Int J Cardiovasc Imaging. 2016 Aug;32(8):1281-8. Epub 2016 May 21

Voor abstract zie: *Radiologie - Bosch H van den*

impactfactor: *1.880*

Tielbeek AV (Xander)

Quality of life from a randomized trial of open and endovascular repair for abdominal aortic aneurysm

de Bruin JL, Groenwold RH, Baas AF, Brownrigg JR, Prinssen M, Grobbee DE, Blankensteijn JD; Dutch Randomised Endovascular Aneurysm Management (DREAM) Study Group: Cuypers PW, Sambeek MR, Tielbeek AV, Teijink JA

Br J Surg. 2016 Jul;103(8):995-1002. Epub 2016 Apr 5

Voor abstract zie: *Chirurgie - Cuypers PhW*

impactfactor: *5.596*

Tielbeek AV (Xander)

The effect of anesthetic management during intra-arterial therapy for acute stroke in MR CLEAN

Berkhemer OA, van den Berg LA, Fransen PS, Beumer D, Yoo AJ, Lingsma HF, Schonewille WJ, van den Berg R, Wermer MJ, Boiten J, Lycklama À Nijeholt GJ, Nederkoorn PJ, Hollmann MW, van Zwam WH, van der Lugt A, van Oostenbrugge RJ, Majoie CB, Dippel DW, Roos YB; MR CLEAN investigators.: Collaborator: Tielbeek AV

Neurology. 2016 Aug 16;87(7):656-64. Epub 2016 Jul 15

BACKGROUND: The aim of the current study was to assess the influence of anesthetic management on the effect of treatment in the Multicenter Randomized Clinical Trial of Endovascular Treatment for Acute Ischemic Stroke in the Netherlands (MR CLEAN).

METHODS: MR CLEAN was a multicenter, randomized, open-label trial of intra-arterial therapy (IAT) vs no IAT. The intended anesthetic management at the start of the procedure was used for this post hoc analysis. The primary effect parameter was the adjusted common odds ratio (acOR) for a shift in direction of a better outcome on the modified Rankin Scale (mRS) at 90 days, estimated with multivariable ordinal logistic regression analysis, which included a term for general anesthesia (GA).

RESULTS: GA was associated with significant (p = 0.011) effect modification, resulting in estimated decrease of 51% (95% confidence interval [CI] 31%-86%) in treatment effect compared to non-GA. We found a shift in the distribution on the mRS in favor of non-GA compared to control group (acOR 2.18 [95% CI 1.49-3.20]). The shift in distribution between GA and control group was in a similar direction (acOR 1.12 [95% CI 0.71-1.78]) with loss of statistical significance.

CONCLUSIONS: In this post hoc analysis, we found that the type of anesthetic management influences outcome following IAT. Only treatment without general anesthesia was associated with a significant treatment benefit in MR CLEAN.

impactfactor: *8.166*

Tielbeek AV (Xander)

Thrombus Permeability Is Associated With Improved Functional Outcome and Recanalization in Patients With Ischemic Stroke

Santos EM, Marquering HA, den Blanken MD, Berkhemer OA, Boers AM, Yoo AJ, Beenen LF, Treurniet KM, Wismans C, van Noort K, Lingsma HF, Dippel DW, van der Lugt A, van Zwam WH, Roos YB, van Oostenbrugge RJ, Niessen WJ, Majoie CB; MR CLEAN Investigators.: Collaborator: Tielbeek AV

Stroke. 2016 Mar;47(3):732-41. Epub 2016 Feb 4

impactfactor: *5.787*

Tielbeek AV (Xander)

Time to Reperfusion and Treatment Effect for Acute Ischemic Stroke: A Randomized Clinical Trial

Fransen PS, Berkhemer OA, Lingsma HF, Beumer D, van den Berg LA, Yoo AJ, Schonewille WJ, Vos JA, Nederkoorn PJ, Wermer MJ, van Walderveen MA, Staals J, Hofmeijer J, van Oostayen JA, Lycklama À Nijeholt GJ, Boiten J, Brouwer PA, Emmer BJ, de Bruijn SF, van Dijk LC, Kappelle LJ, Lo RH, van Dijk EJ, de Vries J, de Kort PL, van den Berg JS, van Hasselt BA, Aerden LA, Dallinga RJ, Visser MC, Bot JC, Vroomen PC, Eshghi O, Schreuder TH, Heijboer RJ, Keizer K*, Tielbeek AV*, den Hertog HM, Gerrits DG, van den Berg-Vos RM, Karas GB, Steyerberg EW, Flach HZ, Marquering HA, Sprengers ME, Jenniskens SF, Beenen LF, van den Berg R, Koudstaal PJ, van Zwam WH, Roos YB, van Oostenbrugge RJ, Majoie CB, van der Lugt A, Dippel DW; Multicenter Randomized Clinical Trial of Endovascular Treatment of Acute Ischemic Stroke in the Netherlands Investigators.

JAMA Neurol. 2016 Feb;73(2):190-6

Erratum in: JAMA Neurol. 2016 Apr;73(4):481

Voor abstract zie: *Neurologie - Keizer, K*

impactfactor: *8.230*

Weber RJ (Roy)

Characteristics and prognosis of interval cancers after biennial screen-film or full-field digital screening mammography

Weber RJ*, van Bommel RM*, Louwman MW, Nederend J*, Voogd AC, Jansen FH*, Tjan-Heijnen VC, Duijm LE

Breast Cancer Res Treat. 2016 Aug;158(3):471-83. Epub 2016 Jul 8

We determined the characteristics and prognosis of interval breast cancers (IC) at screen-film (SFM) and full-field digital (FFDM) screening mammography. The study population consisted of 417,746 consecutive screening mammograms (302,699 SFM screens and 115,047 FFDM screens), obtained between 2000 and 2011. During 2-year follow-up, we collected breast imaging reports, surgical reports, and pathology results. A total of 800 ICs had been diagnosed in the screened population, of which 288 detected in the first year (early ICs) and 512 in the second year (late ICs) after a negative screen. 31.3 % of early IC's and 19.1 % of late IC's, respectively, were visible in retrospect on the latest previous screens, but had been missed during screening ($P < 0.001$). Missed invasive ICs were larger (28.5 mm vs. 23.9 mm, $P = 0.003$) and showed a higher fraction of T3+cancers (16.9 vs. 8.5 %, $P = 0.02$) than true ICs (i.e., not visible at the latest screen). A higher portion of missed than true ICs underwent mastectomy (44.7 vs. 30.8 %, $P = 0.002$). We found no differences in mammographic and tumor characteristics for early ICs, detected either after SFM or FFDM. Late ICs following FFDM were more often true ICs than missed ICs (69.0 vs. 57.6 %, $P = 0.03$) and more often receptor triple negative ($P = 0.02$), compared to late ICs at SFM. Interval

cancer subgroups showed comparable overall survival. Interval cancer subgroups show distinctive mammographic and tumor characteristics but a comparable overall survival.

impactfactor: *4.085*

Weber RJ (Roy)

Type and Extent of Surgery for Screen-Detected and Interval Cancers at Blinded Versus Nonblinded Double-Reading in a Population-Based Screening Mammography Program Weber RJ*, van Bommel RM*, Setz-Pels W*, Voogd AC, Klompenhouwer EG*, Louwman MW, Strobbe LJ, Tjan-Heijnen VC, Duijm LE

Ann Surg Oncol. 2016 Nov;23(12):3822-3830. Epub 2016 Jun 22

BACKGROUND: This study aimed to compare the type and extent of surgery in patients with screen-detected and interval cancers after blinded or nonblinded double-reading of screening mammograms.

METHODS: The study investigated a consecutive series of screens double-read in either a blinded (n = 44,491) or nonblinded (n = 42,996) fashion between 2009 and 2011. During a 2 year follow-up period, the radiology reports, surgical correspondence, and pathology reports of all the screen-detected and interval cancers were collected.

RESULTS: Screen-detected breast cancer was diagnosed for 325 women at blinded and 284 women at nonblinded double-reading. The majority of the women were treated by breast-conserving surgery (BCS) at both reading strategies (78.2 vs. 81.7 %; p = 0.51). Larger total resection volumes were observed at BCS for ductal carcinoma in situ (DCIS) treatment for patients after blinded double-reading (p = 0.005). The proportions of positive resection margins after BCS were comparable for patients with DCIS (p = 0.81) or invasive screen-detected cancers (p = 0.38) for the two reading strategies. A total of 158 interval cancers were diagnosed. The proportions of patients treated with BCS were comparable for the two reading strategies (p = 0.42). The total resection volume (p = 0.13) and the proportion of positive resection margins after BCS (p = 0.32) for invasive interval cancer were comparable for the two cohorts. The BCS rate was higher for women after nonblinded double-reading (p = 0.04).

CONCLUSIONS: Blinded and nonblinded double-reading yielded comparable surgical treatments for women with screen-detected or interval breast cancer except for larger total resection volumes at BCS for screen-detected DCIS and a higher BCS rate for interval cancers at nonblinded double-reading.

impactfactor: *3.655*

Wetzels-van der Velden CT (Charlotte)

Cyst of Nuck: The Importance of Histopathological Evaluation

Benali F*, Gooszen AD*, Wetzels C*, Piek JMJ*

Obstet Gynecol Int J, 2016; 5(2): 00152

Voor abstract zie: *Gynaecologie - Benali F*

impactfactor: *--*

Yo LS (Lonneke)

Treatment of upper-extremity outflow thrombosis

van den Houten MM*, van Grinsven R*, Pouwels S*, Yo LS*, van Sambeek MR*, Teijink JA*

Phlebology. 2016 Mar;31(1 Suppl):28-33

Voor abstract zie: *Chirurgie - Houten MM van*

impactfactor: *1.413*

** = Werkzaam in het Catharina Ziekenhuis*

Radiotherapie

Berg HA van den (Hetty)

Local Recurrence in the Lateral Lymph Node Compartment: Improved Outcomes with Induction Chemotherapy Combined with Multimodality Treatment

Kusters M*, Bosman SJ*, Van Zoggel DM*, Nieuwenhuijzen GA*, Creemers GJ*, Van den Berg HA*, Rutten HJ*

Ann Surg Oncol. 2016 Jun;23(6):1883-9

Voor abstract zie: *Chirurgie - Kusters M*

impactfactor: *3.655*

Berg HA van den (Hetty)

Results of intraoperative electron beam radiotherapy containing multimodality treatment for locally unresectable T4 rectal cancer: a pooled analysis of the Mayo Clinic Rochester and Catharina Hospital Eindhoven

Holman FA, Haddock MG, Gunderson LL, Kusters M, Nieuwenhuijzen GA*, van den Berg HA,* Nelson H, Rutten HJ*

J Gastrointest Oncol. 2016 Dec;7(6):903-916

Voor abstract zie: *Chirurgie - Nieuwenhuijzen GA*

impactfactor: *--*

Sangen MJ van der (Maurice)

Delaying surgery after neoadjuvant chemoradiotherapy does not significantly influence postoperative morbidity or oncological outcome in patients with oesophageal adenocarcinoma

Kathiravetpillai N*, Koëter M*, van der Sangen MJ*, Creemers GJ*, Luyer MD*, Rutten HJ*, Nieuwenhuijzen GA*

Eur J Surg Oncol. 2016 Aug;42(8):1183-90. Epub 2016 Apr 19

Voor abstract zie: *Chirurgie - Kathiravetpillai N*

impactfactor: *2.940*

Sangen MJ van der (Maurice)

Improvement in survival for patients with synchronous metastatic esophageal cancer in the south of the Netherlands from 1994 to 2013

Bernards N*, Haj Mohammad N, Creemers GJ*, Rozema T, Roukema JA, Nieuwenhuijzen GA*, van Laarhoven HW, van der Sangen M*, Lemmens VE

Acta Oncol. 2016 Sep-Oct;55(9-10):1161-1167. Epub 2016 May 13

Voor abstract zie: *Inwendige geneeskunde - Bernards N*

impactfactor: *3.730*

Smet M de (Mariska)

Accuracy of dose calculations on kV cone beam CT images of lung cancer patients

de Smet M*, Schuring D*, Nijsten S, Verhaegen F

Med Phys. 2016 Nov;43(11):5934

PURPOSE: To develop a clinically feasible method for dose calculations on cone beam CT (CBCT) images of two different vendors, and to determine the accuracy of these dose calculations for lung cancer patients.

METHODS: Lung cancer patients with CBCT imaging (n = 10 for Elekta, n = 6 for Varian) and a repeated planning CT scan on the same day were selected. For CBCT dose calculations, an adapted Hounsfield units-to-mass density table (HU table) was used which was obtained by comparing CT values of corresponding points on the CBCT and the repeated planning CT scan. Dose calculations with three different HU tables were compared: a patient-specific, a general

thorax-CBCT, and the standard CT HU table. Planning CT data were used to compensate for the limited field of view (FOV) (Elekta) or scan length (Varian) of the CBCT. For evaluation, clinically relevant dose metrics were compared between the repeated CT and CBCT to assess the accuracy of dose calculations on CBCT for both vendors.
RESULTS: For both vendors, isodose lines and dose volume histograms were very similar between dose calculation on CBCT and CT. For Varian, average differences between CT and CBCT dose calculations were 2%-3% for most dose metrics when the standard CT HU table was used. A better agreement was observed when a thorax-CBCT HU table was used, with differences of 1%-2%. No added value was found by using a patient-specific HU table, showing similar results as the general thorax-CBCT HU table. For Elekta, the dose metrics showed large deviations when the CT HU table was used, but using a patient-specific HU table resulted in similar accuracy as for Varian CBCT dose calculations, with average differences between repeated CT and CBCT dose metrics below 3%, and for most dose metrics even below 2%.
CONCLUSIONS: Differences between Elekta and Varian CBCT, including hardware, reconstruction software, HU calibration, FOV, and scan length, resulted in different challenges for CBCT dose calculations for the different vendors. For Elekta CBCT scans, the procedure with a patient-specific HU table resulted in similar accuracy as for Varian CBCT dose calculations with a general HU correction for all thorax patients. The vendor-specific corrective methods used in this study resulted in dose calculations feasible for treatment re-evaluation for both Elekta and Varian CBCT scans.
impactfactor: *2.496*

Theuws JC (Jacqueline)

Cardiovascular Disease Risk in a Large, Population-Based Cohort of Breast Cancer Survivors

Boekel NB, Schaapveld M, Gietema JA, Russell NS, Poortmans P, Theuws JC*, Schinagl DA, Rietveld DH, Versteegh MI, Visser O, Rutgers EJ, Aleman BM, van Leeuwen FE
Int J Radiat Oncol Biol Phys. 2016 Apr 1;94(5):1061-72. Epub 2015 Dec 14

PURPOSE: To conduct a large, population-based study on cardiovascular disease (CVD) in breast cancer (BC) survivors treated in 1989 or later.
METHODS AND MATERIALS: A large, population-based cohort comprising 70,230 surgically treated stage I to III BC patients diagnosed before age 75 years between 1989 and 2005 was linked with population-based registries for CVD. Cardiovascular disease risks were compared with the general population, and within the cohort using competing risk analyses.
RESULTS: Compared with the general Dutch population, BC patients had a slightly lower CVD mortality risk (standardized mortality ratio 0.92, 95% confidence interval [CI] 0.88-0.97). Only death due to valvular heart disease was more frequent (standardized mortality ratio 1.28, 95% CI 1.08-1.52). Left-sided radiation therapy after mastectomy increased the risk of any cardiovascular event compared with both surgery alone (subdistribution hazard ratio (sHR) 1.23, 95% CI 1.11-1.36) and right-sided radiation therapy (sHR 1.19, 95% CI 1.04-1.36). Radiation-associated risks were found for not only ischemic heart disease, but also for valvular heart disease and congestive heart failure (CHF). Risks were more pronounced in patients aged <50 years at BC diagnosis (sHR 1.48, 95% CI 1.07-2.04 for left- vs right-sided radiation therapy after mastectomy). Left- versus right-sided radiation therapy after wide local excision did not increase the risk of all CVD combined, yet an increased ischemic heart disease risk was found (sHR 1.14, 95% CI 1.01-1.28). Analyses including detailed radiation therapy information showed an increased CVD risk for left-sided chest wall irradiation alone, left-sided breast irradiation alone, and internal mammary chain field irradiation, all compared with right-sided breast irradiation alone. Compared with patients not treated with

chemotherapy, chemotherapy used =1997 (ie, anthracyline-based chemotherapy) increased the risk of CHF (sHR 1.35, 95% CI 1.00-1.83).

CONCLUSION: Radiation therapy regimens used in BC treatment between 1989 and 2005 increased the risk of CVD, and anthracycline-based chemotherapy regimens increased the risk of CHF.

impactfactor: 4.495

Toorn PP van der (Peter-Paul)

Hypofractionated versus conventionally fractionated radiotherapy for patients with localised prostate cancer (HYPRO): final efficacy results from a randomised, multicentre, open-label, phase 3 trial

Incrocci L, Wortel RC, Alemayehu WG, Aluwini S, Schimmel E, Krol S, van der Toorn PP*, Jager Hd, Heemsbergen W, Heijmen B, Pos F

Lancet Oncol. 2016 Aug;17(8):1061-9. d . Epub 2016 Jun 20

BACKGROUND: Studies have reported a low a/ß ratio for prostate cancer, suggesting that hypofractionation could enhance the biological tumour dose without increasing genitourinary and gastrointestinal toxicity. In the multicentre phase 3, HYpofractionated irradiation for PROstate cancer (HYPRO) trial, hypofractionated radiotherapy was compared with conventionally fractionated radiotherapy for treatment of prostate cancer. We have previously reported acute and late incidence of genitourinary and gastrointestinal toxicity; here we report protocol-defined 5-year relapse-free survival outcomes.

