

Wetenschappelijk jaaroverzicht

2013



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ziekenhuis



www.catharinaziekenhuis.nl

Wetenschappelijk Jaaroverzicht 2013

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chirurgie

begeleiden

dermatologie

anesthesiologie

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Verpleegkundigen

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Promoties

arts-assistenten

Inwendige

laboratorium ICECC

radiologie

orthopedie

patiëntenzorg

nucleaire

verpleegkundigen

longgeneeskunde

wetenschapsbureau

wetenschappelijk

Urologie

CTC

Algemeen Klinisch Laboratorium

Berkel M van

Instrument-dependent interference of Howell-Jolly bodies in reticulocyte enumeration

Berkel M van *, Besselaar E*, Kuijper P, Scharnhorst V*

Clin Chem Lab Med. 2013 Jun;51(6):e137-9

Geen abstract beschikbaar

Impactfactor: 3.009

Berkel M van

Moderate elevations of high-sensitivity cardiac troponin I and B-type natriuretic peptide in chronic hemodialysis patients are associated with mortality

Geerse DA, Berkel M van*, Vogels S, Kooman JP, Konings CJ*, Scharnhorst V*

Clin Chem Lab Med. 2013 Jun;51(6):1321-8

Background: Several biomarkers are associated with mortality in hemodialysis patients. In particular, elevated cardiac troponin T and B-type natriuretic peptide (BNP) are strong predictors of mortality; however, less is known about cardiac troponin I (cTnI). Elevated troponin I is detected in many hemodialysis patients, but the association of moderate elevations with mortality is unclear.

Methods: The relation between mortality and cTnI, using a high-sensitivity cTnI assay, as well as BNP and C-reactive protein (CRP) was evaluated in 206 chronic hemodialysis patients. Results: Median follow-up was 28 months with a total mortality of 35%. Mortality was significantly associated with elevated cTnI, BNP and CRP. Even patients with only moderate elevation of cTnI (0.01-0.10 µg/L) showed 2.5-fold increased mortality. Interestingly, hazard ratios for mortality for single (random) measurements were comparable to those for mean/median measurements. Subsequently, subgroup analysis based on combined markers was performed. Patients with both cTnI <0.01 µg/L and BNP in the first quartile had 100% survival. Patients with either cTnI <0.01 µg/L or BNP in the lowest quartile had significantly lower mortality (12% and 13%, respectively) than patients with BNP levels in the second quartile or higher and cTnI of 0.01-0.05 µg/L and patients with cTnI =0.05 µg/L (mortality 46 and 58%, respectively).

Conclusions: A combination of moderate elevation of cTnI and BNP provided additional prognostic value. A single measurement of these biomarkers performed comparably to the mean/median of multiple measurements.

Impactfactor: 2.150

Boonen KJ

Transfusion reaction caused by anti-Vr, the first case reported

Boonen K*, Stokker A van der *, Folman C, Kerkhof D van de *

Transfus Med. 2013 Jun;23(3):204-5

Geen abstract beschikbaar

Impactfactor: 1.259

Boonen KJ

Urine flow cytometry as a primary screening method to exclude urinary tract infections

Boonen KJ*, Koldewijn EL*, Arents NL, Raaymakers PA, Scharnhorst V*

World J Urol. 2013 Jun;31(3):547-51. Epub 2012 May 16

PURPOSE: To exclude urinary tract infections, culture is the gold standard method, although it is time consuming and costly. Current strategies using dipstick analysis are unsatisfactory as screening methods, because of inadequate sensitivity/specificity. Urine flow cytometry is an attractive alternative. To exclude urinary tract infections, a cutoff value to screen for negative cultures was determined.

METHODS: 281 outpatients (51 % male) of a general population visiting the urology department were included. Urine samples were measured by flow cytometry and compared with culture results and dipstick analysis. ROC analysis was performed to evaluate the screening performance of flow cytometry and dipstick analysis compared to culture.

RESULTS: 18 % of cultures were positive, defined as >10(4) colony forming units/mL. Bacterial count by flow cytometry alone provides the best sensitivity and specificity to exclude a urinary tract infection. A cutoff value of 60 bacteria/ μ L urine leads to a sensitivity of 100 % and a specificity of 60 %. Retrospectively, with a cutoff value of 60 bacteria/ μ L urine, 49 % of the cultures would have been redundant. 20 % of patients receiving antibiotics possibly had received those unnecessarily. The calculated percentage of false negatives was 0 % (95 % confidence interval 0-3.3 %).

CONCLUSIONS: Urine flow cytometry is a reliable screening method to exclude urinary tract infections. With a cutoff value of 60 bacteria/ μ L urine, negative predictive value is 100 % and the calculated percentage of false negatives is 0 % (95 % confidence interval 0-3.3 %). Using flow cytometry as a screening method could lead to a reduction in cultures and antibiotics.

Impactfactor: 2.888

Broek N van den

Reference intervals of reticulated platelets and other platelet parameters and their associations

Hoffmann JJ, van den Broek NM*, Curvers J*

Arch Pathol Lab Med. 2013 Nov;137(11):1635-40

Context.-Reticulated platelets are platelets recently released from the bone marrow, and they can serve as a noninvasive indicator of recent megakaryopoietic activity. Widespread clinical use has been hampered by laborious methods and lack of standardization. Recently, a fully automated method was released on the Abbott CELL-DYN Sapphire hematology analyzer. **Objective.**-To establish reference ranges for reticulated platelets. **Secondary aims** were to investigate associations between reticulated platelets and other platelet parameters like mean platelet volume, plateletcrit, and platelet distribution width. **Design.**-Reticulated platelets and other platelet parameters were measured in an unselected cohort of 8089 subjects visiting a primary health care laboratory. The reticulated platelet data were analyzed using the Bhattacharya technique. In addition, a nonparametric method was used in selected subjects with normal platelet counts for providing reference ranges. **Results.**-Reticulated platelets ranged from 0.4% to 6.0% or from 1 to $18 \times 10(3)/L$. Reticulated platelets increased significantly with the subjects' age. Statistically, males had slightly higher values than females, but the differences were negligible. Reticulated platelets were

positively correlated with platelet count and negatively with mean platelet volume. Conclusions.-Reference ranges have been established for reticulated platelets as measured on the CELL-DYN Sapphire hematology analyzer. There were no relevant differences between the sexes, but there was a clear effect of age. An individual's reticulated platelets are associated with the platelet count as well as mean platelet volume.

Impactfactor: 2.781

Curvers J

Diabetes mellitus at the time of diagnosis of cirrhosis is associated with higher incidence of spontaneous bacterial peritonitis, but not with increased mortality

Wlazlo N*, van Greevenbroek M, Curvers J*, Schoon EJ*, Friederich P*, Twisk J, Bravenboer B, Stehouwer CD

Clin Sci (Lond). 2013 Oct;125(7):341-8

Voor abstract zie: Inwendige geneeskunde - Wlazlo N

Impactfactor: 4.859

Curvers J

Reference intervals of reticulated platelets and other platelet parameters and their associations

Hoffmann JJ, van den Broek NM*, Curvers J*

Arch Pathol Lab Med. 2013 Nov;137(11):1635-40

Voor abstract zie: Algemeen Klinisch Laboratorium Broek N van den

Impactfactor: 2.781

Kerkhof D van de

Transfusion reaction caused by anti-Vr, the first case reported

Boonen K*, van der Stokker A*, Folman C, van de Kerkhof D*

Transfus Med. 2013 Jun;23(3):204-5

Voor abstract zie: Algemeen Klinisch Laboratorium - Boonen KJ

Impactfactor: 1.259

Kerkhof D van de

Two novel mutations in the prothrombin gene identified in a patient with compound heterozygous type 1/2 prothrombin deficiency

Kuijper PH, Schellings MW, van de Kerkhof D*, Nicolaes GA, Reitsma P, Halbertsma F, Dors N*

Haemophilia 2013 Sep;19(5):e304-6. Epub 2013 May 28

Geen abstract beschikbaar

Impactfactor: 3.17

Scharnhorst V

Instrument-dependent interference of Howell-Jolly bodies in reticulocyte enumeration

van Berkel M*, Besselaar E*, Kuijper P, Scharnhorst V*

Clin Chem Lab Med. 2013 Jun;51(6):e137-9

Voor abstract zie: Algemeen Klinisch Laboratorium - Berkel M van

Impactfactor: 3.009

Scharnhorst V

Moderate elevations of high-sensitivity cardiac troponin I and B-type natriuretic peptide in chronic hemodialysis patients are associated with mortality

Geerse DA, Berkel M van*, Vogels S, Kooman JP, Konings CJ*, Scharnhorst V*

Clin Chem Lab Med. 2013 Jun;51(6):1321-8.

Voor abstract zie: Algemeen Klinisch Laboratorium - Berkel M van

Impactfactor: 2.150

Scharnhorst V

Urine flow cytometry as a primary screening method to exclude urinary tract infections

Boonen KJ*, Koldewijn EL*, Arents NL, Raaymakers PA, Scharnhorst V*

World J Urol. 2013 Jun;31(3):547-51. Epub 2012 May 16

Voor abstract zie: Algemeen Klinisch Laboratorium - Boonen KJ

Impactfactor: 2.888

Stokker A van der

Transfusion reaction caused by anti-Vr, the first case reported

Boonen K*, van der Stokker A*, Folman C, van de Kerkhof D*

Transfus Med. 2013 Jun;23(3):204-5

Voor abstract zie: Algemeen Klinisch Laboratorium - Boonen KJ

Impactfactor: 1.259

* = Werkzaam in het Catharina Ziekenhuis

Anesthesiologie

Bouwman RA

Diabetes, perioperative ischaemia and volatile anaesthetics: consequences of derangements in myocardial substrate metabolism

Brom CE van den, Bulte CS, Loer SA, Bouwman RA#, Boer C

Cardiovasc Diabetol. 2013 Mar 4;12:42

Volatile anaesthetics exert protective effects on the heart against perioperative ischaemic injury. However, there is growing evidence that these cardioprotective properties are reduced in case of type 2 diabetes mellitus. A strong predictor of postoperative cardiac function is myocardial substrate metabolism. In the type 2 diabetic heart, substrate metabolism is shifted from glucose utilisation to fatty acid oxidation, resulting in metabolic inflexibility and cardiac dysfunction. The ischaemic heart also loses its metabolic flexibility and can switch to glucose or fatty acid oxidation as its preferential state, which may deteriorate cardiac function even further in case of type 2 diabetes mellitus. Recent experimental studies suggest that the cardioprotective properties of volatile anaesthetics partly rely on changing myocardial substrate metabolism. Interventions that target at restoration of metabolic derangements, like lifestyle and pharmacological interventions, may therefore be an interesting candidate to reduce perioperative complications. This review will focus on the current knowledge regarding myocardial substrate metabolism during volatile anaesthesia in the obese and type 2 diabetic heart during perioperative ischaemia

Ten tijde van publicatie werkzaam bij: Department of Anesthesiology, Experimental Laboratory for Vital Signs (ELVIS), VU University Medical Center

Impactfactor: 4.21

Bouwman RA

General anesthesia with sevoflurane decreases myocardial blood volume and hyperemic blood flow in healthy humans

Bulte CS, Slikkerveer J, Kamp O, Heymans MW, Loer SA, de Marchi SF, Vogel R, Boer C, Bouwman RA#

Anesth Analg. 2013 Apr;116(4):767-74

BACKGROUND: Preservation of myocardial perfusion during general anesthesia is likely important in patients at risk for perioperative cardiac complications. Data related to the influence of general anesthesia on the normal myocardial circulation are limited. In this study, we investigated myocardial microcirculatory responses to pharmacological vasodilation and sympathetic stimulation during general anesthesia with sevoflurane in healthy humans immediately before surgical stimulation.

METHODS: Six female and 7 male subjects (mean age 43 years, range 28-61) were studied at baseline while awake and during the administration of 1 minimum alveolar concentration sevoflurane. Using myocardial contrast echocardiography, myocardial blood flow (MBF) and microcirculatory variables were assessed at rest, during adenosine-induced hyperemia, and after cold pressor test-induced sympathetic stimulation. MBF was calculated from the relative myocardial blood volume multiplied by its exchange frequency () divided by myocardial tissue density (T), which was set at 1.05 g·mL(-1).

RESULTS: During sevoflurane anesthesia, MBF at rest was similar to baseline values (1.05 ± 0.28 vs 1.05 ± 0.32 mL·min(-1)·g(-1); $P = 0.98$; 95% confidence interval [CI], -0.18 to 0.18). Myocardial blood volume decreased ($P = 0.0044$; 95% CI, 0.01-0.04) while its exchange frequency () increased under sevoflurane anesthesia when compared with baseline. In contrast, hyperemic MBF was reduced during anesthesia compared with baseline (2.25 ± 0.5

vs $3.53 \pm 0.7 \text{ mL} \cdot \text{min}^{-1} \cdot \text{g}^{-1}$; $P = 0.0003$; 95% CI, 0.72-1.84). Sympathetic stimulation during sevoflurane anesthesia resulted in a similar MBF compared to baseline (1.53 ± 0.53 and $1.55 \pm 0.49 \text{ mL} \cdot \text{min}^{-1} \cdot \text{g}^{-1}$; $P = 0.74$; 95% CI, -0.47 to 0.35).

CONCLUSIONS: In otherwise healthy subjects who are not subjected to surgical stimulation, MBF at rest and after sympathetic stimulation is preserved during sevoflurane anesthesia despite a decrease in myocardial blood volume. However, sevoflurane anesthesia reduces hyperemic MBF, and thus MBF reserve, in these subjects.

Ten tijde van publicatie werkzaam bij: Department of Anesthesiology, VU University Medical Center, Amsterdam

Impactfactor: 3.300

Bouwman RA

Minimally invasive intraoperative estimation of left-ventricular end-systolic elastance with phenylephrine as loading intervention

Boly CA, Reesink KD, van den Tol MP, Jansen EK, Westerhof BE, Boer C, Bouwman RA#
Br J Anaesth. 2013 Nov;111(5):750-8. Epub 2013 Jul 9

BACKGROUND: Left-ventricular end-systolic elastance (Ees) is an index of cardiac contractility, but the invasive nature of its assessment has limited perioperative application. We explored the feasibility of a minimally invasive method of Ees estimation for perioperative assessment of cardiac function and evaluated the suitability of phenylephrine as a loading intervention.

METHODS: In 17 surgical patients, Ees was determined as the slope of the end-systolic pressure-volume relation, which was obtained from non-invasive or invasive continuous arterial pressure measurements and left-ventricular volume determinations using transoesophageal echocardiography (TOE). Ees was determined using as loading interventions preload reduction by inferior vena cava compression (IVCC) and afterload increase by phenylephrine administration.

RESULTS: Median invasive Ees determined with phenylephrine estimated $1.05 (0.59-1.21) \text{ mm Hg mL}^{-1}$ and with IVCC $0.58 (0.31-1.13) \text{ mm Hg mL}^{-1}$. Bland-Altman analysis to evaluate the level of agreement between minimally invasive and invasive Ees estimation revealed a bias of $-0.03 (0.12) \text{ mm Hg mL}^{-1}$ with limits of agreement from -0.27 to $0.21 \text{ mm Hg mL}^{-1}$ and the percentage error was 33%. Agreement between Ees obtained with phenylephrine and IVCC revealed a bias of $0.15 (0.69) \text{ mm Hg mL}^{-1}$ with limits of agreement from -1.21 to $1.51 \text{ mm Hg mL}^{-1}$ and a percentage error of 149%.

CONCLUSIONS: It is feasible to determine Ees combining continuous non-invasive arterial pressure measurements and left-ventricular volume determinations with TOE. However, administration of phenylephrine cannot substitute IVCC as a loading intervention, indicating that estimation of Ees in the intraoperative setting remains a challenge.

Ten tijde van publicatie werkzaam bij: Department of Anesthesiology, VU University Medical Center, Amsterdam

Impactfactor: 4.237

Bouwman RA

Short-term heart rate variability in healthy adults

Keet SW, Bulte CS, Garnier RP, Boer C, Bouwman RA#
Anaesthesia. 2013 Jul;68(7):775-7

Geen abstract beschikbaar

Ten tijde van publicatie werkzaam bij: Department of Anesthesiology, VU University Medical Center, Amsterdam, Impactfactor: 3.486

Bouwman RA

Tracheal intubation with a camera embedded in the tube tip (Vivasight("))

Huitink JM, Koopman EM, Bouwman RA, Craenen A, Verwoert M, Krage R, Visser IE, Erwtelman M, van Groeningen D, Tijink R, Schauer A

Anaesthesia. 2013 Jan;68(1):74-8. Epub 2012 Nov 5

We studied tracheal intubation in manikins and patients with a camera embedded in the tip of the tracheal tube (Vivasight(")). Four people in two teams and two individuals attempted intubation of a manikin through an i-gel(") 10 times each. The tracheas of 12 patients with a Mallampati grade of 1 were intubated with a Vivasight tracheal tube through a Berman airway, passed over a Frova(") introducer. All 60 manikin intubations were successful, taking a mean (SD) time of 1.4 (0.5) s. The fastest intubation was performed in 0.5 s. All 12 participants' tracheas were successfully intubated in a median (IQR [range]) time of 90 (70-120 [50-210]) s. Seven participants complained of a sore throat, comparable with earlier findings for standard laryngoscopy and intubation: five mild; one moderate; and one severe. Tracheal intubation with the Vivasight through the i-gel or Berman airway is an alternative to existing techniques, against which it should be compared in randomised controlled trials in human participants. It has potential as a fast airway rescue technique.

Ten tijde van publicatie werkzaam bij: Department of Anesthesiology, VU University Medical Center, Amsterdam

Impactfactor: 3.486

Brands C

Target controlled infusion met Propofol in de anesthesiepraktijk

Brands C*

Nederlands tijdschrift voor anesthesiemedewerkers, 2013; 30(3):12-14

Geen abstract beschikbaar

Impactfactor: --

Gaag A van der

Ultrasound-guided ilioinguinal/iliohypogastric nerve blocks for chronic pain after inguinal hernia repair

Thomassen I*, Suijlekom JA van*, Gaag A van de*, Ponten JE*, Nienhuijs SW*

Hernia. 2013 Jun;17(3):329-32. Epub 2012 Sep 27

Voor abstract zie: Chirurgie - Thomassen I

Impactfactor: 1.693

Herold IH

Maximum-likelihood estimation for indicator dilution analysis

Kuenen M, Herold I*, Korsten H*, de la Rosette J, Wijkstra H, Mischi M

IEEE Trans Biomed Eng. 2013 Nov 11. [Epub]

Indicator-dilution methods are widely used by many medical imaging techniques and by dye-, lithium-, and thermodilution measurements. The measured indicator dilution curves are typically fitted by a mathematical model to estimate the hemodynamic parameters of interest. This paper presents a new maximum-likelihood algorithm for parameter estimation, where indicator dilution curves are considered as the histogram of underlying transit-time distribution. Apart from a general description of the algorithm, semi-analytical solutions are provided for three well-known indicator dilution models. An adaptation of the algorithm is

also introduced to cope with indicator recirculation. In simulations as well as in experimental data obtained by dynamic contrast-enhanced ultrasound imaging, the proposed algorithm shows a superior parameter estimation accuracy over nonlinear least-squares regression. The feasibility of the algorithm for use in vivo is evaluated using dynamic contrast-enhanced ultrasound recordings obtained with the purpose of prostate cancer detection. The proposed algorithm shows an improved ability (increase in receiver-operating-characteristic curve area of up to 0.13) with respect to existing methods to differentiate between healthy tissue and cancer.

Impactfactor: --

Herold IH

Volume quantification by contrast-enhanced ultrasound: an in-vitro comparison with true volumes and thermodilution

Herold IH*, Russo G, Mischi M, Houthuizen P*, Saidov T, van Het Veer M*, van Assen HC, Korsten HH*

Cardiovasc Ultrasound. 2013 Oct 17;11(1):36

BACKGROUND: Contrast-enhanced ultrasound (CEUS) has recently been proposed as a minimallyinvasive, alternative method for blood volume measurement. This study aims at comparing the accuracy of CEUS and the classical thermodilution techniques for volume assessment in an in-vitro set-up.

METHODS: The in-vitro set-up consisted of a variable network between an inflow and outflow tube and a roller pump. The inflow and outflow tubes were insonified with an ultrasound array transducer and a thermistor was placed in each tube. Indicator dilution curves were made by injecting indicator which consisted of an ultrasound-contrast-agent diluted in ice-cold saline. Both acoustic intensity- and thermodilution curves were used to calculate the indicator mean transit time between the inflow and outflow tube. The volumes were derived by multiplying the estimated mean transit time by the flow rate. We compared the volumes measured by CEUS with the true volumes of the variable network and those measured by thermodilution by Bland-Altman and intraclass-correlation analysis.

RESULTS: The measurements by CEUS and thermodilution showed a very strong correlation ($r_s = 0.94$) with a modest volume underestimation by CEUS of -40 ± 28 mL and an overestimation of 84 ± 62 mL by thermodilution compared with the true volumes. Both CEUS and thermodilution showed a high statistically significant correlation with the true volume ($r_s = 0.97$ (95% CI, 0.95 - 0.98; $P < 0.001$) and $r_s = 0.96$ (95% CI, 0.94 - 0.98; $P < 0.0001$, respectively).

CONCLUSIONS: CEUS volume estimation provides a strong correlation with both the true volumes invitro and volume estimation by thermodilution. It may therefore represent an interesting alternative to the standard, invasive thermodilution technique.

Impactfactor: 1.32

Korsten HH

Maximum-likelihood estimation for indicator dilution analysis

Kuenen M, Herold I*, Korsten H*, de la Rosette J, Wijkstra H, Mischi M
IEEE Trans Biomed Eng. 2013 Nov 11. [Epub]

Voor abstract zie: Anesthesiologie - Herold IH

Impactfactor: --

Korsten HH

**Physicians' responses to clinical decision support on an intensive care unit-
Comparison of four different alerting methods**

Scheepers-Hoeks AM*, Grouls RJ*, Neef C, Ackerman EW*, Korsten EH*

Artif Intell Med. 2013 Sep;59(1):33-8

Voor abstract zie: Apotheek - Scheepers-Hoeks AM

Impactfactor: 1.355

Korsten HH

**Strategy for development and pre-implementation validation of effective clinical
decision support**

Scheepers-Hoeks AM*, Grouls RJ*, Neef C, Ackerman EW*, Korsten HH*

Eur J Hosp Pharm 2013;20:155-160

Voor abstract zie: Apotheek - Scheepers-Hoeks AM

Impactfactor: --

Korsten HH

**Volume quantification by contrast-enhanced ultrasound: an in-vitro comparison with
true volumes and thermodilution**

Herold IH*, Russo G, Mischi M, Houthuizen P*, Saidov T, van Het Veer M*, van Assen HC, Korsten HH*

Cardiovasc Ultrasound. 2013 Oct 17;11(1):36

Voor abstract zie: Anesthesiologie - Herold IH

Impactfactor: 1.32

Loon FH van

Postoperatieve misselijkheid en braken, voorkomen is beter dan genezen

Loon FH van*

Nederlands tijdschrift voor anesthesiemedewerkers, 2013;30(3): 4-8

Geen abstract beschikbaar

Impactfactor: --

Loon FH van

Preventieve methoden van voorkomen van pijn bij propofol

Loon FH van*, Dortangs EM, Niesten MW

Nederlands tijdschrift voor anesthesiemedewerkers, 2013;30(6): 4-8

Geen abstract beschikbaar

Impactfactor: --

Suijlekom JA van

Does removal of steel wires relieve post-sternotomy pain after cardiac surgery?

Sargul Rashidi*, Ted WO Elenbaas*, Mohamed A Soliman Hamad*, Hans J van Suijlekom* and Albert HM van Straten*

Asian Cardiovascular and Thoracic Annals. August 2013; 21: 409-413

Voor abstract zie: Cardiothoracale chirurgie - Rashidi S

Impactfactor: --

Suijlekom JA van

Ultrasound-guided ilioinguinal/iliohypogastric nerve blocks for chronic pain after inguinal hernia repair

Thomassen I*, Suijlekom JA van*, Gaag A van de *, Ponten JE*, Nienhuijs SW*

Hernia. 2013 Jun;17(3):329-32. Epub 2012 Sep 27

Voor abstract zie: Chirurgie - Thomassen I

Impactfactor: 1.693

Verelst P

Use of the EZ-Blocker for lung separation

Verelst PL,* van Zundert AA*

J Clin Anesth. 2013 Mar;25(2):161-2

Geen abstract beschikbaar

Impactfactor: 1.145

Zundert AA van

Brief review: Piriformis syndrome: etiology, diagnosis, and management

Jankovic D, Peng P, van Zundert A*

Can J Anaesth. 2013 Oct;60(10):1003-12

PURPOSE: In this narrative review, we aim to provide the pathophysiology and diagnostic criteria of the piriformis syndrome (PS), an underdiagnosed cause of buttock and leg pain that can be difficult to treat. Based on existing evidence, frequencies of clinical features are estimated in patients reported to have PS. In view of the increasing popularity of ultrasound for intervention, the ultrasound-guided technique in the treatment of PS is described in detail.

SOURCE: A literature search of the MEDLINE® database was performed from January 1980 to December 2012 using the search terms e.g., " piriformis injection", " ultrasound guided piriformis injection", " botulinum toxin", "pain management", and different structures relevant in this review. There was no restriction on language.

PRINCIPAL FINDINGS: A review of the medical literature pertaining to PS revealed that the existence of this entity remains controversial. There is no definitive proof of its existence despite reported series with large numbers of patients.

CONCLUSION: Piriformis syndrome continues to be a controversial diagnosis for sciatic pain. Electrophysiological testing and nerve blocks play important roles when the diagnosis is uncertain. Injection of local anesthetics, steroids, and botulinum toxin into the piriformis muscle can serve both diagnostic and therapeutic purposes. An ultrasound-guided injection technique offers improved accuracy in locating the piriformis muscle. Optimizing the therapeutic approach requires an interdisciplinary evaluation of treatment.

Impactfactor: 2.127

Zundert AA van

Prevention of post-dural puncture headache (PDPH) in parturients. Contributions from experimental research

Zundert AA van *, Reina MA, Lee RA

Acta Anaesthesiol Scand. 2013 Aug;57(7):947-9

Geen abstract beschikbaar

Impactfactor: 2.355

Zundert AA van

Respiratory Impact of Analgesic Strategies for Shoulder Surgery: Evidence-Based Case Management

Verelst P, Zundert A van*

Reg Anesth Pain Med. 2013 Jan;38(1):50-3. Epub 2012 Nov 3

Shoulder surgery is associated with significant postoperative pain in many patients. The use of an interscalene nerve block offers good analgesia but is associated with a high incidence of an ipsilateral phrenic nerve block. Several strategies to avoid this adverse effect have been studied. Possible strategies are (1) using very low volumes of local anesthetics, (2) targeting the brachial plexus at a lower level in the neck, (3) applying a suprascapular nerve block, and (4) applying the combination of a suprascapular and an axillary nerve block. Using systemic analgesics is a less favorable strategy because this may result in less potent analgesia and may cause more adverse effects, including respiratory depression and nausea.

Impactfactor: 3.464

Zundert AA van

The European Society of Regional Anaesthesia and Pain Therapy (1982-2012): 30 years strong

van Zundert AA*, Wildsmith JA

Reg Anesth Pain Med. 2013 Sep-Oct;38(5):436-41

Inspired by the earlier establishment of the American Society of Regional Anesthesia, but with a structure to accommodate the diverse languages and health care systems of Europe, the European Society of Regional Anaesthesia (ESRA) held its first scientific meeting in 1982. During the following 30 years, ESRA grew from strength to strength and implemented a number of important educational initiatives, the story of these developments being the subject of this review. ESRA's prime function is to publicize the evidence on regional anesthesia and encourage its further development, but it also led the way in democratizing European anesthesia societies by being the first to open its membership to all. A recent revision of the constitution has further increased the society's democratic nature. Educationally, activities grew from a single annual congress to include zonal meetings, cadaver workshops, a major online program, and collaborations (guidelines and conferences) with other societies. Finally, the introduction of a Diploma qualification in regional anesthesia was an entirely novel project.

Impactfactor: 3.464

Zundert AA van

The LMA-Supreme(TM) as an intubation conduit in patients with known difficult airways: a prospective evaluation study

Zundert TC van, Wong DT, Zundert AA van*

Acta Anaesthesiol Scand. 2013 Jan;57(1):77-81. Epub 2012 Nov 21

BACKGROUND: Many extraglottic airway devices allow the direct passage of an adult-sized tracheal tube, but this is not possible with the LMA-Supreme(TM). We evaluated the feasibility of using the LMA-Supreme(TM) as a conduit for intubation in patients with known difficult airways.

METHODS: Sixty-eight adult patients, with preoperative predictors of difficult intubation, were scheduled for elective surgery under general anaesthesia. After assessing the direct laryngoscopy view, 23 patients with Cormack-Lehane III/IV were included in the study. An

LMA-Supreme(TM) was inserted, followed by the passage of a flexible bronchoscope loaded with an Aintree Intubation Catheter into the trachea. The bronchoscope and LMA-Supreme(TM) were removed, and a tracheal tube was railroaded over the Aintree Intubation Catheter into the trachea.

RESULTS: Tracheal intubation was successful in all patients using the above technique. SpO₂ was >95% during the intubation procedure.

CONCLUSIONS: We conclude that the LMA-Supreme(TM) is a successful conduit for bronchoscopic/Aintree Intubation Catheter-guided intubation in patients with known difficult airway.

Impactfactor: 2.355

Zundert AA van

Tracheal intubation of patients in non-standard positions requires training

Zundert TC van, Zundert AA van *

Minerva Anesthesiol. 2013 Jun;79(6):679-82

In extreme emergency situations, patients may need to undergo endotracheal intubation, while in a nonsupine position. This manuscript offers several options to the anesthesiologist to cope with tracheal intubations in nonstandard positions. The authors stress that there is a need for adequate training in an anaesthesia skills lab, whereby classic direct laryngoscopy and indirect videolaryngoscopy should be practiced on manikins, before our trainees actually practice anaesthesia on patients in operating theatres. This manuscript is also a plea for developing an algorithm for emergency airway management in the non-supine position.

Impactfactor: 2.818

Zundert AA van

Use of the EZ-Blocker for lung separation

Verelst PL*, van Zundert AA*

J Clin Anesth. 2013 Mar;25(2):161-2

Geen abstract beschikbaar

Impactfactor: 1.145

* = Werkzaam in het Catharina Ziekenhuis

Apotheek

Ackerman EW

Effect van een beslisregel-gestuurde interventie op vroege omzetting van intraveneuze naar orale antibiotica

Lammers HJ, Wasylewicz AT*, Scheepers-Hoeks AM*, ten Broeke R*, Ackerman EW*, Wessels-Basten SJ*, Grouls RJ*

PW Wetenschappelijk Platform 2013;7:a1311

Voor abstract zie: Apotheek - Wasylewicz AT

Impactfactor: --

Ackerman EW

Physicians' responses to clinical decision support on an intensive care unit- Comparison of four different alerting methods

Scheepers-Hoeks AM*, Grouls RJ*, Neef C, Ackerman EW*, Korsten EH*

Artif Intell Med. 2013 Sep;59(1):33-8

Voor abstract zie: Apotheek - Scheepers-Hoeks AM

Impactfactor: 1.355

Ackerman EW

Strategy for development and pre-implementation validation of effective clinical decision support

Scheepers-Hoeks AM*, Grouls RJ*, Neef C, Ackerman EW*, Korsten HH*

Eur J Hosp Pharm 2013;20:155-160

Voor abstract zie: Apotheek - Scheepers-Hoeks AM

Impactfactor: --

Broeke, R ten

Effect van een beslisregel-gestuurde interventie op vroege omzetting van intraveneuze naar orale antibiotica

Lammers HJ, Wasylewicz AT*, Scheepers-Hoeks AM*, ten Broeke R*, Ackerman AW*, Wessels-Basten SJ*, Grouls RJ*

PW Wetenschappelijk Platform 2013;7:a1311

Voor abstract zie: Apotheek - Wasylewicz AT

Impactfactor: --

Broeke, R ten

Iron deficiency before and after bariatric surgery: The need for iron supplementation

Ten Broeke R*, Bravenboer B, Smulders FJ*

Neth J Med. 2013 Oct;71(8):412-7

Hepcidin inhibits the iron export from duodenal cells and liver cells into the plasma and therefore plays a key role in controlling iron homeostasis. In obese patients, elevated cytokine production stimulates hepcidin synthesis, causing iron to be retained as ferritin in e.g. macrophages (functional iron deficiency). In addition, patients often develop iron deficiency after bariatric surgery due to malabsorption, which may cause anaemia and thereby lead to complaints such as fatigue. In these patients, the absorption of iron may be disrupted because the reduction of Fe³⁺ by gastric acid into Fe²⁺ (the form that is easily absorbed) is not so effective after stomach reduction. Iron absorption is further reduced after malabsorptive interventions as a result of bypassing the duodenum and the proximal part of the small intestine, where the absorption takes place. Oral iron supplements often

have little effect after bariatric surgery. Intravenous supplements of iron can restore the iron status rapidly after bariatric surgery, resulting in fewer symptoms such as fatigue.

Impactfactor: 2.072

Grouls RJ

Effect van een beslisregel-gestuurde interventie op vroege omzetting van intraveneuze naar orale antibiotica

Lammers HJ, Wasylewicz AT*, Scheepers-Hoeks AM*, ten Broeke R*, Ackerman EW*, Wessels-Basten SJ*, Grouls RJ*

PW Wetenschappelijk Platform 2013;7:a1311

Voor abstract zie: Apotheek - Wasylewicz AT

Impactfactor: --

Grouls RJ

Physicians' responses to clinical decision support on an intensive care unit- Comparison of four different alerting methods

Scheepers-Hoeks AM*, Grouls RJ*, Neef C, Ackerman EW*, Korsten EH*

Artif Intell Med. 2013 Sep;59(1):33-8

Voor abstract zie: Apotheek - Scheepers-Hoeks AM

Impactfactor: 1.355

Grouls RJ

Strategy for development and pre-implementation validation of effective clinical decision support

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Eur J Hosp Pharm 2013;20:155-160

Voor abstract zie: Apotheek - Scheepers-Hoeks Am

Impactfactor:

Scheepers-Hoeks AM

Effect van een beslisregel-gestuurde interventie op vroege omzetting van intraveneuze naar orale antibiotica

Lammers HJ, Wasylewicz AT*, Scheepers-Hoeks AM*, ten Broeke R*, Ackerman AW*, Wessels-Basten SJ*, Grouls RJ*

PW Wetenschappelijk Platform 2013;7:a1311

Voor abstract zie: Apotheek - Wasylewicz AT

Impactfactor: --

Scheepers-Hoeks AM

Physicians' responses to clinical decision support on an intensive care unit- Comparison of four different alerting methods

Scheepers-Hoeks AM*, Grouls RJ*, Neef C, Ackerman EW*, Korsten EH*

Artif Intell Med. 2013 Sep;59(1):33-8

BACKGROUND: In intensive care environments, technology is omnipresent whereby ensuring constant monitoring and the administration of critical drugs to unstable patients. A clinical decision support system (CDSS), with its widespread possibilities, can be a valuable tool in supporting adequate patient care. However, it is still unclear how decision support alerts

should be presented to physicians and other medical staff to ensure that they are used most effectively.

OBJECTIVE: To determine the effect of four different alert presentation methods on alert compliance after the implementation of an advanced CDSS on the intensive care unit (ICU) in our hospital.

METHODS: A randomized clinical trial was executed from August 2010 till December 2011, which included all patients admitted to the ICU of our hospital. The CDSS applied contained a set of thirteen locally developed clinical rules. The percentage of alert compliance was compared for four alert presentation methods: pharmacy intervention, physician alert list, electronic health record (EHR) section and pop-up alerts. Additionally, surveys were held to determine the method most preferred by users of the CDSS.

RESULTS: In the study period, the CDSS generated 902 unique alerts, primarily due to drug dosing during decreased renal function and potassium disturbances. Alert compliance was highest for recommendations offered in pop-up alerts (41%, n=68/166), followed by pharmacy intervention (33%, n=80/244), the physician alert list (20%, n=40/199) and the EHR section (19%, n=55/293). The method most preferred by clinicians was pharmacy intervention, and pop-up alerts were found suitable as well if applied correctly. The physician alert list and EHR section were not considered suitable for CDSSs in the process of this study.

CONCLUSION: The alert presentation method used for CDSSs is crucial for the compliance with alerts for the clinical rules and, consequently, for the efficacy of these systems. Active alerts such as pop-ups and pharmacy intervention were more effective than passive alerts, which do not automatically appear within the clinical workflow. In this pilot study, ICU clinicians also preferred pharmacy intervention and pop-up alerts. More research is required to expand these results to other departments and other hospitals, as well as to other types of CDSSs and different alert presentation methods.

Impactfactor: 1.355

Scheepers-Hoeks AM

Strategy for development and pre-implementation validation of effective clinical decision support

Scheepers-Hoeks AM*, Grouls RJ*, Neef C, Ackerman EW*, Korsten HH*

Eur J Hosp Pharm 2013;20:155-160

OBJECTIVE Well-designed clinical decision support systems (CDSS) can reduce the problem of alert fatigue by generating patient-specific alerts. This paper describes a strategy for the development and preimplementation validation of specific and relevant clinical rules in order to reduce alert fatigue.

METHODS A four-step development and validation strategy of clinical rules is presented. As an example, from March to September 2006 the 'lithium therapy rule' was developed with this strategy based on the Plan-Do-Check-Act cycle. 15 368 patients were retrospectively screened and 2503 patients were prospectively screened while the positive and negative predictive values (PPV/NPV) were continuously monitored. The first step is to confirm that the parameters used in the definitions are linked to the correct data in the electronic health record; the second step involves an expert team in the review process to assure that alerts generated are clinically relevant; in the third step the rule is adjusted to generate the right alerts in daily practice; and the fourth step ensures technical and therapeutic maintenance after implementation in practice.

RESULTS From September 2006 to July 2010 nine other rules were developed following exactly the same strategy. The 10 clinical rules developed showed a progression during the

development and all resulted in a final therapeutic PPV of $\geq 89\%$ before implementation, based on expert opinion. NPV was determined for five clinical rules and was always 100%.

CONCLUSIONS The proposed strategy is effective for creating specific and reliable clinical rules that generate relevant recommendations. The inclusion of an expert team in the development process is an essential success factor. It is hoped that it will accelerate the widespread use of these promising decision support systems in practice.

Impactfactor: --

Wasylewicz AT

Effect van een beslisregel-gestuurde interventie op vroege omzetting van intraveneuze naar orale antibiotica

Lammers HJ, Wasylewicz AT*, Scheepers-Hoeks AM*, ten Broeke R*, Ackerman AW*, Wessels-Basten SJ*, Grouls RJ*

PW Wetenschappelijk Platform 2013;7:a1311

Impact of a clinical rule guided intervention on early switch from intravenous to oral antibiotic therapy

OBJECTIVE To optimize guideline compliance for early antibiotic switch therapy (EAST) and to assess the effect of clinical rule guided intervention on duration of intravenous therapy and length of hospital stay (LOS).

DESIGN Prospective, clinical rule guided intervention study with a seasonally matched retrospective control group.

METHODS The clinical rules were based on guidelines for EAST and input of an expert team. Intensive care patients and neonates were excluded. Patients were selected by the clinical rule if an intravenous antibiotic was used for > 48 hours. Fever within the last 24 hours and contra-indicated infections had to be absent. Further selection was based on decreasing or normalized C-reactive protein (CRP) and leukocyte values. Electronic patient records (EPR) were also manually checked for absence of enteral tube feeding and contra-indicated infections. During a 7-week prospective intervention period the pharmacist advised the clinician by phone to carry out an early switch.

RESULTS Guideline compliance for EAST increased to 69.3% after intervention compared to 55.7% in the control group ($P = 0.011$). Most switches were found in patients with pulmonary, abdominal or urinary tract infections. The main reason for clinicians to refrain from early switch was their clinical judgement of the patient's health. Mean duration of intravenous therapy and length of hospital stay did not differ significantly after intervention.

CONCLUSION This study shows that clinical rule guided intervention effectively improves guideline compliance for early antibiotic switch. Mean duration of intravenous therapy and LOS were not significantly affected.

Impactfactor: --

Wessels-Basten SJ

Effect van een beslisregel-gestuurde interventie op vroege omzetting van intraveneuze naar orale antibiotica

Lammers HJ, Wasylewicz AT*, Scheepers-Hoeks AM*, ten Broeke R*, Ackerman EW*, Wessels-Basten SJ*, Grouls RJ*

PW Wetenschappelijk Platform 2013;7:a1311

Voor abstract zie: Apotheek - Wasylewicz AT

Impactfactor: --

* = Werkzaam in het Catharina Ziekenhuis

Cardiologie

Botman CJ

Assessment of optimum stent deployment by stent boost imaging: comparison with intravascular ultrasound

Tanaka N, Pijls NH*, Koolen JJ*, Botman KJ*, Michels HR*, Brueren BR*, Peels K*, Shindo N, Yamashita J, Yamashina A

Heart Vessels. 2013 Jan;28(1):1-6. Epub 2011 Oct 29

Voor abstract zie: Cardiologie - Pijls NH

Impactfactor: 2.126

Bouwmeester S

Consideration of QRS complex in addition to ST segment abnormalities in the estimation of the 'risk region' during acute inferior myocardial infarction

van Hellemond IE*, Bouwmeester S*, Olson CW, Hassell M, Bøtker HE, Kaltoft AK, Nielsen SS, Terkelsen CJ, Maynard C, Andersen MP, Gorgels AP, Wagner GS

J Electrocardiol. 2013 May-Jun;46(3):215-20

Voor abstract zie: Inwendige geneeskunde - Hellemond IE van

Impactfactor: 1.093

Bouwmeester S

The predictive value of an ECG-estimated Acute Ischemia Index for prognosis of myocardial salvage and infarct healing 3months following inferior ST-elevated myocardial infarction

Hassell ME, Bekkers SC, Loring Z, van Hellemond I*, Bouwmeester S*, van der Weg K, Maynard C, Gorgels AP, Wagner GS

J Electrocardiol. 2013 May-Jun;46(3):221-8

Voor abstract zie: Inwendige geneeskunde - Hellemond IE van

Impactfactor: 1.093

Bracke FA

[The implantable cardiac defibrillator: indications and complications]

Simmers TA*, Bracke FA*

Ned Tijdschr Geneeskd. 2013;157(47):A6328

Voor abstract zie: Cardiologie - Simmers TA

Impactfactor: --

Bracke FA

The Needle's Eye Snare as a primary tool for pacing lead extraction

Bracke FA*, Dekker L*, van Gelder BM*

Europace. 2013 Jul;15(7):1007-12

AIMS: The femoral approach for lead extraction is typically used as a bailout procedure. We describe the results of a femoral approach with a Needle's Eye Snare and Femoral Workstation as a primary tool for extracting pacing leads.

PATIENTS AND METHODS AND RESULTS: Four hundred and seventy-six pacing leads implanted for >6 months were extracted in 229 consecutive patients (178 male, age 70.4 ± 12.7 years). First, traction was performed with a standard stylet, and if unsuccessful this was followed by the femoral approach with a Needle's Eye Snare. Traction sufficed for 136 leads and a femoral

approach was required in 340 leads, their respective implant times were 3.7 ± 2.9 and 9.2 ± 5.8 years. The Needle's Eye Snare failed or was only partial successful (leaving a lead remnant of <4 cm) in, respectively, 1.8 and 3.8% of all leads, 2.7 and 7.1% of 182 right ventricular, 0.7 and 0% of 144 atrial leads, and in none of 14 coronary sinus leads. All leads implanted for <10 years were removed with a clinical success. Two patients were successfully operated after pericardial tamponade. There were no procedure-related deaths. CONCLUSION: Needle's Eye Snare lead extraction has a low complication rate. The technique should be considered as a primary tool for extraction of pacing leads, particularly atrial and coronary sinus pacing leads. The results for extracting ventricular leads might be improved if larger bore sheaths with a better cutting edge were available.

Impactfactor: 2.765

Brueren BR

Assessment of optimum stent deployment by stent boost imaging: comparison with intravascular ultrasound

Tanaka N, Pijls NH*, Koolen JJ*, Botman KJ*, Michels HR*, Brueren BR*, Peels K*, Shindo N, Yamashita J, Yamashina A

Heart Vessels. 2013 Jan;28(1):1-6. Epub 2011 Oct 29

Voor abstract zie: Cardiologie - Pijls NH

Impactfactor: 2.126

Dantzig JM van

Effect of a nurse-coordinated prevention programme on cardiovascular risk after an acute coronary syndrome: main results of the RESPONSE randomised trial

Jorstad HT, von Birgelen C, Alings AM, Liem A, van Dantzig JM*, Jaarsma W, Lok DJ, Kragten HJ, de Vries K, de Milliano PA, Withagen AJ, Scholte Op Reimer WJ, Tijssen JG, Peters RJ

Heart. 2013 Oct;99(19):1421-30

OBJECTIVE: To quantify the impact of a practical, hospital-based nurse-coordinated prevention programme on cardiovascular risk, integrated into the routine clinical care of patients discharged after an acute coronary syndrome, as compared with usual care only.

DESIGN: RESPONSE (Randomised Evaluation of Secondary Prevention by Outpatient Nurse Specialists) was a randomised clinical trial.

SETTING: Multicentre trial in secondary and tertiary healthcare settings.

PARTICIPANTS: 754 patients admitted for acute coronary syndrome.

INTERVENTION: A nurse-coordinated prevention programme, consisting of four outpatient nurse clinic visits, focusing on healthy lifestyles, biometric risk factors and medication adherence, in addition to usual care.

MAIN OUTCOME MEASURES: The main outcome was 10-year cardiovascular mortality risk as estimated by Systematic Coronary Risk Evaluation at 12 months follow-up. Secondary outcomes included Framingham Coronary Risk Score at 12 months, in addition to changes in individual risk factors. Risk factor control was classified as 'poor' if 0 to 3 factors were on target, 'fair' if 4 to 6 factors were on target, and 'good' if 7 to 9 were on target.

RESULTS: The mean Systematic Coronary Risk Evaluation at 12 months was 4.4 per cent (SD 4.5) in the intervention group and 5.4 per cent (SD 6.2) in the control group ($p=0.021$), representing a 17.4% relative risk reduction. At 12 months, risk factor control classified as 'good' was achieved in 35% of patients in the intervention group compared with 25% in the control group ($p=0.003$). Attendance to the nurse-coordinated prevention programme was

92%. In the intervention group, 86 rehospitalisations were observed against 132 in the control group (relative risk reduction 34.8%, $p=0.023$).

CONCLUSIONS: The nurse-coordinated hospital-based prevention programme in addition to usual care is a practical, yet effective method for reduction of cardiovascular risk in patients with coronary disease. Our data suggest that the counselling component of the programme may lead to a reduction in hospital readmissions.

Impactfactor: 5.014

Dantzig JM van

Impact of prosthesis-patient mismatch on early and late mortality after aortic valve replacement

Koene BM, Soliman Hamad MA*, Bouma W, Mariani MA, Peels KC*, van Dantzig JM*, van Straten AH*

J Cardiothorac Surg. 2013 Apr 17;8(1):96

Voor abstract zie: Cardiothoracale chirurgie - Soliman Hamad MA

Impactfactor: 0.90

Dekker LR

Brain natriuretic peptide is not predictive of dilated cardiomyopathy in Becker and Duchenne muscular dystrophy patients and carriers

Schade van Westrum S, Dekker L*, de Haan R, Endert E, Ginjaar I, de Visser M, van der Kooi A

BMC Neurol. 2013 Jul 16;13:88

BACKGROUND: Cardiomyopathy is reported in Duchenne and Becker muscle dystrophy patients and female carriers. Brain Natriuretic peptide (BNP) is a hormone produced mainly by ventricular cardiomyocytes and its production is up regulated in reaction to increased wall stretching. N-terminalproBNP (NT-proBNP) has been shown to be a robust laboratory parameter to diagnose and monitor cardiac failure, and it may be helpful to screen for asymptomatic left ventricular dysfunction. Therefore we tested whether NT-proBNP can distinguish patients with Duchenne or Becker muscular dystrophy patients and carriers of a dystrophin mutation with a dilated cardiomyopathy from those without.

METHODS: In a cohort of Duchenne and Becker muscle dystrophy patients (n (n cardiomyopathy (DCM).

RESULTS: In total sixty-one patients (17%) fulfilled the criteria for DCM, whereas 283 patients (78%) had an elevated NT-pro BNP. The sensitivity of NT-proBNP for DCM in patients or carriers was 85%, the specificity 23%, area under the ROC-curve association.

CONCLUSION: Measurement of NT-pro BNP in patients suffering from Duchenne or Becker muscular dystrophy and carriers does not distinguish between those with and without dilated cardiomyopathy.

Impactfactor: 2.56

Dekker LR

New image processing and noise reduction technology allows reduction of radiation exposure in complex electrophysiologic interventions while maintaining optimal image quality: A randomized clinical trial

Dekker LR*, van der Voort PH*, Simmers TA*, Verbeek XA, Bullens RW, Veer MV*, Brands PJ*, Meijer A*

Heart Rhythm. 2013 Nov;10(11):1678-82. Epub 2013 Aug 22

BACKGROUND: Despite their carcinogenic potential, X-rays remain indispensable for electrophysiologic (EP) procedures.

OBJECTIVE: The purpose of this study was to evaluate the dose reduction and image quality of a novel X-ray technology using advanced image processing and dose reduction technology in an EP laboratory.

METHODS: In this single-center, randomized, unblinded, parallel controlled trial, consecutive patients undergoing catheter ablation for complex arrhythmias were eligible. The Philips Allura FD20 system allows switching between the reference (Allura Xper) and the novel X-ray imaging technology (Allura Clarity). Primary end-point was overall procedural patient dose, expressed in dose area product (DAP) and air kerma (AK). Operator dose, procedural success, and necessity to switch to higher dose settings were secondary end-points.

RESULTS: A total of 136 patients were randomly assigned to the novel imaging group (n = 68) or the reference group (n = 68). Baseline characteristics were similar, except patients in the novel imaging group were younger (58 vs 65 years, $P < .01$). Median DAP and AK were 43% and 40% lower in the novel imaging group, respectively ($P < .0001$). A 50% operator dose reduction was achieved in the novel imaging group ($P < .001$). Fluoroscopy time, number of exposure frames, and procedure duration were equivalent between the two groups, indicating that the image quality was similarly adequate in both groups. Procedural success was achieved in 91% of patients in both groups; one pericardial tamponade occurred in the novel imaging group.

CONCLUSION: The novel imaging technology, Allura Clarity, significantly reduces patient and operator dose in complex EP procedures while maintaining image quality.

Impactfactor: 5.045

Dekker LR

Observations and Considerations on Patient X-ray Exposure in the Electrophysiology Lab

Jiang X, Dekker LR*

Arrhythmia & Electrophysiology Review 2013;2(2):141_4

assess patient radiation during catheter ablation procedures and operator differences. From 84 patients (51 males, age 63 ± 10 years) undergoing complex catheter ablation by three experienced operators we collected: body mass index (BMI), procedure type and time, fluoroscopy time, dose area product (DAP), air kerma and X-ray system setting (cine, collimation and angiographic imaging angle). A new factor, fluoroscopy DAP/fluoroscopy time ratio, was introduced to compare operator differences. The results show the average procedure time was $179 (\pm 57)$ minutes (min), fluoroscopy time was $31 (\pm 21)$ min, DAP was $26.4 (\pm 19.6)$ Gy.cm² and air kerma was $0.26 (\pm 0.19)$ Gy. Procedure types were: pulmonary vein isolation (PVI) (52 %), redo PVI (11 %), pulmonary vein ablation catheter (PVAC) (14 %), ventricular tachycardia (VT) (8 %) and others (15 %). Inter-operator difference was observed in fluoroscopy and cine usage. Fluoroscopy DAP-time ratios showed a similar level of patient radiation dose rate by operator A and B (correlation: 0.89), and a significantly higher dose rate by operator C (correlation: 0.20, $p < 0.001$; 0.26, $p < 0.01$, to operator A and B). In conclusion, operators should be aware of patient radiation exposure levels and the influencing factors. Inter- and intra-operator differences can be measured and benchmarked for improvement in X-ray efficiency and patient radiation reduction.

Impactfactor: --

Dekker LR

SNPs identified as modulators of ECG traits in the general population do not markedly affect ECG traits during acute myocardial infarction nor ventricular fibrillation risk in this condition

Pazoki R, de Jong JS, Marsman RF, Bruinsma N, Dekker LR*, Wilde AA, Bezzina CR, Tanck MW

PLoS One. 2013;8(2):e57216

BACKGROUND: Ventricular fibrillation (VF) in the setting of acute ST elevation myocardial infarction (STEMI) is a leading cause of mortality. Although the risk of VF has a genetic component, the underlying genetic factors are largely unknown. Since heart rate and ECG intervals of conduction and repolarization during acute STEMI differ between patients who do and patients who do not develop VF, we investigated whether SNPs known to modulate these ECG indices in the general population also impact on the respective ECG indices during STEMI and on the risk of VF.

METHODS AND RESULTS: The study population consisted of participants of the Arrhythmia Genetics in the Netherlands (AGNES) study, which enrolls patients with a first STEMI that develop VF (cases) and patients that do not develop VF (controls). SNPs known to impact on RR interval, PR interval, QRS duration or QTc interval in the general population were tested for effects on the respective STEMI ECG indices (stage 1). Only those showing a (suggestive) significant association were tested for association with VF (stage 2). On average, VF cases had a shorter RR and a longer QTc interval compared to non-VF controls. Eight SNPs showed a trend for association with the respective STEMI ECG indices. Of these, three were also suggestively associated with VF.

CONCLUSIONS: RR interval and ECG indices of conduction and repolarization during acute STEMI differ between patients who develop VF and patients who do not. Although the effects of the SNPs on ECG indices during an acute STEMI seem to be similar in magnitude and direction as those found in the general population, the effects, at least in isolation, are too small to explain the differences in ECGs between cases and controls and to determine risk of VF

Impactfactor: --

Dekker LR

The Needle's Eye Snare as a primary tool for pacing lead extraction

Bracke FA*, Dekker L*, van Gelder BM*

Europace. 2013 Jul;15(7):1007-12

Voor abstract zie: Cardiologie - Bracke FA

Impactfactor: 2.765

Gelder BM van

Cardiac resynchronisation therapy optimisation strategies: systematic classification, detailed analysis, minimum standards and a roadmap for development and testing

International Working Group on Quantitative Optimization; Sohaib SM, Whinnett ZI, Ellenbogen KA, Stellbrink C, Quinn TA, Bogaard MD, Bordachar P, van Gelder BM*, van Geldorp IE, Linde C, Meine M, Prinzen FW, Turcott RG, Spotnitz HM, Wichterle D, Francis DP

Int J Cardiol. 2013 Dec 10;170(2):118-31

In this article an international group of CRT specialists presents a comprehensive classification system for present and future schemes for optimising CRT. This system is

neutral to the measurement technology used, but focuses on little-discussed quantitative physiological requirements. We then present a rational roadmap for reliable cost-effective development and evaluation of schemes. A widely recommended approach for AV optimisation is to visually select the ideal pattern of transmitral Doppler flow. Alternatively, one could measure a variable (such as Doppler velocity time integral) and "pick the highest". More complex would be to make measurements across a range of settings and "fit a curve". In this report we provide clinicians with a critical approach to address any recommendations presented to them, as they may be many, indistinct and conflicting. We present a neutral scientific analysis of each scheme, and equip the reader with simple tools for critical evaluation. Optimisation protocols should deliver: (a) singularity, with only one region of optimality rather than several; (b) blinded test-retest reproducibility; (c) plausibility; (d) concordance between independent methods; and (e) transparency, with all steps open to scrutiny. This simple information is still not available for many optimisation schemes. Clinicians developing the habit of asking about each property in turn will find it easier to win now down the broad range of protocols currently promoted. Expectation of a sophisticated enquiry from the clinical community will encourage optimisation protocol-designers to focus on testing early (and cheaply) the basic properties that are vital for any chance of long term efficacy.

Impactfactor: 5.509

Gelder BM van

The Needle's Eye Snare as a primary tool for pacing lead extraction

Bracke FA*, Dekker L*, van Gelder BM*

Europace. 2013 Jul;15(7):1007-12

Voor abstract zie: Cardiologie - Bracke FA

Impactfactor: 2.765

Habibovic M

Behavioral interventions in patients with an implantable cardioverter defibrillator: lessons learned and where to go from here?

Habibovic M*, Burg MM, Pedersen SS

Pacing Clin Electrophysiol. 2013 May;36(5):578-90

BACKGROUND: The implantable cardioverter defibrillator (ICD) is the first-line treatment for primary and secondary prevention of sudden cardiac death. A subgroup of patients experience psychological distress postimplant, and no clear evidence base exists regarding how best to address patients' needs. The aim of this critical review is to provide an overview of behavioral interventions in ICD patients to date, and to delineate directions for future research using lessons learned from the ongoing RISTA and WEBCARE trials.

METHODS: We searched the PubMed and PsycInfo databases to identify reports of behavioral trials targeting distress and related factors in ICD patients published between 1980 and April 2012.

RESULTS: We identified 17 trials for the review. Generally, compared to usual care, behavioural interventions were associated with reduced anxiety and depression and improved physical functioning, with effect sizes ranging from small to moderate-large (0.10-1.79 for anxiety; 0.23-1.20 for depression). Important limitations were small sample sizes and potential selection bias, hampering generalizability of the results. In addition to a need for larger trials, experiences from the RISTA and WEBCARE trials suggest that intervention trials tailored to the individual patient may be the way forward.

CONCLUSIONS: Behavioral interventions show promise with respect to reducing distress in ICD patients. Large-scale intervention trials targeted to the individual needs and preferences of patients are warranted, as a "one size fits all" approach is unlikely to work for all ICD patients.

Impactfactor: 1.746

Habibovic M

Emotional distress, positive affect, and mortality in patients with an implantable cardioverter defibrillator

van den Broek KC, Tekle FB, Habibovic M*, Alings M, van der Voort PH*, Denollet J
Int J Cardiol. 2013 May 10;165(2):327-32. Epub 2011 Oct 2

BACKGROUND: Little is known about the relationship between emotional distress and mortality in patients with an implantable cardioverter defibrillator (ICD). Our aim was to examine the predictive value of general negative and positive affect, and depressive symptoms (including its components somatic symptoms and cognitive-affective symptoms) for mortality.

METHODS: ICD patients (N=591, 81% male, mean age=62.7±10.1years) completed the Global Mood Scale to measure the independent dimensions negative and positive mood, and the Beck Depression Inventory to measure depressive symptoms. Covariates consisted of demographic and clinical variables.

RESULTS: During the median follow-up of 3.2years, 96 (16.2%) patients died. After controlling for covariates, negative affect was significantly related to all-cause mortality (HR=1.034, p=0.002), whereas positive affect was not (HR=1.007, p=0.61). Depressive symptoms were also independently associated with an increased mortality risk (HR=1.031, p=0.030) and somatic symptoms of depression in particular (HR=1.130, p=0.003), but cognitive-affective symptoms were not associated with mortality (HR=0.968, p=0.29). When entering both significant psychological predictors in a covariate-adjusted model, negative mood remained significant (HR=1.039, p=0.009), but somatic symptoms of depression did not (HR=0.988, p=0.78). Similar results were found for cardiac-related death. Of covariates, increased age, CRT, appropriate shocks were positively related to death.

CONCLUSIONS: Negative affect in general was related to mortality, but reduced positive affect was not. Depression, particularly its somatic symptoms, was also related to mortality, while cognitive-affective symptoms were not. Future research may further focus on the differential predictive value of emotional distress factors, as well as on mechanisms that relate emotional distress factors to mortality.

Impactfactor: 5.509

Heuvel M van den

The incidence of mucinous appendiceal malignancies: a population-based study

van den Heuvel MG*, Lemmens VE, Verhoeven RH, de Hingh IH*

Int J Colorectal Dis. 2013 Sep;28(9):1307-10

PURPOSE: Mucinous appendiceal tumours were described already 180 years ago, but reliable data on the incidence of these tumours are sparse. The clinical importance of these tumours is increasing since they are now identified as the most common site of origin for pseudomyxoma peritonei (PMP), which is currently recognised as a treatable condition.

METHODS: Data on the incidence of mucinous appendiceal tumours were retrieved from the Eindhoven Cancer Registry, which collects data on all patients with newly diagnosed cancer in a large part of the southern Netherlands that comprises about 2.3 million inhabitants. From 1980 to 2010, all cases of primary adenocarcinomas of the appendix were included.

RESULTS: From 1980 to 2010, a mucinous adenocarcinoma was diagnosed in 78 patients being 48 % of all cases of appendiceal adenocarcinoma diagnosed during this period (n=2164). The incidence increased during the study period from 0.6 to 1.9 per 1,000,000 person-years for women and from 0.4 to 1.0 per 1,000,000 person-years for men.

CONCLUSION: The reported incidence of mucinous adenocarcinomas of the appendix shows an increasing trend. This is probably mainly explained by the increased awareness of this tumour and its relation with PMP, and better registration of this specific diagnosis.

Impactfactor: 2.238

Houthuizen P

Interplay of electrical wavefronts as determinant of the response to cardiac resynchronization therapy in dyssynchronous canine hearts

Strik M, van Middendorp LB, Houthuizen P*, Ploux S, van Hunnik A, Kuiper M, Auricchio A, Prinzen FW

Circ Arrhythm Electrophysiol. 2013 Oct 1;6(5):924-31

Background- The relative contribution of electromechanical synchronization and ventricular filling to the optimal hemodynamic effect in cardiac resynchronization therapy (CRT) during adjustment of stimulation-timings is incompletely understood. We investigated whether optimal hemodynamic effect in CRT requires collision of pacing-induced and intrinsic activation waves and optimal filling of the left ventricle (LV).

Methods and Results- CRT was performed in dogs with chronic left bundle-branch block (n=8) or atrioventricular (AV) block (n=6) through atrial (A), right ventricular (RV) apex, and LVbasolateral pacing. A 100 randomized combinations of A-LV/A-RV intervals were tested. Total activation time (TAT) was calculated from >100 contact mapping electrodes. Mechanical interventricular dyssynchrony was determined as the time delay between upslopes of LV and RV pressure curves. Settings providing an increase in LVdP/dtmax (maximal rate of rise of left ventricular pressure) of $\geq 90\%$ of the maximum LVdP/dtmax value were defined as optimal (CRTopt). Filling was assessed by changes in LV end-diastolic volume (EDV; conductance catheter technique). In all hearts, CRTopt was observed during multiple settings, providing an average LVdP/dtmax increase of $\geq 15\%$. In AV-block hearts, CRTopt exclusively depended on interventricular-interval and not on AV-interval. In left bundle-branch block hearts, CRTopt occurred at A-LV intervals that allowed fusion of LV-pacing-derived activation with right bundle-derived activation. In all animals, CRTopt occurred at settings resulting in the largest decrease in TAT and mechanical interventricular dyssynchrony, whereas LV EDV hardly changed.

Conclusions- In left bundle-branch block and AV-block hearts, optimal hemodynamic effect of CRT depends on optimal interplay between pacing-induced and intrinsic activation waves and the corresponding mechanical resynchronization rather than filling.

Impactfactor: --

Houthuizen P

Letter by Houthuizen et al Regarding Article, "Clinical Impact of Persistent Left Bundle-Branch Block After Transcatheter Aortic Valve Implantation With CoreValve Revalving System"

Houthuizen P*, de Jaegere P, Prinzen FW

Circulation. 2013 Nov 26;128(22):e443

Impactfactor: 15.202

Houthuizen P

Propofol administration to the fetal-maternal unit reduces cardiac injury in late-preterm lambs subjected to severe prenatal asphyxia and cardiac arrest

Seehase M, Houthuizen P*, Jellema RK, Collins JJ, Bekers O, Breuer J, Kramer BW

Pediatr Res. 2013 Apr;73(4-1):427-434

Background: Cardiac dysfunction is reported to occur after severe perinatal asphyxia. We hypothesized that anesthesia of the mother with propofol during emergency cesarean section (c-section) would result in less cardiac injury (troponin T) in preterm fetuses exposed to global severe asphyxia in utero than anesthesia with isoflurane. We tested whether propofol decreases the activity of proapoptotic caspase-3 by activating the antiapoptotic AKT kinase family and the signal transducer and activator of transcription-3 (STAT-3). 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 c-section, 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, the fetuses whose mothers had received propofol anesthesia had lower plasma troponin T levels, and showed a trend toward a higher median left ventricular ejection fraction (LVEF) of 84% as compared with 74% for those whose mothers had received isoflurane. Postasphyxia activation of caspase-3 was lower in association with propofol anesthesia than with isoflurane. Postasphyxia levels of STAT-3 and the AKT kinase family rose 655% and 500%, respectively with the use of propofol anesthesia for the mother.

Conclusion: The use of propofol for maternal anesthesia results in less cardiac injury in late-preterm lambs subjected to asphyxia than the use of isoflurane anesthesia. The underlying mechanism may be activation of the antiapoptotic STAT-3 and AKT pathways.

Impactfactor: 2.673

Houthuizen P

Volume quantification by contrast-enhanced ultrasound: an in-vitro comparison with true volumes and thermodilution

Herold IH*, Russo G, Mischi M, Houthuizen P*, Saidov T, van 't Veer M*, van Assen HC, Korsten HH*

Cardiovasc Ultrasound. 2013 Oct 17;11(1):36

Voor abstract zie: Anesthesiologie - Herold IH

Impactfactor: 1.32

Koolen JJ

Assessment of optimum stent deployment by stent boost imaging: comparison with intravascular ultrasound

Tanaka N, Pijls NH*, Koolen JJ*, Botman KJ*, Michels HR*, Brueren BR*, Peels K*, Shindo N, Yamashita J, Yamashina A

Heart Vessels. 2013 Jan;28(1):1-6. Epub 2011 Oct 29

Voor abstract zie: Cardiologie - Pijls NH

Impactfactor: 2.126

Koolen JJ

Clinical and intravascular imaging outcomes at 1 and 2 years after implantation of absorb everolimus eluting bioresorbable vascular scaffolds in small vessels. Late lumen enlargement: does bioresorption matter with small vessel size? Insight from the ABSORB cohort B trial

Diletti R, Farooq V, Girasis C, Bourantas C, Onuma Y, Heo JH, Gogas BD, van Geuns RJ, Regar E, de Bruyne B, Dudek D, Thuesen L, Chevalier B, McClean D, Windecker S, Whitbourn RJ, Smits P, Koolen J*, Meredith I, Li X, Miquel-Hebert K, Veldhof S, Garcia-Garcia HM, Ormiston JA, Serruys PW

Heart. 2013 Jan;99(2):98-105. Epub 2012 Oct 31

BACKGROUND: The long-term results after second generation everolimus eluting bioresorbable vascular scaffold (Absorb BVS) placement in small vessels are unknown. Therefore, we investigated the impact of vessel size on long-term outcomes, after Absorb BVS implantation.

METHODS: In ABSORB Cohort B Trial, out of the total study population (101 patients), 45 patients were assigned to undergo 6-month and 2-year angiographic follow-up (Cohort B1) and 56 patients to have angiographic follow-up at 1-year (Cohort B2). The pre-reference vessel diameter (RVD) was <2.5 mm (small-vessel group) in 41 patients (41 lesions) and =2.5 mm (large-vessel group) in 60 patients (61 lesions). Outcomes were compared according to pre-RVD.

RESULTS: At 2-year angiographic follow-up no differences in late lumen loss (0.29 ± 0.16 mm vs 0.25 ± 0.22 mm, $p=0.4391$), and in-segment binary restenosis (5.3% vs 5.3% $p=1.0000$) were demonstrated between groups. In the small-vessel group, intravascular ultrasound analysis showed a significant increase in vessel area (12.25 ± 3.47 mm² vs 13.09 ± 3.38 mm²) $p=0.0015$, scaffold area (5.76 ± 0.96 mm² vs 6.41 ± 1.30 mm²) $p=0.0008$ and lumen area (5.71 ± 0.98 mm² vs 6.20 ± 1.27 mm²) $p=0.0155$ between 6-months and 2-year follow-up. No differences in plaque composition were reported between groups at either time point. At 2-year clinical follow-up, no differences in ischaemia-driven major adverse cardiac events (7.3% vs 10.2%, $p=0.7335$), myocardial infarction (4.9% vs 1.7%, $p=0.5662$) or ischaemia-driven target lesion revascularisation (2.4% vs 8.5%, $p=0.3962$) were reported between small and large vessels. No deaths or scaffold thrombosis were observed.

CONCLUSIONS: Similar clinical and angiographic outcomes at 2-year follow-up were reported in small and large vessel groups. A significant late lumen enlargement and positive vessel remodelling were observed in small vessels.