METHODS: We did an open-label, randomised, phase 3 trial at seven Dutch radiotherapy centres. We enrolled patients with intermediate-risk to high-risk T1b-T4NX-N0MX-M0 localised prostate cancer, a prostate-specific antigen concentration of 60 µg/L or less, and a WHO performance status of 0-2. We used a web-based application to randomly assign (1:1) patients to either hypofractionated radiotherapy of 64·6 Gy (19 fractions of 3·4 Gy, three fractions per week) or conventionally fractionated radiotherapy of 78·0 Gy (39 fractions of 2·0 Gy, five fractions per week). Based on an estimated a/ß ratio for prostate cancer of 1·5 Gy, the equivalent total dose in fractions of 2·0 Gy was 90·4 Gy for hypofractionation compared with 78·0 Gy for conventional fractionation. The primary endpoint was relapse-free survival. All analyses were done on an intention-to-treat basis in all eligible patients. The HYPRO trial completed recruitment in 2010 and follow-up is ongoing. This trial is registered with ISRCTN, number ISRCTN85138529.

FINDINGS: Between March 19, 2007, and Dec 3, 2010, 820 patients were enrolled, of whom 804 were eligible and assessable for intention-to-treat analyses. Of these, 407 were assigned hypofractionated radiotherapy and 397 were allocated conventionally fractionated radiotherapy. 537 (67%) of 804 patients received concomitant androgen deprivation therapy for a median duration of 32 months (IQR 10-44). Median follow-up was 60 months (IQR 51-69). Treatment failure was reported in 169 (21%) of 804 patients, 80 (20%) in the hypofractionation group and 89 (22%) in the conventional fractionation group. 5-year relapse-free survival was 80·5% (95% CI 75·7-84·4) for patients assigned hypofractionation and 77·1% (71·9-81·5) for those allocated conventional fractionation (adjusted hazard radio 0·86, 95% CI 0·63-1·16; log-rank p=0·36). There were no treatment-related deaths.

INTERPRETATION: Hypofractionated radiotherapy was not superior to conventional radiotherapy with respect to 5-year relapse-free survival. Our hypofractionated radiotherapy regimen cannot be regarded as the new standard of care for patients with intermediate-risk or high-risk prostate cancer.

impactfactor: 26.509

Toorn PP van der (Peter-Paul)

Hypofractionated versus conventionally fractionated radiotherapy for patients with prostate cancer (HYPRO): late toxicity results from a randomised non-inferiority phase 3 trial

Aluwini S, Pos F, Schimmel E, Krol S, van der Toorn PP*, de Jager H, Alemayehu WG, Heemsbergen W, Heijmen B, Incrocci L

Lancet Oncol. 2016 Apr;17(4):464-74. Epub 2016 Mar 9

BACKGROUND: Several studies have reported a low a to ß ratio for prostate cancer, suggesting that hypofractionation could enhance the biological tumour dose without increasing genitourinary and gastrointestinal toxicity. We tested this theory in the phase 3 HYPRO trial for patients with intermediate-risk and high-risk prostate cancer. We have previously reported acute incidence of genitourinary and gastrointestinal toxicity; here we report data for late genitourinary and gastrointestinal toxicity.

METHODS: In this randomised non-inferiority phase 3 trial, done in seven radiotherapy centres in the Netherlands, we enrolled intermediate-risk or high-risk patients aged between 44 and 85 years with histologically confirmed stage T1b-T4 NX-0MX-0 prostate cancer, a prostate-specific antigen concentration of 60 ng/mL or lower, and WHO performance status of 0-2. A web-based application was used to randomly assign (1:1) patients to receive either standard fractionation with 39 fractions of 2 Gy in 8 weeks (five fractions per week) or hypofractionation with 19 fractions of 3·4 Gy in 6·5 weeks (three fractions per week). Randomisation was done with the minimisation procedure, stratified by treatment centre and risk group. The primary endpoint was to detect a 10% enhancement in 5-year relapse-free survival with hypofractionation. A key additional endpoint was non-inferiority of hypofractionation in cumulative incidence of grade 2 or worse acute and late genitourinary and gastrointestinal toxicity. We planned to reject inferiority of hypofractionation for late genitourinary toxicity if the estimated hazard ratio (HR) was less than 1·11 and for gastrointestinal toxicity was less than 1·13. We scored toxicity with the Radiation Therapy Oncology Group and European Organisation for Research and Treatment of Cancer (RTOG/EORTC) criteria from both physicians' records (clinical record form) and patients' self-assessment questionnaires. Analyses were done in the intention-to-treat population. Patient recruitment for the HYPRO trial was completed in 2010. The trial was registered with www.controlled-trials.com, number ISRCTN85138529.

FINDINGS: Between March 19, 2007, and Dec 3, 2010, 820 patients (410 in both groups) were randomly assigned. Analyses for late toxicity included 387 assessable patients in the standard fractionation group and 395 in the hypofractionation group. The median follow-up was 60 months (IQR 51·2-67·3). The database for all analyses (both groups and both genitourinary and gastrointestinal toxicities) was locked on March 26, 2015. The incidence of grade 2 or worse genitourinary toxicity at 3 years was 39·0% (95% CI 34·2-44·1) in the standard fractionation group and 41·3% (36·6-46·4) in the hypofractionation group. The estimated HR for the cumulative incidence of grade 2 or worse late genitourinary toxicity was 1·16 (90% CI 0·98-1·38), suggesting that non-inferiority could not be shown. The incidence of grade 2 or worse gastrointestinal toxicity at 3 years was 17·7% (14·1-21·9) in standard fractionation and 21·9% (18·1-26·4) hypofractionation. With an estimated HR of 1·19 (90% CI 0·93-1·52) for the cumulative incidence of grade 2 or worse late gastrointestinal toxicity, we could not confirm non-inferiority of hypofractionation for cumulative late gastrointestinal toxicity. Cumulative grade 3 or worse late genitourinary toxicity was significantly higher in the hypofractionation group than in the standard fractionation group (19·0% [95% CI 15·2-23·2] vs 12·9% [9·7-16·7], respectively; p=0·021), but there was no significant difference between cumulative grade 3 or worse late gastrointestinal toxicity

(2·6% [95% CI 1·2-4·7]) in the standard fractionation group and 3·3% [1·7-5·6] in the hypofractionation group; p=0·55).

INTERPRETATION: Our data could not confirm that hypofractionation was non-inferior for cumulative late genitourinary and gastrointestinal toxicity compared with standard fractionation. Before final conclusions can be made about the utility of hypofractionation, efficacy outcomes need to be reported.

impactfactor: 26.509

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Spoedeisende Hulp

Smits G (Gael)

Laryngospasm With Apparent Aspiration During Sedation With Nitrous Oxide

Smits GJ*, Thijssen WA*

Ann Emerg Med. 2016 Jun;67(6):795

Geen abstract beschikbaar

impactfactor: 5.008

Thijssen WA (Wendy)

De spoedposten en de SEH, werkt het samen?

Wendy Thijssen

Huisarts en Wetenschap 2016 2:54-56

In the past 10 years, many out-of-hours services have become integrated with accident & emergency (A&E) departments in hospitals to provide emergency general practice services. However, little is known about the effect of this development on the flow and characteristics of patients coming to an A&E department. There has been a clear decrease in the number of non-urgent self-referrals to A&E departments, most of which are referred back to a general practitioner. Unexpectedly, there has been an increase in referrals to A&E departments, which leads to more diagnostic investigations, more A&E admissions, and more outpatient follow-ups. The collaboration between GPs and A&E departments needs to be more intensive in order to shorten A&E waiting times and to decrease unnecessary referrals, investigations, and hospital admissions. GPs working in such an emergency service should have full access to the diagnostic facilities of the hospital and be able to consult an A&E specialist.

impactfactor: --

Thijssen WA (Wendy)

Impact of a well-developed primary care system on the length of stay in emergency departments in the Netherlands: a multicenter study

Thijssen WA*, Kraaijvanger N, Barten DG, Boerma ML, Giesen P, Wensing M

BMC Health Serv Res. 2016 Apr 26;16(1):149

BACKGROUND: The Netherlands has a well-developed primary care system, which increasingly collaborates with hospital emergency departments (EDs). In this setting, insight into crowding in EDs is limited. This study explored links between patients' ED Length of Stay (LOS) and their care pathways.

METHODS: Observational multicenter study of 7000 ED patient records from 1 February 2013. Seven EDs spread over the Netherlands, representing overall Dutch EDs, were included. This included three EDs with and four EDs without an integrated primary-care-physician (PCP) cooperative, forming one Emergency Care Access Point (ECAP). The main outcome was LOS of patients comparing different care pathways (origin and destination of ED attenders).

RESULTS: The median LOS of ED attenders was 130.0 min (IQR 79.0-140.0), which increased with patients' age. Random coefficient regression analysis showed that LOS for patients referred by medical professionals was 32.9 min longer compared to self-referred patients (95 % CI 27.7-38.2 min). LOS for patients admitted to hospital was 41.2 min longer compared to patients followed-up at the outpatient clinic (95 % CI 35.3-46.6 min), 49.9 min longer compared to patients followed-up at the PCP (95 % CI 41.5-58.3 min) and 44.6 min longer compared to patients who did not receive follow-up (95 % CI 38.3-51.0 min). There was no difference in LOS between hospitals with or without an ECAP.

CONCLUSIONS: With 130 min, the median LOS in Dutch EDs is relatively short, comparing to other Western countries, which ranges from 176 to 480 min. Although integration of EDs with out-of-hours primary care was not related to LOS, the strong primary care system probably contributed to the overall short LOS of ED patients in the Netherlands.

impactfactor: 1.606

Thijssen WA (Wendy)

Laryngospasm With Apparent Aspiration During Sedation With Nitrous Oxide

Smits GJ*, Thijssen WA*

Ann Emerg Med. 2016 Jun;67(6):795

Geen abstract beschikbaar

impactfactor: 5.008

** = Werkzaam in het Catharina Ziekenhuis*

Urologie

Genugten HG (Heleen)

The Simbla TURBT Simulator in Urological Residency Training: From Needs Analysis to Validation

de Vries AH*, van Genugten HG*, Hendrikx AJ*, Koldewijn EL*, Schout BM, Tjiam IM, van Merrienboer JJ, Muijtjens AM, Wagner C

J Endourol. 2016 May;30(5):580-7. Epub 2016 Jan 22

Voor abstract zie: *Urologie - de Vries AH*

impactfactor: *2.107*

Hendrikx AJ (Ad)

The Simbla TURBT Simulator in Urological Residency Training: From Needs Analysis to Validation

de Vries AH*, van Genugten HG*, Hendrikx AJ*, Koldewijn EL*, Schout BM, Tjiam IM, van Merrienboer JJ, Muijtjens AM, Wagner C

J Endourol. 2016 May;30(5):580-7. Epub 2016 Jan 22

Voor abstract zie: *Urologie - de Vries AH*

impactfactor: *2.107*

Koldewijn EL (Evert)

High level of patient satisfaction and comfort during diagnostic urological procedures performed by urologists and residents

de Vries AH*, Lesterhuis E, Verweij LM, Schout BM, van der Horst HJ, Leppink J, Koldewijn EL*, Wagner C

Scand J Urol. 2016 Jun;50(3):206-11. Epub 2015 Dec 3

Voor abstract zie: *Urologie - de Vries AH*

impactfactor: *1.346*

Koldewijn EL (Evert)

Radium-223 dichloride in the treatment of metastatic prostate cancer

D.N.J. Wyndaele, MD*; R. van der Voort, PhD; E.L. Koldewijn, MD, PhD*; L.J.C. van Warmerdam, MD, PhD*

Tijdschr Nucl Geneesk 2016; 38(4):1655-1659

Voor abstract zie: *Nucleaire geneeskunde - Wyndaele D*

impactfactor: *--*

Koldewijn EL (Evert)

The Simbla TURBT Simulator in Urological Residency Training: From Needs Analysis to Validation

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Vries AH de (Heleen)

High level of patient satisfaction and comfort during diagnostic urological procedures performed by urologists and residents

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Scand J Urol. 2016 Jun;50(3):206-11. Epub 2015 Dec 3

OBJECTIVE: The aim of this study was to investigate how patients experience diagnostic urological procedures performed by urologists, junior residents and senior residents, and to assess the influence of procedure-related factors on patient experiences.

METHODS: Data were collected during 222 procedures: 84 transrectal ultrasound-guided prostate biopsies (TRUSP; urologists n?=?39, residents n?=?45) and 138 urethrocystoscopies (UCS; urologists n?=?44, residents n?=?94) in six hospitals. Patient experiences were assessed using a questionnaire focusing on pain, comfort and satisfaction (visual analogue scale, 0-10) and communication aspects on a four-point Likert scale. Clinical observations were made to identify influencing factors.

RESULTS: Median values for patient experiences across procedures were 10 (range 5-10) for patient satisfaction, 2 (0-9) for pain and 8 (0-10) for comfort. Generalized estimating equations revealed no significant differences between urologists, senior residents and junior residents in terms of experienced patient comfort, satisfaction or pain. Procedural time was longer for residents, but this did not correlate significantly with patient-experienced comfort (p?=?0.3). In UCS, patient comfort and satisfaction were higher in the supine position for male and female patients, respectively (p?<?0.01). In TRUSP, local anaesthesia resulted in a significant decrease in pain (p?=?0.002) and an increase in comfort (p?=?0.03). Finally, older patients experienced less pain and gave higher comfort and satisfaction responses than younger patients.

CONCLUSIONS: Patients expressed high levels of satisfaction and comfort during diagnostic urological procedures. Experiences were not affected by the level of training, suggesting highly developed interpersonal and communication skills for residents in an early stage of residency training. Patients demonstrated significant preferences for local anaesthesia in TRUSP and performance of UCS in the supine position over the lithotomy position.

impactfactor: 1.346

Vries AH de (Heleen)

The Simbla TURBT Simulator in Urological Residency Training: From Needs Analysis to Validation

de Vries AH* , van Genugten HG*, Hendrikx AJ*, Koldewijn EL*, Schout BM, Tjiam IM, van Merrienboer JJ, Muijtjens AM, Wagner C

J Endourol. 2016 May;30(5):580-7. Epub 2016 Jan 22

Objective To investigate the value of the physical 'Simbla' TURBT simulator as an educational tool within urological residency training, by means of a Training Needs Analysis (TNA) and assessment of its feasibility, acceptability, and face, content and construct validity. Methods To analyse the training needs for TURBT, procedural steps and pitfalls were identified, and the TNA was completed during an expert consensus meeting. Participants (n=76) were divided into three groups based on their experience in TURBT: novices, intermediates, and experts. Participants performed two standardized TURBT procedures on the simulator. Face and content validity as well as feasibility and acceptability were assessed with a quantitative survey. Construct validity was assessed by comparing the performance of novices, intermediates and experts on resection time, quality of tumour resection and overall

performance. Results Of the 21 procedural steps and 17 pitfalls defined in TNA, 13 steps and 8 pitfalls were covered by the Simbla. Participants rated the Simbla's overall realism (face validity) with a score of 8 out of 10 (range 6-9). The simulator was judged to be most useful (content validity) for learning eye-hand coordination: score 8(6-10). All aspects regarding realism and usefulness were rated above the acceptability threshold of 6/10. Intermediates (100%) and experts (96%) considered the Simbla to be a useful educational tool within the urological curriculum. Resection time was longer for novices than for experts ($p<0.05$) (construct validity). In addition, the overall performance of novices was rated lower compared to intermediates and experts, and novices showed more irradical resections and bladder perforations (all $p<0.05$). Conclusions The Simbla TURBT simulator is a valid, feasible and acceptable educational tool for training procedural skills and may be implemented in the urological curriculum to complement learning in clinical practice. TNA is valuable in defining training objectives and evaluating the educational value of a simulator.

impactfactor: 2.107

Wildt MJ de (Michel)

A randomized, controlled clinical trial of an intravesical pressure-attenuation balloon system for the treatment of stress urinary incontinence in females

Wyndaele JJ, De Wachter S, Tommaselli GA, Angioli R, de Wildt MJ*, Everaert KC, Michielsen DP, Van Koeveringe GA

Neurourol Urodyn. 2016 Feb;35(2):252-9. Epub 2015 Jan 16

AIMS: Evaluate the efficacy, safety, and tolerability of a novel pressure-attenuation balloon for the treatment of female stress urinary incontinence (SUI) using a prospective, randomized, single-blind, multi-center design, evaluated at 3 months.

METHODS: Sixty-three females with SUI were randomized 2:1 to treatment with a balloon (N?=?41) or sham procedure (N?=?22). The sham (control) entailed the same procedure without the deployment of a balloon. Endpoints were evaluated at 3 months and included a composite endpoint that required both =10 point increase in the 22-item Incontinence Quality of Life Survey (I-QOL) and =50% decrease in provocative pad weight. Additional endpoints included incontinence episode frequency, and PGII assessment.