Impactfactor: 5.014

Koolen JJ

Multislice Computed Tomography Angiography for Noninvasive Assessment of the 18-Month Performance of a Novel Radiolucent Bioresorbable Vascular Scaffolding Device: The ABSORB Trial (A Clinical Evaluation of the Bioabsorbable Everolimus Eluting Coronary Stent System in the Treatment of Patients With de Novo Native Coronary Artery Lesions)

Nieman K, Serruys PW, Onuma Y, van Geuns RJ, Garcia-Garcia HM, de Bruyne B, Thuesen L, Smits PC, Koolen JJ*, McClean D, Chevalier B, Meredith I, Ormiston J

J Am Coll Cardiol. 2013 Nov 5;62(19):1813-4. Epub 2013 Aug 7

Geen abstract beschikbaar

Impactfactor: 14.086

Koolen JJ

Primary Stenting of Totally Occluded Native Coronary Arteries III (PRISON III): a randomised comparison of sirolimus-eluting stent implantation with zotarolimus-eluting stent implantation for the treatment of total coronary occlusions

Van den Branden BJ, Teeuwen K, Koolen JJ*, van der Schaaf RJ, Henriques JP, Tijssen JG, Kelder JC, Vermeersch PH, Rensing BJ, Suttorp MJ

EuroIntervention. 2013 Nov 22;9(7):841-53

Aims: We investigated whether sirolimus-eluting stents (SES) are superior to next-generation zotarolimus-eluting stents (ZES) in treating patients with total coronary occlusions (TCO). **Methods and results:** In a prospective, randomised trial we compared the SES with the zotarolimus-eluting stent (ZES; Endeavor or Resolute) after successful recanalisation of TCO. During the first phase of the trial, 51 patients were assigned to receive the SES and 46 patients to receive the Endeavor ZES. In the second phase we randomised 103 patients to the SES group and 104 patients to the Resolute ZES group. The primary endpoint was in-segment late lumen loss at eight-month follow-up. At eight months, patients in the SES group had less in-segment and in-stent late loss as compared to the Endeavor group: -0.13 ± 0.3 mm vs. 0.27 ± 0.6 mm ($p=0.0002$) and -0.13 ± 0.5 mm vs. 0.54 ± 0.5 mm ($p<0.0001$), respectively. In contrast, the SES and the Resolute ZES showed comparable amounts of in-segment (-0.03 ± 0.7 mm vs. -0.10 ± 0.7 mm, $p=0.6$) and in-stent (0.03 ± 0.8 mm vs. 0.05 ± 0.8 mm, $p=0.9$) late loss.

Conclusions: In the treatment of TCOs, the SES was associated with superior angiographic outcomes compared to the Endeavor ZES. On the other hand, the SES and the Resolute ZES showed comparable angiographic outcomes.

Impactfactor: 3.173

Koolen JJ

Safety and performance of the drug-eluting absorbable metal scaffold (DREAMS) in patients with denovo coronary lesions: 12 month results of the prospective, multicentre, first-in-man BIOSOLVE-I trial

Haude M, Erbel R, Erne P, Verheye S, Degen H, Böse D, Vermeersch P, Wijnbergen I*, Weissman N, Prati F, Waksman R, Koolen J*

Lancet. 2013 Mar 9;381(9869):836-44

Voor abstract zie: Cardiologie - Wijnbergen I

Impactfactor: 39.060

Koolen JJ

The edge vascular response following implantation of the Absorb everolimus-eluting bioresorbable vascular scaffold and the XIENCE V metallic everolimus-eluting stent. First serial follow-up assessment at six months and two years: insights from the first-in-man ABSORB Cohort B and SPIRIT II trials

Gogas BD, Bourantas CV, Garcia-Garcia HM, Onuma Y, Muramatsu T, Farooq V, Diletti R, van Geuns RJ, De Bruyne B, Chevalier B, Thuesen L, Smits PC, Dudek D, Koolen J*, Windecker S, Whitbourn R, McClean D, Dorange C, Miquel-Hebert K, Veldhof S, Rapoza R, Ormiston JA, Serruys PW

EuroIntervention. 2013 Oct 22;9(6):709-20

Aims: To assess serially the edge vascular response (EVR) of a bioresorbable vascular scaffold (BVS) compared to a metallic everolimus-eluting stent (EES). **Methods and results:** Non-serial

evaluations of the Absorb BVS at one year have previously demonstrated proximal edge constrictive remodelling and distal edge changes in plaque composition with increase of the percent fibro-fatty (FF) tissue component. The 5 mm proximal and distal segments adjacent to the implanted devices were investigated serially with intravascular ultrasound (IVUS), post procedure, at six months and at two years, from the ABSORB Cohort B1 (n=45) and the SPIRIT II (n=113) trials. Twenty-two proximal and twenty-four distal edge segments were available for analysis in the ABSORB Cohort B1 trial. In the SPIRIT II trial, thirty-three proximal and forty-six distal edge segments were analysed. At the 5-mm proximal edge, the vessels treated with an Absorb BVS from post procedure to two years demonstrated a lumen loss (LL) of 6.68% (-17.33; 2.08) (p=0.027) with a trend toward plaque area increase of 7.55% (-4.68; 27.11) (p=0.06). At the 5-mm distal edge no major changes were evident at either time point. At the 5-mm proximal edge the vessels treated with a XIENCE V EES from post procedure to two years did not show any signs of LL, only plaque area decrease of 6.90% (-17.86; 4.23) (p=0.035). At the distal edge no major changes were evident with regard to either lumen area or vessel remodelling at the same time point. Conclusions: The IVUS-based serial evaluation of the EVR up to two years following implantation of a bioresorbable everolimus-eluting scaffold shows a statistically significant proximal edge LL; however, this finding did not seem to have any clinical implications in the serial assessment. The upcoming imaging follow-up of the Absorb BVS at three years is anticipated to provide further information regarding the vessel wall behaviour at the edges.

Impactfactor: 3.173

Lammers J

Thrombus formation on an Amplatzer closure device after left atrial appendage closure

Lammers J*, Elenbaas T*, Meijer A*

Eur Heart J. 2013 Mar;34(10):741

Geen abstract beschikbaar

Impactfactor: 14.097

Meijer A

New image processing and noise reduction technology allows reduction of radiation exposure in complex electrophysiologic interventions while maintaining optimal image quality: A randomized clinical trial

Dekker LR*, van der Voort PH*, Simmers TA*, Verbeek XA, Bullens RW, Veer MV*, Brands PJ*, Meijer A*

Heart Rhythm. 2013 Nov;10(11):1678-82. Epub 2013 Aug 22

Voor abstract zie: Cardiologie - Dekker LR

Impactfactor: 5.045

Meijer A

Thrombus formation on an Amplatzer closure device after left atrial appendage closure

Lammers J*, Elenbaas T*, Meijer A*

Eur Heart J. 2013 Mar;34(10):741

Geen abstract beschikbaar

Impactfactor: 14.097

Michels HR

Assessment of optimum stent deployment by stent boost imaging: comparison with intravascular ultrasound

Tanaka N, Pijls NH*, Koolen JJ*, Botman KJ*, Michels HR*, Brueren BR*, Peels K*, Shindo N, Yamashita J, Yamashina A

Heart Vessels. 2013 Jan;28(1):1-6. Epub 2011 Oct 29

Voor abstract zie: Cardiologie - Pijls NH

Impactfactor: 2.126

Michels HR

Gender differences in long-term outcome after primary percutaneous intervention for st-segment elevation myocardial infarction

Wijnbergen I*, Tijssen J, van 't Veer M*, Michels R*, Pijls NH*

Catheter Cardiovasc Interv. 2013 Sep 1;82(3):379-84

Voor abstract zie: Cardiologie - Wijnbergen I

Impactfactor: 2.514

Nunen LX van

Intra-aortic balloon counterpulsation in acute myocardial infarction: old and emerging indications

van Nunen LX*, van 't Veer M*, Schampaert S, Steerneman BJ*, Rutten MC, van de Vosse FN, Pijls NH*

Neth Heart J. 2013 Dec;21(12):554-60. Epub Oct 30

BACKGROUND: Recent evidence questions the role of intra-aortic balloon counterpulsation (IABP) in the treatment of acute myocardial infarction (AMI) complicated by cardiogenic shock (CS). An area of increasing interest is the use of IABP for persistent ischaemia (PI). We analysed the use of IABP in patients with AMI complicated by CS or PI.

METHODS: From 2008 to 2010, a total of 4076 patients were admitted to our hospital for primary percutaneous coronary intervention (PCI) for AMI. Out of those, 239 patients received an IABP either because of CS or because of PI. Characteristics and outcome of those patients are investigated.

RESULTS: The mean age of the study population was 64 patients, 63 % had CS and 37 % had PI. Patients with CS had a 30-day mortality rate of 36 %; 1-year mortality was 41 %. Patients with PI had a 30-day mortality rate of 7 %; 1-year mortality was 11 %.

CONCLUSIONS: Mortality in patients admitted for primary PCI because of AMI complicated by CS is high despite IABP use. Outcome in patients treated with IABP for PI is favourable and mandates further prospective studies.

Impactfactor: 1.411

Nunen LX van

Modeling the interaction between the intra-aortic balloon pump and the cardiovascular system: the effect of timing

Schampaert S*, Rutten MC, van 't Veer M*, van Nunen LX*, Tonino PA*, Pijls NH*, van de Vosse FN

ASAIO J. 2013 Jan-Feb;59(1):30-6

Voor abstract zie: Cardiologie - Schampaert S

Impactfactor: 1.491

Nunen LX van

Recent insights into the treatment of stable CAD : FFR-guided PCI vs. medical therapy

van Nunen LX*, Tonino PA*

Herz. 2013 Jun;38(4):376-81

Cornerstones in the treatment of coronary artery disease (CAD) are medical therapy and coronary revascularization. In acute settings (ST-elevation myocardial infarction and non-ST-elevation myocardial infarction), percutaneous coronary intervention (PCI) has proven to improve prognosis. The optimal treatment of stable CAD is subject to great controversy. By using fractional flow reserve to guide PCI, it is possible to stent only those lesions that induce myocardial ischemia. This review aims to reflect on the use of FFR-guided PCI in stable CAD.

Impactfactor: 0.779

Oomen AW

Cerebral aneurysms one year after resection of a cardiac myxoma

Oomen AW*, Kuijpers SH

Neth Heart J. 2013 Jun;21(6):307-9

Geen abstract beschikbaar

Impactfactor: 1.411

Peels CH

Assessment of optimum stent deployment by stent boost imaging: comparison with intravascular ultrasound

Tanaka N, Pijls NH*, Koolen JJ*, Botman KJ*, Michels HR*, Brueren BR*, Peels K*, Shindo N, Yamashita J, Yamashina A

Heart Vessels. 2013 Jan;28(1):1-6. Epub 2011 Oct 29

Voor abstract zie: Cardiologie - Pijls NH

Impactfactor: 2.126

Peels CH

Impact of prosthesis-patient mismatch on early and late mortality after aortic valve replacement

Koene BM, Soliman Hamad MA*, Bouma W, Mariani MA, Peels KC*, van Dantzig JM*, van Straten AH*

J Cardiothorac Surg. 2013 Apr 17;8(1):96

Voor abstract zie: Cardiothoracale chirurgie - Soliman Hamad MA

Impactfactor: 0.90

Pijls NH

A combination of thermal methods to assess coronary pressure and flow dynamics with a pressuresensing guide wire

van der Horst A, Van't Veer M*, van der Sligte RA, Rutten MC, Pijls NH*, van de Vosse FN

Med Eng Phys. 2013 Mar;35(3):298-309. Epub 2012 Jun 4

Voor abstract zie: Cardiologie - Veer M van't

Impactfactor: 1.779

Pijls NH

Assessment of optimum stent deployment by stent boost imaging: comparison with intravascular ultrasound

Tanaka N, Pijls NH*, Koolen JJ*, Botman KJ*, Michels HR*, Brueren BR*, Peels K*, Shindo N, Yamashita J, Yamashina A

Heart Vessels. 2013 Jan;28(1):1-6. Epub 2011 Oct 29

Stent boost (SB) imaging is an enhancement of the radiologic edge of the stent by digital management of regular X-ray images. The purpose of the present study was to validate SB imaging by comparison with the anatomical standard using intravascular ultrasound (IVUS). We investigated SB and IVUS after stent implantation in 68 arteries in 60 patients. Based on those findings, we added high-pressure dilatation in four patients and another stent implantation in four patients. We defined the SB criteria for adequate stent deployment as: complete stent expansion, stent minimum diameter =70% of reference diameter, and stent minimum diameter =2.0 mm; and IVUS criteria for adequate stent deployment as: minimal stent area =5.0 mm(2). If the reference vessel was <2.8 mm, adequate stent deployment was defined as minimum stent area =4.5 mm(2). IVUS findings indicated inadequate stent deployment in 21/72 observations (29%). Seven SB images showed inadequate stent expansion. SB predicted inadequate findings of IVUS with 100% specificity, 33% sensitivity, and 81% agreement. Although the sensitivity of SB image for adequate stent deployment is low, the specificity is sufficiently high for it to be the first-line for monitoring just after stent implantation in centers where IVUS is not used routinely.

Impactfactor: 2.126

Pijls NH

Autoregulation of Coronary Blood Flow in the Isolated Beating Pig Heart

Schampaert S*, van 't Veer M*, Rutten MC, van Tuijl S, de Hart J, van de Vosse FN, Pijls NH*

Artif Organs. 2013 Aug;37(8):724-30

Voor abstract zie: Cardiologie - Schampaert S

Impactfactor: 1.964

Pijls NH

Circulating cells as predictors of secondary manifestations of cardiovascular disease: design of the CIRCULATING CELLS study

Hoefer IE, Sels JW*, Jukema JW, Bergheanu S, Biessen E, McClellan E, Daemen M, Doevendans P, de Groot P, Hillaert M, Horsman S, Ilhan M, Kuiper J, Pijls N*, Redekop K, van der Spek P, Stubbs A, van de Veer E, Waltenberger J, van Zonneveld AJ, Pasterkamp G

Clin Res Cardiol. 2013 Nov;102(11):847-56

Voor abstract zie: Cardiologie - Sels JW

Impactfactor: 3.667

Pijls NH

Cost-effectiveness of percutaneous coronary intervention in patients with stable coronary artery disease and abnormal fractional flow reserve

Fearon WF, Shilane D, Pijls NH*, Boothroyd DB, Tonino PA*, Barbato E, Jüni P, De Bruyne B, Hlatky MA

Circulation. 2013 Sep 17;128(12):1335-40

BACKGROUND: The Fractional Flow Reserve Versus Angiography for Multivessel Evaluation (FAME) 2 trial demonstrated a significant reduction in subsequent coronary revascularization among patients with stable angina and at least 1 coronary lesion with a fractional flow reserve ≤ 0.80 who were randomized to percutaneous coronary intervention (PCI) compared with best medical therapy. The economic and quality-of-life implications of PCI in the setting of an abnormal fractional flow reserve are unknown.

METHODS AND RESULTS: We calculated the cost of the index hospitalization based on initial resource use and follow-up costs based on Medicare reimbursements. We assessed patient utility using the EQ-5D health survey with US weights at baseline and 1 month and projected quality-adjusted life-years assuming a linear decline over 3 years in the 1-month utility improvements. We calculated the incremental cost-effectiveness ratio based on cumulative costs over 12 months. Initial costs were significantly higher for PCI in the setting of an abnormal fractional flow reserve than with medical therapy (\$9927 versus \$3900, $P < 0.001$), but the \$6027 difference narrowed over 1-year follow-up to \$2883 ($P < 0.001$), mostly because of the cost of subsequent revascularization procedures. Patient utility was improved more at 1 month with PCI than with medical therapy (0.054 versus 0.001 units, $P < 0.001$).

The incremental cost-effectiveness ratio of PCI was \$36 000 per quality-adjusted life-year, which was robust in bootstrap replications and in sensitivity analyses.

CONCLUSIONS: PCI of coronary lesions with reduced fractional flow reserve improves outcomes and appears economically attractive compared with best medical therapy among patients with stable angina.

Impactfactor: 15.202

Pijls NH

Does the instantaneous wave-free ratio approximate the fractional flow reserve?

Johnson NP, Kirkeeide RL, Asress KN, Fearon WF, Lockie T, Marques KM, Pyxaras SA, Rolandi MC, van 't Veer M*, De Bruyne B, Piek JJ, Pijls NH*, Redwood S, Siebes M, Spaan JA, Gould KL

J Am Coll Cardiol. 2013 Apr 2;61(13):1428-35

Voor abstract zie: Cardiologie - Veer M van 't

Impactfactor: 14.086

Pijls NH

Fractional flow reserve assessment of left main stenosis in the presence of downstream coronary stenoses

Yong AS, Daniels D, De Bruyne B, Kim HS, Ikeno F, Lyons J, Pijls NH*, Fearon WF

Circ Cardiovasc Interv. 2013 Apr 1;6(2):161-5

BACKGROUND: Several studies have shown that fractional flow reserve (FFR) measurement can aid in the assessment of left main coronary stenosis. However, the impact of downstream epicardial stenosis on left main FFR assessment with the pressure wire in the nonstenosed downstream vessel remains unknown.

METHODS AND RESULTS: Variable stenoses were created in the left main coronary arteries and downstream epicardial vessels in 6 anaesthetized male sheep using balloon catheters. A total of 220 pairs of FFR assessments of the left main stenosis were obtained, before and after creation of a stenosis in a downstream epicardial vessel, by having a pressure-sensor wire in the other nonstenosed downstream vessel. The apparent left main FFR in the presence of downstream stenosis (FFR_{app}) was significantly higher compared with the true FFR in the absence of downstream stenosis (FFR_{true}; 0.80 ± 0.05 versus 0.76 ± 0.05 ; estimate of the mean difference, 0.035; $P < 0.001$). The difference between FFR_{true} and FFR_{app} correlated with composite FFR of the left main plus stenosed artery ($r = -0.31$; $P < 0.001$) indicating that this difference was greater with increasing epicardial stenosis severity. Among measurements with FFR_{app} > 0.80 , 9% were associated with an FFR_{true} of < 0.75 . In all instances, the epicardial lesion was in the proximal portion of the stenosed vessel, and the epicardial FFR (combined FFR of the left main and downstream stenosed vessel) was ≈ 0.50 .

CONCLUSIONS: A clinically relevant effect on the FFR assessment of left main disease with the pressure wire in a nonstenosed downstream vessel occurs only when the stenosis in the other vessel is proximal and very severe.

Impactfactor: 6.058

Pijls NH

Fractional flow reserve to guide coronary revascularization

Pijls NH*

Circ J. 2013 Feb 25;77(3):561-9. Epub 2013 Feb 19

Fractional flow reserve (FFR) has become an increasingly important index for decision making with respect to revascularization of coronary artery stenosis. It is the gold standard to indicate whether a particular stenosis is responsible for inducible ischemia and it is generally accepted that a stenosis with an ischemic value of FFR is responsible for angina pectoris and a worse outcome, and should be revascularized, whereas lesions with a non-ischemic FFR have a more favorable prognosis and can better be treated medically. In this review paper, the background, concept and clinical application of FFR are discussed from a practical point of view. On top of that, some in-depth considerations are given with respect to further possibilities of FFR for examining the coronary circulation, including separate assessment of coronary, myocardial, and collateral blood flows. Finally, a word of caution is given with respect to using resting pressure indexes, which seem attractive because they avoid the need for hyperemia, but negatively affect the accuracy of the measurements. This review can be read as an overview of the state-of-the-art of FFR and as a guide to further reading.

Impactfactor: 3.766

Pijls NH

Functional assessment of coronary stenoses: can we live without it?

Pijls NH*, Tanaka N, Fearon WF

Eur Heart J. 2013 May;34(18):1335-44

When selecting coronary stenoses for interventional treatment, assessment of reversible ischaemia is paramount from a symptomatic as well as prognostic point of view. Fractional flow reserve (FFR) is now considered the gold standard for invasive assessment of ischaemia. By measuring FFR in the catheterization laboratory, one can accurately identify which lesions should be stented resulting in improved patient outcome in most elective clinical and angiographic conditions. Recently, in the European Society of Cardiology guidelines on

coronary revascularization, FFR was upgraded to an IA classification in multivessel percutaneous coronary intervention. In this review paper, the rationale for routine measurement of FFR will be reviewed and studies supporting its integration into everyday practice will be highlighted.

Impactfactor: 14.097

Pijls NH

Gender differences in long-term outcome after primary percutaneous intervention for st-segment elevation myocardial infarction

Wijnbergen I*, Tijssen J, van 't Veer M*, Michels R*, Pijls NH*

Catheter Cardiovasc Interv. 2013 Sep 1;82(3):379-84

Voor abstract zie: Cardiologie – Wijnbergen I

Impactfactor: 2.514

Pijls NH

Intra-aortic balloon counterpulsation in acute myocardial infarction: old and emerging indications

van Nunen LX*, van 't Veer M*, Schampaert S, Steerneman BJ*, Rutten MC, van de Vosse FN, Pijls NH*

Neth Heart J. 2013 Dec;21(12):554-60. Epub Oct 30

Voor abstract zie: Cardiologie - Nunen LX van

Impactfactor: 1.411

Pijls NH

Intra-aortic balloon pump trials: questions, answers, and unresolved issues

Perera D, Lumley M, Pijls N*, Patel MR

Circ Cardiovasc Interv. 2013 Jun;6(3):317-21

Geen abstract beschikbaar

Impactfactor: 6.543

Pijls NH

Modeling the interaction between the intra-aortic balloon pump and the cardiovascular system: the effect of timing

Schampaert S*, Rutten MC, van T Veer M*, van Nunen LX, Tonino PA*, Pijls NH*, van de Vosse FN

ASAIO J. 2013 Jan-Feb;59(1):30-6

Voor abstract zie: Cardiologie - Schampaert S

Impactfactor: 1.491

Pijls NH

Response to letter regarding article, "fractional flow reserve assessment of left main stenosis in the presence of downstream coronary stenoses"

Yong AS, Daniels D, Kim HS, Ikeno F, Lyons J, Fearon WF, Pijls NH*, De Bruyne B

Circ Cardiovasc Interv. 2013 Aug;6(4):e57

Comment on Fractional flow reserve assessment of left main stenosis in the presence of downstream coronary stenoses. [Circ Cardiovasc Interv. 2013]

Fractional flow reserve assessment of left main stenosis in the presence of downstream coronary stenoses. Yong AS, Daniels D, De Bruyne B, Kim HS, Ikeno F, Lyons J, Pijls NH, Fearon WF

Circ Cardiovasc Interv. 2013 Apr; 6(2):161-5. Epub 2013 Apr 2

Letter by Karabay et al regarding article, "fractional flow reserve assessment of left main stenosis in the presence of downstream coronary stenoses"

Impactfactor: 6.543

Pijls NH

The Relationship between Fractional Flow Reserve, Platelet Reactivity and Platelet Leukocyte Complexes in Stable Coronary Artery Disease

Sels JW*, Rutten B, van Holten TC, Hillaert MA, Waltenberger J, Pijls NH*, Pasterkamp G, de Groot PG, Roest M.

PLoS One. 2013 Dec 31;8(12):e83198.

Voor abstract zie: Cardiologie - Sels JE

Impactfactor: --

Pijls NH

Towards patient-specific modeling of coronary hemodynamics in healthy and diseased state

van der Horst A, Boogaard FL, van't Veer M*, Rutten MC, Pijls NH*, van de Vosse FN

Comput Math Methods Med. 2013;2013:393792. Epub 2013 Mar 4

Voor abstract zie: Cardiologie - Veer M van 't

Impactfactor: 0.791

Pijls NH

VERIFY (VERification of Instantaneous Wave-Free Ratio and Fractional Flow Reserve for the Assessment of Coronary Artery Stenosis Severity in EverydaY Practice): a multicenter study in consecutive patients

Berry C, van 't Veer M*, Witt N, Kala P, Bocek O, Pyxaras SA, McClure JD, Fearon WF, Barbato E, Tonino PA*, De Bruyne B, Pijls NH*, Oldroyd KG

J Am Coll Cardiol. 2013 Apr 2;61(13):1421-7

Voor abstract zie: Cardiologie - Veer M van 't

Impactfactor: 14.086

Ponten JE

[A chance finding in a woman with abdominal pain] [Article in Dutch]

van den Heijkant AC*, Ponten JE*, Willigendael EM*

Ned Tijdschr Geneeskd. 2013;157(9):A4945

Voor abstract zie: Chirurgie - Heijkant AC van den

Impactfactor: --

Ponten JE

Early severe mediastinal bleeding after esophagectomy: a potentially lethal complication

Ponten JE*, van der Horst S, Nieuwenhuijzen GA*, Elenbaas TW*, van Hillegersberg R, Luyer MD*

J Thorac Dis. 2013 Apr;5(2):E58-60

BACKGROUND: Anastomotic leakage after cervical oesophagogastrostomy is a common and difficult problem. Mediastinal manifestation of anastomotic leakage may lead to mediastinitis with dramatic and potentially lethal outcome. Contamination of the mediastinum can be controlled by endoscopic placement of an expandable metal stent. We present two cases of severe haemorrhage after mediastinal manifestation of anastomotic leakage in patients with and without expandable metal stent (EMS).

CASES: This case report describes two cases of severe haemorrhage after thoracolaparoscopic esophagectomy with cervical oesophagogastrostomy. The recovery of both patients was complicated by anastomotic leakage with mediastinal manifestation. In one case, 11 days after placement of an EMS for anastomotic leakage a bleeding occurred in the cervical wound. Angiography during surgery showed contrast leakage in the aortic arch. Despite sternotomy and endovascular catheterization, there were no surgical options to treat this condition and the patient died of exsanguination. In the other case the patient presented with severe hematemesis 11 days after surgery. Shortly after this hematemesis the patient became hemodynamic instable. The patient was taken to the operation theatre, but before any intervention could take place resuscitation was needed and the patient died of exsanguination.

CONCLUSIONS: Severe haemorrhage is a rare and potentially lethal complication after esophagectomy. This condition is related to anastomotic leakage with mediastinal manifestation. Awareness of this potentially lethal complication is important for early recognition and treatment of this condition. The role of endoscopic stenting of the cervical anastomosis is controversial and potentially dangerous.

Impactfactor: --

Post JC

Distal anastomotic patency of the Cardica C-PORT(R) xA system vs the hand-sewn technique: a prospective randomized controlled study in patients undergoing coronary artery bypass grafting

Verberkmoes NJ*, Wolters SL*, Post JC*, Soliman-Hamad MA*, Ter Woorst JF*, Berreklouw E*

Eur J Cardiothorac Surg. 2013 Sep;44(3):512-8; discussion 518-9

Voor abstract zie: Cardiothoracale chirurgie - Verberkmoes NJ

Impactfactor: 2.574

Post JC

Transient left ventricular systolic dysfunction mimicking myocardial infarction after pericardiocentesis

Weijers RW*, Post JC*

Neth Heart J. 2013 Jul;21(7-8):364-6

Voor abstract zie: Cardiologie - Weijers RW

Impactfactor: 1.411

Schampaert S

Autoregulation of Coronary Blood Flow in the Isolated Beating Pig Heart

Schampaert S*, van 't Veer M*, Rutten MC, van Tuijl S, de Hart J, van de Vosse FN, Pijls NH*

Artif Organs. 2013 Aug;37(8):724-30

The isolated beating pig heart model is an accessible platform to investigate the coronary circulation in its truly morphological and physiological state, whereas its use is beneficial from a time, cost, and ethical perspective. However, whether the coronary autoregulation is still intact is not known. Here, we study the autoregulation of coronary blood flow in the working isolated pig heart in response to brief occlusions of the coronary artery, to step-wise changes in left ventricular loading conditions and contractile states, and to pharmacologic vasodilating stimuli. Six slaughterhouse pig hearts (473 ± 40 g) were isolated, prepared, and connected to an external circulatory system. Through coronary reperfusion and controlled cardiac loading, physiological cardiac performance was achieved. After release of a coronary occlusion, coronary blood flow rose rapidly to an equal (maximum) level as the flow during control beats, independent of the duration of occlusion. Moreover, a linear relation was found between coronary blood flow and coronary driving pressure for a wide variation of preload, afterload, and contractility. In addition, intracoronary administration of papaverine did not yield a transient increase in blood flow indicating the presence of maximum coronary hyperemia. Together, this indicates that the coronary circulation in the isolated beating pig heart is in a permanent state of maximum hyperemia. This makes the model excellently suitable for testing and validating cardiovascular devices (i.e., heart valves, stent grafts, and ventricular assist devices) under well-controlled circumstances, whereas it decreases the necessity of sacrificing large mammals for performing classical animal experiments.

Impactfactor: 1.964

Schampaert S

Modeling the interaction between the intra-aortic balloon pump and the cardiovascular system: the effect of timing

Schampaert S*, Rutten MC, van 't Veer M*, van Nunen LX*, Tonino PA*, Pijls NH*, van de Vosse FN

ASAIO J. 2013 Jan-Feb;59(1):30-6

Because of the large number of interaction factors involved, the effects of the intra-aortic balloon pump (IABP) have not been investigated deeply. To enhance its clinical efficiency and to better define indications for use, advanced models are required to test the interaction between the IABP and the cardiovascular system. A patient with mild blood pressure depression and a lowered cardiac output is modeled in a lumped parameter computational model, developed with physiologically representative elements for relevant components of circulation and device. IABP support is applied, and the moments of balloon inflation and deflation are varied around their conventional timing modes. For validation purposes, timing is adapted within acceptable ranges in ten patients undergoing IABP therapy for typical clinical indications. In both model and patients, the IABP induces a diastolic blood pressure augmentation as well as a systolic reduction in afterload. The support capabilities of the IABP benefit the most when the balloon is deflated simultaneously with ventricular contraction, whereas inflation before onset of diastole unconditionally interferes with ejection. The physiologic response makes the model an

excellent tool for testing the interaction between the IABP and the cardiovascular system, and how alterations of specific IABP parameters (i.e., timing) affect this coupling.

Impactfactor: 1.491

Sels JE

Circulating cells as predictors of secondary manifestations of cardiovascular disease: design of the CIRCULATING CELLS study

Hoefer IE, Sels JW*, Jukema JW, Bergheanu S, Biessen E, McClellan E, Daemen M, Doevendans P, de Groot P, Hillaert M, Horsman S, Ilhan M, Kuiper J, Pijls N*, Redekop K, van der Spek P, Stubbs A, van de Veer E, Waltenberger J, van Zonneveld AJ, Pasterkamp G

Clin Res Cardiol. 2013 Nov;102(11):847-56

Biomarkers for primary or secondary risk prediction of cardiovascular disease (CVD) are urgently needed to improve individual treatment and clinical trial design. The vast majority of biomarker discovery studies has concentrated on plasma/serum as an easily accessible source. Although numerous markers have been identified, their added predictive value on top of traditional risk factors has been limited, as the biological specimen does not specifically reflect expression profiles related with CVD progression and because the signal is often diluted by marker release from other organs. In contrast to serum markers, circulating cells serve as indicators of the actual disease state due to their active role in the pathogenesis of CVD and are responsible for the majority of secreted biomarkers. Therefore, the CIRCULATING CELLS study was initiated, focusing on the cellular effectors of atherosclerosis in the circulation. In total, 714 patients with coronary artery disease (CAD) symptoms were included. Blood cell fractions (monocytes, T-lymphocytes, platelets, granulocytes, PBMC) of all individual patients were isolated and stored for analysis. Concomitantly, extensive flow cytometric characterization of these populations was performed. From each patient, a detailed clinical profile together with extensive questionnaires about medical history and life style was obtained. Various high-throughput – omics approaches (protein, mRNA, miRNA) are currently being undertaken. Data will be integrated with advanced bioinformatics for discovery and validation of secondary risk markers for adverse events. Overall, the CIRCULATING CELLS study grants the interesting possibility that it will both identify novel biomarkers and provide useful insights into the pathophysiology of CAD in patients

Impactfactor: 3.667

Sels JE

Temporal changes of soluble ST2 after cardiovascular interventions

Willems S, Sels JW*, Flier S, Versteeg D, Buhre WF, de Kleijn DP, Hoefer IE, Pasterkamp G

Eur J Clin Invest. 2013 Feb;43(2):113-20

BACKGROUND: Soluble ST2 (sST2), a member of the IL-1 receptor family, has been proposed as a novel biomarker with predictive value for heart failure and mortality in patients suffering from cardiovascular diseases. The influence of clinical characteristics on variability of sST2 levels is relatively unexplored. Here, we studied the effect of cardiovascular interventions and clinical characteristics on plasma sST2 expression levels.

MATERIAL AND METHODS: In the current study, sST2 levels were assessed in the plasma of patients scheduled for coronary artery bypass grafting (CABG) (n = 76), percutaneous coronary intervention (PCI) (n = 68) or peripheral vascular surgery (n = 27).

RESULTS: Age was the only classical risk factor significantly correlating with sST2 levels. Soluble ST2 levels were significantly increased 1 h after CABG (48 [33-70] vs. 61 [42-89] pg/mL, $P = 0.001$) and increased even further after 24 h (1116 [578-13 666] pg/mL, $P < 0.001$). An average threefold increase in sST2 levels was also observed in patients 24 h after peripheral interventions (30 [21-41] vs. 98 [48-211] pg/mL, $P < 0.001$). Two months after PCI, we found that sST2 levels were significantly higher compared with baseline levels (41 [29-61] vs. 48 [31-80] pg/mL, $P = 0.007$, $n = 52$). In addition, we did not observe an association between sST2 and any inflammatory or cardiac-specific markers that were measured in this study.

CONCLUSIONS: Soluble ST2 increases significantly following cardiovascular interventions. The notion of a recent cardiovascular intervention is a strong determinant of sST2 levels and therefore needs to be taken into account when exploring sST2 as predictor of future cardiovascular events.

Impactfactor: 3.365

Sels JE

The Relationship between Fractional Flow Reserve, Platelet Reactivity and Platelet Leukocyte Complexes in Stable Coronary Artery Disease

Sels JW*, Rutten B, van Holten TC, Hillaert MA, Waltenberger J, Pijls NH*, Pasterkamp G, de Groot PG, Roest M

PLoS One. 2013 Dec 31;8(12):e83198

BACKGROUND: The presence of stenoses that significantly impair blood flow and cause myocardial ischemia negatively affects prognosis of patients with stable coronary artery disease. Altered platelet reactivity has been associated with impaired prognosis of stable coronary artery disease. Platelets are activated and form complexes with leukocytes in response to microshear gradients caused by friction forces on the arterial wall or flow separation. We hypothesized that the presence of significantly flowlimiting stenoses is associated with altered platelet reactivity and formation of platelet-leukocyte complexes.

METHODS: One hundred patients with stable angina were studied. Hemodynamic significance of all coronary stenoses was assessed with Fractional Flow Reserve (FFR). Patients were classified FFRpositive (at least one lesion with FFRd 0.75) or FFR-negative (all lesions FFR>0.80). Whole blood samples were stimulated with increasing concentrations of ADP, TRAP, CRP and Iloprost with substimulatory ADP. Expression of P-selectin as platelet activation marker and platelet-leukocyte complexes were measured by flowcytometry. Patients were stratified on clopidogrel use. FFR positive and negative patient groups were compared on platelet reactivity and platelet-leukocyte complexes.