RESULTS: In an ITT analysis, 63% of women in the treatment group achieved the composite endpoint, compared to 31% in the Control Group (P?=?0.0200). In a per protocol analysis, 81% of women in the treatment arm had a 50% decrease in pad weight test vs. 45% in the Control Group (P?=?0.0143); 41.6% of the treatment patients were dry on pad weight test (=1gram) vs. 0% in the Control Group (P?<?0.001), and 58% of treated patients reported improvement on a PGII assessment versus 25% of women in the Control Group (P?=?0.025). Adverse events in the treatment group included dysuria (14.6%), gross hematuria (9.8%), and UTI (7.3%).

CONCLUSIONS: This minimally invasive treatment for female SUI with an intravesical pressure-attenuation balloon was safe and effective. The concept of pressure attenuation as a therapy for SUI is valid and feasible for those patients that can tolerate the balloon.

impactfactor: 3.128

** = Werkzaam in het Catharina Ziekenhuis*

Boeken

Algemeen Klinisch Laboratorium

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In: Information Processing and Management of Uncertainty in Knowledge-Based Systems. IPMU 2016. Communications in Computer and Information Science, vol 610. Carvalho J., Lesot MJ., Kaymak U., Vieira S., Bouchon-Meunier B., Yager R. (eds)
[s.l.] : Springer International Publishing, 2016
ISBN: 978-3-319-40595-7 (Print)
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Cardiologie

Daniela Schulz**, Lokien van Nunen, Dennis van Veghel, Lukas Dekker,** Bart van Straten
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ISBN: 9789044134384
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Cardiothoracale Chirurgie

Daniela Schulz, Lokien van Nunen, Dennis van Veghel, Lukas Dekker, **Bart van Straten**
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Chirurgie

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Geestelijke Verzorging

Smeenk FW, Rutten HJ, **Laar E van de (Eric)**
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Geriatrie

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Gynaecologie

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[s.l.] : Gunes Publishing, 2016
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Kwaliteit

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ISBN: 9789044134384
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Promoties

Anesthesiologie

Haanschoten MC (Marco)
Towards efficient cardiac surgery - the integrating role of anesthesiology and intensive care
Maastricht: Universiteit Maastricht, 2016
ISBN: 9789090298085
Promotiedatum: 13-10-2016
co-promotoren: Mohamed A. Soliman Hamad, MD, PhD
Albert H.M. van Straten, MD, PhD

Herold IH (Ingeborg)
Assessment of cardiopulmonary function by contrast-enhanced echocardiography
Eindhoven : Technische Universteit Eindhoven, 2016
ISBN: 97894616999251
Promotiedatum: 17-11-2016
promotor: prof. dr. H.H.M. Korsten ;
copromotor: dr. R.A. Bouwman

Apotheek

Bastiaans DE (Diane)
Making things easier. How to improve antiviral drug treatment for children
Nijmgen : Radboud Universiteit, 2016
ISBN: 9789402803471
Promotiedatum: 7-11-2016

Cardiologie

Nunen LX van (Lokien)
Physiology-based treatment instable angina and acute myocardial infarction
Eindhoven: Technische Universiteit Eindhoven, 2016
ISBN: 978-90-386-4160-7
Promotiedatum: 01-12-2016
Promotor: Pijls NH
Copromotor: Veer M van 't

Chirurgie

Orsini RG (Ricardo)
Age related differences and quality of life in rectal cancer surgery : a step towards patient tailored rectal cancer treatment
Maastricht : Universiteit Maastricht, 2016
ISBN: 9789462994690
Promotiedatum: 16-12-2016
Promotor: Rutten, HJ
Copromotoren: Nieuwenhuijzen, GA, Hingh IH de

Oudheusden TR van (Thijs)
Clinical Experiences with Peritoneal Carcinomatosis Treatment using Cytoreductive Surgery and Hyperthermic Treatment Intraperitoneal Chemotherapy
Maastricht: Maastricht University, 2016
ISBN: 9789462954762
Promotiedatum: 08-04-2016
Promotores: prof.dr. H.J.T. Rutten,
Co-promotor: dr I.H. de Hingh

Rutte PW van (Pim)
Process Improving in Sleeve Gastrectomy
Delft : Technische Universiteit Delft, 2016
Promotiedatum 21-12-2016
Copromotor: Nienhuijs SW

Vermeer TA (Thomas)
Complications in rectal cancer treatment and optimisation of locally advanced rectal cancer care
Maastricht : Universiteit Maastricht, 2016
ISBN: 0789462994706
Promotiedatum: 16-12-2016
Promotor: Rutten HJ
Copromotoren: Nieuwenhuijzen GA, Hingh IH de

Vugts G (Guusje)
Challenges in axillary treatment for primary and recurrent breast cancer
Maastricht : Universiteit 2016
ISBN: 9789463320108
Promotie: 16-06-2016
Promotor: Rutten HJ
Copromotor: Nieuwenhuijzen GA

Inwendige geneeskunde

Jansen SW (Steffy)
Pituitary hormone secretion in familial longevity : the Switchbox Study
Leiden : Leiden University, 2016
ISBN: 9789402800203
Promotiedatum: 03-02-2016

Thijs AM (Annemarie)
Cardiovascular and metabolic effects of angiogenesis inhibitors
Nijmegen :Radboud Universiteit Nijmegen, 2016
ISBN: 978 94 6159 595 9
Promotiedatum: 17-10-2016

Wetenschapsavond
Catharina Ziekenhuis
2017

Presentaties

Apotheek

Kogel VM de (Vera)

Improving and validating a clinical rule for drug-interaction surveillance: less time investment, more safety

VM de Kogel*, KH Hua*, M. Kerskes*, M. Deenen*, RJE Grouls*

Achtergrond: Voor veel apothekers en artsen is het een bekend probleem: een zee van medicatiebewakingssignalen, die in de meeste gevallen niet relevant zijn. Dit kan signaalmoeheid veroorzaken, waardoor mogelijk relevante signalen gemist worden.

In de ziekenhuisapotheek wordt gebruik gemaakt van een Clinical Decision Support System (CDSS) bestaande uit clinical rules. In dit onderzoek wordt een clinical rule voor interactiebewaking getest, die is ontwikkeld om het aantal irrelevante meldingen zo veel mogelijk te beperken.

Doelstelling: De clinical rule voor interactiebewaking valideren en verbeteren, zodat deze de huidige medicatiebewaking kan vervangen.

Methode: De clinical rule werd 2 weken op de achtergrond gedraaid, terwijl de interactiebewaking in EZIS werd uitgevoerd. Achteraf werden alle interactiesignalen in EZIS door 2 ziekenhuisapothekers beoordeeld op relevantie op basis van het commentaar dat erbij was gegeven. Vervolgens werd vergeleken welke meldingen ook uit de clinical rule waren gekomen. Hierbij werd vooral gekeken of geen relevante meldingen gemist werden.

Resultaten: In de onderzoeksperiode genereerde EZIS 1959 en de clinical rule 316 interactiesignalen; een vermindering van het aantal signalen met 84%. Daarbij werden geen relevante meldingen gemist. Uit nadere analyse bleek dat verdere reductie van het aantal signalen tot >90% mogelijk is.

Conclusie: Door de medicatiebewaking in EZIS te vervangen door medicatiebewaking via clinical rules kan het aantal interactiesignalen worden verminderd. Deze reductie kan oplopen tot >90%, zonder relevante meldingen te missen. Dit leidt mogelijk tot tijdswinst en een hogere patiëntveiligheid door het reduceren van signaalmoeheid.

Cardiologie

Otterspoor LC (Luuk)

Safety and feasibility of intracoronary hypothermia in acute myocardial infarction: the SINTAMI trial

Luuk C. Otterspoor*, Marcel van ’t Veer*, Lokien X. van Nunen*, Guus Brueren*, Pim Tonino*, Inge Wijnbergen*, Harold Helmes*, Frederik Zimmermann*, Eduard Van Hagen*, Nils P. Johnson, Nico H.J. Pijls*

Background: Hypothermia reduces reperfusion injury and infarct size in animal models of acute myocardial infarction (AMI) if provided before reperfusion. Human studies of systemic hypothermia targeting reperfusion injury in AMI have failed to demonstrate benefit, probably due to suboptimal myocardial cooling coupled with adverse systemic effects. The aim of this study was to assess the safety and feasibility of selective and monitored intracoronary hypothermia, overcoming prior limitations and providing a basis for future randomized clinical trials.

Methods and Results: Ten patients with acute ST-elevation myocardial infarction undergoing primary percutaneous coronary intervention (PPCI) were treated with an intracoronary hypothermia protocol during which saline at room temperature was first administered

through an inflated over-the-wire balloon (OTWB) catheter for 10 minutes (occlusion phase) at the site of the culprit lesion. Next, the OTWB was deflated and 4°C saline was infused for a subsequent 10 minutes (reperfusion phase). During both phases a pressure/temperature wire was positioned in distal coronary artery to titrate the infusion rate to produce the desired temperature. Finally, PPCI proceeded as per routine. The target coronary temperature was successfully achieved within 27 seconds (range 15 - 349) in all patients. The median door-to-balloon time was 55 minutes (range 39 – 80). In two patients with inferior infarction the protocol was stopped due to arrhythmia. The hypothermia protocol was uncomplicated in all infarctions with a culprit lesion in left coronary artery (n = 7). Systemic temperatures remained unchanged. Patients experienced no symptoms during the hypothermia. Total infused volume was 336 ml (interquartile range 215 – 392).
Conclusions: Selective intracoronary delivery provides a novel technique for therapeutic hypothermia. In contrast to systemic cooling methods, it lowers the temperature quickly and guarantees myocardial hypothermia of the infarct area. Potentially this method could attenuate reperfusion injury caused by traditional PPCI for AMI. No adverse events were observed in patients with an anterior infarction. However, it can cause arrhythmia in inferior infarctions.

So far the improvements in reducing mortality for treating myocardial infarction tend to stagnate. This study aims to show the safety and feasibility of application of a recently developed technique in humans with the intention to reduce reperfusion injury.

Chirurgie

Hageman D (David)
Intermittent vacuum therapy for intermittent claudication: A randomized controlled trial

David Hageman*, Lindy N.M. Gommans*, Brit A.C. van Deursen*, Ernst Cancrinus, Marc R.M. Scheltinga, Joep A.W. Teijink*

Achtergrond: De voorkeursbehandeling voor patiënten met claudicatio intermittens (CI) is gesuperviseerde looptherapie (GLT) ondersteund door cardiovasculair risicomanagement. Tegenwoordig wordt in de lekenliteratuur, zonder enige vorm van bewijsvoering, intermitterende vacuümtherapie (IVT) gepropageerd als minimaal-invasieve behandeling voor CI. Al liggende in een buisvormig apparaat worden periodes met negatieve druk op het onderlichaam uitgeoefend, hetgeen de beencirculatie zou stimuleren. Doel van dit onderzoek was het bepalen van het mogelijk aanvullende effect van IVT op de loopafstand bij patiënten met CI die een standaard GLT traject doorlopen.
Methoden: Op de polikliniek vaatchirurgie van het Catharina Ziekenhuis, Máxima Medisch Centrum en St. Anna Ziekenhuis werden patiënten met een enkel-arm index van <0.90 in rust en/of een daling van >0.15 na inspanning gerandomiseerd over twee behandelingsarmen. De experimentele groep ('IVT') ontving GLT en aanvullend IVT met een onderdruk van –60 mmHg terwijl de controlegroep ('sham') GLT en aanvullend IVT met een onderdruk van –5 mmHg kreeg. IVT werd gegeven tijdens 12 behandelsessies van 30 minuten gedurende een periode van zes weken. Patiënten en fysiotherapeuten waren geblindeerd betreffende de behandeling. Primaire uitkomstmaat was de maximale loopafstand (MLA), gemeten met een gestandaardiseerde loopbandtest. Secundaire uitkomstmaten waren de functionele loopafstand (FLA) en zes-minuten wandeltest (6MWT). Overige onderzoeksparameters waren loopfunctiebeperking, algemene en ziekte-specifieke kwaliteit van leven.

Resultaten: Per begin januari 2017 zijn data van 68 patiënten deels geanalyseerd (IVT, n=37; sham, n=31; 44 mannen, 65%; leeftijd 68 ± 8 jaar). Er waren voor aanvang van het onderzoek geen groepsverschillen betreffende MLA (gem. 473 ± 200 m), FLA (gem. 317 ± 201 m) en 6MWT (gem. 401 ± 91 m). MLA, FLA en 6MWT namen na zes en 12 weken in beide groepen significant toe. De mediane toename van de MLA na 12 weken was +198 m (100-338) in de IVT-groep en +335 m (205-705) in de shamgroep (P = 0.021). De toename van de FLA was +120 m (75-278) in de IVT-groep en +230 m (145-356) in de shamgroep (P = 0.024). De 6MWT verbeterde met +55 m (5-102) in de IVT-groep en met +20 m (-15-77) in de shamgroep (P = 0.288). Deze grotere toenames van de MLA en FLA na 12 weken in de shamgroep leidden echter niet tot significante verschillen in absolute loopafstand na 12 weken ten opzichte van de IVT-groep.

Conclusies: Intermitterende vacuümtherapie leidt niet tot verbeterde loopafstanden bij patiënten met claudicatio intermittens

Gynaecologie

Lieshout L van (Laura)

Opportunistic tubectomy is safe in women undergoing hysterectomy for benign gynaecological conditions

van Lieshout L*, Pijlman B, Vos C, de Groot M, van Wijk E, Coppus S, Harmsen M, Vandenput I*, Piek JMJ*

Background: The Fallopian tube is most likely the organ of origin of high grade serous “ovarian” carcinomas. Therefore, opportunistic removal of this organ might lead to a lower incidence. Since this procedure has an opportunistic nature, it should not cause side-effects. To determine whether opportunistic salpingectomy in premenopausal women undergoing hysterectomy for benign indications is both hormonally and surgically safe, we conducted this trial.

Objective: The primary outcome was change in serum Anti-Müllerian Hormone (AMH), FSH, LH and estradiol levels measured pre-surgically and 6 months post-surgery. Secondary outcomes were surgical parameters such as operative time, blood loss and complication rate.

Methods: This multicentre randomised controlled trial was conducted in four hospitals in the Netherlands. A total of 104 premenopausal women, aged 30 to 55 years, were randomly assigned either hysterectomy with opportunistic bilateral tubectomy (N=51) or standard care hysterectomy with preservation of the Fallopian tubes (N=53).

Results: There were no significant differences between the baseline and post-surgery hormone levels. Most importantly, AMH-levels (1,85 pmol/L versus 1,60 pmol/L, P=0,707) did not differ significantly. In surgical outcomes, only surgical time showed a significant difference, which was in favour of the intervention group (P=0,033).

Conclusion: Opportunistic bilateral tubectomy in addition to hysterectomy does not lead to a greater decline in ovarian function or poorer surgical outcomes when compared to hysterectomy alone. Therefore, tubectomy is a safe procedure in premenopausal women undergoing hysterectomy for benign indications.

Innovative aspects: Our study demonstrates the safety of opportunistic tubectomy, which might have a role in the prevention of a very lethal cancer. Compared to other studies on the subject (which are mostly of limited evidential value) we have a larger sample-size and a longer follow-up period of 6 months

PAMM

Hurk M van den (Marjo)

Evaluation of antibiotic team involvement in staphyllococcus Aureus bacteremia

Marjo van den Hurk (Verpleegkundig Specialist)*, Ilse Overdevest (arts-microbioloog)*, Judy Fonville (biomedisch informaticus), Heidi Ammerlaan (internist-infectioloog)*

Achtergrond: Staphylococcus aureus is één van de meest voorkomende verwekkers van een bacteriëmie (SAB), vaak gecompliceerd door strooihaarden, met een hoge mortaliteit. Uit literatuuronderzoek blijkt dat een bundel van interventies de uitkomst van SAB significant verbetert1. Sinds 2013 geeft het multidisciplinair antibioticateam in ons ziekenhuis advies volgens deze bundel aan de hoofdbehandelaar.

Doelstelling: Beoordelen van de invloed van het antbioticateam op de uitvoering van een bundel en op recidiefkans en mortaliteit van SAB.

Opzet: Retrospectief cohortonderzoek.

Methode: Alle volwassen patiënten met SAB opgenomen in het CZE tussen 2013-2015 werden geïncludeerd. Naast betrokkenheid van het antibioticateam werden de punten van de bundel geregistreerd: controle bloedkweken, antibiotica volgens richtlijn, brononderzoek en zo mogelijk verwijderen, onderzoek naar strooihaarden door middel van echo cor en/of PET-CT bij gecompliceerd beloop of verhoogd risico daarop (hartkleplijden, persisterend positieve bloedkweken, community acquired SAB, start antibiotica >48 uur na afname positieve bloedkweek).

Resultaten: We includeerden 179 patiënten, 111 mannen en 89 vrouwen, gemiddeld 70 jaar (range 21-96). Eenendertig patiënten overleden binnen 14 dagen en werden geëxcludeerd voor analyse.

Conclusie: Betrokkenheid van het antibioticateam verbetert de uitvoering van de bundel bij SAB. Dit is significant voor adequate antibiotische behandeling (71% vs 48%; p=0.01) en voor onderzoek naar strooihaarden (26% vs 5%; p=0.002). Het risico op een recidief SAB of op overlijden binnen 90 dagen is lager bij patiënten bij wie het antibioticateam was betrokken (10% vs 21%; p=0.11).

Vernieuwende elementen: Dit onderzoek toont de meerwaarde van betrokkenheid van het antibioticateam bij patiënten met een SAB.