RESULTS: Platelet reactivity between FFR-positive patients and FFR-negative patients did not differ. A significantly lower percentage of circulating platelet-neutrophil complexes in FFR-positive patients and a similar non-significant decrease in percentage of circulating platelet-monocyte complexes in FFRpositive patients was observed.

CONCLUSION: The presence of hemodynamically significant coronary stenoses does not alter platelet reactivity but is associated with reduced platelet-neutrophil complexes in peripheral blood of patients with stable coronary artery disease.

Impactfactor: --

Sels JE

Toll-Like Receptor induced CD11b and L-selectin response in patients with coronary artery disease

Elsenberg EH, Hillaert MA, den Ruijter HM, Sels JW*, Scholtes VP, Nathoe HM, Kuiper J, Jukema JW, Doevendans PA, Pasterkamp G, Hoefer IE

PLoS One. 2013;8(4):e60467 Epub 2013 Apr 3

Toll-Like Receptor (TLR) -2 and -4 expression and TLR-induced cytokine response of inflammatory cells are related to atherogenesis and atherosclerotic plaque progression. We examined whether immediate TLR induced changes in CD11b and L-selectin (CD62L) expression are able to discriminate the presence and severity of atherosclerotic disease by exploring single dose whole blood TLR stimulation and detailed dose-response curves. Blood samples were obtained from 125 coronary artery disease (CAD) patients and 28 controls. CD11b and L-selectin expression on CD14+ monocytes was measured after whole blood stimulation with multiple concentrations of the TLR4 ligand LPS (0.01-10 ng/ml) and the TLR2 ligand P3C (0.5-500 ng/ml). Subsequently, dose-response curves were created and the following parameters were calculated: hillslope, EC50, area under the curve (AUC) and delta. These parameters provide information about the maximum response following activation, as well as the minimum trigger required to induce activation and the intensity of the response. CAD patients showed a significantly higher L-selectin, but not CD11b response to TLR ligation than controls after single dose stimulations as well as significant differences in the hillslope and EC50 of the dose-response curves. Within the CAD patient group, dose-response curves of L-selectin showed significant differences in the presence of hypertension, dyslipidemia, coronary occlusion and degree of stenosis, whereas CD11b expression had the strongest discriminating power after single dose stimulation. In conclusion, single dose stimulations and dose-response curves of CD11b and L-selectin expression after TLR stimulation provide diverse but limited information about atherosclerotic disease severity in stable angina patients. However, both single dose stimulation and dose-response curves of LPS-induced L-selectin expression can discriminate between controls and CAD patients.

Impactfactor: --

Simmers TA

Anticoagulation and atrial fibrillation

Simmers TA*

Tijdschr Gerontol Geriatr. 2012 Dec;43(6):308-12

Atrial fibrillation (AF) is the most prevalent arrhythmia in man. Incidence increases with age, risk of ischemic stroke as a result of AF disproportionately so. Anticoagulation is therefore one of the cornerstones of treatment. Perceived severity of bleeding risk on anticoagulants is, however, one of the main reasons that the elderly population at highest risk is relatively undertreated. This article describes both risks for the traditional vitamin K antagonists, in addition to the new direct thrombin and factor Xa antagonists.

Impactfactor: --

Simmers TA

New image processing and noise reduction technology allows reduction of radiation exposure in complex electrophysiologic interventions while maintaining optimal image quality: A randomized clinical trial

Dekker LR*, van der Voort PH*, Simmers TA*, Verbeek XA, Bullens RW, Veer MV*, Brands PJ*, Meijer A*

Heart Rhythm. 2013 Nov;10(11):1678-82. Epub 2013 Aug 22

Voor abstract zie: Cardiologie – Dekker LR

Impactfactor: 5.045

Simmers TA

[The implantable cardiac defibrillator: indications and complications]

Simmers TA*, Bracke FA*

Ned Tijdschr Geneesk. 2013;157(47):A6328

The implantation of an implantable cardiac defibrillator (ICD) is indicated as a secondary prevention measure for sudden cardiac death in patients surviving a life-threatening ventricular arrhythmia that had no reversible or treatable cause.- An ICD is indicated as a primary prevention measure for sudden cardiac death in patients with a left-ventricular ejection fraction (LVEF) \leq 35%.- A biventricular ICD is indicated in patients with heart failure class e II according to the New York Heart Association classification, a widened QRS complex and an LVEF \leq 35%.- Guidelines do not differentiate between men and women or according to age, but there is no evidence in the literature for decreased mortality from applying ICD therapy in women and in patients older than 70-75 years. This is relevant in discussions over the cost-effectiveness of the treatment.- Sudden cardiac death occurs most frequently in patients with an LVEF \leq 35%; the effect of ICDs as a primary prevention measure in this patient group has, however, never been investigated.- The most important complications following ICD implantation are inappropriate ICD shocks and lead dysfunction. Automated home-monitoring enables early detection of technical defects.

Impactfactor: --

Steerneman BJ

Intra-aortic balloon counterpulsation in acute myocardial infarction: old and emerging indications

van Nunen LX*, van 't Veer M*, Schampaert S, Steerneman BJ*, Rutten MC, van de Vosse FN, Pijls NH*

Neth Heart J. 2013 Dec;21(12):554-60. Epub Oct 30

Voor abstract zie: Cardiologie - Nunen LX van

Impactfactor: 1.411

Tonino WA

Cost-effectiveness of percutaneous coronary intervention in patients with stable coronary artery disease and abnormal fractional flow reserve

Fearon WF, Shilane D, Pijls NH*, Boothroyd DB, Tonino PA*, Barbato E, Jüni P, De Bruyne B, Hlatky MA

Circulation. 2013 Sep 17;128(12):1335-40

Voor abstract zie: Cardiologie - Pijls NH

Impactfactor: 15.202

Tonino WA

Modeling the interaction between the intra-aortic balloon pump and the cardiovascular system: the effect of timing

Schampaert S*, Rutten MC, van T Veer M*, van Nunen LX, Tonino PA*, Pijls NH*, van de Vosse FN

ASAIO J. 2013 Jan-Feb;59(1):30-6

Voor abstract zie: Cardiologie - Schampaert S

Impactfactor: 1.491

Tonino WA

Recent insights into the treatment of stable CAD : FFR-guided PCI vs. medical therapy

van Nunen LX*, Tonino PA*

Herz. 2013 Jun;38(4):376-81

Voor abstract zie: Cardiologie - Nunen LX van

Impactfactor: 0.779

Tonino WA

VERIFY (VERification of Instantaneous Wave-Free Ratio and Fractional Flow Reserve for the Assessment of Coronary Artery Stenosis Severity in EverydaY Practice): a multicenter study in consecutive patients

Berry C, van 't Veer M*, Witt N, Kala P, Bocek O, Pyxaras SA, McClure JD, Fearon WF, Barbato E, Tonino PA*, De Bruyne B, Pijls NH*, Oldroyd KG

J Am Coll Cardiol. 2013 Apr 2;61(13):1421-7

Voor abstract zie: Cardiologie - Veer M van 't

Impactfactor: 14.086

Ubachs JF

Cardiac magnetic resonance for assessment of ST-elevation and non-ST-elevation myocardial infarction

Ubachs JF*

J Electrocardiol. 2013 Mar;46(2):107-8

Geen abstract beschikbaar

Impactfactor: 1.093

Veer M van 't

A combination of thermal methods to assess coronary pressure and flow dynamics with a pressuresensing guide wire

van der Horst A, van't Veer M*, van der Sligte RA, Rutten MC, Pijls NH*, van de Vosse FN

Med Eng Phys. 2013 Mar;35(3):298-309. Epub 2012 Jun 4

Measurement of coronary pressure and absolute flow dynamics have shown great potential in discerning different types of coronary circulatory disease. In the present study, the feasibility of assessing pressure and flow dynamics with a combination of two thermal methods, developed in combination with a pressure-sensor-tipped guide wire, was evaluated in an in vitro coronary model. A continuous infusion thermodilution method was employed to determine the average flow, whereas a thermal anemometric method was utilized to assess the pressure and flow dynamics, simultaneously. In the latter method, the

electrical power supplied to an element, kept at constant temperature above ambient temperature, was used as a measure for the shear rate. It was found that, using a single calibration function, the method was able to assess coronary pressure and flow dynamics for different flow amplitudes, heart rates, and different pressure wires. However, due to the fact that the thermal anemometric method cannot detect local shear rate reversal, the method was unable to reliably measure flow dynamics close to zero. Nevertheless, the combined methodology was able to reliably assess diastolic hemodynamics. The diastolic peak flow and average diastolic resistance could be determined with a small relative error of $(8\pm 7)\%$ and $(7\pm 5)\%$, respectively.

Impactfactor: 1.779

Veer M van 't

Autoregulation of Coronary Blood Flow in the Isolated Beating Pig Heart

Schampaert S*, van 't Veer M*, Rutten MC, van Tuijl S, de Hart J, van de Vosse FN, Pijls NH*

Artif Organs. 2013 Aug;37(8):724-30

Voor abstract zie: Cardiologie - Schampaert S

Impactfactor: 1.964

Veer M van 't

Does the instantaneous wave-free ratio approximate the fractional flow reserve?

Johnson NP, Kirkeeide RL, Asrress KN, Fearon WF, Lockie T, Marques KM, Pyxaras SA, Rolandi MC, van 't Veer M*, De Bruyne B, Piek JJ, Pijls NH*, Redwood S, Siebes M, Spaan JA, Gould KL

J Am Coll Cardiol. 2013 Apr 2;61(13):1428-35

OBJECTIVES: This study sought to examine the clinical performance of and theoretical basis for the instantaneous wave-free ratio (iFR) approximation to the fractional flow reserve (FFR).

BACKGROUND: Recent work has proposed iFR as a vasodilation-free alternative to FFR for making mechanical revascularization decisions. Its fundamental basis is the assumption that diastolic resting myocardial resistance equals mean hyperemic resistance.

METHODS: Pressure-only and combined pressure-flow clinical data from several centers were studied both empirically and by using pressure-flow physiology. A Monte Carlo simulation was performed by repeatedly selecting random parameters as if drawing from a cohort of hypothetical patients, using the reported ranges of these physiologic variables.

RESULTS: We aggregated observations of 1,129 patients, including 120 with combined pressure-flow data. Separately, we performed 1,000 Monte Carlo simulations. Clinical data showed that iFR was +0.09 higher than FFR on average, with ± 0.17 limits of agreement. Diastolic resting resistance was 2.5 ± 1.0 times higher than mean hyperemic resistance in patients. Without invoking wave mechanics, classic pressure-flow physiology explained clinical observations well, with a coefficient of determination of >0.9 . Nearly identical scatter of iFR versus FFR was seen between simulation and patient observations, thereby supporting our model.

CONCLUSIONS: iFR provides both a biased estimate of FFR, on average, and an uncertain estimate of FFR in individual cases. Diastolic resting myocardial resistance does not equal mean hyperemic resistance, thereby contravening the most basic condition on which iFR depends. Fundamental relationships of coronary pressure and flow explain the iFR approximation without invoking wave mechanics.

Impactfactor: 14.086

Veer M van 't

Evaluation of the lower limb vasculature before free fibula flap transfer. A prospective blinded comparison between magnetic resonance angiography and digital subtraction angiography

Klein S*, Van Lienden KP, van't Veer M*, Smit JM*, Werker PM

Microsurgery. 2013;33(7):539-44

Voor abstract zie: Plastische Chirurgie - Klein S

Impactfactor: 1.623

Veer M van 't

Gender differences in long-term outcome after primary percutaneous intervention for st-segment elevation myocardial infarction

Wijnbergen I*, Tijssen J, van 't Veer M*, Michels R*, Pijls NH*

Catheter Cardiovasc Interv. 2013 Sep 1;82(3):379-84

Voor abstract zie: Cardiologie - Wijnbergen I

Impactfactor: 2.514

Veer M van 't

Intra-aortic balloon counterpulsation in acute myocardial infarction: old and emerging indications

van Nunen LX*, van 't Veer M*, Schampaert S, Steerneman BJ*, Rutten MC, van de Vosse FN, Pijls NH*

Neth Heart J. 2013 Dec;21(12):554-60. Epub Oct 30

Voor abstract zie: Cardiologie - Nunen LX van

Impactfactor: 1.411

Veer M van 't

Modeling the interaction between the intra-aortic balloon pump and the cardiovascular system: the effect of timing

Schampaert S*, Rutten MC, van 't Veer M*, van Nunen LX*, Tonino PA*, Pijls NH*, van de Vosse FN

ASAIO J. 2013 Jan-Feb;59(1):30-6

Voor abstract zie: Cardiologie - Schampaert S

Impactfactor: 1.491

Veer M van 't

New image processing and noise reduction technology allows reduction of radiation exposure in complex electrophysiologic interventions while maintaining optimal image quality: A randomized clinical trial

Dekker LR*, van der Voort PH*, Simmers TA*, Verbeek XA, Bullens RW, Veer MV*, Brands PJ*, Meijer A*

Heart Rhythm. 2013 Nov;10(11):1678-82. Epub 2013 Aug 22

Voor abstract zie: Cardiologie - Dekker LR

Impactfactor: 5.045

Veer M van 't

Towards patient-specific modeling of coronary hemodynamics in healthy and diseased state

van der Horst A, Boogaard FL, van't Veer M*, Rutten MC, Pijls NH*, van de Vosse FN
Comput Math Methods Med. 2013;2013:393792. Epub 2013 Mar 4

A model describing the primary relations between the cardiac muscle and coronary circulation might be useful for interpreting coronary hemodynamics in case multiple types of coronary circulatory disease are present. The main contribution of the present study is the coupling of a microstructure-based heart contraction model with a 1D wave propagation model. The 1D representation of the vessels enables patient-specific modeling of the arteries and/or can serve as boundary conditions for detailed 3D models, while the heart model enables the simulation of cardiac disease, with physiology-based parameter changes. Here, the different components of the model are explained and the ability of the model to describe coronary hemodynamics in health and disease is evaluated. Two disease types are modeled: coronary epicardial stenoses and left ventricular hypertrophy with an aortic valve stenosis. In all simulations (healthy and diseased), the dynamics of pressure and flow qualitatively agreed with observations described in literature. We conclude that the model adequately can predict coronary hemodynamics in both normal and diseased state based on patient-specific clinical data.

Impactfactor: 0.791

Veer M van 't

VERIFY (VERification of Instantaneous Wave-Free Ratio and Fractional Flow Reserve for the Assessment of Coronary Artery Stenosis Severity in EverydaY Practice): a multicenter study in consecutive patients

Berry C, van 't Veer M*, Witt N, Kala P, Bocek O, Pyxaras SA, McClure JD, Fearon WF, Barbato E, Tonino PA*, De Bruyne B, Pijls NH*, Oldroyd KG
J Am Coll Cardiol. 2013 Apr 2;61(13):1421-7

OBJECTIVES: This study sought to compare fractional flow reserve (FFR) with the instantaneous wavefree ratio (iFR) in patients with coronary artery disease and also to determine whether the iFR is independent of hyperemia.

BACKGROUND: FFR is a validated index of coronary stenosis severity. FFR-guided percutaneous coronary intervention (PCI) improves clinical outcomes compared to angiographic guidance alone. iFR has been proposed as a new index of stenosis severity that can be measured without adenosine.

METHODS: We conducted a prospective, multicenter, international study of 206 consecutive patients referred for PCI and a retrospective analysis of 500 archived pressure recordings. Aortic and distal coronary pressures were measured in duplicate in patients under resting conditions and during intravenous adenosine infusion at 140 g/kg/min.

RESULTS: Compared to the FFR cut-off value of ≥ 0.80 , the diagnostic accuracy of the iFR value of ≥ 0.80 was 60% (95% confidence interval [CI]: 53% to 67%) for all vessels studied and 51% (95% CI: 43% to 59%) for those patients with FFR in the range of 0.60 to 0.90. iFR was significantly influenced by the induction of hyperemia: mean \pm SD iFR at rest was 0.82 ± 0.16 versus 0.64 ± 0.18 with hyperemia ($p < 0.001$). Receiver operating characteristics confirmed that the diagnostic accuracy of iFR was similar to resting Pd/Pa and trans-stenotic pressure gradient and significantly inferior to hyperemic iFR. Analysis of our retrospectively acquired dataset showed similar results.

CONCLUSIONS: iFR correlates weakly with FFR and is not independent of hyperemia. iFR cannot be recommended for clinical decision making in patients with coronary artery disease.

Impactfactor: 14.086

Veer M van 't

Volume quantification by contrast-enhanced ultrasound: an in-vitro comparison with true volumes and thermodilution

Herold IH*, Russo G, Mischi M, Houthuizen P*, Saidov T, van Het Veer M*, van Assen HC, Korsten HH*

Cardiovasc Ultrasound. 2013 Oct 17;11(1):36

Voor abstract zie: Anesthesiologie - Herold IH

Impactfactor: 1.32

Voort PH van der

Anxiety and Risk of Ventricular Arrhythmias or Mortality in Patients With an Implantable Cardioverter Defibrillator

Habibovic M, Pedersen SS, Broek KC van den, Theuns DA, Jordaens L, Voort PH van der*, Alings M, Denollet J

Psychosom Med. 2013 Jan;75(1):36-41

Objective A subgroup of patients with an implantable cardioverter defibrillator (ICD) experiences anxiety after device implantation. The purpose of the present study was to evaluate whether anxiety is predictive of ventricular arrhythmias and all-cause mortality 1 year post ICD implantation.

Methods A total of 1012 patients completed the state version of the State-Trait Anxiety Inventory at baseline. The end points were ventricular arrhythmias and mortality the first year after ICD implantation.

Results Within the first year after ICD implantation, 19% of patients experienced a ventricular arrhythmia, and 4% died. Anxiety was associated with an increased risk of ventricular arrhythmias (hazard ratio [HR] = 1.017; 95% confidence interval [CI] = 1.005-1.028; $p = .005$) and mortality (HR = 1.038; 95% CI = 1.014-1.063; $p = .002$) in adjusted analysis. Patients with anxiety (highest tertile) had a 1.9 increased risk for ventricular arrhythmias (95% CI = 1.329-2.753; $p = .001$) and a 2.9 increased risk for mortality (95% CI = 1.269-6.677; $p = .01$) compared with patients with low anxiety (lowest tertile). Among 257 patients with cardiac resynchronization therapy, anxiety was associated with mortality (HR = 5.381; 95% CI = 1.254 -23.092; $p = .02$) after adjusting for demographic and clinical covariates.

Conclusions Anxiety was associated with an increased risk of ventricular arrhythmias and mortality 1 year after ICD implantation, independent of demographic and clinical covariates. Monitoring and treatment of anxiety may be warranted in a selected subgroup of high-risk patients with an ICD.

Impactfactor: 4.077

Voort PH van der

[Catheter ablation in patients with atrial fibrillation: what will change in daily practice?]

Voort PH van der*

Ned Tijdschr Geneeskd. 2013;157(14):A6007

A recent publication compared catheter ablation and antiarrhythmic drugs as initial therapy for paroxysmal atrial fibrillation. No difference was seen in the primary endpoint of the cumulative AF burden over two years. The burden of AF was documented objectively by a series of 7-day continuous ECG recordings; a method that will evolve as a gold standard for measuring the AF burden. The major shortcoming of the study was an obsolete ablation endpoint, lacking verification of pulmonary vein isolation. Other drawbacks were the fact that ablations were not exclusively carried out in high-volume centres and a high cross-over rate in the drug group. Also, although the primary endpoint was not significantly different, several secondary outcomes obviously favoured ablation. Outcomes in both the ablation and drug groups were relatively good, and this study will not change the current practice for the majority of paroxysmal AF patients, although catheter ablation could be performed as the initial therapy.

Impactfactor: --

Voort PH van der

Emotional distress, positive affect, and mortality in patients with an implantable cardioverter defibrillator

van den Broek KC, Tekle FB, Habibovic M*, Alings M, van der Voort PH*, Denollet J
Int J Cardiol. 2013 May 10;165(2):327-32. Epub 2011 Oct 2

Voor abstract zie: Cardiologie - Habibovic M

Impactfactor: 5.509

Voort PH van der

New image processing and noise reduction technology allows reduction of radiation exposure in complex electrophysiologic interventions while maintaining optimal image quality: A randomized clinical trial

Dekker LR*, van der Voort PH*, Simmers TA*, Verbeek XA, Bullens RW, Veer MV*, Brands PJ*, Meijer A*

Heart Rhythm. 2013 Nov;10(11):1678-82. Epub 2013 Aug 22

Voor abstract zie: Cardiologie - Dekker LR

Impactfactor: 5.045

Voort PH van der

Prognostic importance of distressed (Type D) personality and shocks in patients with an implantable cardioverter defibrillator

Denollet J, Tekle FB, Pedersen SS, Voort PH van der*, Alings M, Broek KC van den .

Int J Cardiol. 2013 Sep 10;167(6):2705-9

BACKGROUND: Clinical trials have shown the benefit of implantable cardioverter defibrillator (ICD) treatment. In this study, we examined the importance of chronic psychological distress and device shocks among ICD patients seen in clinical practice.

METHODS: This prospective follow-up study included 589 patients with an ICD (mean age=62.6 ±10.1years; 81% men). At baseline, vulnerability for chronic psychological distress

was measured by the 14-item Type D (distressed) personality scale. Cox regression models of all-cause and cardiac death were used to examine the importance of risk markers.

RESULTS: After a median follow-up of 3.2 years, 94 patients (16%) had died (67 cardiac death), 61 patients (10%) had experienced an appropriate shock and 28 (5%) an inappropriate shock. Inappropriate shocks were not associated with all-cause ($p=0.52$) or cardiac ($p=0.99$) death. However, appropriate shocks ($HR=2.60$, 95% CI 1.47-5.58, $p=0.001$) and Type D personality ($HR=1.85$, 95% CI 1.12-3.05, $p=0.015$) were independent predictors of all-cause mortality, adjusting for age, sex, left ventricular ejection fraction, cardiac resynchronization therapy (CRT), secondary indication, history of coronary artery disease, medication and diabetes. Type D personality and appropriate shocks also independently predicted an increased risk of cardiac death. Other independent predictors of poor prognosis were older age, treatment with CRT and diabetes.

CONCLUSION: Vulnerability to chronic psychological distress, as defined by the Type D construct, had incremental prognostic value above and beyond clinical characteristics and ICD shocks. Physicians should be aware of chronic psychological distress and device shocks as markers of an increased mortality risk in ICD patients seen in daily clinical practice.

Impactfactor: 5.509

Voort PH van der

Targeted screening as a tool for the early detection of chronic Q fever patients after a large outbreak

Wegdam-Blans MC*, Stokmans RA*, Tjhi JH, Korbeeck JM, Koopmans MP, Evers SM, Voort PH van der*, Teijink JA*

Eur J Clin Microbiol Infect Dis. 2013 Mar;32(3):353-9. Epub 2012 Sep 26

Voor abstract zie: Pamm - Wegdam-Blans MC

Impactfactor: 3.024

Weijers RW

Transient left ventricular systolic dysfunction mimicking myocardial infarction after pericardiocentesis

Weijers RW*, Post JC*

Neth Heart J. 2013 Jul;21(7-8):364-6

Geen abstract beschikbaar

Impactfactor: 1.411

Wijnbergen I

Gender differences in long-term outcome after primary percutaneous intervention for st-segment elevation myocardial infarction

Wijnbergen I*, Tijssen J, van 't Veer M*, Michels R*, Pijls NH*

Catheter Cardiovasc Interv. 2013 Sep 1;82(3):379-84

BACKGROUND: Previous studies on gender differences in outcome in patients with STEMI have been performed, but most of those are from before the current era of PCI technique and medical therapy and have a short duration of follow-up. The objective of our study is to assess the influence of gender on long term outcome in patients with STEMI who underwent primary percutaneous intervention (PCI) between January 2006 and May 2008.

METHODS: Two-year follow-up data from 202 female and 668 male patients undergoing primary PCI for STEMI were available from the DEBATER (A Comparison of Drug Eluting and Bare Metal Stents for Primary Percutaneous Coronary Intervention with or without

Abciximab in ST- segment elevation Myocardial Infarction: The Eindhoven Reperfusion Study) trial database. The primary endpoint was MACE, defined as the composite of death, myocardial infarction and target vessel revascularisation (TVR).

RESULTS: Women were older (64.7 ± 11.7 vs 59.0 ± 10.7 ; $p < 0.001$), and had more often diabetes mellitus (15% vs 9%; $p < 0.01$) and hypertension (44% vs 25%; $p < 0.001$). At two years the rate of MACE was significantly higher in women (21% vs 14%; $p = 0.02$). The mortality rate in women was 8% versus 2.6% in men ($p < 0.001$). However, multivariate analysis after adjustment for age and the baseline characteristics hypertension, smoking, diabetes mellitus, stent diameter, and time between onset of symptoms to arrival of the ambulance showed similar MACE and mortality rates in men and women.

CONCLUSION: Women have higher rates of both MACE and mortality after primary PCI for STEMI compared to men because of higher age with higher baseline risk profiles.

Impactfactor: 2.514

Wijnbergen I

Safety and performance of the drug-eluting absorbable metal scaffold (DREAMS) in patients with denovo coronary lesions: 12 month results of the prospective, multicentre, first-in-man BIOSOLVE-I trial

Haude M, Erbel R, Erne P, Verheye S, Degen H, Böse D, Vermeersch P, Wijnbergen I*, Weissman N, Prati F, Waksman R, Koolen J*

Lancet. 2013 Mar 9;381(9869):836-44

BACKGROUND: Bioabsorbable vascular scaffolds were developed to overcome limitations of permanent bare-metal or drug-eluting coronary stents—ie, stent thrombosis (despite prolonged dual antiplatelet therapy), the life-long presence of a caged vessel segment that does not allow vasomotion or remodelling, and chronic vessel wall inflammation. We assessed the safety and performance of a new magnesium-based paclitaxel-eluting absorbable metal scaffold in symptomatic patients with denovo coronary lesions.

METHODS: We did a prospective, multicentre, first-in-man trial (BIOSOLVE-1) of the drug-eluting absorbable metal scaffold (DREAMS). 46 patients with 47 lesions were enrolled at five European centres. The primary endpoint was target lesion failure, a composite of cardiac death, target vessel myocardial infarction, and clinically driven target lesion revascularisation, at 6 and 12 months. Clinical follow-up was scheduled at 1, 6, 12, 24, and 36 months. Patients were consecutively assigned to angiographic and intravascular ultrasonographic follow-up at 6 months or 12 months. Optical coherence tomography was done in some patients. All patients were recommended to take dual antiplatelet therapy for at least 12 months. This trial is registered with ClinicalTrials.gov, number NCT01168830.

FINDINGS: Overall device and procedural success was 100%. Two of 46 (4%) patients had target lesion failure at 6 months (both clinically driven target lesion revascularisations), which rose to three of 43 (7%) at 12 months (one periprocedural target vessel myocardial infarction occurred during angiography at the 12 month follow-up visit). We noted no cardiac death or scaffold thrombosis.

INTERPRETATION: Our results show feasibility, a good safety profile, and promising clinical and angiographic performance results up to 12 months for DREAMS. Our promising clinical results show that absorbable metal scaffolds might be an alternative to polymeric absorbable scaffolds.

Impactfactor: 39.060

* = Werkzaam in het Catharina Ziekenhuis

Cardiothoracale chirurgie

Berrekouw E

Clinical outcome of the PAS-Port® proximal anastomosis system in off-pump coronary artery bypass grafting in 201 patients

Verberkmoes NJ*, Mokhles MM, Bramer S*, Straten AH van*, Woorst JF ter*, Maessen JG, Berrekouw E*

J Cardiovasc Surg (Torino). 2013 Jun;54(3):389-95. Epub 2012 Nov 9

Voor abstract zie: Cardiothoracale Chirurgie - Verberkmoes NJ

Impactfactor: 1.510

Berrekouw E

Distal anastomotic patency of the Cardica C-PORT(R) xA system vs the hand-sewn technique: a prospective randomized controlled study in patients undergoing coronary artery bypass grafting

Verberkmoes NJ*, Wolters SL*, Post JC*, Soliman-Hamad MA*, Ter Woorst JF*, Berrekouw E*

Eur J Cardiothorac Surg. 2013 Sep;44(3):512-8; discussion 518-9

Voor abstract zie: Cardiothoracale chirurgie - Verberkmoes NJ

Impactfactor: 2.574

Berrekouw E

Does new-onset postoperative atrial fibrillation after coronary artery bypass grafting affect postoperative quality of life?

Bramer S*, Woorst FJ ter*, Geldorp MW van*, Broek KC van den, Maessen JG, Berrekouw E*, Straten AH van*

J Thorac Cardiovasc Surg. 2013 Jul;146(1):114-8

Voor abstract zie: Cardiothoracale chirurgie - Bramer S

Impactfactor: 3.526

Berrekouw E

Long-Term Clinical Outcome of the Symmetry Aortic Connector System in Off-Pump Coronary Artery Bypass Grafting

Verberkmoes NJ*, Mokhles MM, Bramer S*, van Straten AH*, Ter Woorst JF*, Maessen JG, Berrekouw E*

Thorac Cardiovasc Surg. 2013 Dec;61(8):669-75. Epub 2012 Jun 8

Voor abstract zie: Cardiothoracale Chirurgie - Verberkmoes NJ

Impactfactor: 0.925

Berrekouw E

Safety of the Extended Radial Artery Conduit in Performing Complete Arterial Revascularization

Ozdemir HI*, Soliman Hamad MA*, Ter Woorst JF*, Ozdemir MK, Berrekouw E*, van Straten AM*

Ann Thorac Cardiovasc Surg. 2013 Dec 20;19(6):449-55. Epub 2013 Jan 16

Voor abstract zie: Cardiothoracale Chirurgie - Ozdemir HI

Impactfactor: 0.695

Boxtel AG van

Reply to: Can Aspartate Aminotransferase Diagnose Perioperative Myocardial Infarction?

van Boxtel AG*, van Straten AH*, Bramer S*, Soliman Hamad MA*

Ann Thorac Surg. 2013 Aug;96(2):740

Comment on:

Perioperative serum aspartate aminotransferase level as a predictor of survival after coronary artery bypass grafting. [Ann Thorac Surg. 2012]

Can aspartate aminotransferase diagnose perioperative myocardial infarction? [Ann Thorac Surg. 2013]

Impactfactor: 3.454

Bramer S

Clinical outcome of the PAS-Port® proximal anastomosis system in off-pump coronary artery bypass grafting in 201 patients

Verberkmoes NJ*, Mokhles MM, Bramer S*, Straten AH van*, Woorst JF ter*, Maessen JG, Berreklouw E*

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Impactfactor: 1.510

Bramer S

Does new-onset postoperative atrial fibrillation after coronary artery bypass grafting affect postoperative quality of life?

Bramer S*, Woorst FJ ter*, Geldorp MW van*, Broek KC van den, Maessen JG, Berreklouw E*, Straten AH van*

J Thorac Cardiovasc Surg. 2013 Jul;146(1):114-8

OBJECTIVES: New-onset postoperative atrial fibrillation (POAF) is a common complication after cardiac surgery. We investigated the effect of POAF on quality of life after coronary artery bypass grafting.

METHODS: All patients who underwent nonemergency coronary artery bypass grafting between March 2009 and January 2011 were requested to complete a Short Form-36 Health Survey before and 6 months after the procedure. Norm-based scores of 8 health status domains and 2 component summary scores were calculated. Only patients undergoing first-time coronary artery bypass grafting, with no history of atrial fibrillation, were included in the analyses.

RESULTS: Of 1608 patients, 360 (22.4%) had POAF diagnosed. Twenty-eight patients died within half a year after the procedure (1.7% in the no POAF group and 1.8% in the POAF group; $P = .90$). After excluding these patients, data from 1580 patients were analyzed. Preoperative questionnaires were returned by 66% of the patients and postoperative questionnaires by 65%. Preoperative scores did not differ between patients with and without POAF in any subcategory (0/10). After the procedure, 4 of 10 scores were worse in the group with POAF compared to patients without POAF. Patients without POAF improved in all subcategories (10/10) after the procedure, whereas those with POAF did so in only 7 of 10. Multilinear regression showed POAF to be an independent negative predictor for improved quality of life 6 months postoperatively in 7 of 10 subcategories, including both mental and physical component summary scores.

CONCLUSIONS: New-onset POAF does affect 6-month postoperative mental and physical health, possibly warranting more aggressive POAF treatment.

Impactfactor: 3.526

Bramer S

Long-Term Clinical Outcome of the Symmetry Aortic Connector System in Off-Pump Coronary Artery Bypass Grafting

Verberkmoes NJ*, Mokhles MM, Bramer S*, van Straten AH*, Ter Woorst JF*, Maessen JG, Berreklouw E*

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van Boxtel AG*, van Straten AH*, Bramer S*, Soliman Hamad MA*

Ann Thorac Surg. 2013 Aug;96(2):740.

Voor abstract zie: Cardiothoracale chirurgie - Boxtel AG van

Impactfactor: 3.454

Elenbaas TW

Does removal of steel wires relieve post-sternotomy pain after cardiac surgery?

Sargul Rashidi*, Ted WO Elenbaas*, Mohamed A Soliman Hamad*, Hans J van Suijlekom* and Albert HM van Straten*

Asian Cardiovascular and Thoracic Annals August 2013 21: 409-413

Voor abstract zie: Cardiothoracale chirurgie – Rashidi S

Impactfactor: --

Elenbaas TW

Does the body mass index predict mortality after isolated aortic valve replacement?

van Straten AH*, Safari M*, Ozdemir HI*, Elenbaas TW*, Hamad MA*

J Heart Valve Dis. 2013 Sep;22(5):608-14

Voor abstract zie: Cardiothoracale chirurgie - Straten AH van

Impactfactor: 1.071

Elenbaas TW

Early severe mediastinal bleeding after esophagectomy: a potentially lethal complication

Ponten JE*, van der Horst S, Nieuwenhuijzen GA*, Elenbaas TW*, van Hillegersberg R, Luyer MD*

J Thorac Dis. 2013 Apr;5(2):E58-60

Voor abstract zie: Cardiologie - Ponten JE

Impactfactor: --

Elenbaas TW

Preoperative Hemoglobin Level as a Predictor of Mortality After Aortic Valve Replacement

van Straten AH*, Külcü K*, Ibrahim Özdemir H*, Elenbaas TW*, Soliman Hamad MA*

J Cardiothorac Vasc Anesth. 2013 Aug;27(4):716-22

Voor abstract zie: Cardiothoracale chirurgie - Straten AH van

Impactfactor: 1.448

Elenbaas TW

Preoperative hemoglobin level as a predictor of mortality after aortic valve replacement

van Straten AH*, Külcü K*, Özdemir HI*, Elenbaas TW*, Soliman Hamad MA*

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2013 May 22

Voor abstract zie: Cardiothoracale chirurgie - Straten AH van

Impactfactor: 1.448

Elenbaas TW

Thrombus formation on an Amplatzer closure device after left atrial appendage closure

Lammers J*, Elenbaas T*, Meijer A*

Eur Heart J. 2013 Mar;34(10):741

Voor abstract zie: Cardiologie - Lammers J

Impactfactor: 14.097

Geldorp MW van

Does new-onset postoperative atrial fibrillation after coronary artery bypass grafting affect postoperative quality of life?