Posters

Algemeen Klinisch Laboratorium

Loon S van (Saskia)

Modeling quantitative effect of kidney function on methylmalonic acid for vitamin B12 deficiency using data mining

Saskia van Loon*, Arjen-Kars Boer*, Anna Wilbik, Uzay Kaymak, and Volkher Scharnhorst*

In the detection of vitamin B12 deficiency, measuring vitamin B12 levels in blood plasma is not a proper representation of actual vitamin B12 levels in tissue. Alternatively, as an indirect but functional measure of tissue vitamin B12 status, methylmalonic acid (MMA) plasma levels can be measured as vitamin B12 is involved as cofactor in the conversion of MMA. However, MMA plasma levels may also be increased due to renal failure. Therefore, upon the interpretation of MMA plasma levels, kidney function should be taken into account. In order to estimate the quantitative effect of kidney function on MMA plasma levels, a data mining approach is chosen. Laboratory data were collected from patients where vitamin B12, kidney function, and MMA measurements were performed. As the data were heterogeneously distributed over the ranges of vitamin B12 and kidney function, a binning approach was chosen where the median MMA per bin was calculated. Based on these MMA medians, the model was build which can be used to correct measured MMA levels for kidney function. By using this model, diagnosing vitamin B12 deficiencies could be improved when kidney failure is present.

Innovative aspects
By using hospital (laboratory) data, more insights can be gained to improve clinical decision making and care. This work is a simple example of the potential of data mining in the clinical setting.

Anesthesiologie

Gielgens RC (Rolf)

The hemodynamic effect of pacing modality after cardio pulmonary bypass surgery measured with transpulmonary thermodilution in patients with a poor left ventricular function

R.C.W. Gielgens*, I.H.F. Herold*, A.H. van Straten*, B.M. van Gelder*, F.A. Bracke*, M.A. Soliman Hamad *, R.A. Bouwman*

Achtergrond: Patients with a decreased left ventricular function undergoing cardiac surgery have a higher chance of difficult weaning from cardiopulmonary bypass and a poorer clinical outcome. doelstelling: In this prospective mono-centre pilot study we measured and compared the effects of right ventricular (RV) and biventricular (BiV) pacing on haemodynamic parameters including arterial dP/dtmax, mean arterial pressure (MAP), and cardiac index (CI) via a femoral artery catheter. Methode: We included 17 patients with prolonged QRS duration and a left ventricular ejection fraction = 35% undergoing coronary artery bypass grafting (CABG) with or without valve replacement. Temporary pacing wires were placed on the right atria and both ventricles. Different pacing modalities were used in a standardised order. Resultaten: arterial dP/dtmax, MAP, cardiac output (CO) and CI were

measured via transpulmonary thermodilution (TPTD). When comparing BiV pacing to RV pacing; BiV pacing showed higher arterial dP/dtmax values (846 ± 646 mmHg/s vs. 800 ± 587 mmHg/s, p=0.023) and higher MAP values (77 ± 19 mmHg vs. 71 ± 18 mmHg, p=0.036). Conclusie: In patients with preoperative decreased left ventricular function undergoing cardiac surgery, BiV pacing improves hemodynamics, indicated by higher arterial dP/dtmax values and blood pressure, when compared to standard RV pacing. In addition, we show that femoral dP/dtmax and pressure measurements can be used to evaluate the effect of intraoperative pacing.

Vernieuwende elementen: In contrast to previous studies using more invasive techniques, our present results are easily to apply in perioperative clinical practice, which could improve weaning from cardiopulmonary bypass, measurable with TPTD.

Loon FH van (Rick)

Pain upon inserting a peripheral intravenous catheter: does the size matter?

Fredericus H.J. van Loon, MSc*; Lisette A.P.M. Puijn*; Wesly H. van Aarle*; Angelique T.M. Dierick-van Daele MSc*; Arthur R.A. Bouwman MD*

Approximately 1.2 billion peripheral intravenous catheters (PIVC) are inserted across the world annually. Each PIVC insertion is a painful and invasive procedure, which affects cognitive abilities by increasing anxiety and discomfort in patients. It seems trivial that inserting a PIVC with a smaller size is thought to be less painful, but no consensus was reached about this statement. Thus, we hypothesized that inserting a smaller sized PIVC has a lower level of pain sensation when compared to a bigger sized PIVC.
This observational study was conducted between May and October 2016 and performed in the operating theatre complex of the Catharina Hospital. Any patient, aged 18 years or older, was eligible to participate. Experienced anaesthesiologists and nurse anaesthetists routinely obtained intravenous access according to usual care. The main outcome was the relation between pain during PIVC insertion with the size of the cannula.
A total of 1.063 patients were included in this study with a mean pain score of 3.3 ± 2.2. Inserting an 18 gauge PIVC resulted in the lowest pain score (NRS = 3.2 ± 2.0), and placement of an 18 gauge PIVC on the dorsum of the hand in the dominant site resulted in even significant lower pain scores when compared to other sized PIVC's inserted on different sites (NRS = 2.6 ± 1.8, p = 0.013).
In conclusion, the lowest pain scores were registered in patients in whom an 18 gauge PIVC was inserted on the dorsum of the hand in the dominant side.

Relevance: Choosing less painful sites will help to gain confidence and cooperation of the patient, the appropriate size of the PIVC as well as the cannulation site should be carefully selected to handle pain upon the procedure.

Cardiologie

Dekker LR (Lukas)

Mapping for Acute transvenous Phrenic nerve Stimulation Study (MAPS Study)

Lukas R.C. Dekker*, MD, Bart Gerritse, PhD, Avram Scheiner, PhD, Lilian Kornet, PhD.

Background: Central Sleep Apnea Syndrome, correlated with the occurrence of heart failure, is characterized by periods of insufficient ventilation during sleep.
Objective: This acute study in 15 patients aims to evaluate at various intravenous locations in the trajectory of standard, intravascular device leads the feasibility of acute transvenous

electrical stimulation of the phrenic nerves to elicit diaphragm movement.
Methods: During the procedural waiting time of a scheduled catheter ablation procedure, a multi-electrode EP catheter was subsequently placed at the superior and inferior vena cava and the junctions of the left jugular and left brachiocephalic vein and right jugular and right brachiocephalic vein, for phrenic nerve stimulation (1-2 seconds ON / 2-3 seconds OFF, 40 Hz, pulse width 210 µs). Diaphragmatic movement was assessed manually and by measuring tidal volume.
Results: In all patients diaphragmatic movement was induced at one or more locations using a median threshold of at least 2V and maximally 7.5V (3.3 mA, 14.2 mA). The lowest median current to obtain diaphragmatic stimulation without discomfort was found for the right brachiocephalic vein (4.7 mA). In 12/15 patients diaphragmatic movement could be induced without any discomfort, but in 3 patients hick-ups occurred. Tidal volumes varied between 250 and 1120 ml.
Conclusion: Diaphragmatic stimulation from the brachiocephalic and caval veins is feasible. Potential side effects should be eliminated by adapting the stimulation pattern. This information could be used to design a catheter, combining cardiac pacing with enhancing diaphragm movement during a sleep apnea episode.

In this study we show that functional diaphragmatic stimulation is feasible by phrenic nerve stimulation from the venous trajectory of standard pacemaker leads. This could provide therapeutic options for patients with central sleep apnea syndrome

Heuvel M van den (Madelon)

The effect of HEparin on Radial artery Occlusion in DIagnostic Coronary angiography (HERODIC)

MCE vd Heuvel MD*, M. Magro MD, M.H.M. Winkens MD, G. J. Laarman MD, M. Kersemans MD, W.H. Aarnoudse MD

Introduction: The transradial approach is nowadays the preferred access site for diagnostic coronary angiography and PCI1-3. The most important complication of the transradial approach is radial artery occlusion possibly leading to persistent closure of the radial artery. Estimations of this complication in literature vary widely (1-33%)4-5. The maintenance of radial artery patency is assumed to increase by using heparin6 but in practice many clinics do not administer standard heparin. We examined whether administration of heparin in different dosages influences the radial patency.
Methods: In this single-centre observational study, 126 patients were evaluated for the patency of the radial artery by physical examination by palpation of the radial pulse 1-4 weeks after diagnostic coronary angiography. The primary endpoint was the patency rate of the radial artery at first visit
Results: The 126 included patients received either no heparin (n=81), 2500iu (n=10), 5000iu (n=33) or 10000iu (n=2) of heparin. A non-patent radial artery was found in 10 (8.6 %) of the 126 patients. Of the patients not receiving heparin 11% (n=9) did not have a palpable radial artery compared to 2% (n=1) in the patients receiving 2500iu of heparin or more (p-value is 0.0948). There were no occlusions in the patients receiving 2500 heparin. Of the 10 patients with a radial artery occlusion 9 (90%) did not receive heparin.
Conclusion: We found a strong trend of radial artery occlusion towards patients not receiving heparin 11% (9 out of 81) versus 2% (1 out of 45) receiving heparin. Administration of at least 2500IE of heparin during transradial catheterisation seems advisable.

Otterspoor LC (Luuk)

Intracoronary Hypothermia for Acute Myocardial Infarction in the Isolated Beating Pig Heart

Luuk C. Otterspoor*, Lokien X. van Nunen*, Tilaï T. Rosalina , Marcel van 't Veer*, Sjoerd Van Tuijl , Marco Stijnen , Marcel C.M. Rutten, Frans N. van de Vosse, Nico H. J. Pijls*

Background: Hypothermia may attenuate reperfusion injury and thereby improve acute myocardial infarction therapy. Systemic cooling trials failed to reduce infarct size, perhaps because the target temperature was not reached fast enough. The use of selective intracoronary hypothermia combined with intracoronary temperature monitoring allows for titrating to target temperature and optimizing the cooling rate.

Aim: We aimed to the test the feasibility of intracoronary cooling for controlled, selective myocardial hypothermia in an isolated beating pig heart.

Methods and results: In five porcine hearts the left anterior descending artery (LAD) was occluded by an over-the-wire balloon (OTWB). After occlusion, saline at 22°C was infused through the OTWB lumen for 5 minutes into the infarct area at a rate of 30 ml/min. Thereafter the balloon was deflated but infusion continued with saline at 4°C for 5 minutes. Distal coronary temperature was continuously monitored by a pressure/temperature guidewire. Myocardial temperature at several locations in the infarct and control areas was recorded using needle thermistors. In the occlusion phase, coronary temperature decreased by 11.4°C (range 9.4–12.5°C). Myocardial temperature throughout the infarct area decreased by 5.1°C (range 1.8–8.1°C) within three minutes. During the reperfusion phase, coronary temperature decreased by 6.2°C (range 4.1– 10.3°C) and myocardial temperature decreased by 4.5°C (range 1.5–7.4°C). Myocardial temperature outside the infarct area was not affected.

Conclusion: In the isolated beating pig heart with acute occlusion of the LAD, we were able to rapidly "induce, maintain, and control" a stable intracoronary and myocardial target temperature of at least 4°C below body temperature without side effects and using standard PCI equipment, justifying further studies of this technique in humans.

So far the improvements in reducing mortality for treating myocardial infarction tend to stagnate. This study aims to develop a new treatment for myocardial infarction additional to standard primary percutaneous coronary intervention to reduce reperfusion injury.

Zelis JM (Jo)

Baseline and dobutamine stress hemodynamic physiology of the severely stenotic aortic valve before and after transcatheter valve implantation

Jo M. Zelis (Presenter)*, Nils P. Johnson (Point of contact), Pim A. L. Tonino*, Patrick Houthuizen*, Frederik M. Zimmermann*, R. Arthur Bouwman*, Guus R. G. Brueren*, Daniel T. Johnson, Jacques J. Koolen*, H. H. M. (Erik) Korsten*, Inge Wijnbergen*, Richard L. Kirkeeide, Nico H. J. Pijls*, K. Lance Gould

Background: Although symptoms from aortic stenosis (AS) arise during exercise, physiologic assessment almost always takes place at rest. Stress hemodynamics might more accurately identify patients who benefit from intervention.

Objectives: This study described the relationship between transvalvular pressure gradient (?P) and transvalvular flow (Q) before and after transcatheter aortic valve implantation (TAVI).

Methods: We recruited routine TAVI's but excluded valve-in-valve procedures or concomitant moderate-to-severe disease of other valves. During graded dobutamine infusions both before and after TAVI, 0.014" pressure wires in the aorta and left ventricle (LV) continuously measured ?P while a pulmonary artery catheter regularly assessed cardiac output by thermodilution.
Results: 16 subjects underwent assessment. Before TAVI, ?P did not display a consistent relationship with Q. Neither linear (median R2 0.16) nor quadratic (median R2<0.01) models at rest predicted stress observations, implying that a severely stenotic valve does not behave like a pure resistor or orifice. Under stress conditions, the unitless ratio of aortic to left ventricular pressures during systolic ejection correlated best with post-TAVI flow improvement. After TAVI, we observed a highly linear relationship (median R2 0.96) indicating a valid valve resistance, median 0.645 (interquartile range 0.405 to 1.152) Woods units.
Conclusions: The existing Gorlin orifice model does not correctly describe AS pathophysiology. Resting assessment cannot reliably predict stress hemodynamics, suggesting that some patients with exertional symptoms may be missed without routine provocative maneuvers. The logical consequence would be a trial of TAVI in patients who are not current candidates due to insufficient gradient at rest but with an abnormal stress aortic valve index (SAVI), measured as the stress aortic/LV systolic pressure ratio.

Zimmermann FM (Frederik)

Fractional Flow Reserve And Pressure Bounded Coronary Flow Reserve To Predict Outcomes in Coronary Artery Disease

Frederik M. Zimmermann, MD*, Jung-Min Ahn, MD, Nils P. Johnson, MD, Eun-Seok Shin, MD, Bon-Kwon Koo, MD, Pil Hyung Lee, MD, Duk-Woo Park, MD, Soo-Jin Kang, MD, Seung-Whan Lee, MD, Young-Hak Kim, MD, Cheol Whan Lee, MD, Seong-Wook Park, MD, Nico H.J. Pijls, MD,* Seung-Jung Park, MD

Background and aims Fractional flow reserve (FFR) has proven to its prognostic and therapeutic value. However, the additive prognostic value of coronary flow reserve (CFR) remains unclear. This study sought to investigate the clinical utility of combined FFR and CFR measurements to predict outcomes.
Methods Using the prospective, multicenter IRIS-FFR (Interventional Cardiology Research Incooperation Society-Fractional Flow Reserve) registry, a total of 2088 lesions from 1837 patients were included in this substudy. Based on baseline and hyperemic pressure gradients, we computed physiologic limits of CFR (so called pressure-bounded CFR) and classified lesions as low (<2) or high (=2). The primary endpoint was major adverse cardiac events (MACE, a composite of cardiac death, myocardial infarction, and revascularization) analyzed on a per-patient basis.
Results During a median follow-up of 1.9 years (interquartile range: 1.0 to 3.0 years), MACE occurred in 5.7% of patients with FFR =0.80 vs. 2.8% of patients with FFR >0.80 (adjusted hazard ratio [aHR]: 2.15, 95% confidence interval [CI]: 1.19 to 3.89; P=0.011. In contrast, the incidence of MACE did not differ between patients with pb-CFR<2 vs. pb-CFR=2 (4.2% vs. 4.2%; aHR: 0.98, CI: 0.60 to 1.58; P=0.92).
Conclusions In this large, prospective registry of over 2000 coronary lesions, FFR was strongly associated with clinical outcomes. In contrast, a significant association between pb-CFR and clinical events could not be determined and adding knowledge of pb-CFR did not improve prognostication over FFR alone.

Chirurgie

Berkelmans G (Gijs)

The long-term effects of direct start of oral intake following minimal invasive esophagectomy

Gijs H.K. Berkelmans, MD*; Laura Fransen*; Teus J. Weijs, MD, PhD; Grard A.P. Nieuwenhuijzen, MD, PhD*; Jelle P. Ruurda, MD, PhD; Ewout A. Kouwenhoven, MD, PhD; Marc J. van Det, MD, PhD; Camiel Rosman, MD, PhD, Richard van Hillegersberg, MD, PhD; Misha D.P. Luyer, MD, PhD*

Background: Following esophagectomy, artificial enteral feeding in the first postoperative days is standard of care. However, early initiation of oral feeding could potentially increase recovery. Although short-term nutritional safety of oral intake after an esophagectomy has been documented, long-term effects of this feeding regimen on nutritional status are unknown.

Methods: Data from patients undergoing minimal invasive Ivor-Lewis esophagectomy between 04-2012 and 09-2015 in three centers in The Netherlands were collected. Patients in the oral feeding group were retrieved from a previous prospective study and compared with a historical cohort of patients with a delay in oral feeding. Body mass index measurements (BMI), complications and the amount of nutritional re-interventions (re- or start of artificial feeding, start of total parenteral nutrition) were gathered over the course of one year after surgery.

Results: In hundred patients, one year after surgery the median BMI was 22.7 kg/m2 and weight loss was 8.0 kg (10.8%). BMI declined compared with their BMI at admission. Patients in the early oral feeding group lost more weight during the first postoperative month ($p=0.004$). In the forthcoming months this difference was not observed. In the early oral feeding group 28 patients (56%) required nutritional re-intervention, compared with 36 patients (72%) in the delayed oral feeding group ($p=0.096$). During admission, more re-interventions were initiated in the delayed oral feeding group (17 vs. 36 patients $p<0.001$).