Bramer S*, Woorst FJ ter*, Geldorp MW van*, Broek KC van den, Maessen JG, Berreklouw E*, Straten AH van*

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Impactfactor: 3.526

Külcü K

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Impactfactor: 1.448

Ozdemir HI

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Voor abstract zie: Cardiothoracale chirurgie - Straten AH van

Impactfactor: 1.448

Ozdemir HI

Safety of the Extended Radial Artery Conduit in Performing Complete Arterial Revascularization

Ozdemir HI*, Soliman Hamad MA*, Ter Woorst JF*, Ozdemir MK, Berreklouw E*, van Straten AM*

Ann Thorac Cardiovasc Surg. 2013 Dec 20;19(6):449-55. Epub 2013 Jan 16

Purpose: We have developed a technique to elongate the radial artery (RA) with the distal segment of the left internal thoracic artery. This study investigated the safety and durability of this extended conduit compared with the composite Y-grafts.

Methods: From January 1998 through December 2010, 750 patients underwent complete arterial revascularization with the use of the left internal thoracic artery (LITA) and RA. Out of these patients, 362 patients were operated on with the use of either RA-LITA extension conduit (n = 103), or a composite LITA-RA Y-graft (n = 259) and were included in this study. Cox regression analyses and Kaplan-Meier survival curves were used to identify the predictive value of the RA-LITA extension technique on both survival and incidence of re-intervention.

Results: Cox regression analysis showed that the use of RA-LITA extension conduit was not a significant predictor of re-intervention (p = 0.600) or total survival (p = 0.930). Kaplan-meier curves showed no significant difference between the two groups concerning total survival and re-intervention-free survival (p = 0.600).

Conclusions: Our alternative technique of extending the RA with the distal segment of the LITA is a safe alternative for patients undergoing total arterial revascularization. The long-term survival and incidence of re-intervention is comparable with the composite LITA-RA Y-grafts.

Impactfactor: 0.466

Rashidi, S

Does removal of steel wires relieve post-sternotomy pain after cardiac surgery?

Sargul Rashidi*, Ted WO Elenbaas*, Mohamed A Soliman Hamad*, Hans J van Suijlekom* and Albert HM van Straten*

Asian Cardiovascular and Thoracic Annals August 2013 21: 409-413

Background: Post-sternotomy pain in the absence of cardiac ischemia and sternal instability is most commonly due to the sternal wire sutures or a protruding wire. We performed a

retrospective study to investigate the effect of removal of the steel wires for relief of post-sternotomy pain.

Methods: All 206 patients who underwent sternal wire removal in our institution from January 2003 through August 2011 were included in this study. Alive patients were contacted by telephone to inquire about the fate of their pain. Accordingly, patients were classified into 4 groups: group 1 were free of symptoms; group 2 were satisfied, significantly better than before wire removal; group 3 had unchanged symptoms; and group 4 had worsening of pain after wire removal.

Results: After excluding patients who died during the follow-up and those who had sternal instability and wound infection, 186 patients were available for the questionnaire. Complete relief of pain occurred in 83% of these patients, and 10% had improvement of their symptoms.

Conclusions: We recommend removal of the steel wires in patients with persistent chest pain after median sternotomy, when sternal instability, mediastinitis, and cardiac causes such as ischemia are excluded.

Impactfactor: --

Safari M

Does the body mass index predict mortality after isolated aortic valve replacement?

van Straten AH, Safari M, Ozdemir HI, Elenbaas TW, Hamad MA

J Heart Valve Dis. 2013 Sep;22(5):608-14

Voor abstract zie: Cardiothoracale chirurgie - Straten AH van

Impactfactor: 1.071

Soliman Hamad MA

Distal anastomotic patency of the Cardica C-PORT(R) xA system vs the hand-sewn technique: a prospective randomized controlled study in patients undergoing coronary artery bypass grafting

Verberkmoes NJ*, Wolters SL*, Post JC*, Soliman-Hamad MA*, Ter Woorst JF*, Berreklouw E*

Eur J Cardiothorac Surg. 2013 Sep;44(3):512-8; discussion 518-9

Voor abstract zie: Cardiothoracale chirurgie -Verberkmoes NJ

Impactfactor: 2.574

Soliman Hamad MA

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Voor abstract zie: Cardiothoracale chirurgie – Rashidi S

Impactfactor: --

Soliman Hamad MA

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Voor abstract zie: Cardiothoracale chirurgie - Straten AH van

Impactfactor: 1.071

Soliman Hamad MA

Impact of prosthesis-patient mismatch on early and late mortality after aortic valve replacement

Koene BM, Soliman Hamad MA*, Bouma W, Mariani MA, Peels KC*, van Dantzig JM*, van Straten AH*

J Cardiothorac Surg. 2013 Apr 17;8(1):96

BACKGROUND: The influence of prosthesis-patient mismatch (PPM) on survival after aortic valve replacement (AVR) remains controversial. In this study, we sought to determine the effect of PPM on early (≤ 30 days) and late mortality (> 30 days) after AVR or AVR combined with coronary artery bypass grafting (AVR with CABG).

METHODS: Between January 1998 and March 2012, 2976 patients underwent AVR ($n=1718$) or AVR with CABG ($n=1258$) at a single institution. PPM was defined as an indexed effective orifice area (EOAI) ≤ 0.85 cm²/m² and patients were divided into two groups based on the existence of PPM. Cumulative probability values of survival were estimated with Kaplan-Meier method and compared between groups using Breslow test. Univariate and multivariate independent predictors of early mortality were identified using logistic regression. Cox proportional-hazard regression analysis was used to determine univariate and multivariate independent predictors of late mortality.

RESULTS: Early mortality was 6.7% in the PPM group vs 4.7% in the group with no PPM ($p=0.013$). Late mortality for the PPM group at 1, 5 and 10 years was 4%, 16% and 43%, respectively. Late mortality for the group with no PPM at 1, 5 and 10 years was 4%, 15% and 33% respectively. Independent predictors of early mortality included age, severely impaired left ventricular (LV) function, endocarditis, renal dysfunction, chronic obstructive pulmonary disease (COPD) and cardiopulmonary bypass (CPB) time. Multivariate independent predictors of late mortality included age, severely impaired LV function, diabetes, peripheral vascular disease (PVD), renal dysfunction, history of a cerebrovascular accident (CVA), CPB time and a history of previous cardiac surgery. PPM was not an independent predictor of early or late mortality.

CONCLUSION: PPM is not an independent predictor of both early and late mortality after AVR or AVR combined with CABG.

Impactfactor: 0.90

Soliman Hamad MA

Ischemia Index to predict post coronary artery bypass graft change in left ventricular ejection fraction

Ruth RA, Wagner GS, Soliman Hamad MA*, Serroyen J, Gorgels AP

J Electrocardiol. 2013 May-Jun;46(3):235-9

INTRODUCTION: Both myocardial necrosis and ischemia can decrease the left ventricular ejection fraction (LVEF). An accurate estimate of the relative contributions of these irreversible and potentially reversible factors could lead to better decisions regarding the risk and benefit of coronary artery bypass grafting (CABG). The value of an Ischemia Index calculated by subtracting the ECG estimated infarction dependent LVEF from the measured LVEF to predict post-operative improvement of LVEF was studied in 55 patients with LVEF $<40\%$ before CABG. Patients were grouped according to absence or presence of other coexisting ECG confounders.

RESULTS: No significant ($p=0.083$) relationship was found between the Ischemia Index and the improvement in LVEF after CABG in the overall population, but a strong trend was present in the patients with ECGs without confounding QRS changes ($p=0.056$). **CONCLUSION:** These results suggest a positive relationship between the Ischemia Index and improvement

of LVEF after CABG in patients without electrocardiographic confounders, but a prospective study using a larger sample is needed

Impactfactor: 1.093

Soliman Hamad MA

Preoperative Hemoglobin Level as a Predictor of Mortality After Aortic Valve Replacement

van Straten AH*, Külcü K*, Ibrahim Özdemir H*, Elenbaas TW*, Soliman Hamad MA*
J Cardiothorac Vasc Anesth. 2013 Aug;27(4):716-22

Voor abstract zie: Cardiothoracale chirurgie - Straten AH van

Impactfactor: 1.448

Soliman Hamad MA

Reply to: Can Aspartate Aminotransferase Diagnose Perioperative Myocardial Infarction?

van Bortel AG*, van Straten AH*, Bramer S*, Soliman Hamad MA*
Ann Thorac Surg. 2013 Aug;96(2):740.

Voor abstract zie: Cardiothoracale chirurgie - Bortel AG van

Impactfactor: 3.454

Soliman Hamad MA

Safety of the Extended Radial Artery Conduit in Performing Complete Arterial Revascularization

Ozdemir HI*, Soliman Hamad MA*, Ter Woort JF*, Ozdemir MK, Berreklouw E*,
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Ann Thorac Cardiovasc Surg. 2013 Dec 20;19(6):449-55. Epub 2013 Jan 16

Voor abstract zie: Cardiothoracale Chirurgie - Ozdemir HI

Impactfactor: 0.695

Straten AH van

Clinical outcome of the PAS-Port® proximal anastomosis system in off-pump coronary artery bypass grafting in 201 patients

Verberkmoes NJ*, Mokhles MM, Bramer S*, Straten AH van*, Woort JF ter*, Maessen JG, Berreklouw E*

J Cardiovasc Surg (Torino). 2013 Jun;54(3):389-95. Epub 2012 Nov 9

Voor abstract zie: Cardiothoracale Chirurgie - Verberkmoes NJ

Impactfactor: 1.510

Straten AH van

Does new-onset postoperative atrial fibrillation after coronary artery bypass grafting affect postoperative quality of life?

Bramer S*, Woort FJ ter*, Geldorp MW van*, Broek KC van den, Maessen JG, Berreklouw E*, Straten AH van*

J Thorac Cardiovasc Surg. 2013 Jul;146(1):114-8

Voor abstract zie: Cardiothoracale chirurgie - Bramer S

Impactfactor: 3.526

Straten AH van

Does removal of steel wires relieve post-sternotomy pain after cardiac surgery?

Sargul Rashidi*, Ted WO Elenbaas*, Mohamed A Soliman Hamad*, Hans J van Suijlekom** and Albert HM van Straten*

Asian Cardiovascular and Thoracic Annals August 2013 21: 409-413

Voor abstract zie: *Cardiothoracale chirurgie – Rashidi S*

Impactfactor: --

Straten AH van

Does the body mass index predict mortality after isolated aortic valve replacement?

van Straten AH*, Safari M*, Ozdemir HI*, Elenbaas TW*, Hamad MA*

J Heart Valve Dis. 2013 Sep;22(5):608-14

BACKGROUND AND AIM OF THE STUDY: Data relating to the impact of body mass index (BMI) on outcomes after isolated aortic valve replacement (AVR) are scarce and controversial. The study aim was to investigate the predictive value of BMI for early and late mortality after isolated AVR.

METHODS: Data obtained from patients who underwent isolated AVR between January 1998 and December 2010 at the authors' institution were analyzed retrospectively. Patients were allocated to five groups according to the preoperative BMI: underweight (BMI < 20 kg/m²); normal weight (BMI 20.0-24.9 kg/m²); overweight (BMI 25.0-29.9 kg/m²); obese (BMI 30.0-34.9 kg/m²); and morbidly obese (BMI > 34.9 kg/m²). Logistic and Cox regression analyses were performed to identify the independent predictors of early and late mortality, respectively.

RESULTS: After excluding 20 patients who were lost to follow up, and 30 patients with missing preoperative BMI data, a total of 1,758 patients was included in the analysis. The mean follow up was 5.6 +/- 3.5 years (range: 0-13.4 years), and the mean BMI 26.8 +/- 4.3 kg/m² (range: 17-52 kg/m²).

Multivariate logistic regression analyses showed no association between early mortality and the BMI groups. Multivariate Cox regression analyses showed 'underweight' to be an independent predictor for late mortality (hazard ratio 2.89; 95% confidence interval 1.63-5.13, p < 0.0001).

CONCLUSION: 'Underweight' is an independent predictor for late mortality after AVR surgery. Morbid obesity did not prove to be predictive of a worse late survival.

Impactfactor: 1.071

Straten AH van

Impact of prosthesis-patient mismatch on early and late mortality after aortic valve replacement

Koene BM, Soliman Hamad MA*, Bouma W, Mariani MA, Peels KC*, van Dantzig JM*, van Straten AH*

J Cardiothorac Surg. 2013 Apr 17;8(1):96

Voor abstract zie: *Cardiothoracale chirurgie - Soliman Hamad MA*

Impactfactor: 0.90

Straten AH van

Long-Term Clinical Outcome of the Symmetry Aortic Connector System in Off-Pump Coronary Artery Bypass Grafting

Verberkmoes NJ*, Mokhles MM, Bramer S*, van Straten AH*, Ter Woorst JF*, Maessen JG, Berreklouw E*

Thorac Cardiovasc Surg. 2013 Dec;61(8):669-75. Epub 2012 Jun 8

Voor abstract zie: Cardiothoracale Chirurgie - Verberkmoes NJ

Impactfactor: 0.925

Straten AH van

Preoperative Hemoglobin Level as a Predictor of Mortality After Aortic Valve Replacement

van Straten AH*, Külcü K*, Ibrahim Özdemir H*, Elenbaas TW*, Soliman Hamad MA*

J Cardiothorac Vasc Anesth. 2013 Aug;27(4):716-22

OBJECTIVES: The predictive value of preoperative hemoglobin (HB) level on the outcome of patients undergoing valve surgery is not well established. This study evaluated the predictive value of preoperative HB level on survival after aortic valve replacement (AVR).

DESIGN: This was a retrospective analysis of prospectively collected data.

SETTING: A single-center study performed in an educational hospital.

PARTICIPANTS: All consecutive patients (n = 1,808) who underwent AVR between January 1998 and December 2010.

INTERVENTIONS: AVR.

MEASUREMENTS AND MAIN RESULTS: Patients were classified into 4 groups according to the preoperative HB level: very low (HB of <12g/dL in men and <11g/dL in women), low (HB of 12-13g/dL in men and 11-12g/dL in women), normal (HB of 13-14.5g/dL in men and 12-13.5g/dL in women), and high normal (HB of =14.5g/dL in men and =13.5g/dL in women). The mean follow-up duration was 5.58±3.5 years, and the median follow-up duration was 5.38 years. The mean preoperative HB was 14±1.6g/dL for men and 13.0±2.1g/dL for women. Early mortality (=30 days) was 6.1% in the very-low-HB group, 5.4% in the low-HB group, 3.2% in the normal HB group, and 2.3% in the high-normal-HB group (p = 0.37). Late mortality (>30 days) was 26.1% in the very-low-HB group, 23.7% in the low-HB group, 17.1% in the normal-HB group, and 12.6% in the high-normal-HB group (p<0.0001). The multivariate logistic regression model did not identify low HB as an independent predictor for early mortality. Cox regression multivariate analysis revealed both HB level, as a continuous variable, (p = 0.006), and verylow-HB level (p<0.0001), as independent predictors of late mortality. Cox regression analyses, corrected for confounders, demonstrated that low-HB level is an independent predictor for higher overall mortality (hazard ratio = 2.00, CI 1.41-2.85, p=0.0001).

CONCLUSIONS: In patients undergoing AVR, preoperative low-HB level is an independent risk factor for late mortality, but not for early mortality.

Impactfactor: 1.448

Straten AH van

Reply to: Can Aspartate Aminotransferase Diagnose Perioperative Myocardial Infarction?

van Bortel AG*, van Straten AH*, Bramer S*, Soliman Hamad MA*

Ann Thorac Surg. 2013 Aug;96(2):740

Voor abstract zie: Cardiothoracale chirurgie - Bortel AG van

Impactfactor: 3.454

Straten AH van

Safety of the Extended Radial Artery Conduit in Performing Complete Arterial Revascularization

Ozdemir HI*, Soliman Hamad MA*, Ter Woorst JF*, Ozdemir MK, Berreklouw E*, van Straten AM*

Ann Thorac Cardiovasc Surg. 2013 Dec 20;19(6):449-55. Epub 2013 Jan 16

Voor abstract zie: Cardiothoracale Chirurgie - Ozdemir HI

Impactfactor: 0.695

Straten AH van

Statistical methods to monitor risk factors in a clinical database: example of a national cardiac surgery registry

Siregar S, Roes KC, van Straten AH*, Bots ML, van der Graaf Y, van Herwerden LA, Groenwold RH

Circ Cardiovasc Qual Outcomes. 2013 Jan 1;6(1):110-8

BACKGROUND: Comparison of outcomes requires adequate risk adjustment for differences in patient risk and the type of intervention performed. Both unintentional and intentional misclassification (also called gaming) of risk factors might lead to incorrect benchmark results. Therefore, misclassification of risk factors should be detected. We investigated the use of statistical process control techniques to monitor the frequency of risk factors in a clinical database.

METHODS AND RESULTS: A national population-based study was performed using simulation and statistical process control. All patients who underwent cardiac surgery between January 1, 2007, and December 31, 2009, in all 16 cardiothoracic surgery centers in the Netherlands were included. Data on 46 883 consecutive cardiac surgery interventions were extracted. The expected risk factor frequencies were based on 2007 and 2008 data. Monthly frequency rates of 18 risk factors in 2009 were monitored using a Shewhart control chart, exponentially weighted moving average chart, and cumulative sum chart. Upcoding (ie, gaming) in random patients was simulated and detected in 100% of the simulations. Subtle forms of gaming, involving specifically high-risk patients, were more difficult to identify (detection rate of 44%). However, the accompanying rise in mean logistic European system for cardiac operative risk evaluation (EuroSCORE) was detected in all simulations.

CONCLUSIONS: Statistical process control in the form of a Shewhart control chart, exponentially weighted moving average, and cumulative sum charts provide a means to monitor changes in risk factor frequencies in a clinical database. Surveillance of the overall expected risk in addition to the separate risk factors ensures a high sensitivity to detect gaming. The use of statistical process control for risk factor surveillance is recommended.

Impactfactor: 15.202

Verberkmoes NJ

A novel low-fidelity simulator for both mitral valve and tricuspid valve surgery: the surgical skills trainer for classic open- and minimally invasive techniques

Verberkmoes NJ*, Verberkmoes-Broeders EM

Interact Cardiovasc Thorac Surg. 2013 Feb;16(2):97-101

OBJECTIVES Simulators have been proven to equip trainee surgeons with better skills than the traditional, standard approach to skill development. The purpose of this study was to develop a lowfidelity, low-cost, reusable and portable simulation device, which could provide training in nearly the full range of mitral valve surgery techniques, in both the classic, open approach as well as the minimally invasive approach.

METHODS This novel simulator is made up of commonly available components. The basic elements are a classic baby bottle, with the associated feeding teat and screw ring, in combination with a sheet of dental dam. The detailed process for making this simulator is outlined in this article. Maximum suture tensile strength on the different components was tested with a digital force gauge. Reusability and the rate of wear as a result of suturing were documented. Total cost was calculated in euros (–).

RESULTS This study resulted in a simulation model very similar in size to the actual anatomical dimensions of the mitral valve. Various pathological conditions, according to Carpentier's Functional Classification, could be simulated. This led to the possibility of providing training in several mitral valve surgical techniques. As the model developed, it became clear that it could also be used to practice tricuspid valve surgery techniques. Maximum mean suture tensions on the silicone teat and dental dam were 42.11 and 11.15 N/m(2), respectively. The feeding teat started wearing after approximately 45 suture placements. Total cost of the study model was –5.14.

CONCLUSIONS This relatively simple, low-cost, low-fidelity model can provide simulation training in nearly the full range of mitral valve and tricuspid valve surgical techniques, in both the classic open approach and the minimally invasive approach-and do so almost anywhere. Especially when used by young cardiothoracic surgeons in training, this model may contribute to the development of technical skills and procedural knowledge required for adequate performance in the operating room.

Impactfactor: 1.112

Verberkmoes NJ

Clinical outcome of the PAS-Port® proximal anastomosis system in off-pump coronary artery bypass grafting in 201 patients

Verberkmoes NJ*, Mokhles MM, Bramer S*, Straten AH van*, Woorst JF ter*, Maessen JG, Berreklouw E*

J Cardiovasc Surg (Torino). 2013 Jun;54(3):389-95. Epub 2012 Nov 9

AIM: The PAS-Port® Proximal Anastomosis System (Cardica, Inc, Redwood City, CA, USA) has been used worldwide since March 2003. The objective of the present study was to evaluate the clinical outcome of the PAS-Port® Proximal Anastomosis System.

METHODS: All the patients who underwent off-pump coronary artery bypass grafting in the Catharina Hospital Eindhoven between August 2006 and April 2010 were included in a non-randomized retrospective case-control study, if they had at least one proximal vein graft anastomosis. Study end-points consisted of overall survival, coronary reintervention and postoperative stroke.

RESULTS: The study included 312 patients (201 cases, 111 controls). After 36 months of follow-up there was no difference in survival between cases and controls (92.2% vs. 93.7%, P=0.52). No significant difference could be detected between cases and controls with

respect to overall coronary reintervention-free survival (93% vs. 96.4%, $P=0.20$) and freedom from coronary reintervention due to proximal vein graft failure (98% vs. 100% $P=0.14$). The use of the PASPort system could not be identified as an independent risk factor of coronary reintervention ($p=0.21$). Postoperative stroke rates of cases and controls (2% vs. 0.9%, $P=0.42$) were comparable.

CONCLUSION: The clinical outcomes in patients treated with the PAS-Port® Proximal Anastomosis System were satisfactory compared with those treated with the conventional hand-sewing technique. The use of the PAS-Port system was not associated with higher adverse outcome in terms of overall survival, stroke, coronary reintervention-free survival and freedom from reintervention due to proximal vein graft failure.

Impactfactor: 1.510

Verberkmoes NJ

Distal anastomotic patency of the Cardica C-PORT(R) xA system vs the hand-sewn technique: a prospective randomized controlled study in patients undergoing coronary artery bypass grafting

Verberkmoes NJ*, Wolters SL*, Post JC*, Soliman-Hamad MA*, Ter Woorst JF*, Berreklouw E*

Eur J Cardiothorac Surg. 2013 Sep;44(3):512-8; discussion 518-9

OBJECTIVES: The C-Port® Distal Anastomosis Systems (Cardica, Inc., Redwood City, CA, USA) demonstrated favourable results in feasibility trials. However, distal vein anastomoses created with the C-Port® or C-Port xA® system have never been compared with hand-sewn distal vein anastomoses. The objective of this study was to compare distal end-to-side anastomoses facilitated with the C-Port xA® System with the traditional hand-sewn method.

METHODS: This single-centre prospective randomized controlled study comprised 71 patients (device group $n = 35$, control group $n = 36$) who underwent primary elective coronary artery bypass grafting between June 2008 and April 2011. The primary study end-point was 12-month distal anastomotic patency, which was assessed with prospective ECG-gated 256-multislice computed tomographic coronary angiography using a step-and-shoot scanning protocol. For the primary end-point, a perprotocol analysis was used.

RESULTS: In the device group, four (11%) anastomoses were converted to hand-sewn anastomoses, and additional stitches to achieve haemostasis were necessary in 22 (76%) patients. There was no hospital mortality in either group. During the 12-month follow-up, a single death occurred in the Device group and was unrelated to the device. Twenty-nine patients in the device group and 32 in the control group completed 12-month CT coronary angiography. The overall patency of 160 studied distal vein graft anastomoses was 93%. Comparison of the end-to-side target anastomosis showed 12-month patencies of 86 and 88% in the device group and the control group, respectively.

CONCLUSIONS: According to these preliminary results and despite the limited number of patients, the use of the C-Port xA® System is safe enough to perform distal end-to-side vein graft anastomosis, with respect to 12-month end-to-side distal venous anastomotic patency. Although there are some technical challenges with this device, the incidence of complications is comparable to the traditional hand-sewn technique.

Impactfactor: 2.574

Verberkmoes NJ

Long-Term Clinical Outcome of the Symmetry Aortic Connector System in Off-Pump Coronary Artery Bypass Grafting

Verberkmoes NJ*, Mokhles MM, Bramer S*, van Straten AH*, Ter Woorst JF*, Maessen JG, Berreklouw E*

Thorac Cardiovasc Surg. 2013 Dec;61(8):669-75. Epub 2012 Jun 8

Background Several short-term and midterm follow-up studies of the Symmetry aortic connector system showed controversial results. The objective of the present study was assessing the long-term clinical outcome of patients operated with the Symmetry device and to compare the results with hand-sewn control patients.

Methods A retrospective case-control study of 156 (46 cases, 110 controls) consecutive patients, that underwent off-pump coronary revascularization, between January 2001 and December 2004, was conducted. Study endpoints were all-cause mortality, coronary reintervention and postoperative stroke.

Results There was no difference in survival between cases and controls (89.1 vs. 82.4%, $p = 0.27$) after 8 years of follow-up. No significant difference could be detected between cases and controls with respect to overall long-term coronary reintervention free survival (82.6 vs. 88.9%, $p = 0.41$) and freedom from coronary reintervention due to proximal vein graft failure (91.3 vs. 96.3%, $p = 0.24$). The use of Symmetry device could not be identified as independent risk-factor of coronary reintervention due to proximal vein graft failure ($p = 0.25$). Furthermore, postoperative stroke rates were comparable between cases and controls (0.0 vs. 0.9%, $p = 1.00$). **Conclusion** This study suggests that the use of the Symmetry Bypass Connector was not associated with adverse outcome in terms of overall survival, long-term coronary reintervention free survival, freedom from reintervention due to proximal vein graft failure and postoperative stroke.

Impactfactor: 0.925

Verberkmoes NJ

Partial anomalous pulmonary venous connection (including scimitar syndrome)

van de Woestijne PC, Verberkmoes N*, Bogers AJ

Multimed Man Cardiothorac Surg. 2013 :mmt001 published online 7 February 2013

Partial anomalous pulmonary venous connection (PAPVC) is defined to exist when some but not all venous drainage enters the left atrium, while the remaining veins connect to the right-sided circulation. Scimitar syndrome is a specialized example, in which an anomalous pulmonary vein descends from the right lung and drains into the inferior caval vein. PAPVC is associated with sinus venosus-type atrial septal defect (ASD). Diagnosis was, in the past, based on echocardiographic imaging and could be difficult. Multislice spiral computed tomography and magnetic resonance imaging improved the imaging quality. The surgical correction is dependent on the type of anomalous connection and the presence of an ASD.

Outcome is good but obstructed venous return is an important issue

Impactfactor: --

Woorst FJ ter

Clinical outcome of the PAS-Port® proximal anastomosis system in off-pump coronary artery bypass grafting in 201 patients

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Voor abstract zie: Cardiothoracale chirurgie - Verberkmoes NJ

Impactfactor: 1.510

Woorst FJ ter

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Eur J Cardiothorac Surg. 2013 Sep;44(3):512-8; discussion 518-9

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Impactfactor: 2.574

Woorst FJ ter

Does new-onset postoperative atrial fibrillation after coronary artery bypass grafting affect postoperative quality of life?

Bramer S*, Woorst FJ ter*, Geldorp MW van*, Broek KC van den, Maessen JG, Berreklouw E*, Straten AH van*

J Thorac Cardiovasc Surg. 2013 Jul;146(1):114-8

Voor abstract zie: Cardiothoracale chirurgie - Bramer S

Impactfactor: 3.526

Woorst FJ ter

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Impactfactor: 0.925

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Safety of the Extended Radial Artery Conduit in Performing Complete Arterial Revascularization

Ozdemir HI*, Soliman Hamad MA*, Ter Woorst JF*, Ozdemir MK, Berreklouw E*, van Straten AM*

Ann Thorac Cardiovasc Surg. 2013 Dec 20;19(6):449-55. Epub 2013 Jan 16

Voor abstract zie: Cardiothoracale Chirurgie - Ozdemir HI

Impactfactor: 0.695

* = Werkzaam in het Catharina Ziekenhuis

Chirurgie

Bendermacher BL

Ginkgo biloba for intermittent claudication

Nicolai SP, Kruidenier LM*, Bendermacher BL*, Prins MH, Stokmans RA*, Broos PP*, Teijink JA*

Cochrane Database Syst Rev. 2013 Jun 6;6:CD006888

Voor abstract zie: Chirurgie - Kruidenier LM

Impactfactor: --

Bendermacher BL

Influence of gender on EVAR outcomes with new low-profile devices

Bendermacher BL*, Grootenboer N, Cuypers PW*, Teijink JA*, Van Sambeek MR*

J Cardiovasc Surg (Torino). 2013 Oct;54(5):589-93

Women have not benefitted to the same extent as men of endovascular abdominal aortic repair (EVAR). Besides differences in hormones and the higher rate of undiagnosed cardiovascular disease, there are anatomical differences between men and women influencing the outcome of endovascular treatment of abdominal aortic aneurysms (AAA). After the first decade of EVAR procedures, only 28% of women with an elective AAA were treated by EVAR due to their poor anatomical suitability for this technique. The anatomical challenges and their associated poorer outcomes suggest the need for advances in device design to better meet the specific female aneurysm anatomy and physiology. Most of the newergeneration endografts have been associated with lower incidences of graft occlusion compared with first-generation endografts, and might be more suitable for women. It is encouraging that EVAR has decreased long-term mortality in women and that women's survival begins to equal men's after 2 years. However, detailed, adjusted anatomical data from population-based samples are needed for better understanding of the differences in AAA anatomy and EVAR eligibility. This information will contribute to enhance the design, testing and evaluation of future stent grafts, to ensure that women will benefit from EVAR to the same extent as men.

Impactfactor: 1.559

Bendermacher BL

Primary aortoduodenal fistula and Q-fever

Sigterman TA, Bendermacher BL*, Welten RJ, Krasznai A, Bouwman LH

Vasc Med 2013 Dec;18(6):347-9. Epub 2013 Nov 4

Patients with abdominal aortic aneurysm (AAA) are prone to vascular infection with chronic Q-fever. There is a rising incidence of up to 8% of chronic Q-fever in The Netherlands. Increased vascular aortic aneurysm infection with chronic Q-fever is reported. This report shows two rare cases of primary aortoduodenal fistulae in patients with chronic Q-fever and an AAA. We describe the clinical symptoms, diagnostic tools for detection of *Coxiella burnetii* infection and treatment.

Impactfactor: 1.617

Bendermacher BL**Supervised exercise therapy versus non-supervised exercise therapy for intermittent claudication**

Fokkenrood HJ*, Bendermacher BL*, Lauret GJ*, Willigendael EM, Prins MH, Teijink JA*

Cochrane Database Syst Rev. 2013 Aug 23

Voor abstract zie: Chirurgie - Fokkenrood HJ

Impactfactor: --

Brinkman WM**Assessment of basic laparoscopic skills on virtual reality simulator or box trainer**

Brinkman WM*, Tjiam IM*, Buzink SN*

Surg Endosc. 2013 Oct;27(10):3584-90

INTRODUCTION: We investigated whether the peg transfer task is interchangeable between a VR simulator and a box trainer. Our research questions: (1) Are scores of the box trainer interchangeable with the virtual equivalent of the exercise; (2) does training on the box affect performance on the VR simulator and vice versa; and (3) which system is preferred?

METHODS: Experienced laparoscopists and medical interns were randomly assigned to one of two groups (V or B). They performed eight repetitions of the peg transfer task (4 on each simulator system) following a crossover study design. Group B started on the box trainer and group V started on the VR simulator. Opinion of participants was evaluated by a questionnaire.

RESULTS: A significant correlation was found between time to complete the task on the box and the VR simulator. The comparison of the performances per system showed that group B (N = 14) performed the peg transfer task on the VR simulator in significantly less time than group V (N = 14; p = 0.014). Overall, the box was preferred over the VR simulator.

CONCLUSIONS: Although performances on the box trainer and VR simulator were correlated, they were not interchangeable. The results also imply that assessment on the VR simulator after pretraining on the box is acceptable, whereas VR simulator training alone might not suffice to pass an assessment on a box trainer. More research is needed to validate the use of the VR simulator as a FLS and PLUS assessment instrument.

Impactfactor: 3.427

Broos PP**Ginkgo biloba for intermittent claudication**

Nicolai SP, Kruidenier LM*, Bendermacher BL*, Prins MH, Stokmans RA*, Broos PP*, Teijink JA*

Cochrane Database Syst Rev. 2013 Jun 6;6:CD006888

Voor abstract zie: Chirurgie - Kruidenier LM

Impactfactor: --

Buth J

Sex differences in 30-day and 5-year outcomes after endovascular repair of abdominal aortic aneurysms in the EUROSTAR study

Grootenboer N, Myriam Hunink MG, Hendriks JM, van Sambeek MR*, Buth J*
EUROSTAR collaborators

J Vasc Surg. 2013 Jul;58(1):42-49.e1

Voor abstract zie: Chirurgie - Sambeek MR van

Impactfactor: 2.879

Buzink SN

Assessment of basic laparoscopic skills on virtual reality simulator or box trainer

Brinkman WM*, Tjiam IM*, Buzink SN*

Surg Endosc. 2013 Oct;27(10):3584-90

Voor abstract zie: Chirurgie - Brinkman WM

Impactfactor: 3.427

Cuypers Ph W

Challenging the evidence for pre-emptive coil embolisation of the internal iliac artery during endovascular aneurysm repair

Stokmans RA*, Willigendael EM*, Teijink JA*, Ten Bosch JA, van Sambeek MR*, Cuypers PW*

Eur J Vasc Endovasc Surg. 2013 Mar;45(3):220-6

Voor abstract zie: Chirurgie - Stokmans RA

Impactfactor: 2.820

Cuypers Ph W

Comparing endovenous laser ablation, foam sclerotherapy, and conventional surgery for great saphenous varicose veins

Biemans AA, Kockaert M, Akkersdijk GP, van den Bos RR, de Maeseneer MG, Cuypers P*, Stijnen T, Neumann MH, Nijsten T

J Vasc Surg. 2013 Sep;58(3):727-34.e1

BACKGROUND: Many case series have been published on treatments of varicose veins, but comparative randomized controlled trials remain sparse.

OBJECTIVE: To compare the anatomic success rate, frequency of major complications, and quality-of-life improvement of endovenous laser ablation (EVLA), ultrasound-guided foam sclerotherapy (UGFS), and conventional surgery (CS), after 1-year follow-up.

METHODS: A total of 240 consecutive patients with primary symptomatic great saphenous vein reflux were randomized to EVLA, UGFS, or CS, consisting of high ligation and short stripping. Primary outcome was anatomic success defined as obliteration or absence of the treated vein on ultrasound examination after 1 year. Secondary outcomes were complications, improvement of the "C" class of the CEAP classification, and improvement of disease-specific (Chronic Venous Insufficiency Quality-of-Life Questionnaire) and general (EuroQol 5) quality-of-life scores.

RESULTS: More than 80% of the study population was classified as C2 or C3 venous disease. After 1 year, the anatomic success rate was highest after EVLA (88.5%), followed by CS (88.2%) and UGFS (72.2%) ($P < .001$). The complication rate was low and comparable between treatment groups. All groups showed significant ($P < .001$) improvement of EuroQol

5 and Chronic Venous Insufficiency Quality-of-Life Questionnaire scores after therapy; 84.3% of all treated patients showed an improvement of the "C" of the CEAP classification.

CONCLUSION: After 1-year follow-up, EVLA is as effective as CS and superior to UGFS according to occlusion on ultrasound duplex. Quality of life improves after treatment in all groups significantly.

Impactfactor: 2.879

Cuypers Ph W

Influence of gender on EVAR outcomes with new low-profile devices

Bendermacher BL*, Grootenboer N, Cuypers PW*, Teijink JA*, van Sambeek MR*

J Cardiovasc Surg (Torino). 2013 Oct;54(5):589-93

Voor abstract zie: Chirurgie - Bendermacher BL

Impactfactor: 1.510

Cuypers Ph W

Peripheral Arterial Occlusive Disease: 3.0-T versus 1.5-T MR Angiography Compared with Digital Subtraction Angiography

Bosch HC van den*, Westenberg JJ, Caris R, Duijm LE*, Tielbeek AV*, Cuypers PW*, Roos A de

Radiology. 2013 Jan;266(1):337-46. Epub 2012 Nov 9

Purpose: To prospectively evaluate the diagnostic accuracy of 3-T versus 1.5-T contrast material-enhanced (CE) magnetic resonance (MR) angiography with high spatial resolution in patients who have peripheral arterial occlusive disease, with conventional digital subtraction angiography (DSA) serving as the reference standard.

Materials and Methods: Institutional review board approval and written informed consent were obtained. DSA and standardized single-injection, three-station, moving-table CE MR angiography, with similar acquisition protocols and contrast agent doses at 3 T and 1.5 T, were consecutively performed in 19 patients (13 men and six women; mean age \pm standard deviation, 67 years \pm 9). Stenosis was scored visually in 500 arterial segments (97.5% of all available) in consensus by two radiologists in a blinded manner (the radiologists were unaware of the field strength and prior DSA and MR angiographic results and used randomized analysis order). Contrast-to-noise ratio was determined in the vascular tree of both legs. Statistical significance in stenosis scoring was evaluated by using generalized estimating equations. Contrast-to-noise differences were evaluated with paired t tests. Agreement between MR angiography and DSA was evaluated by using Fleiss-Cohen κ statistics.

Results: Both 3-T and 1.5-T CE MR angiography showed similar excellent agreement with DSA regarding stenosis classification ($\kappa = 0.96$ and 0.93 , respectively). All sensitivity and specificity values exceeded 90%. Mean contrast-to-noise ratio was 3.0-4.2 times higher at 3 T than at 1.5 T.

Conclusion: Standardized single-injection, three-station, moving-table 3-T CE MR angiography is reliable for classification of stenosis in patients suspected of having peripheral arterial occlusive disease, and diagnostic performance was similar to that seen with 1.5-T MR angiography. There was a significantly increased contrast-to-noise ratio for identical contrast agent dose at 3-T MR angiography.

Voor abstract zie: Radiologie - Bosch HC van den

Impactfactor: 6.339

Cuypers Ph W

Response to 'Re. Internal Iliac Artery Coverage During Endovascular Aneurysm Repair'

Stokmans RA*, Cuypers PW*, van Sambeek MR*, Teijink JA*

Eur J Vasc Endovasc Surg. 2013 Oct;46(4):495-6

Geen abstract beschikbaar

Impactfactor: 2.820

Daams F

Colorectal anastomotic leakage: aspects of prevention, detection and treatment

Daams F*, Luyer M*, Lange JF

World J Gastroenterol. 2013 Apr 21;19(15):2293-7

All colorectal surgeons are faced from time to time with anastomotic leakage after colorectal surgery. This complication has been studied extensively without a significant reduction of incidence over the last 30 years. New techniques of prevention, by innovative anastomotic techniques should improve results in the future, but standardization and "teachability" should be guaranteed. Risk scoring enables intraoperative decision-making whether to restore continuity or deviate. Early detection can lead to reduction in delay of diagnosis as long as a standard system is used. For treatment options, no firm evidence is available, but future studies could focus on repair and saving of the anastomosis on the one hand or anastomotal breakdown and definitive colostomy on the other hand.

Impactfactor: 2.471

Daams F

Local ischaemia does not influence anastomotic healing: an experimental study

Daams F*, Monkhorst K, van den Broek J, Slieker JC, Jeekel J, Lange JF

Eur Surg Res. 2013;50(1):24-31. Epub 2013 Mar 27

The role of local ischaemia in the pathogenesis of colorectal anastomotic leakage (AL) is not known. This study investigates the role of local ischaemia caused by sutures in an experimental colonic anastomosis model. 36 mice were assigned to three types of anastomosis, all using running sutures; in the first group 5 stitches were used, in the second group 12 stitches were used, and in the third group at least 30 stitches were used. After 7 days the mice were re-operated, signs of AL were scored, and coronal sections of the anastomosis were histologically analyzed. The distribution of weight was not significantly different between the three groups. Mortality was 44% and not significantly different between the groups (group 1: 5/12, group 2: 4/12, and group 3: 7/12, $p = 0.72$). Faecal and purulent AL were observed in 6 animals in group 1, 2 in group 2, and 3 in group 3 (group 1: 50%, group 2: 17%, and group 3: 25%, $p = 0.19$). The distance between the two colonic edges (group 1: 0.51 m, group 2: 1.34 m, and group 3: 0.53 m, $p = 0.18$), the diameter of the lumen at the site of the anastomosis (group 1: 2.92 m, group 2: 4.06 m, and group 3: 3.2 m, $p = 0.9$), and the largest diameter of the lumen proximally to the anastomosis (group 1: 2.05 m, group 2: 3.1 m, and group 3: 2.6 m, $p = 0.25$) were not different between the groups. Histological parameters of wound healing were not significantly different for the three groups. In this study no macroscopic and microscopic differences were observed between colon anastomosis with 5 stitches versus 12 and >30 stitches. This might indicate that local ischaemia does not negatively influence colonic wound healing.

Ten tijde van publicatie werkzaam bij: Department of Surgery, Erasmus University Medical Center, Rotterdam
Impactfactor: --

Daams F

Systematic review of the technique of colorectal anastomosis

Slieker JC, Daams F*, Mulder IM, Jeekel J, Lange JF

JAMA Surg. 2013 Feb;148(2):190-201

Many different techniques of colorectal anastomosis have been described in search of the technique with the lowest incidence of anastomotic leak. A systematic review of leak rates of techniques of handsewn colorectal anastomosis was conducted to provide a guideline for surgical residents and promote standardization of its technique. Clinical and experimental articles on colorectal anastomotic techniques and anastomotic healing published in the past 4 decades were searched. We included evidence on suture material, suture format, single- vs double-layer sutures, interrupted vs continuous sutures, handsewn vs stapled and compression colorectal anastomosis, and anastomotic configuration. In total, 3 meta-analyses, 26 randomized controlled trials, 11 nonrandomized comparative studies, 20 cohort studies, and 57 experimental studies were found. Results show that, for many aspects of the hand-sewn colorectal anastomosis technique, evidence is lacking. A single-layer continuous technique using inverting sutures with slowly absorbable monofilament material seems preferable. However, in contrast to stapled and compression colorectal anastomoses, the technique for hand-sewn colorectal anastomoses is nonstandardized with regard to intersuture distance, suture distance to the anastomotic edge, and tension on the suture. We believe detailed documentation of the anastomotic technique of all colorectal operations is needed to determine the role of the hand-sewn colorectal anastomosis.

*Ten tijde van publicatie werkzaam bij: Department of Surgery, Erasmus University Medical Center, Rotterdam
Impactfactor: 4.42*

Daams F

Tissue adhesives in gastrointestinal anastomosis: a systematic review

Vakalopoulos KA, Daams F*, Wu Z, Timmermans L, Jeekel JJ, Kleinrensink GJ, van der Ham A, Lange JF

J Surg Res. 2013 Apr;180(2):290-300. Epub 2013 Jan 16

BACKGROUND: Anastomotic leakage in gastrointestinal (GI) surgery remains a major problem. Although numerous studies have been undertaken on the role of tissue adhesives as GI anastomotic sealants, no clear overview has been presented. This systematic review aims to provide a clear overview of recent experimental and clinical research on the sealing of different levels of GI anastomosis with tissue adhesives. **METHODS:** We searched MEDLINE and Embase databases for clinical and experimental articles published after 2000. We included articles only if these addressed a tissue adhesive applied around a GI anastomosis to prevent anastomotic leakage or decrease leakage-related complications. We categorized results according to level of anastomosis, category of tissue adhesive, and level of evidence. **RESULTS:** We included 48 studies: three on esophageal anastomosis, 13 on gastric anastomosis, four on pancreatic anastomosis, eight on small intestinal anastomosis, and 20 on colorectal anastomosis; 15 of the studies were on humans.

CONCLUSIONS: Research on ileal and gastric/bariatric anastomosis reveals promising results for fibrin glue sealing for specific clinical indications. Sealing of pancreatocolic anastomosis does not seem to be useful for high-risk patients; however, research in this field is limited. Ileal anastomotic sealing was promising in every included study, and calls for clinical evaluation. For colorectal anastomoses, sealing with fibrin glue sealing seems to have more positive results than with cyanoacrylate. Further research should concentrate on the clinical evaluation of promising experimental results as well as on new types of tissue

adhesives. This research field would benefit from a systematic experimental approach with comparable methodology.

*Ten tijde van publicatie werkzaam bij: Department of Surgery, Erasmus University Medical Center, Rotterdam
Impactfactor: 2.018*

Daams F

Treatment of colorectal anastomotic leakage: results of a questionnaire amongst members of the Dutch Society of Gastrointestinal Surgery

Daams F*, Sliker JC, Tedja A, Karsten TM, Lange JF

Dig Surg. 2012;29(6):516-21. (issue release date april 2013) Epub 2013 Mar 8

Anastomotic leakage after colorectal surgery is correlated with considerable morbidity and mortality. Although many studies focus on risk factors and detection, studies on the treatment strategy for colorectal anastomotic leakage are scarce. A national questionnaire amongst 350 members of the Dutch Society for Gastrointestinal Surgery was undertaken on the current treatment of colorectal anastomotic leakage. The response was 40% after two anonymous rounds. 27% of the respondents state that a leaking anastomosis above the level of the promontory should be salvaged in ASA 1-2 patients <80 years of age, for ASA 3 and/or >80 years of age this percentage is 7.3%. For an anastomosis under the promontory, 50% of the respondents choose preserving the anastomosis for ASA 1-2 compared to 17% for ASA 3 and/or >80 years of age. In ASA 1-2 patients with a local abscess after a rectum resection without protective ileostomy, 31% of the respondents will create a protective ileostomy, 40% break down the anastomosis to create a definite colostomy, in ASA 3 and/or >80 years of age 14% of the respondents create a protective ileostomy and 63% a definitive colostomy. In ASA 1-2 patients with peritonitis after a rectum resection with deviating ileostomy, 31% prefer a laparotomy for lavage and repair of the anastomosis, 25% for lavage without repair and 36% of the respondents prefer to break down the anastomosis. When the patient is ASA 3 and/or >80 years of age, 13% prefer repair, 9% a lavage and 74% breaking down the anastomosis. This questionnaire shows that in contrast to older people, more surgeons make an effort to preserve the anastomosis in younger people.

*Ten tijde van publicatie werkzaam bij: Department of Surgery and Traumatology, Reinier de Graaf Gasthuis
Impactfactor: --*

Demeyere T

Giant cystic lymphangioma originating from the lesser curvature of the stomach

van Oudheusden TR*, Nienhuijs SW*, Demeyere TB*, Luyer MD*, de Hingh IH*

World J Gastrointest Surg. 2013 Oct 27;5(10):264-7

*Voor abstract zie: Chirurgie - Oudheusden TR van
Impactfactor: --*

Fokkenrood HJ

Supervised exercise therapy versus non-supervised exercise therapy for intermittent claudication

Fokkenrood HJ*, Bendermacher BL*, Lauret GJ*, Willigendael EM, Prins MH, Teijink JA
Cochrane Database Syst Rev. 2013 Aug 23

BACKGROUND: Although supervised exercise therapy is considered to be of significant benefit for people with leg pain (peripheral arterial disease (PAD)), implementing supervised exercise programs (SETs) in daily practice has limitations. This is an update of a review first published in 2006.

OBJECTIVES: The main objective of this review was to provide an accurate overview of studies evaluating the effects of supervised versus non-supervised exercise therapy on maximal walking time or distance on a treadmill for people with intermittent claudication.

SEARCH METHODS: For this update, the Cochrane Peripheral Vascular Diseases Group Trials Search Co-ordinator searched the Specialised Register (last searched September 2012) and CENTRAL (2012, Issue 9). In addition, we handsearched the reference lists of relevant articles for additional trials. No restriction was applied to language of publication.

SELECTION CRITERIA: Randomized clinical trials comparing supervised exercise programs with nonsupervised exercise programs (defined as walking advice or a structural home-based exercise program) for people with intermittent claudication. Studies with control groups, which did not receive exercise or walking advice or received usual care (maintained normal physical activity), were excluded.

DATA COLLECTION AND ANALYSIS: Two review authors (HJPF and BLWB) independently selected trials and extracted data. Three review authors (HJPF, BLWB, and GJL) assessed trial quality, and this was confirmed by two other review authors (MHP and JAWT). For all continuous outcomes, we extracted the number of participants, the mean differences, and the standard deviation. The 36-Item Short Form Health Survey (SF-36) outcomes were extracted to assess quality of life. Effect sizes were calculated as the difference in treatment normalized with the standard deviation (standardized mean difference) using a fixed-effect model.

MAIN RESULTS: A total of 14 studies involving a total of 1002 male and female participants with PAD were included in this review. Follow-up ranged from six weeks to 12 months. In general, supervised exercise regimens consisted of three exercise sessions per week. All trials used a treadmill walking test as one of the outcome measures. The overall quality of the included trials was moderate to good, although some trials were small with respect to the number of participants, ranging from 20 to 304. Supervised exercise therapy (SET) showed statistically significant improvement in maximal treadmill walking distance compared with non-supervised exercise therapy regimens, with an overall effect size of 0.69 (95% confidence interval (CI) 0.51 to 0.86) and 0.48 (95% CI 0.32 to 0.64) at three and six months, respectively. This translates to an increase in walking distance of approximately 180 meters that favored the supervised group. SET was still beneficial for maximal and pain-free walking distances at 12 months, but it did not have a significant effect on quality of life parameters.

AUTHORS' CONCLUSIONS: SET has statistically significant benefit on treadmill walking distance (maximal and pain-free) compared with non-supervised regimens. However, the clinical relevance of this has not been demonstrated definitively; additional studies are required that focus on quality of life or other disease-specific functional outcomes, such as walking behavior, patient satisfaction, costs, and long-term follow-up. Professionals in the vascular field should make SET available for all patients with intermittent claudication.

Impactfactor: --

Geldorp MW van

Quality of life among patients with severe aortic stenosis

Geldorp MW* v, Heuvelman HJ, Kappetein AP, Busschbach JJ, Takkenberg JJ, Bogers AJ
Neth Heart J. 2013 Jan;21(1):21-7

BACKGROUND: The disease burden of patients with severe aortic stenosis is not often explored, while the incidence is increasing and many patients who have an indication for aortic valve replacement are not referred for surgery. We studied the quality of life of 191 patients with severe aortic stenosis, hypothesising that symptomatic patients have a far

worse quality of life than the general population, which could enforce the indication for surgery. **METHODS:** The SF-36v2 Health Survey was completed by 191 consecutive patients with symptomatic or asymptomatic severe aortic stenosis. **RESULTS:** Asymptomatic patients (n population but symptomatic patients (n categories. Physical functioning, general health and vitality were impaired, as well as social functioning and emotional well-being. There was no relation between degree of stenosis and physical or mental health scores. **CONCLUSIONS:** Both physical and emotional problems have a major impact on normal daily life and social functioning of symptomatic patients with severe aortic stenosis, regardless of age. If the aortic stenosis is above the 'severe' threshold, the degree of stenosis does not predict disease burden. These results encourage to reconsider a conservative approach in symptomatic patients with severe aortic stenosis. Using the SF-36v2 Health Survey together with this study, an individual patient's quality of life profile can be assessed and compared with the patient group or with the general population. This can assist in decision making for the individual patient.

Impactfactor: 1.411

Geldorp MW van

The effect of aortic valve replacement on quality of life in symptomatic patients with severe aortic stenosis

Geldorp MW van*, Heuvelman HJ, Kappetein AP, Busschbach JJ, Takkenberg JJ, Bogers AJ

Neth Heart J. 2013 Jan;21(1):28-35

BACKGROUND: Although symptomatic patients with severe aortic stenosis have a high disease burden and guidelines recommend aortic valve replacement, many are treated conservatively. This study describes to what extent quality of life is changed by aortic valve replacement relative to conservative treatment. **METHODS:** This observational study followed 132 symptomatic patients with severe aortic stenosis who were subjected to an SF-36v2TM Health Survey. **RESULTS:** At baseline 84 patients were treated conservatively, 48 were referred for aortic valve replacement. In the conservatively treated group 15 patients died during a mean follow-up of 18 months (Kaplan-Meier survival was 85 % and 72 % at one and 2 years respectively) and 22 patients crossed over to the surgical group. Of the resulting 70 patients in the surgical group 3 patients died during a mean follow-up of 11 months (survival 95 % at 1 year). Physical functioning, vitality and general health improved significantly 1 year after aortic valve replacement. In conservatively treated patients physical quality of life deteriorated over time while general health, vitality and social functioning showed a declining trend. Mental health remained stable in both groups.

CONCLUSIONS: Aortic valve replacement improves physical quality of life, general health and vitality in patients with symptomatic severe aortic stenosis. Besides having a low life expectancy, conservatively treated patients experience deterioration of physical quality of life. Health surveys such as the SF-36v2TM can be valuable tools in monitoring the burden of disease for an individual patient and offer additional help in treatment decisions.

Impactfactor: 1.411

Heijkant AC van den**[A chance finding in a woman with abdominal pain]**

van den Heijkant AC*, Ponten JE*, Willigendael EM*

Ned Tijdschr Geneeskd. 2013;157(9):A4945

A 73-year-old woman was presented to the emergency department with severe abdominal pain. A Ctskan of the abdomen showed coprostasis and a visceral abdominal aneurysm of the splenic artery. Subsequently, the aneurysm was treated with endovascular coiling.

Impactfactor: --

Heijkant AC van den**Challenges in diagnosing mesenteric ischemia**

van den Heijkant TC*, Aerts BA, Teijink JA*, Buurman WA, Luyer MD*

World J Gastroenterol. 2013 Mar 7;19(9):1338-41

Early identification of acute mesenteric ischemia (AMI) is challenging. The wide variability in clinical presentation challenges providers to make an early accurate diagnosis. Despite major diagnostic and treatment advances over the past decades, mortality remains high. Arterial embolus and superior mesenteric artery thrombosis are common causes of AMI. Non-occlusive causes are less common, but vasculitis may be important, especially in younger people. Because of the unclear clinical presentation and non-specific laboratory findings, low clinical suspicion may lead to loss of valuable time. During this diagnostic delay, progression of ischemia to transmural bowel infarction with peritonitis and septicemia may further worsen patient outcomes. Several diagnostic modalities are used to assess possible AMI.

Multi-detector row computed tomographic angiography is the current gold standard. Although computed tomographic angiography leads to an accurate diagnosis in many cases, early detection is a persistent problem. Because early diagnosis is vital to commence treatment, new diagnostic strategies are needed. A non-invasive simple biochemical test would be ideal to increase clinical suspicion of AMI and would improve patient selection for radiographic evaluation. Thus, AMI could be diagnosed earlier with follow-up computed tomographic angiography or high spatial magnetic resonance imaging. Experimental in vitro and in vivo studies show promise for alpha glutathione S transferase and intestinal fatty acid binding protein as markers for AMI. Future research must confirm the clinical utility of these biochemical markers in the diagnosis of mesenteric ischemia.

Impactfactor: 2.471

Hingh IH de**Acute neurological disorders following intraperitoneal administration of cisplatin**

Simkens GA*, Hanse MC*, de Hingh IH*

Int J Gynaecol Obstet. 2013 Mar;120(3):291

Impactfactor: 1.836

Hingh IH de**Addition of biological therapies to palliative chemotherapy prolongs survival in patients with peritoneal carcinomatosis of colorectal origin**

Klaver YL*, Leenders BJ*, Creemers GJ*, Rutten HJ*, Verwaal VJ, Lemmens VE,

Hingh IH de*

Am J Clin Oncol. 2013 Apr;36(2):157-61

Voor abstract zie: Chirurgie - Klaver YL

Impactfactor: 2.552

Hingh IH de

Benefits and drawbacks of short-course preoperative radiotherapy in rectal cancer patients aged 75 years and older

Maas HA, Lemmens VE, Nijhuis PH, de Hingh IH*, Koning CC, Janssen-Heijnen ML

Eur J Surg Oncol. 2013 Oct;39(10):1087-93

PURPOSE: To study incidence of local recurrences, postoperative complications and survival, in patients with rectal carcinoma aged 75 years and older, treated with either surgery and pre-operative 5 × 5 Gy radiotherapy or surgery alone.

PATIENTS AND METHODS: A random sample of patients aged over 75 years with pT2-T3, N0-2, M0 rectal carcinoma diagnosed between 2002 and 2004 in the Netherlands was included, treated with surgery alone (N = 296) or surgery in combination with pre-operative radiotherapy (N = 346). Information on local recurrent disease, postoperative complications, ECOG-performance score and comorbidity was gathered from the medical files.

RESULTS: Local recurrences developed less frequently in patients treated with pre-operative radiotherapy compared to surgery alone (2% vs 6%, p = 0.002). Postoperative complications developed more frequently in irradiated patients (58% vs 42%, p < 0.0001). Especially deep infections (anastomotic leakage, pelvic abscess) were significantly increased in this group (16% vs 10%, p = 0.02). 30-day mortality was equal in both groups (8%). A significant increase in postoperative complication rate and 30-day mortality was only seen in those with "severe comorbidity" compared to patients without comorbidity (respectively 58% and 10% vs 43% and 3%), COPD (59% and 12%), diabetes (60% and 11%) and cerebrovascular disease (62% and 14%). In multivariable analysis, postoperative complications predicted 5-year survival.

CONCLUSION: Elderly patients receiving pre-operative radiotherapy show a lower local recurrence rate. However, as incidence rates of local recurrent disease are low and incidence of postoperative complications is increased in irradiated patients, omitting preoperative RT may be suitable in elderly patients with additional risks for complications or early death.

Impactfactor: 2.614

Hingh IH de

Challenges in diagnosing adhesive small bowel obstruction

Thijs R van Oudheusden*, Bart AC Aerts, Ignace HJT de Hingh* and Misha DP Luyer*

World J Gastroenterol 2013 November 21; 19(43): 7489-7493

Voor abstract zie: Chirurgie - Oudheusden TR van

Impactfactor: 2.547

Hingh IH de

Cytoreduction and HIPEC in The Netherlands: Nationwide Long-term Outcome Following the Dutch Protocol

Kuijpers AM, Mirck B, Aalbers AG, Nienhuijs SW*, de Hingh IH*, Wiezer MJ, van Ramshorst B, van Ginkel RJ, Havenga K, Bremers AJ, de Wilt JH, Te Velde EA, Verwaal VJ

Ann Surg Oncol. 2013 Dec;20(13):4224-30. Epub 2013 Jul 30

Voor abstract zie: Chirurgie - Nienhuijs SW

Impactfactor: 4.120

Hingh IH de

Dynamic article: Vaginal and perineal reconstruction using rectus abdominis myocutaneous flap in surgery for locally advanced rectum carcinoma and locally recurrent rectum carcinoma

Holman FA, Martijnse IS*, Traa MJ, Boll D, Nieuwenhuijzen GA*, de Hingh IH*, Rutten HJ*

Dis Colon Rectum. 2013 Feb;56(2):175-85

BACKGROUND: Surgery for locally advanced and recurrent rectal carcinoma sometimes requires partial resection of the perineum and/or vagina necessitating subsequent reconstruction.

OBJECTIVE: The aim of this study was to describe the surgical and functional outcomes of reconstructing the vagina and/or the perineum by using the vertical rectus abdominis myocutaneous flap and to evaluate the health status of patients who received reconstruction.

DESIGN: This is a retrospective cohort study.

SETTINGS: This study was conducted at a tertiary referral hospital for locally advanced and recurrent rectal cancer.

PATIENTS: Patients receiving multimodality treatment for primary or recurrent locally advanced rectal carcinomas were included.

MAIN OUTCOME MEASURES: First, the surgical outcome was assessed. Second, 10 female patients who received vaginal reconstruction underwent a gynecological examination including biopsies. Finally, quality of life was assessed and compared with patients who underwent treatment for rectal carcinoma without a reconstruction.

RESULTS: Fifty-one patients underwent reconstruction of the dorsal vagina and/or the perineum with the use of a vertical rectus abdominis myocutaneous flap. In 13 patients, the flap was used to close a perineal defect; in 26 patients, to close a vaginal defect; and in 12 patients, to close both. In 3 patients, partial necrosis of the flap occurred that was treated conservatively. In 4 patients, stenosis of the introitus occurred, as found in the gynecological examination. Biopsies confirmed epithelialization of the vaginal wall. All groups reported good functioning and low symptom burden. After vaginal reconstruction, women reported equal or higher scores on global health status, emotional functioning, and body image.

LIMITATIONS: The lack of information on the health status of the patients before the start of treatment prohibits making causal inferences in health status over time.

DISCUSSION: Reconstruction of the perineum and/or dorsal vagina was successful in all patients. Surgeons and gynecologists who use the vertical rectus abdominis myocutaneous flap should be aware of stenosis of the vaginal introitus. Gynecological consultation at an early stage should be standard.

Voor abstract zie: Chirurgie - Martijnse IS

Impactfactor: 2.615

Hingh IH de

Giant cystic lymphangioma originating from the lesser curvature of the stomach

van Oudheusden TR*, Nienhuijs SW*, Demeyere TB*, Luyer MD*, de Hingh IH*

World J Gastrointest Surg. 2013 Oct 27;5(10):264-7

Voor abstract zie: Chirurgie - Oudheusden TR van

Impactfactor: --

Hingh IH de

Incidence, Prognosis, and Possible Treatment Strategies of Peritoneal Carcinomatosis of Pancreatic Origin: A Population-Based Study

Thomassen I*, Lemmens VE, Nienhuijs SW*, Luyer MD*, Klaver YL*, Hingh IH de*

Pancreas. 2013 Jan;42(1):72-5. Epub 2012 Jul 30

Voor abstract zie: Chirurgie - Thomassen I

Impactfactor: 2.953

Hingh IH de

Incidence, prognosis, and treatment options for patients with synchronous peritoneal carcinomatosis and liver metastases from colorectal origin

Thomassen I*, van Gestel YR, Lemmens VE, de Hingh IH*

Dis Colon Rectum. 2013 Dec;56(12):1373-80

Voor abstract zie: Chirurgie - Thomassen I

Impactfactor: 2.615

Hingh IH de

Influence of Comorbidity and Age on 1-, 2-, and 3-Month Postoperative Mortality Rates in Gastrointestinal Cancer Patients

Gestel YR van , Lemmens VE, Hingh IH de*, Steevens J, Rutten HJ*, Nieuwenhuijzen GA*, Dam RM van , Siersema PD

Ann Surg Oncol. 2013 Feb;20(2):371-80. Epub 2012 Sep 18

Erratum: Ann Surg Oncol. 2013 Dec;20 Suppl 3:749

BACKGROUND: Studies on the impact of comorbidity and age on postoperative outcome after gastrointestinal tumor resection are scarce. In this study we investigated the impact of comorbidity and age on 30-, 60-, and 90-day mortality after resection of esophageal, gastric, periampullary, colon, and rectal cancer.

METHODS: The study included 8,583 patients recorded in the population-based Netherlands Cancer Registry, regions Eindhoven (Eindhoven Cancer Registry) and Mid and South Limburg, who underwent resection for cancer stage I-III. Patients were diagnosed between 2005 and 2010. Age was categorized as <65, 65-74, and ≥75 years.

RESULTS: Comorbidity was present in more than two-thirds (n = 5,910) of patients. The 30-day mortality rates ranged from 0.5 % for rectal cancer patients <65 years to 12.8 % for gastric cancer patients ≥75 years. Patients with comorbidity who underwent esophageal tumor resection had the highest mortality rates, ranging from 8.4 % for 30-day to 12.0 % for 90-day mortality, while rectal cancer patients had the lowest rates, that is, 4.3-6.4 %, respectively. In multivariable analyses, cardiac disease (odds ratio [OR] = 1.74, 95 % confidence interval [95 % CI] = 1.32-2.30), vascular disease (OR = 1.41, 95 % CI = 1.02-1.95) and previous malignancies (OR = 1.38, 95 % CI = 1.02-1.86) in colon cancer, and cardiac disease (OR = 1.81, 95 % CI = 1.10-2.98) and vascular disease (OR = 1.95, 95 % CI = 1.11 -3.42) in rectal cancer were associated with the highest 30-day mortality.

CONCLUSIONS: Postoperative mortality extends beyond 30 days. Comorbidity and older age are associated with early postoperative mortality after gastrointestinal cancer resection. Underlying comorbidity should be identified preoperatively with attention to patients' specific needs to optimally attenuate risk prior to surgery. A less aggressive treatment approach may well be considered in these groups.

Impactfactor: 4.120

Hingh IH de

Intraoperative radiotherapy and cytoreductive surgery with hyperthermic intraperitoneal chemotherapy

Five consecutive case reports of locally advanced rectal cancer with synchronous peritoneal carcinomatosis

Klaver YL*, Lemmens VE, Nienhuijs SW*, Nieuwenhuijzen GA*, Rutten HJ*, de Hingh IH*

Strahlenther Onkol. 2013 Mar;189(3):256-60

Voor abstract zie: Chirurgie - Klaver YL

Impactfactor: 4.163

Hingh IH de

Large variation between hospitals in follow-up for colorectal cancer in southern Netherlands

van Steenberghe LN, de Hingh IH*, Rutten HJ*, Rijk MC, Orsini RG*, Coebergh JW, Lemmens VE

Int J Colorectal Dis. 2013 Sep;28(9):1257-65

PURPOSE: The aims of the study were to describe the follow-up of colorectal cancer (CRC) patients in southern Netherlands and examine their overall and disease-free survival. **METHODS:** Patients newly diagnosed with CRC in 2003-2005 and 2008 with a survival of at least 1 year after diagnosis and recorded in the retrospective Eindhoven Cancer Registry were included (n=? 579). Follow-up was defined as at least one liver imaging and at least two carcinoembryonic antigen (CEA) measurements. Logistic regression analyses were conducted to assess determinants of followup. Proportions of patients undergoing colonoscopy, CEA measurements and liver and chest imaging were calculated. Overall and disease-free survival were calculated. **RESULTS:** Patients =75 years (odds ratio (OR) 0.5 (95% confidence interval (CI) 0.3-0.7)) were less likely to receive follow-up, contrasting patients <50 years (OR 3.1 (95% CI 1.3-7.4)). In 2008, follow-up intensity increased (OR 2.3 (95% CI 1.2-4.3)), especially for liver imaging and CEA measurements. There were large differences in follow-up intensity and activities between hospitals, which were unaffected by comorbidity: ranges for colonoscopy 15-73 %, CEA measurement 46-91 % and imaging of the liver 22-70 % between hospitals. No effect of follow-up intensity was found on 5-year disease-free survival for patients aged <75 years (64 vs. 68 %; p=?0.6). Similarly, no effect of follow-up intensity on 5-year overall survival was found in these patients (77 vs. 82 %; p=?0.07). **CONCLUSION:** Large variation in follow-up was found for patients with CRC, mainly declining with age and hospital of follow-up. Over time, follow-up became more intensive, especially with respect to liver imaging and CEA measurements. However, follow-up consisting of at least one liver imaging and at least two CEA measurements did not improve overall and disease-free survival.

Impactfactor: 2.385

Hingh IH de

Outcome of surgery for colorectal cancer in the presence of peritoneal carcinomatosis

Klaver YL*, Lemmens VE, de Hingh IH*

Eur J Surg Oncol. 2013 Jul;39(7):734-41

Voor abstract zie: Chirurgie - Klaver YL

Impactfactor: 2.614

Hingh IH de

Prognosis and value of adjuvant chemotherapy in stage III mucinous colorectal carcinoma

Hugen N, Verhoeven RH, Radema SA, de Hingh IH*, Pruijt JF, Nagtegaal ID, Lemmens VE, de Wilt JH

Ann Oncol. 2013 Nov;24(11):2819-24

BACKGROUND: Colorectal mucinous adenocarcinoma (MC) has been associated with impaired prognosis compared with nonmucinous adenocarcinoma (NMC). Response to palliative chemotherapy is poor in metastatic disease, but the benefit of adjuvant chemotherapeutic treatment has never been assessed in large patient groups. This study analyses overall survival and efficacy of adjuvant chemotherapy in terms of survival in patients following radical resection for MC.

PATIENTS AND METHODS: This population-based study involved 27 251 unselected patients diagnosed with colorectal carcinoma between 1990 and 2010 and recorded in a prospective pathologybased registry. Kaplan-Meier analysis and log-rank testing were used to estimate survival. Cox proportional hazard model was used to calculate multivariate hazard ratios for death.

RESULTS: MC was found in 12.3% (N = 3052) of colorectal tumors with a different distribution compared with NMC, with 24.4% located in the rectum and 54.3% in the proximal colon (versus 38.0% and 30.6%), $P < 0.0001$. NMC was more often classified as stage I disease than MC (20.5% versus 10.9%), $P < 0.0001$. After adjustments for covariates, MC was associated with a higher risk of death only when located in the rectum [hazard ratio 1.22; 95% confidence interval (CI) 1.11-1.34]. Multivariate regression analysis showed a similar survival after adjuvant chemotherapy for stage III MC and NMC patients.

CONCLUSIONS: The poor prognosis for MC is only present in rectal cancer. In the adjuvant setting, there is no difference in the efficacy of chemotherapy between MC and NMC; therefore, current adjuvant treatment recommendations should not take histology into account.