Conclusion: Esophagectomy reduces BMI in the first year after surgery regardless of the feeding regimen. Delayed oral intake with early artificial feeding has no beneficial impact on long-term weight loss.

New elements: Early initiation of oral nutrition after esophageal surgery has been investigated in a few prospective trials. All these trials focused on the short term consequences of this type of feeding (complications, length of stay etc.). This retrospective cohort compares two postoperative feeding regimens on their long term effects on nutritional outcome and survival.

Hageman D (David)

Diagnostiek en behandeling van perifeer arterieel vaatlijden in de eerste lijn: De NHG-standaard wordt niet goed nageleefd

D. Hageman*, N. Pesser*, P.M.J.F. Huijbers, G.H. Snoeijen, M.R.M. Scheltinga, J.A.W. Teijink*

Achtergrond: De Nederlandse huisarts heeft een sleutelrol toebedeeld gekregen in de zorg voor patiënten met perifeer arterieel vaatlijden (PAV). In de NHG-standaard PAV wordt voor diagnostiek een enkel-arm index (EAI) meting aanbevolen terwijl bij claudicatio intermittens (CI) gesuperviseerde looptherapie (GLT) geïndiceerd is. Ook dienen patiënten een trombocytenaggregatieremmer en statine te gebruiken (cardiovasculair risicomanagement,

CVRM). Doel van dit onderzoek was om de mate van naleving van de NHG-standaard PAV vast te stellen en de betrouwbaarheid van EAI-metingen in de eerste lijn te evalueren.
Methoden: Alle in 2015 door huisartsen naar onze polikliniek vaatchirurgie verwezen patiënten onder verdenking van PAV werden geëvalueerd op basis van drie criteria zoals aanbevolen in de NHG-standaard PAV: uitvoering van de EAI-meting, voorschrijving van CVRM-medicatie en verwijzing voor GLT. Eerstelijns EAI-metingen werden middels een Bland-Altman plot vergeleken met de waarden zoals gemeten in het vaatlaboratorium van ons ziekenhuis. Een afwijkende EAI was gedefinieerd als <0.90 (normaal, EAI = 0.90). Het been met de laagste EAI werd gebruikt voor analyse.
Resultaten: In 2015 werden 470 patiënten door huisartsen verwezen onder verdenking van PAV (266 mannen, 57%; leeftijd 69 ± 12 jaar), waarvan 156 reeds bekend met PAV in de voorgeschiedenis. Van de 314 nieuwe patiënten met verdenking op PAV was bij 55% (n=172) een eerstelijns EAI-meting verricht. De gemiddelde eerstelijns EAI was 0.75 ± 0.24 vergeleken met een gemiddelde waarde van 0.81 ± 0.26 zoals gemeten in het vaatlaboratorium (P = 0.021). Er bleek een grote variatie te bestaan tussen beide EAI-metingen: Pearson correlatiecoëfficiënt r = 0.66 (goed, r > 0.75); Intraclass correlatiecoëfficiënt ICC = 0.64 (goed, ICC > 0.75); variatiecoëfficiënt Cv = 0.16 (goed, Cv < 0.15), zie Figuur. Van de patiënten met een afwijkende eerstelijns EAI gebruikte slechts 56% (n=54) een trombocytenaggregatieremmer (of cumarinederivaat) en 48% (n=46) een statine. Slechts zes van de 92 (7%) patiënten met CI klachten en een afwijkende eerstelijns EAI waren door de huisarts verwezen voor GLT.
Conclusies:De NHG-standaard PAV wordt niet goed nageleefd door huisartsen. Zowel het toepassen van de EAI-meting als de hierop gebaseerde besluitvorming, voor zowel voorschrijving van CVRM-medicatie als verwijzing voor GLT, behoeven verbetering. Een trainingsprogramma voor huisartsen en optimalisatie van de samenwerking tussen eerste en tweede lijn zijn noodzakelijk om een betere naleving van de NHG-standaard PAV te bewerkstelligen.

Hageman D (David)

Toepassing van het 'stepped care model' voor de behandeling van patiënten met claudicatio intermittens neemt toe in Nederland

David Hageman*, Hugo J.P. Fokkenrood, Peter-Paul M. Essers, Mark J.W. Koelemay, Jan-Cees Breek, Anco Vahl, Marc R.M. Scheltinga, Joep A.W. Teijink*

Achtergrond: Patiënten met claudicatio intermittens (CI) wordt conform de huidige (inter)nationale richtlijnen na diagnose tenminste 3 maanden gesuperviseerde looptherapie (GLT) aangeboden. Mocht GLT onvoldoende effectief blijken, wordt eventueel nadere diagnostiek gedaan en mogelijk een interventie aangeboden ('stepped care model', SCM). Ondanks solide bewijs voor de effectiviteit van GLT programma's bleek uit een eerder gepubliceerde budget-impactanalyse dat in 2009 slechts een minderheid van de Nederlandse CI patiënten werd behandeld volgens dit SCM. Doel van het huidige onderzoek was 2 jaar later de landelijke naleving van het SCM opnieuw te beoordelen.
Methoden: Declaratiedata van CI patiënten uit het jaar 2011 werden verkregen van een grote Nederlandse zorgverzekeraar (3,5 miljoen verzekerden). Patiënten werden op basis van hun initiële behandeling ingedeeld in twee groepen. De GLT-groep startte met gesuperviseerde looptherapie tussen 12 maanden vóór (geïniteerd door huisarts) en 3 maanden na (geïniteerd door vaatchirurg) presentatie op de polikliniek vaatchirurgie. De INT-groep werd behandeld met een invasieve interventie binnen 3 maanden na presentatie. Alle CI gerelateerde facturen binnen 2 jaar follow-up werden geanalyseerd. De zo verkregen data van 2011 werden vergeleken met gegevens uit de eerdere 2009 analyse.

Resultaten: Declaratiedata van 4.135 in 2011 behandelde CI patiënten waren beschikbaar voor analyse. In 2011 bleek 56% primair met GLT gestart (2009: 34%; +22%, P < 0.001). Daarentegen bleek de eerste behandeling een invasieve interventie bij 44% (2009: 66%; -22%, P < 0.001). Een revascularisatie in tweede instantie na onsuccesvolle GLT werd alsnog gedaan bij 19% van de GLT-groep (2009: 6%; +13%, P < 0.001). Van de INT-groep kreeg 19% een re-interventie (2009: 35%; -16%, P < 0.001) en werd 29% (2009: 10%; +19%, P < 0.001) alsnog voor GLT verwezen. De gemiddelde kosten van behandeling in 2011 waren 6% lager dan die in 2009 (€6.885 vs. €7.300; P = 0.020).
Conclusies: Tussen 2009 en 2011 werd een 22% stijging van de 'GLT eerst' behandelstrategie behaald hetgeen resulteerde in lagere kosten voor de gezondheidszorg. Het SCM concept wordt door de Nederlandse behandelaars geleidelijk aan steeds meer omarmd.

Smeets B (Boudewijn)

Anti-oxidative amino acids and bioelectrical impedance analysis in patients undergoing major rectal surgery randomized to early enteral versus parenteral nutrition

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Background: Early enteral nutrition (EEN) reduces complications when compared to early parenteral nutrition (EPN) following surgery for locally advanced or recurrent rectal cancer. However, the underlying mechanism is unclear.
Aim: To study plasma concentrations of anti-oxidative amino acids and changes in body fluid distribution in patients randomized to EEN versus EPN.
Methods: Preplanned substudy of a previous trial in which 123 patients were randomized to EEN versus EPN. Glycine, taurine, N-acetylcysteine, glutamic acid, and hydroxyproline were determined in plasma preoperatively and on postoperative day (POD) 1 and 5. Bioelectrical impedance analysis (BIA) determined body fluid distribution parameters.
Results: On POD1, patients receiving EEN had lower glycine concentrations than patients receiving EPN (Intention-to-treat (ITT)-analysis, p=0.003). On POD5, patients receiving EEN had lower glycine concentrations (ITT-analysis, p=0.005; Per-protocol (PP)-analysis, p=0.005) and lower glutamic acid concentrations (PP-analysis, p=0.036) when compared to patients receiving EPN. Preoperatively, BIA in patients receiving EEN demonstrated higher nutritional index ratios than patients receiving EPN (ITT-analysis, p=0.005; PP-analysis, p=0.006). On POD5, patients receiving EEN had higher nutritional index ratios (ITT-analysis, p=0.008; PP-analysis, p=0.017) and higher 200/5 kHz impedance ratios (ITT-analysis, p=0.030) when compared to patients receiving EPN. No other differences were observed between groups.
Conclusions: Amino acid concentrations and body fluid distribution parameters in patients receiving EEN were less physiological or similar compared to patients receiving EPN, while a better clinical outcome was observed. Neither amino acid concentrations nor changes in body fluid distribution explain the beneficial clinical effects of EEN following major rectal surgery.

Smeets B (Boudewijn)

Health-related Quality of Life and a Cost-effectiveness Analysis of Gum Chewing versus Placebo in Patients Undergoing Colorectal Surgery: Results of a randomized controlled trial

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Background: Postoperative ileus (POI) and anastomotic leakage (AL) following colorectal surgery severely increase healthcare costs and decrease quality of life.
Aim: The aim of this sub-study of a previous randomized controlled trial is to evaluate the effects of reducing POI and AL via perioperative gum chewing compared to placebo on in-hospital costs, health-related quality of life (HRQoL), and to determine cost-effectiveness.
Methods: In patients aged 18 or older and undergoing elective, open colorectal surgery, health-related quality of life was assessed using the EORTC-QLQ-C30 questionnaire and mapped to utility scores. Costs were estimated from a hospital perspective using a bottom-up approach. Incremental cost-effectiveness ratios between perioperative gum chewing and placebo were estimated where the effects are expressed in terms of rate of complications and costs.
Results: A total of 112 patients were included. No differences between groups were observed in mean change in any of the HRQoL scores, utilities, or overall mean costs (€13,108 for perioperative gum chewing versus €13,615 for control, p = 0.85). Economic evaluation indicated a dominant intervention with a probability of >50% that gum chewing is less costly and more effective in both POI and AL when compared to control regardless of the applied threshold value.
Conclusions: Gum chewing may be cost-effective in reducing POI, and to a lesser extent in reducing AL, while no benefit of gum chewing was observed on HRQoL, mapped utilities, and mean overall in-hospital costs. Future studies with adequate sample sizes using validated questionnaires at standardized time points are needed.

Dermatologie

Cosgun N (Betul)

Vaker gestoorde wondgenezing na het droog houden van een wond na een kleine chirurgische ingreep van de huid

N.Cosgun*, S.R.P. Dodemont*, M.M. Hoogbergen*, M.R.T.M. Thissen*

Achtergrond: De instructies over de wondverzorging na de eerste 48 uur aansluitend aan een kleine chirurgische ingreep van de huid zijn over het algemeen niet eenduidig.
Door dermatologen wordt veelal geadviseerd om de wond niet in contact met water te laten komen totdat de hechtingen verwijderd zijn.
Een acceptabele grens voor wondinfecties na kleine chirurgische ingrepen ligt onder de 5%.
Doelstelling: Onderzoek naar het effect op de wondgenezing van het droog houden versus douchen na de eerste 48 uur van de wond na een kleine chirurgische ingreep van de huid, gelet ophet mogelijk optreden van wondinfectie en/of wonddehiscentie.
Methode: In de periode februari – juni 2016 werden patiënten op de polikliniek dermatologie en plastische chirurgie met een kleine chirurgische ingreep toegewezen aan de douche groep (oneven week) of droge groep (even week). Beide groepen hebben de wond de eerste 48 uur droog gehouden. In de douche groep werd toegestaan om de wond na 48 uur kortdurend in contact te laten komen met water. De droge groep heeft de wond droog

gehouden totdat de hechtingen werden verwijderd. Exclusiecriteria waren wonden die niet primair gesloten of open gelaten werden, antibiotica gebruik, immunosuppressiva gebruik en stollingsstoornissen. De primaire uitkomstmaten waren wondinfectie en wonddehiscentie.
Resultaten: In totaal hebben 364 patiënten met 429 wonden deelgenomen aan de studie, waarvan 25 patiënten met 30 wonden zijn geëxcludeerd. De incidentie van wondinfectie in de douche groep (n=209 wonden) versus droge groep (n=190 wonden) was 2.9% versus 8.4% (p=0.015). De incidentie van wonddehiscentie in de douche groep versus droge groep was 0.96% versus 9.47% (p=0.000).
Conclusie: Het droog houden van de wond na een kleine chirurgische ingreep leidt tot een significant hogere kans op wondinfectie en wonddehiscentie in onze studiepopulatie.

Fohr, L (Leonard)

A mobile-health application for the follow up treatment of primary closed wounds in an outpatient setting – a randomized controlled trial

Leonard Föhr*, Dr. Monique Thissen*, drs. Herm Martens*

Achtergrond van het onderzoek: Follow-up bezoeken na het primair sluiten van ongecompliceerde wonden maken een substantieel deel uit van het aantal bezoeken aan ziekenhuizen en huisartsen. Een Smart- phone applicatie met specifieke instructies over de nabehandeling van de chirurgische wond kan de zelfbehandeling inclusief het verwijderen van hechtingen bevorderen. Er wordt verwacht dat het gemak van patiënten wordt verbeterd en de zorgkosten verlaagd worden.
Doel van het onderzoek: (1) Het onderzoeken van veiligheid en effectiviteit van een mobile-health systeem dat gericht is op het bevorderen van het monitoren van wondgenezing en het zelf verwijderen van hechtingen van primair gesloten wonden in de thuisomgeving. Het systeem is een "store and forward" oplossing om de uitkomst van wondheling en het verwijderen van hechtingen op afstand te evalueren. (2) Onderzoeken of het gebruik van de applicatie het aantal patiënten die op de polikliniek terug moeten komen significant kan verminderen. (3) Het onderzoeken van patiënttevredenheid en tevredenheid van de zorgverleners met de app.
Onderzoeksopzet: Gerandomiseerd gecontroleerd onderzoek
Methode: Onderzoekspopulatie (N=206): Patiënten (18-65 jaar) die een laagrisico electieve chirurgische ingreep ondergaan in de poliklinische operatiekamer van de afdeling dermatologie in het Catharina Ziekenhuis Eindhoven.
Interventie: De experimentele groep gebruikt een mobile health applicatie (“PoliLink”) met als doel de zelfverzorging van ongecompliceerde primair gesloten wonden inclusief het verwijderen van de hechtingen thuis te stimuleren.
Controle: De controle groep volgt de standaard procedure met mondeling en geschreven instructies over wondverzorging en een follow-up bezoek bij de zorgverlener.

Uitkomsten:
Primaire onderzoeksvariabelen/uitkomstmaten:
Het aantal postoperatieve wondinfecties (non-inferiority)
Secundaire onderzoeksvariabelen/uitkomstmaten: Aantal bezoeken aan de polikliniek of huisarts in verband met wondcontrole (superiority)
Het aantal wonddehiscenties (non inferiority)
Patiënttevredenheid en tevredenheid van de zorgverleners (superiority)

Dietetiek

Sielcke A (Anne) - Hammann K (Kirsten)
De handknijpkracht van hemodialyse- en peritoneaaldialysepatiënten van het Catharina Ziekenhuis nader bekeken

Anne Sielcken* en Kirsten Hammann* (2 DIO's van de Hogeschool van Arnhem en Nijmegen)

Uit eerder onderzoek vanuit het Catharina Ziekenhuis was aangetoond dat de handknijpkracht een van de meest valide parameters is om de spiermassa in relatie tot de voedingstoestand te bepalen. De diëtisten in het Catharina Ziekenhuis hebben geen referentiewaarden voor de handknijpkracht en dit bemoeilijkt een objectieve beoordeling van de handknijpkrachtmeting.

Doelstellingen:

1. Beïnvloeden leeftijd, geslacht, dialyseduur en dialysesoort de handknijpkrachtwaarde bij dialyserende patiënten van het Catharina Ziekenhuis?
2. Staat een lage handknijpkracht in verband met mortaliteit?

Methode: In dit onderzoek zijn alleen dialyserende patiënten van het Catharina Ziekenhuis meegenomen. De handknijpkrachtmetingen zijn gehaald uit de EPD's. In totaal waren er 237 patiënten, waarvan 67 overledenen. Er is onderzocht of de parameters leeftijd, geslacht, dialyseduur en dialysesoort invloed hebben op de waarde van de handknijpkracht van dialysepatiënten. Ook is onderzocht of de waarde van de handknijpkracht in verband staat met mortaliteit. Voor de statistische analyses is gebruik gemaakt van een lineaire regressieanalyse, scatterplot en Pearson's correlatiecoëfficiënt.

Resultaten: Er is een significant verschil tussen de waarde van de handknijpkracht en leeftijd ($p=0,00$), de waarde van de handknijpkracht en geslacht ($p=0,00$) en de waarde van de handknijpkracht en dialysesoort ($p=0,03$). Er is geen significant verschil tussen de waarde van de handknijpkracht en de dialyseduur ($p=0,60$). Er is geen significant verschil tussen de overleving en de handknijpkracht ($p=0,42$).

Conclusies: Leeftijd, geslacht en dialysesoort beïnvloeden de handknijpkrachtwaarden. Dialyseduur doet dit niet. Er is geen verband tussen een lage handknijpkracht en mortaliteit, terwijl uit literatuur blijkt dat hier wel een verband tussen is.