Impactfactor: 7.384

Hingh IH de

Quality of life of older rectal cancer patients is not impaired by a permanent stoma.

Orsini RG*, Thong MS, van de Poll-Franse LV, Slooter GD, Nieuwenhuijzen GA*, Rutten HJ*, de Hingh IH*

Eur J Surg Oncol. 2013 Feb;39(2):164-70

Voor abstract zie: Chirurgie - Orsini RG

Impactfactor: 2.614

Hingh IH de

Reduced risk of distant recurrence after adjuvant chemotherapy in patients with stage III colon cancer aged 75 years or older

van Erning FN, Creemers GJ*, De Hingh IH*, Loosveld OJ, Goey SH, Lemmens VE

Ann Oncol. 2013 Nov;24(11):2839-44. Epub 2013 Aug 8

Voor abstract zie: Inwendige geneeskunde - Creemers GJ

Impactfactor: 7.384

Hingh IH de

Second primary cancers in subsites of colon and rectum in patients with previous colorectal cancer

Liu L, Lemmens VE, De Hingh IH*, de Vries E, Roukema JA, van Leerdam ME, Coebergh JW, Soerjomataram I

Dis Colon Rectum. 2013 Feb;56(2):158-68

BACKGROUND: Compared with the general population, patients with a previous colorectal cancer are at higher risk for a second colorectal cancer, but detailed risk analysis by subsite is scarce.

OBJECTIVE: Our goal was to investigate the risk of a second cancer in relation to subsite as a basis for planning surveillance strategies.

DESIGN, SETTING, AND PATIENTS: This was a retrospective analysis of a prospectively designed, population-based cancer registry (The Netherlands Cancer Registry). Patients with a stage I, II, or III colorectal cancer diagnosed between 1989 and 2008 were included.

MAIN OUTCOME MEASURES: Cumulative incidence, standardized incidence ratio, and absolute excess risk for second primary cancers in subsites of the colon and rectum were estimated for follow-up periods of 2 to 5, 6 to 10, and more than 10 years after the index cancer in patients older than 50 years and in those aged 50 years or younger.

RESULTS: A total of 123,347 patients had a first invasive colorectal cancer diagnosed between 1989 and 2008. Of these, 1849 patients (1.5%) had a second colorectal lesion that was found more than 1 year after the initial cancer and diagnosed as a second primary colorectal cancer. In patients older than 50 years, the 20-year cumulative incidence for second cancers was 3.4% in the proximal colon, 1.2% in the distal colon, and 1.2% in the rectum. More than 60% of second cancers occurred within 5 years after the index cancer. The standardized incidence ratio was highest in the proximal-colon (1.9; 95% CI, 1.8-2.0), followed by the distal-colon (1.0, 95% CI, 0.9-1.1), and the rectum (0.9, 95% CI, 0.8-1.0). The corresponding absolute excess risks per 10 000 person years were 9 in the proximal colon, 0.1 in the distal colon, and 1 in the rectum. After 5 years of follow-up, elevated risk was observed only in the proximal colon. A similar risk pattern was observed in patients younger than 50 years. The absolute excess risk for a second cancer in the proximal colon increased over time. The proportion of stage III and stage IV second cancers increased from 31% during the first 5 years of follow-up to 38% after 10 years of follow-up.

LIMITATIONS: Limitations of this study included lack of data regarding polypectomy rates and interval of surveillance colonoscopies.

CONCLUSIONS: Compared with the general population, individuals with previous colorectal cancer have a higher risk for a second cancer in all subsites of the colon and rectum. Among long-term survivors older than 50 years, risk remains elevated only in the proximal colon. Further studies should be encouraged to develop a suitable surveillance method for aging, high-risk, long-term colorectal cancer survivors.

Impactfactor: 2.615

Hingh IH de

Secondary cytoreductive surgery and peri-operative intraperitoneal chemotherapy for peritoneal recurrence of colorectal and appendiceal peritoneal carcinomatosis following prior primary cytoreduction

Klaver YL*, Chua TC, Verwaal VJ, de Hingh IH*, Morris DL

J Surg Oncol. 2013 May;107(6):585-590

Voor abstract zie: Chirurgie - Klaver YL

Impactfactor: 2.644

Hingh IH de

The DULK (Dutch leakage) and modified DULK score compared: actively seek the leak

den Dulk M, Witvliet MJ, Kortram K, Neijenhuis PA, de Hingh IH*, Engel AF, van de Velde CJ, de Brauw LM, Putter H, Brouwers MA, Steup WH

Colorectal Dis. 2013 Sep;15(9):e528-33

AIM: A standardized postoperative score, the DULK (Dutch leakage) score, has been demonstrated to be a useful clinical tool in the diagnosis of anastomotic leakage. It is complicated, however, and a simplification (the modified DULK score) based on fewer parameters derived from multiple logistic regression analyses has been developed. These include clinical condition, abdominal pain not localized at the wound, C-reactive protein level and respiratory rate. The accuracy of each was compared.

METHOD: Data of all patients from five Dutch centres operated on between 16 October 2007 and 1 November 2009 with an anastomosis in the colon or rectum were entered into a prospectively maintained database.

RESULTS: In total, 782 patients were included of whom 81 (10.4%) had a clinically relevant anastomotic leakage. The DULK score gave an overall sensitivity of 97% for anastomotic leakage, overall specificity of 53%, a positive predictive value (PPV) of 16% and a negative predictive value (NPV) of 99%. The modified DULK score used clinical condition, abdominal pain not localized at the wound, C-reactive protein level and respiratory rate. With at least one parameter present, overall sensitivity was 97%, overall specificity 57%, PPV 17% and NPV 99.5%. With at least two points PPV was 41% and with three points 57%.

CONCLUSION: Both the original and modified DULK scores are useful for the early diagnosis of clinically relevant anastomotic leakage. The modified DULK score offers the benefit of fewer parameters and so can easily be used in a clinical environment to estimate the likelihood of anastomotic leakage. However, the early diagnosis of anastomotic leakage remains difficult.

Impactfactor: 2.081

Hingh IH de

The incidence of mucinous appendiceal malignancies: a population-based study

van den Heuvel MG*, Lemmens VE, Verhoeven RH, de Hingh IH*

Int J Colorectal Dis. 2013 Sep;28(9):1307-10

Voor abstract zie: Cardiologie - Heuvel MG van den

Impactfactor: 2.238

Hingh IH de

The standardised mortality ratio is unreliable for assessing quality of care in rectal cancer

van Gestel YR, Rutten HJ*, de Hingh IH*, van den Broek E, Nieuwenhuijzen GA*

Neth J Med. 2013 May;71(4):209-14

Voor abstract zie: Chirurgie - Rutten HJ

Impactfactor: 2.072

Hingh IH de

To drain or not to drain: a cumulative meta-analysis of the use of routine abdominal drains after pancreatic resection

van der Wilt AA, Coolen MM, de Hingh IH*, van der Wilt GJ, Groenewoud H, Dejong CH, van Dam RM

HPB (Oxford). 2013 May;15(5):337-44

BACKGROUND: To warrant the adoption or rejection of health care interventions in daily practice, it is important to establish the point at which the available evidence is considered sufficiently conclusive.

This process must avoid bias resulting from multiple testing and take account of heterogeneity across studies. The present paper addresses the issue of whether the available evidence may be considered sufficiently conclusive to continue or discontinue the current practice of postoperative abdominal drainage after pancreatic resection.

METHODS: A systematic review was conducted of randomized and non-randomized studies comparing outcomes after routine intra-abdominal drainage with those after no drainage after pancreatic resection. Studies were retrieved from the PubMed, Cochrane Central Trial Register and EMBASE databases and meta-analysed cumulatively, adjusting for multiple testing and heterogeneity using the iterated logarithm method.

RESULTS: Three reports, describing, respectively, one randomized and two non-randomized studies with a comparative design, met the inclusion criteria predefined for primary studies reporting on drain management and complications after pancreatic resection. These studies included 89, 179 and 226 patients, respectively. The absolute differences in rates of postoperative complications in these studies were -6.4%, -9.5% and -6.3%, respectively, in favour of the no-drain groups. The cumulative risk difference in major complications, adjusted for multiple testing and heterogeneity, was -7.8%, with a 95% confidence interval of -20.2% to 4.7% ($P = 0.214$).

CONCLUSIONS: The routine use of abdominal drains after pancreatic resection may result in a higher risk for major complications, but the evidence is inconclusive.

Impactfactor: 1.939

Jakimowicz JJ

A newly designed portable ergonomic laparoscopic skills Ergo-Lap simulator

Xiao D, Albayrak A, Jakimowicz JJ*, Goossens RH

Minim Invasive Ther Allied Technol. 2013 Dec;22(6):337-45

OBJECTIVE: The cost of laparoscopic simulators restricts the wide use of simulation for training of basic psychomotor skills. This paper describes the scientifically-based development of an inexpensive and portable Ergonomic Laparoscopic Skills (Ergo-Lap) simulator with multiple tasks.

MATERIAL AND METHODS: The design of this Ergo-Lap simulator and related training task panel was based on scientific research regarding the representative skills and the ergonomic guidelines for laparoscopic surgery. A user-centred design approach was followed. Fifty-three surgical participants with variable laparoscopic experience (14 medical students, 27 surgeons in training, and 12 experienced laparoscopic surgeons) performed several tasks on the prototype and gave their feedback by filling out a 5-point scale Likert scale questionnaire.

RESULTS: The results of the usability evaluation showed that the participants regarded the Ergo-Lap simulator as a useful device to practice the basic and advanced skills effectively. Forty-three of the 53 participants indicated they would like to purchase this simulator since it is easy to use and challenges their laparoscopic skills.

CONCLUSIONS: For laparoscopic skills training, this inexpensive Ergo-Lap simulator with diverse task choices offers a simple training opportunity for trainees who want to practice laparoscopic skills at home or at the office.

Impactfactor: 1.186

Klaver YL

Addition of biological therapies to palliative chemotherapy prolongs survival in patients with peritoneal carcinomatosis of colorectal origin

Klaver YL*, Leenders BJ*, Creemers GJ*, Rutten HJ*, Verwaal VJ, Lemmens VE, Hingh IH de*

Am J Clin Oncol. 2013 Apr;36(2):157-61

OBJECTIVES: Combination chemotherapy regimens have shown promising results in patients with metastatic colorectal cancer. However, only very few studies have studied the effect of palliative chemotherapy in peritoneal carcinomatosis (PC) and no data are present incorporating biological therapies in the treatment of PC in colorectal cancer.

METHODS: By means of merging with the regional Eindhoven Cancer Registry, all consecutive patients diagnosed with synchronous PC of colorectal origin since the year 2000 treated with palliative chemotherapy in our hospital were included. Data on chemotherapeutic agents used were collected retrospectively. The effect of biological therapies on survival was investigated.

RESULTS: Fifty consecutive patients were included. Chemotherapeutic treatment consisted mainly of 5- fluorouracil-based chemotherapy with oxaliplatin. In 22 patients biological therapies were added. Overall survival was 12.5 months [95% confidence interval (CI), 9.2-15.5]. In patients receiving chemotherapy in combination with a biological therapy, overall survival was significantly prolonged as compared with those treated without (18.2 months, 95% CI, 9.5-27.0 vs. 10.1 mo, 95% CI, 6.2-14.1, respectively; P=0.001). Prolongation of survival of patients receiving biological therapies in first-line treatment was even more pronounced, being 22.4 months (95% CI, 15.0-29.5). Similar effects were observed on progression-free survival.

CONCLUSIONS: Systemic chemotherapy, once regarded as futile in patients suffering from PC, resulted in an overall survival of 12 months in this unselected group of PC-patients. Addition of biological therapies in the first line of treatment prolonged overall survival to 22.4 months. Although the results of this small study should be interpreted with caution, this promising finding warrants further research.

Impactfactor: 2.005

Klaver YL

Incidence, Prognosis, and Possible Treatment Strategies of Peritoneal Carcinomatosis of Pancreatic Origin: A Population-Based Study

Thomassen I*, Lemmens VE, Nienhuijs SW*, Luyer MD*, Klaver YL*, Hingh IH de*

Pancreas. 2013 Jan;42(1):72-5. Epub 2012 Jul 30

Voor abstract zie: Chirurgie - Thomassen I

Impactfactor: 2.953

Klaver YL

Intraoperative radiotherapy and cytoreductive surgery with hyperthermic intraperitoneal chemotherapy. Five consecutive case reports of locally advanced rectal cancer with synchronous peritoneal carcinomatosis

Klaver YL*, Lemmens VE, Nienhuijs SW*, Nieuwenhuijzen GA*, Rutten HJ*, de Hingh IH*

Strahlenther Onkol. 2013 Mar;189(3):256-60

PURPOSE: Treatment of rectal cancer has markedly improved since the introduction of neoadjuvant strategies and better surgical techniques. However, treatment remains troublesome for patients with locally advanced rectal cancer (LARC) or with peritoneal carcinomatosis (PC). Patients presenting with LARC may now benefit from the integration of intra-operative radiotherapy (IORT) into multimodality treatment. Selected patients with PC now undergo cytoreductive surgery combined with hyperthermic intraperitoneal chemotherapy (HIPEC) resulting in improved survival. Some patients present with locally advanced disease and synchronous peritoneal carcinomatosis and fulfill the eligibility criteria for both HIPEC and IORT, raising the question whether the combined application of both modalities within one operative procedure is feasible.

CASE SERIES: This report includes five consecutive cases of rectal cancer patients presenting with LARC and synchronous PC who were treated with a multimodality treatment including IORT and HIPEC after cytoreductive surgery. Postoperative complications and survival are described.

RESULTS: The combination of cytoreductive surgery with HIPEC and IORT appeared to be feasible and well tolerated. The observed complications did not differ from the morbidity associated with extensive pelvic surgery without HIPEC or IORT. No in-hospital mortality occurred. One patient died after 11 months of recurrent disease. All other patients are currently alive with one patient already surviving 38 months.

CONCLUSION: The current case series shows that a multimodality treatment containing IORT and HIPEC is feasible and safe with promising survival rates. This strategy may, therefore, be considered in selected rectal cancer patients presenting with both LARC and synchronous PC.

Impactfactor: 4.163

Klaver YL

Outcome of surgery for colorectal cancer in the presence of peritoneal carcinomatosis

Klaver YL*, Lemmens VE, de Hingh IH*

Eur J Surg Oncol. 2013 Jul;39(7):734-41

AIM: The detection of peritoneal carcinomatosis (PC) in colorectal cancer patients frequently results in a dilemma with regard to the optimal treatment strategy, especially when PC is encountered unexpectedly during surgery. The aim of this study was to evaluate outcomes of patients undergoing surgery for colorectal carcinoma in the presence of synchronous PC.

METHODS: Patients diagnosed with primary colorectal cancer and synchronous PC in three community hospitals were selected from the Eindhoven Cancer Registry database. Outcomes of postoperative complications, in-hospital mortality and overall survival were collected and analyzed according to the type of intervention performed.

RESULTS: Between 1995 and 2009, 169 colorectal cancer patients were diagnosed with synchronous PC, most of them unexpectedly during surgery (n = 130). 142 patients underwent surgery: primary tumor resection (n = 91), palliative procedure (n = 46) or

exploration only (n = 5). In-hospital mortality was 41% after palliative surgery and 14% after primary tumor resection. Median survival was 12 weeks after palliative surgery or exploration as opposed to 55 weeks after primary tumor resection.

CONCLUSION: PC is most often encountered unexpectedly during surgery for colorectal cancer. Results of palliative procedures are very poor with a high in-hospital mortality rate and short survival. Resection of the primary tumor can be performed safely with relatively good outcomes but some patients could have benefited from an even more radical approach when the presence of PC would have been diagnosed at an earlier stage. Improvement of imaging techniques to detect PC prior to surgery is therefore urgently needed. Until this is the case, a high index of suspicion is required when subtle signs of PC are encountered.

Keywords: Colorectal cancer, Metastasis, Peritoneal carcinomatosis, Surgery.

Impactfactor: 2.614

Klaver YL

Secondary cytoreductive surgery and peri-operative intraperitoneal chemotherapy for peritoneal recurrence of colorectal and appendiceal peritoneal carcinomatosis following prior primary cytoreduction

Klaver YL*, Chua TC, Verwaal VJ, de Hingh IH*, Morris DL

J Surg Oncol. 2013 May;107(6):585-590

PURPOSE: Primary cytoreductive surgery (CRS) and peri-operative intraperitoneal chemotherapy (PIC) is the only curative option for patients with colorectal cancer peritoneal carcinomatosis (PC). A significant proportion of patients develop peritoneal recurrence. Outcomes of patients undergoing secondary CRS and PIC for recurrent PC were examined.

METHODS: All patients undergoing second procedures with curative intent for recurrent appendiceal or colorectal cancer PC in three centers were included. Patients with recurrent pseudomyxoma peritonei (PMP) were excluded. Morbidity and mortality, overall survival, and disease-free survival were primary outcome parameters.

RESULTS: The study included 18 patients (13 colorectal and 5 appendiceal cancer). At primary CRS, mean Peritoneal Cancer Index (PCI) was 9.1. In 13 patients complete resection was achieved. Median time to recurrence was 14 months (range: 1-33). At secondary CRS, mean PCI was 6.3 and CRS was complete in 13 patients. There was no 30-day mortality and 1- and 2-year survival were 74% and 50%, respectively. In 14 patients a recurrence after the second procedure was diagnosed.

CONCLUSIONS: A secondary CRS for recurrent colorectal or appendiceal cancer PC is safe and feasible, however, relapse is frequent. Further investigations are required to critically assess the efficacy of a secondary procedure and to define optimal patient selection criteria in the era of effective modern chemotherapy.

Impactfactor: 2.644

Kruidenier LM

Ginkgo biloba for intermittent claudication

Nicolai SP, Kruidenier LM*, Bendermacher BL*, Prins MH, Stokmans RA*, Broos PP*, Teijink JA*

Cochrane Database Syst Rev. 2013 Jun 6;6:CD006888

BACKGROUND: People with intermittent claudication (IC) suffer from pain in the muscles of the leg occurring during exercise which is relieved by a short period of rest. Symptomatic relief can be achieved by (supervised) exercise therapy and pharmacological treatments. Ginkgo biloba is a vasoactive agent and is used to treat IC.

OBJECTIVES: To assess the effect of Ginkgo biloba on walking distance in people with intermittent claudication.

SEARCH METHODS: For this update the Cochrane Peripheral Vascular Diseases Group Trials Search Co-ordinator searched the Specialised Register (March 2013) and CENTRAL (2013, Issue 2).

SELECTION CRITERIA: Randomised controlled trials of Ginkgo biloba extract, irrespective of dosage, versus placebo in people with IC.

DATA COLLECTION AND ANALYSIS: Two authors independently assessed trials for selection, assessed study quality and extracted data. We extracted number of patients, mean walking distances or times and standard deviations. To standardise walking distance or time, caloric expenditures were used to express the difference between the different treadmill protocols, which were calculated from the speed and incline of the treadmill.

MAIN RESULTS: Fourteen trials with a total of 739 participants were included. Eleven trials involving 477 participants compared Ginkgo biloba with placebo and assessed the absolute claudication distance (ACD). Following treatment with Ginkgo biloba at the end of the study the ACD increased with an overall effect size of 3.57 kilocalories (confidence interval (CI) - 0.10 to 7.23, $P = 0.06$), compared with placebo. This translates to an increase of just 64.5 (CI -1.8 to 130.7) metres on a flat treadmill with an average speed of 3.2 km/h. Publication bias leading to missing data or "negative" trials is likely to have inflated the effect size.

AUTHORS' CONCLUSIONS: Overall, there is no evidence that Ginkgo biloba has a clinically significant benefit for patients with peripheral arterial disease.

Impactfactor: --

Lauret GJ

Lifestyle interventions in patients with coronary heart disease: a systematic review

de Waure C, Lauret GJ*, Ricciardi W, Ferket B, Teijink J*, Spronk S, Myriam Hunink MG
Am J Prev Med. 2013 Aug;45(2):207-16

CONTEXT: Coronary heart disease (CHD) is responsible for about 15% of all deaths worldwide and is identified as a top priority for decision makers. Both primary and secondary prevention are considered key strategies in the prevention of CHD. The aim of this study was to assess the efficacy of nonpharmacologic interventions with multiple lifestyle components in patients with established CHD in comparison to usual care. For this reason, a systematic review and meta-analysis of RCTs were performed.

EVIDENCE ACQUISITION: The Cochrane Library, MEDLINE, and EMBASE databases were examined until March 31, 2012 (without start date) in order to identify studies addressing patient-tailored multifactorial lifestyle interventions aimed at reducing more than one cardiovascular risk factor in patients with established CHD. Primary endpoints were fatal and nonfatal cardiovascular events. Secondary outcomes were overall mortality and cardiovascular disease-associated hospital readmissions.

EVIDENCE SYNTHESIS: The search strategy yielded 14 unique RCTs, which were considered in the qualitative analysis. Nine of them contributed to the meta-analysis. A random effects model was used to pool the data. The meta-analysis showed a significant risk reduction of 18% (relative risk 0.82, 95% CI=0.69, 0.98) of fatal cardiovascular events in patients undergoing multifactorial lifestyle interventions. Further, a nonsignificant reduction of nonfatal events, overall mortality and hospital readmissions was found.

CONCLUSIONS: Multifactorial lifestyle interventions aimed at improving modifiable risk factors in patients with established CHD reduce the risk for fatal cardiovascular events. Therefore, they may have added value in secondary prevention of CHD.

Impactfactor: 3.945

Lauret GJ

Persisting pain after endovascular treatment of a symptomatic aortic aneurysm

Mandigers L*, Lauret GJ*, Luyer MD*, Teijink JA*

Int J Surg Case Rep. 2013;4(9):798-800

Voor abstract zie: Chirurgie - Mandigers L

Impactfactor: --

Lauret GJ

Supervised exercise therapy versus non-supervised exercise therapy for intermittent claudication

Fokkenrood HJ*, Bendermacher BL*, Lauret GJ*, Willigendael EM, Prins MH, Teijink JA*

Cochrane Database Syst Rev. 2013 Aug 23

Voor abstract zie: Chirurgie - Fokkenrood HJ

Impactfactor: --

Leenders BJ

Addition of biological therapies to palliative chemotherapy prolongs survival in patients with peritoneal carcinomatosis of colorectal origin

Klaver YL*, Leenders BJ*, Creemers GJ*, Rutten HJ*, Verwaal VJ, Lemmens VE, Hingh IH de*

Am J Clin Oncol. 2013 Apr;36(2):157-61

Voor abstract zie: Chirurgie - Klaver YL

Impactfactor: 2.552

Leenders BJ

Removable and repositionable covered metal self-expandable stents for leaks after upper gastrointestinal surgery: experiences in a tertiary referral hospital

Leenders BJ*, Stronkhorst A*, Smulders FJ*, Nieuwenhuijzen GA*, Gilissen LP*

Surg Endosc. 2013 Aug;27(8):2751-9

BACKGROUND: Anastomotic leakages are severe complications of upper gastrointestinal surgery with serious morbidity and mortality. Until recently, only abscess drainage was possible. Since 2007, removable and repositionable covered metal self-expandable stents (RReCoMSeS) have been used in our hospital to cover leaks.

METHODS: Patients with postsurgical gastrointestinal leaks treated with RReCoMSeS between January 2007 and March 2010 were retrospectively evaluated and described.

RESULTS: Twenty-six patients were treated with RReCoMSeS (totally covered Choo/Hanaro and partially covered Endoflex stents). Included patients had anastomotic leaks after esophagectomy (15) and bariatric surgery (11). Overall successful sealing of the leak occurred in 81 % (including multiple procedures). In total 33 RReCoMSeS were used (mean 1.3 stents and 1.7 procedures per patient). Twenty-one of 33 RReCoMSeS succeeded in sealing the leak (64 %). Migration occurred in 24 % RReCoMSeS, and 9 % disintegrated. One stent (3 %) caused a perforation.

CONCLUSIONS: RReCoMSeS are a safe alternative for treating postsurgical leaks in the upper gastrointestinal tract. In 81 % of patients and with 64 % of the inserted stents, leaks were sealed successfully, with few complications. Fewer stents per patient were needed thanks to their repositionability. Stent migration is a major problem.

Impactfactor: 3.427

Liebrechts ME**Patterns and determinants of surgical management of screen detected breast cancer in the South-East Netherlands**

Liebrechts ME*, van Riet YE*, Nieuwenhuijzen GA*, Rutten HJ*, Duijm LE, Voogd AC
Breast. 2013 Oct;22(5):713-7

Patients with screen detected breast cancer tend to have small, non-palpable tumours with favourable characteristics for breast conserving surgery (BCS). The aims of this study were to analyse patterns in surgical management in patients with screen detected breast cancer and to determine factors predictive of the need for a re-operation after BCS (re-excision or secondary mastectomy).

METHODS: Patient data were retrieved from the population based Eindhoven Cancer Registry, which covers 14 hospitals in the south of the Netherlands. Data of patients aged 50-74 years, diagnosed with operable, invasive, non-metastasised, T1 or T2 tumours in the period from 1999 to 2005 were linked to the patients recorded by the Dutch Breast Screening Organisation to identify the screen-detected cancers.

RESULTS: A total of 5657 patients were diagnosed with early stage invasive breast cancer. In 2822 of the 5657 patients (50%) breast cancer was detected by screening. Eighty percent of the screen-detected breast cancers was smaller than 2 cm. Of all 2822 patients with screen-detected cancer 82% underwent primary BCS. From 1999 until 2006 the percentage of re-excisions after this primary BCS decreased from 14% to 8% and the percentage of secondary mastectomies decreased from 23% to 8%. Primary BCS rates ranged from 64% to 93% between the 14 hospitals. Multivariable analyses showed that tumour size >2 cm, lobular histology, axillary nodal tumour involvement and poor differentiation of the tumour were associated with a statistically significant increase in the risk of re-operation after BCS.

CONCLUSION: The need for a second operation after breast conserving surgery in patients with screen-detected breast cancer has decreased significantly in the southern Netherlands since 1999. However, considerable variation in surgical approach and re-operation rate between hospitals was observed.

Impactfactor: 1.967

Luyer MD**Challenges in diagnosing adhesive small bowel obstruction**

Thijs R van Oudheusden*, Bart AC Aerts, Ignace HJT de Hingh* and Misha DP Luyer*
World J Gastroenterol 2013 November 21; 19(43): 7489-7493

Voor abstract zie: Chirurgie - Oudheusden TR van

Impactfactor: 2.547

Luyer MD**Challenges in diagnosing mesenteric ischemia**

van den Heijkant TC*, Aerts BA, Teijink JA*, Buurman WA, Luyer MD*
World J Gastroenterol. 2013 Mar 7;19(9):1338-41

Voor abstract zie: Chirurgie - Heijkant AC van den

Impactfactor: 2.547

Luyer MD

Colorectal anastomotic leakage: aspects of prevention, detection and treatment

Daams F*, Luyer M*, Lange JF

World J Gastroenterol. 2013 Apr 21;19(15):2293-7

Voor abstract zie: Chirurgie - Daams F

Impactfactor: 2.547

Luyer MD

Early severe mediastinal bleeding after esophagectomy: a potentially lethal complication

Ponten JE*, van der Horst S, Nieuwenhuijzen GA*, Elenbaas TW*, van Hillegersberg R, Luyer MD*

J Thorac Dis. 2013 Apr;5(2):E58-60

Voor abstract zie: Cardiologie - Ponten JE

Impactfactor: --

Luyer MD

First report of transvaginal endoscopic microsurgery in a patient with squamous cell carcinoma of the vagina

Smink M*, Hermans RH*, Schoot DB*, Luyer M*, Pijnenborg JM

J Laparoendosc Adv Surg Tech A. 2013 Feb;23(2):154-7

Voor abstract zie: Gynaecologie - Smink M

Impactfactor: --

Luyer MD

Giant cystic lymphangioma originating from the lesser curvature of the stomach

van Oudheusden TR*, Nienhuijs SW*, Demeyere TB*, Luyer MD*, de Hingh IH*

World J Gastrointest Surg. 2013 Oct 27;5(10):264-7

Voor abstract zie: Chirurgie - Oudheusden TR van

Impactfactor: --

Luyer MD

Incidence, Prognosis, and Possible Treatment Strategies of Peritoneal Carcinomatosis of Pancreatic Origin: A Population-Based Study

Thomassen I*, Lemmens VE, Nienhuijs SW*, Luyer MD*, Klaver YL*, Hingh IH de*

Pancreas. 2013 Jan;42(1):72-5. Epub 2012 Jul 30

Voor abstract zie: Chirurgie - Thomassen I

Impactfactor: 2.953

Luyer MD

Parasympathetic stimulation via the vagus nerve prevents systemic organ dysfunction by abrogating gut injury and lymph toxicity in trauma and hemorrhagic shock

Luyer MD*, de Haan JJ, Lubbers T, Greve JW, Buurman WA

Shock. 2013 May;39(5):460-1

Geen abstract beschikbaar

Impactfactor: 2.612

Luyer MD

Persisting pain after endovascular treatment of a symptomatic aortic aneurysm

Mandigers L*, Lauret GJ*, Luyer MD*, Teijink JA*

Int J Surg Case Rep. 2013;4(9):798-800

Voor abstract zie: Chirurgie - Mandigers L

Impactfactor: --

Luyer MD

Strategies to reduce pulmonary complications after esophagectomy

Weijs TJ, Ruurda JP, Nieuwenhuijzen GA*, van Hillegersberg R, Luyer MD*

World J Gastroenterol. 2013 Oct 21;19(39):6509-14

Voor abstract zie: Chirurgie - Nieuwenhuijzen GA

Impactfactor: 2.547

Luyer MD

The gut-liver axis

Visschers RG, Luyer MD*, Schaap FG, Olde Damink SW, Soeters PB

Curr Opin Clin Nutr Metab Care. 2013 Sep;16(5):576-81

PURPOSE OF REVIEW: The liver adaptively responds to extra-intestinal and intestinal inflammation. In recent years, the role of the autonomic nervous system, intestinal failure and gut microbiota has been investigated in the development of hepatic, intestinal and extra-intestinal disease.

RECENT FINDINGS: The autonomic nervous system can be stimulated via enteral fat leading to cholecystokinin release, stimulating receptors in the gut and in the brain. This promotes bowel integrity, dampening the inflammatory response to food antigens. Consensus exists that intravenously administered long-chain fatty acids can cause liver damage but randomized-controlled trials are lacking. Disruption of the enterohepatic circulation of bile salts can give rise to cholestasis and nonalcoholic fatty liver disease, which may progress to fibrosis and cirrhosis. Reduced intestinal availability of bile salts reduces stimulation of the farnesoid X receptor. This may induce hepatic bile salt overload and associated hepatotoxicity through reduced action of intestinal fibroblast growth factor 19. Evidence is put forward to suggest that the intestinal microbiota is associated with liver abnormalities.

SUMMARY: Enteral lipids reduce inflammation and liver damage during stress or systemic inflammation, whereas parenteral lipid is associated with liver damage. Maintaining the enterohepatic circulation of bile salts limits hepatic cholestasis through an farnesoid X receptor feedback pathway. Changes in gut microbiota composition may induce liver disease.

Impactfactor: 4.519

Maaskant-Braat AJ

Repeat sentinel node biopsy in patients with locally recurrent breast cancer: a systematic review and meta-analysis of the literature

Maaskant-Braat AJ*, Voogd AC, Roumen RM, Nieuwenhuijzen GA*

Breast Cancer Res Treat. 2013 Feb;138(1):13-20

Axillary staging in patients with locally recurrent breast cancer is important for obtaining locoregional control and predicting prognosis. The aim of the present study is to determine technical feasibility, validity, aberrant drainage patterns and clinical consequences of performing repeat sentinel node biopsy (SNB) in these patients. We performed a systematic

review and meta-analysis of the literature and included all studies on repeat SNB in locally recurrent breast cancer. A total of 692 patients were described, 301 after a previous SNB, 361 after a previous axillary lymph node dissection (ALND), and 30 with no previous axillary surgery. Sentinel node identification was successful in 452 of the 692 patients (65.3 %), which was significantly higher in patients who had undergone previous SNB compared to previous ALND (81.0 vs. 52.2 %) ($P < 0.0001$). In 175 of 405 patients with successful lymphatic mapping aberrant drainage pathways were visualized (43.2 %), which were seen more frequently after previous ALND than after previous SNB (69.2 vs. 17.4 %) ($P < 0.0001$). In 19.2 % of the patients the sentinel node was tumor positive and 27.5 % of these metastases were found in aberrant lymph drainage basins. Overall, 213 patients could be spared an ALND and in 17.9 % of the patients the information derived from the repeat SNB led to a change in adjuvant radiotherapy or systemic treatment plans. The procedure had a false-negative rate of 0.2 %. Repeat SNB is technically feasible and accurate. Next to sparing patients an unnecessary ALND, the information can lead to a change in adjuvant treatment strategy.

Impactfactor: 4.469

Maaskant-Braat AJ

Sentinel Node and Recurrent Breast Cancer (SNARB): Results of a Nationwide Registration Study

Maaskant-Braat AJ*, Roumen RM, Voogd AC, Pijpers R, Luiten EJ, Rutgers EJ, Nieuwenhuijzen GA*

Ann Surg Oncol. 2013 Feb;20(2):620-6

BACKGROUND: Knowledge of regional lymph node involvement is important in patients with recurrent breast cancer for obtaining better locoregional control and predicting prognosis. To determine technical feasibility, validity, aberrant drainage rates, and clinical consequences of performing repeat sentinel node biopsy (SNB) in patients with locally recurrent breast cancer we conducted the "Sentinel Node and Recurrent Breast Cancer (SNARB)" study.

METHODS: A total of 150 patients with locally recurrent breast cancer underwent lymphatic mapping and SNB. In case of an intact axillary lymph node basin, ipsilateral axillary lymph node dissection (ALND) was performed subsequently.

RESULTS: A total of 41 patients previously underwent breast conserving therapy (BCT) with SNB, 82 patients BCT with ALND, and 21 patients a mastectomy, of which 9 with SNB and 12 with ALND. In 95 patients (63.3 %) a sentinel node was identified and in 78 patients (52 %) the sentinel node was successfully removed. In 18 patients (22.8 %) a (micro)metastasis was found on pathologic examination. Confirmation ALND in 18 patients showed no axillary lymph node metastases. Aberrant drainage pathways were visualized in 58.9 % of the patients, significantly more frequently after a previous ALND (79.3 %) than after a previous SNB (25.0 %) ($P < .0001$). Overall, the result of this repeat SNB led to a change in the adjuvant treatment plan in 16.5 % of the patients with a successful repeat SNB.