Gynaecologie

Stevens KY (Kelly)
Endometriumablatie bij premenopauzale vrouwen: predictiemodellen voor falen van de ingreep

K.Y.R. Stevens*, D. Meulenbroeks, S. Houterman*, T. Gijsen, S. Weyers, B.C. Schoot*

Achtergrond: Endometriumablatie(EA) is een steeds vaker gekozen operatieve behandeling voor therapieresistent afwijkend uterien bloedverlies. Dit komt voornamelijk door de lage risico's, lage kosten en korte herstelperiode. Het is een minimaal invasief alternatief voor een hysterectomie wanneer de medicamenteuze behandeling faalt.

In tegenstelling tot de goede korte termijn effecten, blijkt EA op lange termijn minder succesvol. Cyclische of continue buikpijn en afwijkend bloedverlies leiden in 10-21% van de gevallen toch nog tot een hysterectomie. Verschillende factoren, zoals leeftijd en pariteit, lijken hierop van invloed.

Doelstelling: Het ontwikkelen van predictiemodellen voor patientcounseling over het falen van EA, met betrekking tot de kans op buikpijn, een persisterend afwijkend

bloedingspatroon, kans op hysterectomie en ontevredenheid.
Methode: Multivariate analyse van retrospectieve patiëntgegevens (n=729) uit het Catharina ziekenhuis Eindhoven en Elkerliek ziekenhuis Helmond. Met behulp van Logistische- en Cox-Regressie analyses worden vervolgens multifactoriële predictiemodellen gevormd.
Resultaten: De gemiddelde leeftijd van de patienten was 43.3 jaar (range 20 - 55), 95.5% had klachten van menorragie, 48.3% van dysmenorroe en 52.1% van dysfunctioneel bloedverlies. Bij een deel van deze groep faalde EA, een hysterectomie werd uitgevoerd bij 147 patiënten (20.2%). Lage leeftijd, pariteit >5 en dysmenorroe vooraf werden bij alle uitkomstmaten als significante multivariate voorspellers gezien. Bij de uitkomstmaat hysterectomie had de duur van de menses ook invloed, bij de uitkomstmaat afwijkend bloedverlies waren dit een sondelengte >8cm en dysfunctioneel bloedverlies. Bij ontevredenheid bleek een keizersnede in anamnese ook significant.
Conclusie Er bestaan verschillende voorspellende factoren voor het falen van EA.
Deze factoren zullen leiden tot een multivariaat predictiemodel wat de counseling voor EA kan verbeteren en bijdraagt aan de shared decision making.
Vernieuwende elementen van de studie
Met behulp van de predictiemodellen, kan een betere counseling worden gedaan m.b.t. endometriumablatie bij patiënten met afwijkend bloedverlies. Er kan worden gecounseld voor de uitkomstmaten hysterectomie, ontevredenheid, buikpijn en een afwijkend bloedingspatroon na de ingreep. Dit kan patiënten helpen een weloverwogen beslissing te maken en het draagt tevens bij aan de shared decision making.

Intensive Care

Hendriks MM (Marianne) - Buise MP (Marc)
Virtual gaming at the intensive care unit

M.M.C. Hendriks, M.P. Buise

Background: Intensive care unit- acquired weakness is a common and important consequence of prolonged bedrest and immobility in the critically ill population. Early physical activity and mobilization are essential in the prevention of physical deconditioning related to critical illness. In-bed cycling is part of early physical therapy . Promoting physical activity with an interactive video game can improve the rehabilitation in the ICU setting.
Objective: The aim of this study is to evaluate the efficiency of in-bed cycling with or without interactive gaming
Methods: We conducted an observational study from September 2016 to January 2017 of adults admitted to a 25-bed medical ICU receiving in-bed cycling with interactive video games as part of routine physical therapy. We prospectively collected patient characteristics, clinical data, specific details of each cycling session and a patient rating scale.
Results: Nine patients received in-bed cycling during the study period. 13 cycling sessions with interactive videogame and 14 cycling sessions without interactive videogame. Patient's mean age was 71 years, and 7 (89%) were male. The mean time from ICU admission to first cycling session was 16 days. The mean duration of a cycling session with interactive videogame was 16.4 minutes in comparison with 15.6 min in cycling sessions without interactive videogame. (N.S.)
Conclusion: There were no significant differences between in-bed cycling with or without interactive videogame. However, there is a trend towards a beneficial effect of in-bed cycling with interactive videogame. Videogame therapy may complement existing rehabilitation techniques for ICU patients.

Vernieuwende elementen

- Geen eerdere vergelijking bij IC patiënten tussen conventionele therapie en therapie icm virtueel reality gaming op duur van activiteit/ mate van inspanning
- Eerder onderzoek over virtueel reality gaming en IC patiënten alleen gericht op safety en feasibility

Wenstedt EF (Eliane)

Closed-loop modes for mechanical ventilation: commonly applied or left unused? A nationwide survey

E.F.E. Wenstedt*, A.J.R. De Bie*, H.H.M. Korsten*, M.J. Schultz, A.J.G.H. Bindels*

Background: The most recent modes for mechanical ventilation are called closed-loop modes, which are able to automatically adjust certain respiratory settings. Although closed-loop modes appear to be safe and efficient and new types keep emerging, it is unclear to what extent these modes are actually used on Intensive Care Units (ICUs).
Objective: The aim of this study was to explore current practice of closed-loop ventilation on Dutch ICUs and, if applicable, to analyze the arguments for not using closed-loop modes.
Methods: A short survey was conducted among all non-pediatric ICUs in the Netherlands. Participants could answer the questions either by phone or by e-mail. Use of closed-loop modes was classified as frequent, occasionally or never, if respondents stated they had used these modes in the last week, in the last month/year, or never, respectively.
Results: The response rate of the survey was 82% (72 of 88). Respondents had access to a closed–loop ventilation mode in 58% of the ICUs (42 of 72). Of these ICUs, 43% (18 of 42) frequently applied a closed-loop ventilation mode, while 57% (24 of 42) never or occasionally used it. Reasons for not using these modes were lack of knowledge (40%), insufficient evidence reporting a beneficial effect (35%) and lack of confidence in the mode (25%).
Conclusion: While industry continues to develop new closed-loop modes for mechanical ventilation, implementation of these modes in clinical practice seems to lag behind. Various barriers play a role, and these issues all need attention in future investigations.

What this study adds: Although new closed-loop modes are constantly being developed, it was unclear to what extent these modes are actually used in clinical practice. This study demonstrates that implementation of closed-loop modes seems to lag behind and that various barriers have to be overcome before successful implementation will be possible.

Inwendige Geneeskunde

Dekker MJ (Marijke)

Pre-dialysis fluid status modifies the relation between pre-dialysis systolic blood pressure and outcome in prevalent hemodialysis patients

Marijke Dekker*, Constantijn Konings*, Bernard Canaud, Paola Carioni, Adrian Guinsburg, Magdalena Madero, Jeroen van der Net, Jochen Raimann, Frank van der Sande, Len Usvyat, Yuedong Wang, Xiaoqi Xu, Peter Kotanko, Jeroen Kooman

Background: Pre-dialysis fluid overload (FO) is a risk factor for mortality and the most frequent cause of increased systolic blood pressure (SBP). However, low pre-dialysis SBP associates with increased mortality. Whether pre-dialysis fluid status (FS) modifies the association of SBP with mortality has not yet been investigated.
Aim: to investigate the interaction between pre-dialysis FS and SBP in the association with

mortality.
Methods: All hemodialysis patients from the MONDO database where, during a 3-months baseline period, FS was assessed by multifrequency bioimpedance spectroscopy in 2011 were included. All cause mortality was recorded during 1-year follow-up. Associations with outcome were assessed with Cox-models with different
levels of adjustment.
Results: We included 8883 patients. In patients with pre-dialysis FO (>+1.1 to +2.5L), low pre-dialysis SBP (<110 mmHg) was associated with an increased risk of death (HR 1.52 (95% CI 1.06-2.17)), as compared to normovolemic (-1.1L to +1.1L)(NV) and normotensive (110-140 mmHg) (NT) patients. An increased risk of death was also
observed in patients with pre-dialysis fluid depletion ((FD)< -1.1L)) and a pre-dialysis SBP <140 mmHg. In NV patients, low pre-dialysis SBP associated with a survival benefit (HR 0.46 (95% CI 0.23-0.91)). Post-dialysis FD was associated with a survival benefit.
Conclusion: The relation between SBP and outcome is, at least partly, dependent on pre-dialysis FS. Low pre-dialysis SBP isdisadvantageous in patients with FO or FD, but not in NV. Post-dialysis FD was found to associate with improved survival. We suggest interpreting pre-dialysis SBP levels in the context of FS and not as an isolated
marker.

Maag-darm-leverziekten

Noordzij IC (Irma)

High percentage of visible lesions in patients with Barrett's oesophagus referred with dysplasia in random biopsies.

IC. Noordzij, MD*; W. L. Curvers, MD, PhD*; G. van Lijnschoten, MD, PhD*;
C. J.Huysentruyt, MD*; E. J. Schoon, MD, PhD*

Introduction: Endoscopic recognition of dysplasia or early adenocarcinoma (EAC) in Barrett's oesophagus (BE) is difficult. In case of early detection organ-sparing endoscopic treatment is feasible. In patients referred with dysplasia in random biopsies during follow-up, lesions are sometimes visible on imaging in an expert centre. In this study we want to assess the significance of dysplasia in random biopsies in BE, in the absence of reported visible lesions as well as the final outcome of pathology.
Method: We retrospectively analysed all patients referred from 19 community hospitals with the diagnosis of dysplasia or EAC in BE between February 2008 and April 2016. Patients were included for analysis in case of absence of reporting visible lesions at referral.
Results: 82 of 184 patients referred with dysplasia or EAC did not show any visible lesion upon initial endoscopy. In our tertiary centre, in 4/32 referred with low-grade dysplasia (LGD), 3 cases of EAC were detected and one confirmed LGD. In 30/43 referred with high-grade dysplasia (HGD), a visible lesion with histology specimens corresponding to HGD (15) and EAC (15) were found, respectively. All cases of EAC were detected (7/7). In 18/75 of the patients referred with dysplasia (LGD/HGD) without a visible lesion, the referral diagnosis was upstaged to EAC. Overall, 41/82 lesions were found additionally.
Conclusion: The presence of any grade of dysplasia in random biopsies in BE screening in community hospitals is a potential marker for more severe final pathology after endoscopic work-up in an expert centre. Training in Barrett imaging is mandatory for non-expert endoscopists.

Vernieuwende elementen: The high percentage of missing visible lesions in BE containing EAC underscores current guideline to referrer patients with any grade of dysplasia to expert

centres and expresses the need for training in recognition of dysplasia for non-expert endoscopists.

Noordzij IC (Irma)

Salvage endoscopic resection in patients with oesophageal adenocarcinoma after chemoradiotherapy

IC. Noordzij, MD*; W. L. Curvers, MD, PhD*; C. J. Huysentruyt, MD*; G. A.P. Nieuwenhuijzen, MD, PhD*; G.J. Creemers, MD, PhD*; M. J.C. van der Sangen, MD, PhD*; E. J. Schoon, MD, PhD*

In advanced oesophageal carcinoma, chemoradiotherapy (CRT) followed by oesophageal resection is the preferred curative treatment. Definitive CRT is used as an alternative for oesophageal adenocarcinoma in patients not fit for surgery, but local failure remains an issue.

Recent literature shows endoscopic resection of residual oesophageal squamous cell carcinoma after CRT is successful, but there is no systemic follow-up protocol for endoscopy after definitive CRT for oesophageal adenocarcinoma in patients not fit for surgery, but fit for endoscopy. We describe endoscopic resection of residual oesophageal adenocarcinoma after chemoradiotherapy.

Two patients with advanced oesophageal adenocarcinoma (CT2N0M0) had been treated with CRT. When residual tumour was observed endoscopically, complete remission was achieved by salvage endoscopy alone or in combination with APC. No signs of metastases or recurrent disease were seen for respectively 35 and 37 months. Both patients died of non-tumour related cause.

Salvage endoscopy after CRT is safe and feasible and could potentially be a curative treatment for residual adenocarcinoma after CRT in selected patients, which are not fit for surgery but are fit enough for systematic sedated endoscopy. Endoscopic follow-up of patients after CRT could be considered.

Vernieuwende elementen: This is world-wide the first report ever describing curative endoscopic salvage treatment of residual adenocarcinoma after CRT. In case of patients unfit for surgery, but fit enough for endoscopy, long-term follow-up after CRT could be considered since local control could be achieved by means of salvage endoscopic resection of small remnant or recurrent tumours.

Strijbos D (Denise)

PEG-J for gastroparesis: the ultimate solution?

D. Strijbos, MD*; D. Keszthelyi, MD, PhD, J Kruimel, MD, PhD, L.P.L. Gilissen, MD, PhD*, R. de Ridder, MD, J. Conchillo, MD, PhD and A.A.M Masclee, MD, PhD

Background: Gastroparesis is characterized by abnormal gastric motor function with delayed gastric emptying in the absence of mechanical obstruction. Patients are treated with a stepwise approach, starting with dietary advice and prokinetics followed by pyloric botulinum toxin. When these measures fail, in the presence of malnutrition, three months of 'gastric rest' by complete nasoduodenal tube feeding and placement of a percutaneous endoscopic gastrostomy with jejunal extension (PEG-J) are considered.

Aims: Our primary aim was to evaluate the effect of nutritional treatment entities in patients with gastroparesis who fail previous treatments, on weight, Body Mass Index and symptoms.

Methods: Prospectively collected data of all referred gastroparesis patients between 2008

and 2016 were reviewed.
Results: 101 patients (71% female, 20-86yrs, mean 55yrs) were analyzed. 51 patients had adequate responses to dietary advice and prokinetics. For the remaining 50 patients various treatments were used; of these, 36 patients were treated with three months of gastric rest, which was well accepted. 19 patients with insufficient symptomatic response after 3 months gastric rest continued treatment with enteral feeding through PEG-J. A significant weight gain of 8.2% was seen (mean 5.0kg, range -6% to +29%), p=0.003). In 84% of patients the PEG-J is still in use (mean treatment time 29 months); 3 patients have resumed complete oral intake (mean treatment time 11 months). Over 75% of patients report adequate effect on symptoms.
Conclusion: In gastroparesis patients who failed previous treatments, PEG-J is an excellent option to regain and maintain adequate nutritional status with marked symptom control.

Innovatory aspects:
This study describes the first sequelae of a relatively large group of tertiary referral gastroparesis patients, failing all previous treatment, successfully treated with PEG-J treatment.

Strijbos D (Denise)

Percutaneous Endoscopic Gastrostomy under conscious sedation in patients with Amyotrophic Lateral Sclerosis is safe

D. Strijbos, MD*, J. Hofstede, MD, D. Keszthelyi, MD, PhD, A.A.M Masclee, MD, PhD and L.P.L. Gilissen, MD, PhD*

Background: Amyotrophic Lateral Sclerosis (ALS) is a progressive neuromuscular disease that causes muscle weakness with respiratory and/or swallowing dysfunction. Eventually enteral feeding is indicated in most patients. Currently, a Percutaneous Endoscopic Gastrostomy (PEG) tube is considered route of first choice for long-term enteral feeding. Due to its invasiveness, PEG placement is performed under conscious sedation. The Dutch guideline 'PEG in ALS' advises against conscious sedation in ALS because of the risk of respiratory complications.
In our tertiary referral hospital, conscious sedation has been used for years in patients with ALS.
Aims: This study reviews all PEG procedures performed under conscious sedation ALS patients, with emphasis on pulmonary complications.
Methods: A retrospective review covering the interval from October 2009 until April 2016 .
Results: A total of 45 ALS patients (44% males) receiving intravenous midazolam sedation during PEG placement were included in the analysis, age 36-91yrs (mean 68.7), with Forced Vital Capacity between 24-116% (mean 68.10). Mean midazolam dose was 5mg (range 2.5-7.5). Three patients used night-time NIPPV, no NIPPV was used during the procedure. No respiratory complications occurred within 30 days after the procedure. Other complications, were comparable to published data. Mean survival after PEG placement was 403 days (range 32-1367).
Conclusion: Use of conscious sedation during PEG placement in ALS patients did not lead to respiratory complications nor an increase of other procedure related complications. Our data indicate that conscious sedation for PEG placement in ALS patients can be safely performed, in contrary to the Dutch guideline.

Innovatory aspects:
This study is the first to describe safe conscious sedation in ALS patients (without using NIPPV during the procedure). It might resolve a part of the overall anxious feelings considering sedation in ALS. We advocate for a future change in (Dutch) guidelines considering sedation.

Orthopedie

Andrei PA (Paul)
Een nieuwe methode om enkelstijfheid te meten en deze tussen gezonde en klompvoeten te vergelijken

P.A. Andrei*, M.C. van der Steen*, B. van Rietbergen, K. Ito, A.T. Besselaaar

ACHTERGROND: Klompvoeten zijn één van de meest voorkomende en oudste orthopedische congenitale afwijking. De afwijking is een combinatie van varus en equinus van de achtervoet, cavus van de middenvoet en adductie van de voorvoet. Orthopedische chirurgen claimen dat klompvoeten stijver zijn dan gezonde voeten. Bovendien menen zij dat binnen de klompvoeten de erger aangedane voeten stijver aanvoelen t.o.v. de mildere klompvoeten en hebben het idee dat de stijvere klompvoeten eerder de neiging hebben om na behandeling terug te vallen (relapse).
DOELSTELLING: Het doel van dit onderzoek is om de enkel stijfheid te kwantificeren en een vergelijking te maken tussen de stijfheid van klompvoeten en gezonde voeten.
METHODE: Om de stijfheid te bepalen, wordt de enkel d.m.v. een handmatig aangebracht moment bewogen in abductie , adductie dorsaal- en plantairflexie. Dit gaat via een speciaal ontworpen meetinstrument dat simultaan de hoekverplaatsing en het aangebrachte moment meet. De steilheid van de grafiek die hieruit ontstaat, is een maat voor stijfheid. Metingen zijn uitgevoerd bij een groep van 11 klompvoetpatiënten en 11 gezonde kinderen ter controle.
RESULTATEN: Uit de eerste analyses blijkt dat klompvoeten in ab-en adductie stijver zijn dan gezonde voeten ($p<0.05$). Voor dorsaal- en plantairflexie zijn er geen verschillen gevonden, mogelijk heeft dit te maken met het feit dat voor deze metingen de gebruikte methode niet geschikt was.
CONCLUSIE: De ontwikkelende methode is geschikt om stijfheid van voeten te meten in de bewegingsrichting ab- adductie. Klompvoeten zijn stijver dan gezonde voeten.

VERNIEUWENDE ELEMENTEN: In de toekomst kan deze nieuwe methode gebruikt worden om de stijfheid van klompvoeten te monitoren en wellicht relapse klompvoeten vroegtijdig op te sporen. Op deze manier kan de behandeling van klompvoeten patiënt specifieker worden.

Botter CE (Cindy)
Patient Satisfaction after a Revision of Knee or Hip Arthroplasty

C.E. Botter*, R.W.T.M. van Kempen*, J.G.E. Hendriks *, C.C.M.M. Jaspars*, C.J.M. Oosterbos*, M.C. van der Steen*

Background: For patients who suffer from arthrosis, total hip arthroplasty (THA) and total knee arthroplasty (TKA) are very common interventions to reduce pain and improve function and quality of life. In approximately 3.2% of all primary arthroplasty interventions a revision within 5 years is needed. Little is known about the outcome in terms of the constructs pain, function, quality of life and satisfaction of patients during the treatment process.

Purpose: The aim of this study is to evaluate the satisfaction of the patient after knee or hip revision surgery in a prospective cohort after a minimal follow-up of 3 months.
Methods: Within this cohort patients filled out questionnaires on pain, function, quality of life preoperative and 3 and 12 months postoperative. In the current analyses patients (>18y) who received a revision of a THA or TKA between 01-05-2015 and 15-12-2016 with a minimum follow up op 3 months were included.
Results: A total of 113 patients were included whereof 55 TKA and 58 THA. Main reasons for revision were aseptic loosening and mal-position. On all constructs significant improvement was seen at 3 months. This improvement was in general maintained at 12 months. Overall, patient satisfaction was graded 8/10 by patients who received a revision of THA and 7/10 revision-TKA patients.
Conclusion: Improvement on all constructs was already seen 3 months postoperatively. In general patients were highly satisfied with the result of their revision. . To receive an even better insight of improvement and to be able to look at subgroups a bigger cohort is needed.

INNOVATIE : Most of the patients have a certain expectation of their improvement after a revision. In practice it seems like these expectations are not always met. We hope that this study gives us the information we need to inform patients in a better way and help us adjust their expectations.

Heijden, L van der (Laura)

De validiteit van de Simendo Arthroscopie simulator

Laura van der Heijden, Marieke van der Steen* & Max Reijman

In de huidige tijd van de geneeskunde zijn scopische ingrepen niet meer weg te denken. De grote voordelen van een scopische ingreep zijn minder invasiviteit, sneller herstel en minder infecties. Gedurende de opleiding tot orthopedisch chirurg wordt er geregeld gebruik gemaakt van arthroscopie simulatoren om de scopische vaardigheden van de orthopeed in spe te trainen. De Simendo arthroscopie simulator kan gebruikt worden om een knie-scopie te oefenen.
Doel van deze studie is het onderzoeken van de educatieve en realistische waarde alsmede de gebruiksvriendelijkheid van de Simendo arthroscopie simulator. Hierbij wordt rekening gehouden met de ervaring van de gebruiker, teneinde beter inzicht te krijgen in de manier waarop de Simendo simulator kan worden ingezet bij de scholing van orthopeden en orthopeden in spe.
Semi-artsen, ANIOS-en, AIOS-en en orthopedisch chirurgen van o.a. het Catharina Ziekenhuis hebben deelgenomen aan dit onderzoek. Op basis van ervaring zijn ze ingedeeld in 1 van de drie onderzoeksgroepen (geen ervaring, 1-60 arthroscopieën uitgevoerd en >60 arthroscopieën uitgevoerd). Per groep worden 20 deelnemers geïncludeerd. Deelnemers voerden drie verschillende taken uit met de simulator en vulden een gestandaardiseerde vragenlijst in over het gebruik van de simulator.
Net na de deadline voor dit abstract, vindt de allerlaatste meting plaats. Tot op heden is er dus nog niks te zeggen over resultaten en conclusies. Andere onderzoeken met andere simulatoren wezen uit dat er significante verschillen te zien waren in tijdmetingen van de drie taken tussen de onervaren categorie vergeleken met de ervaren categorie.
Vernieuwende elementen:Voor orthopeden (in opleiding) is dit een relevante studie omdat de Simendo arthroscopie simulator nog nooit op deze manier is onderzocht. Resultaten van deze studie zouden er voor kunnen zorgen dat de Simendo simulator een belangrijkere rol krijgt in de opleiding tot orthopeed om zo wellicht nog functioneler orthopeden in opleiding op te leiden.

Slijpen AJ (Aline)

Postoperatieve C-Reactief Proteïne na ongecompliceerde primaire totale heup- en knie arthroplastiek en bij periprothetische infecties

Drs. A.J.L. Slijpen, Dr. J.G.E. Hendriks*, Dr. M.C. van der Steen*

Achtergrond: Periprothetische infectie(PPI) is een ernstige complicatie na primaire totale heup- en knie arthroplastiek (THA en TKA). Voor de diagnose van PPI in de vroege postoperatieve periode bestaat geen gouden standaard. Vaak wordt C-reactief proteïne(CRP) gebruikt als inflammatoire marker. Echter, door het chirurgische trauma zijn CRP-waarden altijd verhoogd na THA/TKA onafhankelijk of er sprake is van een infectie. Dit maakt het moeilijk CRP te interpreteren in de vroege postoperatieve periode.

Doelstelling: Doel van deze retrospectieve cohort studie was het in kaart brengen van het postoperatieve CRP-patroon na THA en TKA. Om te onderzoeken of het mogelijk is om een optimaal CRP-afkappunt te kunnen bepalen ter differentiatie tussen normaal postoperatief CRP-patroon en PPI.

Methode: Dossiers van 1233 primaire THA en TKA, verricht in 2014, werden bekeken. Patiënten met 2 of meer CRP-waarden en patiënten met 1 CRP-waarde voor een heroperatie binnen de eerste 90 postoperatieve dagen werden geïncludeerd.

Resultaten: 99 patiënten werden geïncludeerd. Resultaten lieten een globaal CRP-patroon zien met een piekwaarde op dag 2 of 3 gevolgd door een bifasische daling. Enorme spreiding werd gezien in het moment van CRP-bepaling en grote interindividuele verschillen in amplitude van de CRP-waardes. Over het algemeen hadden infectiepatiënten hogere CRP-waarden dan niet-infectiepatiënten. Echter, hadden postoperatief niet alle infectiepatiënten een hoog CRP.

Conclusie: Postoperatief bestaat er een karakteristiek CRP-patroon met grote interindividuele verschillen. Omdat CRP-waarden niet op vooraf afgesproken tijdsmomenten werden gemeten, was het niet mogelijk om een algemeen CRP afkappunt voor PPI te bepalen. Al lijkt een CRP boven de 100 mg/L dag 10 postoperatief suggestief voor PPI.

Smeulders I (Ilse-Marita) - Sol M (Marijke)

Postoperative Urinary Retention in Orthopedic patients

I Smeulders*; M. Sol*; N. Schepel*; M. van der Steen*

Background: Postoperative urinary retention (POUR) is a common complication after surgery. To diagnose POUR the nurses at the orthopedic ward postoperatively scan the bladder twice after micturition when the urinary catheter has been removed to obtain the residue in the patient's bladder.

Aim: The purpose of this research is to find out what the point is to perform two times a bladderscan® on patients after removing the urinary catheter in order to prevent POUR.

Methods: Of all patients who underwent a Hip- or Knee arthroplasty or a hip fracture operation in the period between September 2014 and March 2015 data regarding patient characteristics, risk factors and the results of the ultrasound bladderscan® was collected.

Results: Of the 440 patients who were admitted during this period, data of 352 patients (80.2%) was available in the electronic patient dossier regarding the results of the bladderscan®. The risk of developing POUR increases with patient who were admitted for a hip fracture (odds ratio 2.77), who were older than 80 years (odds ratio 2.96), who had an ASA classification 3 or higher (odds ratio 2.04) or who were known with urological problems (odds ratio 2.93).

Conclusion: It is not meaningful to postoperatively perform a bladderscan® by all patients. Following this study, the policy was in consultation with the orthopedic surgeons modified. Only by patients with predisposing factors the bladderscan® will be performed twice after

micturation when the urinary catheter is removed. This change in policy enhanced patient friendliness and diminished workload for the nurses.

Innovative elements of this study: There are very few study's dedicated to the diagnoses of POUR. This study identifies risk factors and led to clear instructions for nurses how to use the bladderscan®. The change of policy at the orthopedic ward, enhanced patient friendliness and diminished workload for the nurses by 100 hours per year.

Stouten JH (Jurre)

Identification and treatment of relapsed and residual idiopathic clubfeet

J.H. Stouten*, A.T. Besselaar*, M.C. van der Steen*

(a)Background:The Ponseti method has shown to be a very successful treatment for idiopathic clubfoot. However, approximately 11-25% of all clubfeet relapse or keep residual deformities. Early identification of these problematic clubfeet is important to allow for early treatment and reduce the necessity for extensive surgery.
(b)Aim: The current study identifies deformities of residual/relapse clubfeet and treatment used to tackle these deformities.
(c)Methods: Retrospective chart review of patients who visited our clinic between 2012 and 2015 focused on demographics, deformities of the residual/relapse clubfoot and applied treatment. We defined relapse as any deformity of the clubfoot reoccurring, after initial successful treatment, with necessity for additional treatment. Residual deformities were defined as deformities that needed additional treatment, but were never fully corrected.
(d)Results: We identified 33 patients with residual and 55 patients with relapsed clubfeet. In the residual and relapsed clubfeet decreased dorsal flexion/equinus was found in resp. 51% and 59% of the patients. Adduction/active supination was detected in 49% (relapses) and 55% (residuals) of the patients. Often, specific combinations of deformities were identified. In 53.0% of the patients could be treated with the Ponseti method, 23% required adaption of the brace protocol, 24% needed more extensive surgery. The Ponseti method was mainly used when feet presented with relapses or residues until the age of 5.
(e)Conclusion: Relapses occur at all stages of treatment and follow up. All deformities of initial clubfeet can (re)occur in problematic clubfeet, solitary or in typical combinations often involving impaired dorsal flexion, adduction or active supination. In the majority of the cases, especially if identified in an early stage, treatment according to Ponseti is sufficient to treat these problematic clubfeet.

(f) Aspects of innovation: No guidelines are available for the treatment of problematic clubfeet. Identification is facilitated by regular follow up and awareness of the deformities that might occur. As far as we are aware, this is the first study looking at combinations of deformities that might occur.

Radiologie

Ederveen JC (Jeanette)

Reassessment of CT findings in patients with suspected internal herniation after gastric bypass surgery

J.C. Ederveen*, Dr. S.W. Nienhuijs8, Drs. S. Jol*, Dr. J. Nederend*

Background: CT plays an important role in the diagnosis of internal herniation (IH) after gastric bypass surgery, but the conclusion is sometimes questionable.
Aim:To evaluate differences in sensitivity and specificity of CT in general for both the original report and the reassessment report. Furthermore ten different CT signs were evaluated for their aid in the diagnosis of internal herniation.
Method: In this retrospective study patients were included if they had undergone gastric bypass between January 1, 2011 and December 31, 2014. All CT scans until December 31, 2016 were reassessed by an abdominal radiologist, a radiology resident and intern. Assessment was done using eight signs from previous literature, and two additional signs. Also an overall impression on a scale from 1 to 5 was given, 5 being definitely an IH.
Results:We reassessed 85 consecutive CT scans, with 23 subsequent re-operations. In 14(60.9%) re-operations an IH was diagnosed. Overall impression was divided in 1-2 and 3-5. This results in a sensitivity and specificity of 85.7%(95%-CI;67.4-100%) and 77.8%(95%-CI;50.6-100%) respectively for the abdominal radiologist, 71.4%(95%-CI;47.8-95.1%) and 77.8%(95%-CI;50.6-100%) respectively for the radiology resident, and 85.7%(95%-CI;67.4-100%) and 88.9%(95%-CI;68.4-100%) respectively for the radiology intern. The sensitivity for the original reports was 78.6(95%-CI;57.1-100%) and the specificity was 44.4%(95%-CI;12.0-76.9%). Swirl sign, venous congestion and mesenteric oedema were the most sensitive signs.
Conclusion:Systematically reviewing CTs, with an enquiry for IH, by a trained radiologist results in a better sensitivity and specificity. Double reading by an experienced abdominal radiologist is recommended in case of uncertainty.

Vernieuwende elementen: Steeds meer patiënten krijgen een gastric bypass wat resulteert in meer mensen met een verdenking IH. Deze worden ook gecontroleerd in hun eigen ziekenhuis, waar minder ervaren radiologen naar de scans kijken. Uit ons onderzoek blijkt dat het raadplegen van een ervaren abdominale radioloog zinvol is.

Ederveen JC (Jeanette)

Value of CT for suspected internal herniation in gastric bypass patients

J.C. Ederveen*, Dr. S.W. Nienhuijs*, Drs. R.J.P. Weber*, Dr. J. Nederend*

Background: Internal herniation(IH) is a serious complication after gastric bypass surgery and its diagnosis is challenging.
Aim: To evaluate the value of CT in diagnosing IH.
Method: In this retrospective study patients were included if they had undergone gastric bypass between January 1, 2011 and December 31, 2014. Clinical records were screened for CTs and re-laparoscopies between the initial operation and December 31, 2016, to select patients with suspected and true IH.
Results:We included 1481 patients, 84.7% were female, with a mean age of 46.5(±10.2) years. In 13.2%(196/1481) there were complaints, the a-priori probability was 18.4%(36/196), and the incidence was 2.4%(36/1481). There were 273 episodes, in 253 episodes a CT was made, with in 22.9%(58/253) a suspected IH. After 47 positive CTs an operation was performed with in 63.8%(30/47) a confirmed IH. After 23 negative CTs an operation was performed with in 26.1%(6/23) an IH. In 20 episodes an operation was

performed without a CT, with in 25.0%(5/20) an IH.
Using re-operation as golden standard, the sensitivity of CT was 83.3%(95%-CI;71.2-95.5%), the specificity was 50%(95%-CI;33.2-66.8%), the PPV was 63.8%(95%-CI;50.1-77.6%), and the NPV was 73.9%(95%-CI;56.0-91.9%).
Combining follow-up and surgery resulted in a sensitivity of 76.9%(95%-CI;63.7-90.1%), a specificity of 86.5%(95%-CI;81.4-91.7%), a PPV of 56.6%(95%-CI;43.3-69.9%), and a NPV of 94.3%(95%-CI;90.6-97.9%).
Conclusion: CT is a valuable tool to help exclude IH and prevent re-laparoscopy in patients suspected of IH after gastric bypass surgery. However, in patients with a high suspicion of IH and a negative CT re-laparoscopy is still indicated.

Vernieuwende elementen: Er zijn al meerdere onderzoeken gedaan naar de incidentie van IH en hoe vaak CT gebruikt wordt. Ons onderzoek heeft een van de grootste patiënten populaties en negatieve follow-up wordt meegenomen in de berekening van de waarde van CT.

TUE - IMPULS

Eerikäinen LM (Linda)

Wrist-wearable photoplethysmogram for atrial fibrillation detection

Linda M. Eerikäinen, Ronald M. Aarts, Alberto G. Bonomi, Rik Vullings, Lukas Dekker*

Background: Atrial fibrillation (AF) is the most common sustained arrhythmia and it increases risk of stroke and congestive heart failure. AF can be asymptomatic and therefore difficult to detect before adverse events occur.
Aim: Evaluate photoplethysmograms (PPGs) from the wrist as means to detect AF comparing cross- and within-subjects.
Methods: Electrocardiogram (ECG) and PPG were measured simultaneously from 16 patients (4 with 100% AF, 12 without AF) having a Holter for 24 hours and from 18 patients 1 hour before and after successful cardioversion. In addition, activity was measured with an accelerometer. The inter-beat intervals (IBIs) were derived from PPG pulses and the presence of AF was evaluated by determining irregularity of the rhythm with Shannon entropy from the IBIs within 30s windows.
Results: The sensitivity, specificity, and accuracy were 98.1 ± 0.8 % / 97.3 ± 5 %, 75.1 ± 3.1 % / 83.9 ± 5.4 %, and 79.6 ± 2.9 % / 86.6 ± 3.3 % for the Holter patients without and with motion artifact cancellation, respectively. In the cardioversion population the same performance indicators were 98.3 ± 1.8 % / 99.2 ± 1.5 %, 47.2 ± 35.9 % / 52.9 ± 38.1 %, and 76.2 ± 15.3 % / 80.8 ± 16.5 %.
Conclusion: A high sensitivity and a relatively high specificity of AF detection can be achieved with a simple algorithm based on one irregularity measure and movement detection, enabling long-term AF monitoring by means of a non-obtrusive, wristwatch-like device.

Novelty: As far as authors are aware, this is the first study to include both mid-term and short-term PPG recordings from the wrist and compare cross-subject and within-subject performance for AF detection.

Moço AV (Andreia)

On the Effect of Posture on Remote Measurements of Neck Micro-Motion: Ultrasonographic Insights

Andreia Vieira Moço; Paul Hamelmann, Sander Stuijk, Gerard de Haan

Background:Unobtrusiveness and cost-efficiency are assets in future technologies for cardiovascular health monitoring. Camerabased technologies can meet these needs by probing minute skin motion variations entailing cardiac-related information[1]. These signals allow devising remote vibrometers which assess the displacement of the common carotid artery(CA) and/or the internal jugular vein (JV). In this investigation, we use ultrasound (US) to assess whether the CA orJV displacements are mutually contaminated in the recumbent, seated and supine positions.

Methods: CA and JV ultrasound recordings were performed, consecutively, in the seated recumbent and horizontal positionsin 3 healthy subjects. Separate recordings were performed with the probe placed in the lower (5 cm above the collarbone) and in the upper neck (2 cm below the carotid sinus). Recordings were processed to obtain a representative displacement waveform for each recording.

Results: At the upper neck, the JV is partially collapsed in the recumbent and seated positions. Conversely, the pulsating activity of the CA for the same conditions is strong and comparable. In supine, JV pulsations dominate and preclude querying CA pulsations from skin motion signals. At the lower neck, JV pulsations dominate, irrespective of posture. The JV waveforms in the recumbent position have characteristic AxCxVy points in agreement with the clinical literature [2].

Conclusions: Remote vibrometers explore the neck's skin motion as a proxy of cardiac-related displacements. Our results indicate that CA displacements should be acquired at the upper neck in the seated or in the recumbent (30 degrees w.r.t. horizontal) position. For JV displacements, recordings should be performed at the lower neck in the recumbent position.

Innovative aspects: This investigation supports progress on remote vibrometry for video health monitoring by confirming posture- and skin-site dependency of neck surface measurements and by allowing the provision of recommendations for data acquisition. These are relevant steps towards ensuring the validity and clinical value of camera-based cardiovascular health monitoring and/or diagnosis.

Neutelings I (Ineke)

Enhancing co-resonsibility for patient engagement

Ineke Neutelings, Eindhoven University of Technology, faculty of Industrial Design (Pierre Levy, Eindhoven University of Technology; Tom Djajadiningrat, Philips Design; Caroline Hummels, Eindhoven University of Technology; In collaboration with the Catharina Hospital, coached by Erik Korsten* and Arthur Bouwman*)

The focus of this research is on improving the experience and specifically the engagement of cardiovascular patients after the disease has occurred, a phase referred to as secondary prevention. In this phase engagement with a healthy lifestyle can increase a patient's quality of life and reduce readmissions and complications, but despite the alarming condition of the patients, engagement is low.

To improve patient engagement and experience, we developed a perspective of co-responsibility on which we will base design interventions. Co-responsibility argues that responsibilities of different people in society are intertwined with each other, not in the

sense that people share the same responsibilities, but in the sense that people's responsibilities are interdependent. Basing design interventions on co-responsibility, instead of individual responsibility only, gives the opportunity to address not only the patient, but also her or his influential environment. These interventions can encourage a spirit of co-responsibility by increasing the awareness of people's behavioural influence on each other and so support patients, their family and friends, and involved medical professionals to attune to each other to increase their team performance. By supporting shared goals instead of individual goals it helps to address internal motivations and to create win-win situations towards more sustainable engagement. In the continuation of our research, we will look for a better understanding
of co-responsibilities by designing physical products that embody our vision of co-responsibility within the context of secondary prevention for people diagnosed with CVD.

Rosalina TT (Tilai)

Perioperative volume status modelling to simulate controlled hypovolemia due to blood donation

Tilaï T. Rosalina, Wouter Peeters, R. Arthur Bouwman*, H. Erik Korsten*, Rick Bezemer, Marc R. van Sambeek*, Frans N. van de Vosse, Peter H.M. Bovendeerd

Major surgery is often associated with severe blood loss, compensated by perioperative intravenous fluid administration. However, especially in elderly patients, hypervolemia can cause complications such as edema formation, (temporary) high blood pressure and kidney failure [2]. The perioperative optimal fluid balance is hard to estimate, since there are no non-invasive techniques available to directly measure volume status. In this study we take the first step exploring the use of mathematical modelling in analyzing perioperative measurements.

Aim of this study was to model the effects of hypovolemia on cardiovascular parameters during blood donation. This induces hypovolemia in a controlled environment, regulated immediately by the baroreflex.

As shown by Keith et al. [3], on a longer timescale fluid redistribution takes over. To model both these effects we have developed a combined cardiovascular fluid responsiveness model based on the fluid distribution module by Xie et al. [4] and cardiovascular module, including regulation, as described by Jongen et al. [5][6].

The blood donation of 500 ml in 5-10 minutes was modeled, showing that the baroregulation is responsible for controlling the blood pressure during donation. Within one hour approximately 75% of plasma volume is restored from the interstitial volume. This causes dilution of the full blood, causing the hematocrit to change after blood donation. These results are qualitatively comparable to literature.

Combining of fluid distribution and cardiovascular modules provides us with better insight into the complex fluid shifts following a fluid challenge. This is a critical first step in the effort to model fluid balance in critical elderly patients during and after major abdominal surgery.

Urologie

Beulens AJ (Alexander)

Renal surgery, a comparison of perioperative and postoperative outcomes for patients receiving a laparoscopic radical nephrectomy, laparoscopic partial nephrectomy, open radical nephrectomy, or open partial nephrectomy

Beulens, A.J.W.*, Koldewijn, E.L*. and Scheepens, W.A.*

Introduction: In renal surgery, open procedure has given way to the laparoscopic approach. Nowadays, the majority of the procedures are performed laparoscopically or robot assisted, especially in the case of partial nephrectomy. In order to evaluate current perioperative and postoperative protocols for renal surgery patients we present the experiences of our hospital by comparing outcomes for the following surgical interventions laparoscopic radical nephrectomy (LRN), laparoscopic partial nephrectomy (LPN), open radical nephrectomy (ORN), and open partial nephrectomy (OPN).

Method: The population of this study consists of patients who received renal surgery at the Catharina Hospital Eindhoven. The patients can be divided in four main groups based on the type of surgery the patient received. Patients were excluded in case had a simultaneous surgical intervention. The baseline characteristics, outcomes, and follow-up of these groups were compared. Primary outcome measurements are the duration of postoperative hospital stay, postoperative pain, long term kidney function, perioperative blood loss, complications, and readmission within 30 days and within 90 days.

Results: A total of 284 patients had surgery between January 1st 2010 and October 31st 2016. Of these patients 112 received a LRN, 57 patients received a LPN, 76 an ORN, and 41 an OPN.

Conclusion: Further results have to be determined.

Vernieuwende elementen in het onderzoek: In dit onderzoek wordt voor het eerst een overzicht gegeven van de resultaten van de nieroperaties in het Catharinaziekenhuis. Dit maakt het mogelijk de resultaten van dit centrum te vergelijken met andere grote centra in de wereld. Op basis van deze gegevens kan het perioperatieve en postoperatieve beloop geëvalueerd en verbeterpunten geïdentificeerd worden.

Peeters MH (Myrthe)

Sacral Neuromodulation; screening with two consecutive percutaneous nerve evaluations was equally effective as with staged tined lead procedure

Myrthe H. Peeters, Lisette H.M van de Bilt-Sonderegger*, Wout A. Scheepens*, Evert. L. Koldewijn*

Background. Sacral neuromodulation (SNM) is a valuable treatment for several urinary symptoms. Selecting patients suitable for SNM remains a challenge. The hypothesis is that consecutive PNE could be a sensitive screening method.

Objectives. To analyse if consecutive PNE have a value in screening patients for SNM, by researching whether the results of PNE2 differ from the results of PNE1. To assess the difference in the long-term satisfaction of patients who had an IPG implanted, either after two consecutive PNE or after a technically failed PNE and a FSTLP.

Patients and methods. Patients were included if they underwent at least one PNE which was followed by either a second PNE or by a tined lead. Patients with urge incontinence with or without faecal incontinence, urgency-frequency urinary syndrome, or urinary retention,

were included. Patients were asked to complete voiding diaries and were queried about rudimentary complaints and satisfaction.
Results. Of 110 included patients, 85 received a second PNE, 72 of whom had accurately completed all required voiding diaries. The results of both PNE show a non-significant difference (p=0.405). A binary logistic regression analysis showed a non-significant difference in long-term satisfaction between the consecutive-PNE group and the PNE-and-FSTLP group.
Conclusion. Although the results of PNE1 and PNE2 are comparable, two consecutive PNE are equally effective as FSTLP at identifying the number of suitable patients for implantation and the long-term satisfaction after implantation of an IPG. The authors recommend two consecutive PNE as screening method.

** = Werkzaam in het Catharina Ziekenhuis*

Tabellen

Tabel 1: Overzicht aantal publicaties

Specialisme	Tijdschrift artikelen	Promoties	Boeken	Hoofstuk	Totaal
Algemeen Klinisch Laboratorium	13			1	13
Anesthesiologie	10	2			12
Apotheek	13	1			14
Cardiologie	48	1			49
Cardiothoracale chirurgie	4				4
Chirurgie	95	5			100
Dermatologie	8				8
Dietetiek	3				3
Geestelijke verzorging				2	2
Geriatrie	3				3
Gynaecologie	16				16
Inwendige geneeskunde	23	2			25
Kindergeneeskunde	3				3
Klinische Fysica	4			1	5
Kwaliteit				1	1
Longgeneeskunde			1	1	2
Maag, darm en leverziekten	20				20
Medische psychologie	2				2
Mondziekten en kaakchirurgie	1				1
Neurologie	4				4
Nucleaire geneeskunde	2				2
Onderwijs en Onderzoek	1				1
Operatie Kamers	3				3
Orthopedie	5				5
Pamm	4				4
Plastische chirurgie	4				4
Radiologie	12				12
Radiotherapie	4				4
Spoedeisende Hulp	3				3
Urologie	3				3
Totaal	**311**	**11**	**1**	**6**	**329**

Tabel 2 Wetenschapsavond

Specialisme	Wetenschaps avond 2017 Presentaties	Wetenschaps avond 2017 Posters	Totaal
Algemeen Klinisch Laboratorium		1	1
Anesthesiologie		2	2
Apotheek	1		1
Cardiologie	1	5	6
Chirurgie	1	5	6
Dermatologie		2	2
Diëtetiek		1	1
Gynaecologie	1	1	2
Intensive Care		2	2
Inwendige geneeskunde		1	1
Maag-, Darm, Leverziekten		4	4
Orthopedie		6	6
PAMM	1		1
Radiologie		2	2
TUE – IMPULS		4	4
Urologie		2	2
Totaal	**5**	**38**	**43**

Tabel 3: Overzicht aantal artikelen en gemiddelde impactfactor per specialisme

Specialisme	Artikelen met impactfactor	Artikelen zonder impactfactor	Totaal aantal artikelen	Gemiddelde impactfactor	Standaard deviatie
~~Algemeen Klinisch Laboratorium~~	11	2	13	2.589	1.613
Anesthesiologie	8	2	10	2.669	2.202
Apotheek	11	2	13	6.169	6.895
Cardiologie	44	4	48	6.670	9.454
Cardiothoracale chirurgie	4	0	4	2.721	1.515
Chirurgie	90	5	95	3.151	1.745
Dermatologie	4	4	8	1.045	2.472
Diëtetiek	3	0	3	3.346	0
Geriatrie	1	2	3	2.205	3.820
Gynaecologie	14	2	16	10.083	15.907
Inwendige geneeskunde	22	1	23	4.015	2.008
Kindergeneeskunde	2	1	3	4.439	4.113
Klinische Fysica	4	0	4	3.728	1.266
Maag, darm en leverziekten	18	2	20	6.451	9.703
Medische Psychologie	2	0	2	2.484	1.421
Mond en Kaakchirurgie	1	0	1	2.328	0
Neurologie	4	0	4	5.509	3.345
Nucleaire geneeskunde	1	1	2	2.925	4.136
Onderwijs en Onderzoek	0	1	1	0	0
Operatie Kamers	2	1	3	1.563	1.684
Orthopedie	3	2	5	1.654	1.607
Pamm	4	0	4	8.384	8.499
Plastische chirurgie	2	2	4	0.634	0.828
Radiologie	12	0	12	4.481	2.219
Radiotherapie	4	0	4	15.002	13.312
SEH	2	1	3	2.205	2.557
Urologie	3	0	3	2.194	0.894
Totaal	**276**	**35**	**311**	**4.154**	**4.060**

Tabel 4: Impactfactor per tijdschrift

Titel	Impact factor	Titel	Impact factor
Acta Derm Venereol	3.638	Cancer Res	8.556
Acta Oncol	3.730	Cardiovasc Diabetol	4.534
Adv Exp Med Biol	1.953	Cardiovasc Ultrasound	1.463
Aging Cell	5.760	Catheter Cardiovasc Interv	2.181
Am Heart J	4.332	Circ Arrhythm Electrophysiol	4.428
Am J Cardiol	3.154	Circ J	4.124
Am J Kidney Dis	6.269	Clin Chem Lab Med	3.017
Am J Physiol Gastrointest Liver Physiol	3.297	Clin Chim Acta	2.799
Am J Roentgenol	2.669	Clin Colorectal Canc	3.090
Anesthesiology	5.264	Clin Exp Dermatol	1.315
Ann Emerg Med	5.008	Clin Exp Metastas	2.728
Ann N Y Acad Sci	4.518	Clin Res Cardiol	4.324
Ann Oncol	9.269	Clin Res Hepatol Gastroenterol	1.872
Ann Surg	8.569	Colorectal Dis	2.452
Ann Surg Oncol	3.655	Crit Care Med	7.422
Ann Thorac Surg	2.975	Cytokine	2.940
Arch Dis Child	3.231		
		Dermatology	1.569
Biomed Res Int	2.134	Dig Liver Dis	2.719
BJOG	4.039	Dis Colon Rectum	3.739
BMC Cancer	3.365	Dis Esophagus	2.146
BMC Health Serv Res	1.606		
BMC Pregnancy Childbirth	2.180	Endoscopy	5.634
BMJ Open	2.562	Eur J Cancer	6.163
Br J Anaesth	5.616	Eur J Cardiothorac Surg	2.803
Br J Clin Pharmacol	3.830	Eur J Clin Nutr	2.935
Br J Haematol	5.401	Eur J Gastroenterol Hepatol	2.093
Br J Surg	5.596	Eur J Neurosci	2.975
Brain Res	3.028	Eur J Obstet Gyn R B	1.662
Breast Cancer Res Treat	4.085	Eur J Oral Implantol	2.328
Breast J	1.920	Eur J Radiol	2.593

Eur J Surg Oncol	2.940	J Clin Oncol	20.982
Eur J Vasc Endovasc Surg	2.912	J Diabetes Res	2.431
Eur Radiol	3.640	J Electrocardiol	1.290
Euro Surveill	5.983	J Endourol	2.107
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Exp Dermatol	2.675	J Gastroenterol	4.414
		J Gastrointest Surg	2.807
Gastrointest Endosc	6.217	J Haert Valve Dis	0.715
Gut	14.921	J Hosp Infect	2.655
Gynecol Oncol	4.198	J Invest Dermatol	6.915
		J Magn Reson Imaging	3.250
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Heart Rhythm	4.391	J Minim Invasive gynecol	2.390
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HPB	2.918	J Plast Reconstr Aesthet Surg	1.743
Hum Reprod	4.621	J Plast Surg Hand Surg	0.791
		J Steroid Biochem Mol Biol	3.985
Indian J Surg	0.353	J Surg Oncol	3.151
Infection	2.294	J Vasc Access	1.535
Int J Cancer	5.531	J Vasc Surg	3.454
Int J Cardiol	4.638	JACC Cardiovasc Interv	7.630
Int J Cardiovasc Imag	1.880	JAMA	37.684
Int J Gynecol Cancer	2.116	Jama Neurol	8.230
Int J Radiat Oncol Biol phys	4.495		
Invest Radiol	4.887	Lancet	44.002
		Lancet Haematol	4.889
J Am Coll Cardiol	17.759	Lancet Oncol	26.509
J Am Med Dir Assoc	6.616	Liver Int	4.470
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J Biomech	2.431	Med Phys	2.496
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Auteursindex

Het Catharina Ziekenhuis maakt deel uit van Santeon

Het Catharina Ziekenhuis is lid van de vereniging
van Samenwerkende Topklinische Ziekenhuizen

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