CONCLUSIONS: Repeat SNB is technically feasible and provides reliable results in patients with locally recurrent breast cancer, leading to change in management in 1 of 6 patients.

Impactfactor: 4.120

Mandigers L

Persisting pain after endovascular treatment of a symptomatic aortic aneurysm

Mandigers L*, Lauret GJ*, Luyer MD*, Teijink JA*

Int J Surg Case Rep. 2013;4(9):798-800

INTRODUCTION: Usually patients are admitted to hospital with a single diagnosis, but if complaints persist it is important to consider a synchronous secondary diagnosis.

PRESENTATION OF CASE: A 74-year-old woman presented with severe abdominal and back pain. On physical examination, a tender abdominal aortic aneurysm (AAA) was noted. Following endovascular treatment of the AAA, pain in the right lower abdomen persisted. Review of the pre-EVAR CT images revealed a foreign body in the terminal ileum, which was surgically removed.

DISCUSSION: Patients with foreign-body-related intestinal pain present with complaints of abdominal pain at initial presentation. The accompanied back pain and abdominal tenderness of the abdominal aorta in our case could indicate another diagnosis.

CONCLUSION: Persisting complaints post-intervention should not only arouse suspicion of an intervention-related complication, but also of a synchronous second diagnosis.

Impactfactor: --

Martijnse IS

Dynamic article: Vaginal and perineal reconstruction using rectus abdominis myocutaneous flap in surgery for locally advanced rectum carcinoma and locally recurrent rectum carcinoma

Holman FA, Martijnse IS*, Traa MJ, Boll D, Nieuwenhuijzen GA*, de Hingh IH*, Rutten HJ*

Dis Colon Rectum. 2013 Feb;56(2):175-85

BACKGROUND: Surgery for locally advanced and recurrent rectal carcinoma sometimes requires partial resection of the perineum and/or vagina necessitating subsequent reconstruction.

OBJECTIVE: The aim of this study was to describe the surgical and functional outcomes of reconstructing the vagina and/or the perineum by using the vertical rectus abdominis myocutaneous flap and to evaluate the health status of patients who received reconstruction.

DESIGN: This is a retrospective cohort study.

SETTINGS: This study was conducted at a tertiary referral hospital for locally advanced and recurrent rectal cancer.

PATIENTS: Patients receiving multimodality treatment for primary or recurrent locally advanced rectal carcinomas were included.

MAIN OUTCOME MEASURES: First, the surgical outcome was assessed. Second, 10 female patients who received vaginal reconstruction underwent a gynecological examination including biopsies. Finally, quality of life was assessed and compared with patients who underwent treatment for rectal carcinoma without a reconstruction.

RESULTS: Fifty-one patients underwent reconstruction of the dorsal vagina and/or the perineum with the use of a vertical rectus abdominis myocutaneous flap. In 13 patients, the flap was used to close a perineal defect; in 26 patients, to close a vaginal defect; and in 12 patients, to close both. In 3 patients, partial necrosis of the flap occurred that was treated conservatively. In 4 patients, stenosis of the introitus occurred, as found in the gynecological examination. Biopsies confirmed epithelialization of the vaginal wall. All groups reported good functioning and low symptom burden. After vaginal reconstruction, women reported equal or higher scores on global health status, emotional functioning, and body image.

LIMITATIONS: The lack of information on the health status of the patients before the start of treatment prohibits making causal inferences in health status over time.

DISCUSSION: Reconstruction of the perineum and/or dorsal vagina was successful in all patients. Surgeons and gynecologists who use the vertical rectus abdominis myocutaneous flap should be aware of stenosis of the vaginal introitus. Gynecological consultation at an early stage should be standard.

Impactfactor: 2.615

Nienhuijs SW

Altered cortical responsiveness to pain stimuli after high frequency electrical stimulation of the skin in patients with persistent pain after inguinal hernia repair

van den Broeke EN, Koeslag L, Arendsen LJ, Nienhuijs SW*, Rosman C, van Rijn CM, Wilder-Smith OH, van Goor H

PLoS One. 2013 Dec 23;8(12):e82701

BACKGROUND: High Frequency electrical Stimulation (HFS) of the skin induces enhanced brain responsiveness expressed as enhanced Event-Related Potential (ERP) N1 amplitude to stimuli applied to the surrounding unconditioned skin in healthy volunteers. The aim of the present study was to investigate whether this enhanced ERP N1 amplitude could be a potential marker for altered cortical sensory processing in patients with persistent pain after surgery.

MATERIALS AND METHODS: Nineteen male patients; 9 with and 10 without persistent pain after inguinal hernia repair received HFS. Before, directly after and thirty minutes after HFS evoked potentials and the subjective pain intensity were measured in response to electric pain stimuli applied to the surrounding unconditioned skin.

RESULTS: The results show that, thirty minutes after HFS, the ERP N1 amplitude observed at the conditioned arm was statistically significantly larger than the amplitude at the control arm across all patients. No statistically significant differences were observed regarding ERP N1 amplitude between patients with and without persistent pain. However, thirty minutes after HFS we did observe statistically significant differences of P2 amplitude at the conditioned arm between the two groups. The P2 amplitude decreased in comparison to baseline in the group of patients with pain.

CONCLUSION: The ERP N1 effect, induced after HFS, was not different between patients with vs. without persistent pain. The decreasing P2 amplitude was not observed in the patients without pain and also not in the previous healthy volunteer study and thus might be a marker for altered cortical sensory processing in patients with persistent pain after surgery.

Impactfactor: --

Nienhuijs SW

Cytoreduction and HIPEC in The Netherlands: Nationwide Long-term Outcome Following the Dutch Protocol

Kuijpers AM, Mirck B, Aalbers AG, Nienhuijs SW*, de Hingh IH*, Wiezer MJ, van Ramshorst B, van Ginkel RJ, Havenga K, Bremers AJ, de Wilt JH, Te Velde EA, Verwaal VJ

Ann Surg Oncol. 2013 Dec;20(13):4224-30. Epub 2013 Jul 30

PURPOSE: This nationwide study evaluated results of cytoreductive surgery (CRS) combined with hyperthermic intraperitoneal chemotherapy (HIPEC) for peritoneal metastasis of colorectal origin in the Netherlands following a national protocol.

METHODS: In a multi-institutional study prospective databases of patients with peritoneal

carcinomatosis (PC) from colorectal cancer and pseudomyxoma peritonei (PMP) treated according to the Dutch HIPEC protocol, a uniform approach for the CRS and HIPEC treatment, were reviewed. Primary end point was overall survival and secondary end points were surgical outcome and progression-free survival.

RESULTS: Nine-hundred sixty patients were included; 660 patients (69 %) were affected by PC of colorectal carcinoma and the remaining suffered from PMP (31 %). In 767 procedures (80 %), macroscopic complete cytoreduction was achieved. Three-hundred and thirty one patients had grade II/IV complications (34 %). Thirty-two patients died perioperatively (3 %). Median length of hospital stay was 16 days (range 0-166 days). Median follow-up period was 41 months (95 % confidence interval (CI), 36-46 months). Median progression-free survival was 15 months (95 % CI 13-17 months) for CRC patients and 53 months (95 % CI 40-66 months) for PMP patients. Overall median survival was 33 (95 % CI 28-38 months) months for CRC patients and 130 months (95 % CI 98-162 months) for PMP patients. Three- and five-year survival rates were 46 and 31 % respectively in case of CRC patients and 77 and 65 % respectively in case of PMP patients.

CONCLUSIONS: The results underline the safety and efficacy of cytoreduction and HIPEC for PC from CRC and PMP. It is assumed the uniform Dutch HIPEC protocol was beneficial.

Impactfactor: 4.120

Nienhuijs SW

Early experience with laparoscopic lavage for perforated diverticulitis

Swank HA, Mulder IM, Hoofwijk AG, Nienhuijs SW* Lange JF, Bemelman WA

Br J Surg. 2013 Apr;100(5):704-10

BACKGROUND: Laparoscopic lavage has recently emerged as a promising alternative to sigmoid resection in the treatment of perforated diverticulitis. This study examined an early experience with this technique.

METHODS: The files of all patients with complicated diverticulitis were searched in 34 teaching hospitals of the Netherlands. Patients with perforated diverticulitis treated with laparoscopic lavage between 1 January 2008 and 31 December 2010 were included.

RESULTS: Treatment with laparoscopic lavage was performed in only 38 patients in ten hospitals. Lavage was successful in controlling sepsis in 31 of the 38 included patients, with 32 per cent morbidity (10 of 31 patients) and fast recovery. Overall, 17 of 38 patients developed complications, of whom two had a missed overt sigmoid perforation. Two patients died from multiple organ failure and one from aspiration pneumonia; one other patient died after palliative management of inoperable lung carcinoma. Three patients in whom lavage was successful underwent subsequent sigmoid resection for recurrent diverticulitis. Patients in whom lavage was unsuccessful tended to have more co-morbidities, a higher preoperative C-reactive protein concentration and a higher Mannheim Peritonitis Index. **CONCLUSION:** Laparoscopic lavage for perforated diverticulitis was feasible in the majority of patients, but identification of an overt sigmoid perforation and patient selection are of critical importance.

Impactfactor: 4.839

Nienhuijs SW

Giant cystic lymphangioma originating from the lesser curvature of the stomach

van Oudheusden TR*, Nienhuijs SW*, Demeyere TB*, Luyer MD*, de Hingh IH*

World J Gastrointest Surg. 2013 Oct 27;5(10):264-7

Voor abstract zie: Chirurgie - Oudheusden TR van

Impactfactor: --

Nienhuijs SW

Incidence, Prognosis, and Possible Treatment Strategies of Peritoneal Carcinomatosis of Pancreatic Origin: A Population-Based Study

Thomassen I*, Lemmens VE, Nienhuijs SW*, Luyer MD*, Klaver YL*, Hingh IH de*
Pancreas. 2013 Jan;42(1):72-5. Epub 2012 Jul 30

Voor abstract zie: Chirurgie - Thomassen I

Impactfactor: 2.953

Nienhuijs SW

Intraoperative radiotherapy and cytoreductive surgery with hyperthermic intraperitoneal chemotherapy. Five consecutive case reports of locally advanced rectal cancer with synchronous peritoneal carcinomatosis

Klaver YL*, Lemmens VE, Nienhuijs SW*, Nieuwenhuijzen GA*, Rutten HJ*,
Hingh IH de*

Strahlenther Onkol. 2013 Mar;189(3):256-60

Voor abstract zie: Chirurgie - Klaver YL, Impactfactor: 4.163

Nienhuijs SW

Sleeve gastrectomy in older obese patients

van Rutte PW*, Smulders JF*, de Zoete JP*, Nienhuijs SW*

Surg Endosc. 2013 Jun;27(6):2014-9

Voor abstract zie: Chirurgie - Rutte PW van

Impactfactor: 3.427

Nienhuijs SW

Ultrasound-guided ilioinguinal/iliohypogastric nerve blocks for chronic pain after inguinal hernia repair

Thomassen I*, Suijlekom JA van*, Gaag A van de *, Ponten JE*, Nienhuijs SW*

Hernia. 2013 Jun;17(3):329-32. Epub 2012 Sep 27

Voor abstract zie: Chirurgie - Thomassen I

Impactfactor: 1.693

Nieuwenhuijzen GA

Comparison of the sentinel node procedure between patients with multifocal and unifocal breast cancer in the EORTC 10981-22023 AMAROS Trial: Identification rate and nodal outcome

Donker M, Straver ME, van Tienhoven G, van de Velde CJ, Mansel RE, Litière S, Werutsky G, Duez NJ, Orzalesi L, Bouma WH, van der Mijle H, Nieuwenhuijzen GA*, Veltkamp SC, Helen Westenberg A, Rutgers EJ

European Journal of Cancer, 49 (9) 2093-2100

INTRODUCTION: Multifocal breast cancer is associated with a higher risk of nodal involvement compared to unifocal breast cancer and the drainage pattern from multifocal localisations may be different. For this reason, the value of the sentinel node biopsy (SNB) procedure for this indication is debated. The aim of the current analysis was to evaluate the sentinel node identification rate and nodal involvement in patients with a multifocal tumour in the EORTC 10981-22023 AMAROS trial.

PATIENTS AND METHODS: From the first 4000 registered patients, 342 were identified with a

multifocal tumour on histological examination and compared to a randomly selected control group of 684 patients with a unifocal tumour. The outcome of the SNB was assessed.

RESULTS: The sentinel node was identified in 96% of the patients with a multifocal tumour and in 98% of those with unifocal disease. In the multifocal group, 51% had a metastasis in the sentinel node compared to 28% in the unifocal group; and further nodal involvement after a positive sentinel node was found in 40% (38/95) and 39% (39/101) respectively.

CONCLUSION: In this prospective international multicentre study, the 96% detection rate indicates that the SNB procedure can be highly effective in patients with a multifocal tumour. Though the tumourpositive rate of the sentinel node was twice as high in the multifocal group compared to the unifocal group, further nodal involvement after a positive sentinel node was similar in both groups. This suggests that the SNB procedure is safe in patients with multifocal breast cancer.

Impactfactor: 5.061

Nieuwenhuijzen GA

Detection of local recurrence following breast-conserving treatment in young women with early breast cancer: Optimization of long-term follow-up strategies

Sangen MJ v an der*, Scheepers SW, Poortmans PM, Luiten EJ, Nieuwenhuijzen GA*, Voogd AC

Breast. 2013 Jun;22(3):351-6. Epub 2012 Sep 16

Voor abstract zie: Radiotherapie - Sangen MJ van der

Impactfactor: 1.967

Nieuwenhuijzen GA

Development of a disease-specific health-related quality of life questionnaire (THYCA-QoL) for thyroid cancer survivors

Husson O, Haak HR, Mols F, Nieuwenhuijzen GA*, Nieuwlaat WA, Reemst PH, Huysmans DA*, Toorians AW, Poll-Franse LV van de

Acta Oncol. 2013 Feb;52(2):447-54. Epub 2012 Sep 27

Background. To date, no valid instrument is available that focuses on specific health-related quality of life (HRQoL) issues that affect thyroid cancer survivors. The objective of this study was to develop and pretest a thyroid cancer specific HRQoL questionnaire that can be used in addition to the more general European Organization for Research and Treatment of Cancer Quality of Life Questionnaire (EORTC QLQ-C30).

Material and methods. Potentially relevant issues were identified by a systematic literature review, a focus group meeting, and an issue list completed by six health care professionals (HCP) and 18 thyroid cancer survivors. Resultant issues were analyzed on importance and relevance (phase I). The issues were formulated into a long provisional list of questions (phase II). These questions were administered in combination with the EORTC QLQ-C30 to 306 Dutch thyroid cancer survivors to pretest the hypothesized scale structure (phase III). Although the development of this questionnaire was not set up as an international study, phases I-III are in agreement with the methodology of the EORTC guidelines.

Results. The literature search, focus group and issue list completed by HCP and survivors resulted in 75 issues. These were reduced to create a 30 item provisional list. Pretesting led to a selection of 24 items with a good range of response. This resulted in the THYCA-QoL containing 24 items and seven conceptual scales. **Conclusion.** The THYCA-QoL in combination with the EORTC QLQ-C30 is ready for a large (international) scale validation study, and will assess HRQoL issues of most relevance and concern for thyroid cancer survivors.

Impactfactor: 2.867

Nieuwenhuijzen GA

Dynamic article: Vaginal and perineal reconstruction using rectus abdominis myocutaneous flap in surgery for locally advanced rectum carcinoma and locally recurrent rectum carcinoma

Holman FA, Martijnse IS*, Traa MJ, Boll D, Nieuwenhuijzen GA*, de Hingh IH*, Rutten HJ*

Dis Colon Rectum. 2013 Feb;56(2):175-85

Voor abstract zie: Chirurgie - Martijnse IS

Impactfactor: 2.615

Nieuwenhuijzen GA

Early severe mediastinal bleeding after esophagectomy: a potentially lethal complication

Ponten JE*, van der Horst S, Nieuwenhuijzen GA*, Elenbaas TW*, van Hillegersberg R, Luyer MD*

J Thorac Dis. 2013 Apr;5(2):E58-60

Voor abstract zie: Cardiologie - Ponten JE

Impactfactor: --

Nieuwenhuijzen GA

Familial colorectal cancer risk assessment needs improvement for more effective cancer prevention in relatives

Dekker N, Hermens RP, Nagengast FM, van Zelst-Stams WA, Hoogerbrugge N; RISCO study group; Nieuwenhuijzen GA*

Colorectal Dis. 2013 Apr;15(4):e175-85

AIM: Twelve to thirty % of colorectal cancer (CRC) patients and relatives with an increased familial risk of CRC are referred for preventive measures. New guidelines recommend genetic counselling for highrisk families and surveillance colonoscopy for moderate-risk families. Assessment of familial risk of CRC and referral rates for these preventive measures were determined 1 year after the introduction of new guidelines.

METHOD: Assessment of familial risk of CRC and referral for preventive measures were measured in clinical practice among 358 patients with CRC in 18 hospitals using medical records and questionnaires. Additionally, a knowledge survey was performed among 312 clinicians.

RESULTS: Sixty-seven % of patients with an increased familial risk (n = 65/97) were referred for preventive measures, as were 23% (61/261) of low-risk patients. The uptake of genetic counselling in high-risk families was 33% (12/36). The uptake of surveillance colonoscopy in moderate-risk families was 34% (21/61). In the knowledge survey clinicians correctly determined familial risk in 55% and preventive measures in 65% of cases.

CONCLUSION: Currently 67% of individuals with an increased familial risk of CRC were referred for preventive measures. Only one-third were referred in accordance with guidelines.

Impactfactor: 2.580

Nieuwenhuijzen GA

Influence of Comorbidity and Age on 1-, 2-, and 3-Month Postoperative Mortality Rates in Gastrointestinal Cancer Patients

Gestel YR van, Lemmens VE, Hingh IH de*, Steevens J, Rutten HJ*, Nieuwenhuijzen GA*, Dam RM van, Siersema PD

Ann Surg Oncol. 2013 Feb;20(2):371-80. Epub 2012 Sep 18

Erratum: Ann Surg Oncol. 2013 Dec;20 Suppl 3:749

Voor abstract zie: Chirurgie - Hingh IH de

Impactfactor: 4.120

Nieuwenhuijzen GA

Intraoperative radiotherapy and cytoreductive surgery with hyperthermic intraperitoneal chemotherapy. Five consecutive case reports of locally advanced rectal cancer with synchronous peritoneal carcinomatosis

Klaver YL*, Lemmens VE, Nienhuijs SW*, Nieuwenhuijzen GA*, Rutten HJ*, Hingh IH de *

Strahlenther Onkol. 2013 Mar;189(3):256-60

Voor abstract zie: Chirurgie - Klaver YL

Impactfactor: 4.163

Nieuwenhuijzen GA

Local recurrence following breast-conserving treatment in women aged 40years or younger: Trends in risk and the impact on prognosis in a population-based cohort of 1143 patients

van Laar C, van der Sangen MJ*, Poortmans PM, Nieuwenhuijzen GA*, Roukema JA, Roumen RM, Tjan-Heijnen VC, Voogd AC

Eur J Cancer. 2013 Oct;49(15):3093-101

Voor abstract zie: Radiotherapie - Sangen MJ van der

Impactfactor: 5.061

Nieuwenhuijzen GA

No improvement in median survival for patients with metastatic gastric cancer despite increased use of chemotherapy

Bernards N*, Creemers GJ*, Nieuwenhuijzen GA*, Bosscha K, Pruijt JF, Lemmens VE

Ann Oncol. 2013 Dec;24(12):3056-60. Epub 2013 Oct 11

Voor abstract zie: Inwendige geneeskunde - Bernards N

Impactfactor: 7.384

Nieuwenhuijzen GA

Patterns and determinants of surgical management of screen detected breast cancer in the South-East Netherlands

Liebrechts ME*, van Riet YE*, Nieuwenhuijzen GA*, Rutten HJ*, Duijm LE, Voogd AC

Breast. 2013 Oct;22(5):713-7

Voor abstract zie: Chirurgie - Liebrechts ME

Impactfactor: 1.967

Nieuwenhuijzen GA

Quality of life of older rectal cancer patients is not impaired by a permanent stoma

Orsini RG*, Thong MS, van de Poll-Franse LV, Slooer GD, Nieuwenhuijzen GA*, Rutten HJ*, Hingh IH de *

Eur J Surg Oncol. 2013 Feb;39(2):164-70

Voor abstract zie: Chirurgie - Orsini RG

Impactfactor: 2.614

Nieuwenhuijzen GA

Removable and repositionable covered metal self-expandable stents for leaks after upper gastrointestinal surgery: experiences in a tertiary referral hospital

Leenders BJ*, Stronkhorst A*, Smulders FJ*, Nieuwenhuijzen GA*, Gilissen LP*

Surg Endosc. 2013 Aug;27(8):2751-9

Voor abstract zie: Chirurgie - Leenders BJ

Impactfactor: 3.427

Nieuwenhuijzen GA

Repeat sentinel node biopsy in patients with locally recurrent breast cancer: a systematic review and meta-analysis of the literature

Maaskant-Braat AJ*, Voogd AC, Roumen RM, Nieuwenhuijzen GA*

Breast Cancer Res Treat. 2013 Feb;138(1):13-20

Voor abstract zie: Chirurgie - Maaskant-Braat AJ

Impactfactor: 4.469

Nieuwenhuijzen GA

Rising incidence, no change in survival and decreasing mortality from thyroid cancer in The Netherlands since 1989

Husson O, Haak HR, van Steenbergen LN, Nieuwlaet WA, van Dijk BA, Nieuwenhuijzen GA*, Karim-Kos H, Kuijpers JL, van de Poll-Franse LV, Coebergh JW

Endocr Relat Cancer. 2013 Mar 26;20(2):263-71

The incidence of thyroid cancer (TC) is increasing worldwide, partly due to increased detection. We therefore assessed combined trends in incidence, survival and mortality of the various types of TC in The Netherlands between 1989 and 2009. We included all patients ≥ 15 years with TC, diagnosed in the period 1989-2009 and recorded in The Netherlands Cancer Registry (n=8021). Information on age, gender, date of diagnosis, histological type of tumour and tumour-node-metastasis classification was recorded. Mortality data (up to 1st January 2010) were derived from Statistics Netherlands. Annual percentages of change in incidence, mortality and relative survival were calculated. Since 1989 the incidence of TC increased significantly in The Netherlands (estimated annual percentage change (EAPC)=+1.7%). The incidence rates increased for all age groups (except for females >60 years), papillary tumours (EAPC=+3.5%), T1 and T3 TC (EAPC=+7.9 and +5.8% respectively). Incidence rates decreased for T4 TC (-2.3%) and remained stable for follicular, medullary anaplastic and T2 TC. Fiveyear relative survival rates remained stable for papillary (88%) and follicular (77%) TC, all age groups and T1-T3 TC (96, 94 and 80% respectively) and somewhat lower for T4 (53%), medullary (65%) and anaplastic TC (5%) in the 2004-2009 period compared with earlier periods. Mortality due to TC decreased (EAPC=-1.9%). TC detection

and incidence has been rising in The Netherlands, while mortality rates are decreasing and survival rates remained stable or slightly decreasing.

Impactfactor: 4.364

Nieuwenhuijzen GA

Sentinel Node and Recurrent Breast Cancer (SNARB): Results of a Nationwide Registration Study

Maaskant-Braat AJ*, Roumen RM, Voogd AC, Pijpers R, Luiten EJ, Rutgers EJ, Nieuwenhuijzen GA*

Ann Surg Oncol. 2013 Feb;20(2):620-6

Voor abstract zie: Chirurgie - Maaskant -Braat AJ

Impactfactor: 4.120

Nieuwenhuijzen GA

Strategies to reduce pulmonary complications after esophagectomy

Weijs TJ, Ruurda JP, Nieuwenhuijzen GA*, van Hillegersberg R, Luyer MD*

World J Gastroenterol. 2013 Oct 21;19(39):6509-14

Esophagectomy, the surgical removal of all or part of the esophagus, is a surgical procedure that is associated with high morbidity and mortality. Pulmonary complications are an especially important postoperative problem. Therefore, many perioperative strategies to prevent pulmonary complications after esophagectomy have been investigated and introduced in daily clinical practice. Here, we review these strategies, including improvement of patient performance and technical advances such as minimally invasive surgery that have been implemented in recent years. Furthermore, interventions such as methylprednisolone, neutrophil elastase inhibitor and epidural analgesia, which have been shown to reduce pulmonary complications, are discussed. Benefits of the commonly applied routine nasogastric decompression, delay of oral intake and prophylactic mechanical ventilation are unclear, and many of these strategies are also evaluated here. Finally, we will discuss recent insights and new developments aimed to improve pulmonary outcomes after esophagectomy.

Impactfactor: 2.547

Nieuwenhuijzen GA

The standardised mortality ratio is unreliable for assessing quality of care in rectal cancer

van Gestel YR, Rutten HJ*, de Hingh IH*, van den Broek E, Nieuwenhuijzen GA*

Neth J Med. 2013 May;71(4):209-14

Voor abstract zie: Chirurgie - Rutten HJ

Impactfactor: 2.072

Orsini RG

Large variation between hospitals in follow-up for colorectal cancer in southern Netherlands

van Steenberghe LN, de Hingh IH*, Rutten HJ*, Rijk MC, Orsini RG*, Coebergh JW, Lemmens VE

Int J Colorectal Dis. 2013 Sep;28(9):1257-65

Voor abstract zie: Chirurgie - Hingh IH de

Impactfactor: 5.509

Orsini RG

Quality of life of older rectal cancer patients is not impaired by a permanent stoma

Orsini RG*, Thong MS, van de Poll-Franse LV, Slooeter GD, Nieuwenhuijzen GA*, Rutten HJ*, de Hingh IH*

Eur J Surg Oncol. 2013 Feb;39(2):164-70

BACKGROUND: The current study was undertaken to investigate the impact of a stoma on the HRQL with a special focus on age.

MATERIALS AND METHODS: Using the Eindhoven Cancer Registry, rectal cancer patients diagnosed between 1998 and 2007 in 4 hospitals were identified. All patients underwent TME surgery. Survivors were approached to complete the SF-36 and EORTC QLQ-C38 questionnaires. HRQL scores of the four groups, stratified by stoma status (stoma/no stoma) and age at operation (<70 and ≥70), were compared. The SF-36 and the QLQ-CR38 sexuality subscale scores of the survivors were compared with an age- and sex-matched Dutch norm population.

RESULTS: Median follow-up of 143 patients was 3.4 years. Elderly had significantly worse physical function ($p = 0.0003$) compared to younger patients. Elderly ($p = 0.005$) and patients without a stoma ($p = 0.009$) had worse sexual functioning compared to younger patients and patients with a stoma. Older males showed more sexual dysfunction ($p = 0.01$) when compared to younger males. In comparison with the normative population, elderly with a stoma had worse physical function ($p < 0.01$), but slightly better mental health ($p < 0.05$). Elderly without a stoma had better emotional role function ($p < 0.01$), and younger patients had worse sexual functioning and enjoyment (both $p < 0.0001$).

CONCLUSIONS: Older patients with a stoma have comparable HRQL to older patients without a stoma or the normative population, indicating the feasibility of a permanent stoma for elderly patients with a low situated rectal carcinoma. The negative impact of treatment on sexual functioning as found in the current study calls for further attention to alleviate this problem in sexually active patients.

Impactfactor: 2.614

Orsini RG

The modern anatomical surgical approach to localised rectal cancer

Orsini RG*, T. Wiggers T, DeRuiter MC, Quirke P, Beets-Tan RG, van de Velde CJ, Rutten HJ*

Eur J Cancer Supplements. 2013;11(2):60-71

Geen abstract beschikbaar

Impactfactor: 5.061

Oudheusden TR van

Challenges in diagnosing adhesive small bowel obstruction

Thijs R van Oudheusden*, Bart AC Aerts, Ignace HJT de Hingh* and Misha DP Luyer*

World J Gastroenterol 2013 November 21; 19(43): 7489-7493

Adhesive small bowel obstruction (ASBO) is the most frequently encountered surgical disorder of the small intestine. Up to 80% of ASBO cases resolve spontaneously and do not require invasive treatment. It is important to identify such patients that will benefit from conservative treatment in order to prevent unnecessarily exposing them to the risks associated with surgical intervention, such as morbidity and further adhesion formation. For the remaining ASBO patients, timely surgical intervention is necessary to prevent small bowel strangulation, which may cause intestinal ischemia and bowel necrosis. While early

identification of these patients is key to decreasing ASBO-related morbidity and mortality, the nonspecific signs and laboratory findings upon clinic presentation limit timely diagnosis and implementation of appropriate clinical management. Combining the clinical presentation findings with those from other diagnostic imaging modalities, such as abdominal X-ray, computed tomography-scan and water-soluble contrast studies, will improve diagnosis of ASBO and help clinicians to better evaluate the potential of conservative management as a safe strategy for a particular patient. Nonetheless, patients who present with moderate findings by all these approaches continue to represent a challenge. A new diagnostic strategy is urgently needed to further improve our ability to identify early signs of strangulated bowel, and this diagnostic modality should be able to indicate when surgical management is required. A number of potential serum markers have been proposed for this purpose, including intestinal fatty acid binding protein and - glutathione S transferase. On-going research is attempting to clearly define their diagnostic utility and to optimize their potential role in determining which patients should be managed surgically

Impactfactor: 2.547

Oudheusden TR van

Giant cystic lymphangioma originating from the lesser curvature of the stomach

van Oudheusden TR*, Nienhuijs SW*, Demeyere TB*, Luyer MD*, de Hingh IH*

World J Gastrointest Surg. 2013 Oct 27;5(10):264-7

Cystic lymphangiomas are rare benign tumors. Most frequently occurring in children and involving the neck or axilla, these tumors are much less common in adults and very rarely involve the abdomen. The known congenital and acquired (traumatic) etiologies result in failure of the lymphatic channels and consequent proliferation of lymphatic spaces. This case report describes a very rare case of a giant mesenteric cystic lymphangioma in an adult male with no clear etiology and successful resolution by standard radical resection. A previously healthy 44-year-old male presented with a 6-wk history of progressive upper abdominal pain, vomiting, anorexia and unintentional weight loss accompanied by rapid abdominal distension. A palpable mass was detected upon physical examination of the distended abdomen and abdominal computed tomography scan showed a giant multilobulated cystic process, measuring 40 cm in diameter. Exploratory laparotomy revealed an enormous cystic mass containing 6 L of serous fluid. The process appeared to originate from the lesser omentum and the lesser curvature of the stomach. Radical resection of the tumor was performed along with a partial gastrectomy to address potential invasion into the adjacent tissues. Histological analysis confirmed the diagnosis of a multicystic lymphangioma. The postoperative recovery was uneventful and the patient was discharged after 6 d. At 3-mo follow-up, the patient was in good health with no signs of recurrence.

Impactfactor: --

Ponten JE

Ultrasound-guided ilioinguinal/iliohypogastric nerve blocks for chronic pain after inguinal hernia repair

Thomassen I*, Suijlekom JA van*, Gaag A van de*, Ponten JE*, Nienhuijs SW*

Hernia. 2013 Jun;17(3):329-32. Epub 2012 Sep 27

Voor abstract zie: Chirurgie - Thomassen I

Impactfactor: 1.693

Riet EA van

[Diabetic mastopathy]

Wiersma HW*, Jansen FH*, van Merriënboer FJ*, van Riet YE*, Duijm LE*

Ned Tijdschr Geneeskd. 2013;157(8):A5071

Voor abstract zie: Radiologie - Wiersma HW

Impactfactor: --

Riet EA van

Patterns and determinants of surgical management of screen detected breast cancer in the South-East Netherlands

Liebrechts ME*, van Riet YE*, Nieuwenhuijzen GA*, Rutten HJ*, Duijm LE, Voogd AC

Breast. 2013 Oct;22(5):713-7

Voor abstract zie: Chirurgie - Liebrechts ME

Impactfactor: 1.967

Rutte PW van

Sleeve gastrectomy in older obese patients

van Rutte PW*, Smulders JF*, de Zoete JP*, Nienhuijs SW*

Surg Endosc. 2013 Jun;27(6):2014-9

BACKGROUND: With global aging, obesity will increasingly affect the older population with higher risks of morbidity and mortality, yet full consensus has been obtained for the role of sleeve gastrectomy (SG) in the older obese.

OBJECTIVE: The aim of this study is to report the outcomes of SG in the older obese.

SETTING: Bariatric department, large teaching hospital, The Netherlands.

METHODS: Between August 2006 and December 2011, 135 patients aged 55 years or older underwent SG. Outcomes in terms of perioperative complications, weight loss, remission of comorbidities, and revision were extracted from our prospectively held database. A subanalysis was done comparing three age groups: 55-59 years, 60-64 years, and 65 years and older.

RESULTS: During mean follow-up of 14.6 months, short-term mortality was 0 %. The 30-day complication rate was 11.1 %, without significant differences between age groups. Late complications occurred in 4.4 %. In 14 patients, revisions were performed because of development of reflux disease or dysphagia. Significant reduction of comorbidities was found in all age groups, except for sleep apnea. Among the total cohort, excellent weight loss was achieved during follow-up.

CONCLUSIONS: Laparoscopic sleeve gastrectomy (LSG) as a primary treatment modality for the older morbidly obese is an effective and relatively safe procedure in terms of weight loss and remission of comorbidities with an acceptable low complication rate.

Impactfactor: 3.427

Rutten HJ

Addition of biological therapies to palliative chemotherapy prolongs survival in patients with peritoneal carcinomatosis of colorectal origin

Klaver YL*, Leenders BJ*, Creemers GJ*, Rutten HJ*, Verwaal VJ, Lemmens VE,

Hingh IH de*

Am J Clin Oncol. 2013 Apr;36(2):157-61

Voor abstract zie: Chirurgie - Klaver YL

Impactfactor: 2.552

Rutten HJ

An increasing use of defunctioning stomas after low anterior resection for rectal cancer. Is this the way to go?

Snijders HS, van den Broek CB, Wouters MW, Meershoek-Klein Kranenbarg E, Wiggers T, Rutten H*, van de Velde CJ, Tollenaar RA, Dekker JW

Eur J Surg Oncol. 2013 Jul;39(7):715-20

BACKGROUND: The last decade there has been an increased awareness of the problem of anastomotic leakage after low anterior resection for rectal cancer, which may have led to more defunctioning stomas. In this study, current use of defunctioning stomas was assessed and compared to the use of defunctioning stomas at the time of the TME-trial together with associated outcomes.

METHODS: Eligible patients with rectal cancer undergoing low anterior resection were selected from the Dutch Surgical Colorectal Audit (DSCA, n = 988). Similar patients were selected from the TME-trial (n = 891). The percentages of patients with a defunctioning stoma, anastomotic leakage and postoperative mortality rates were studied. Multivariable models were used to study possible confounding on the outcomes.

RESULTS: At the time of the TME-trial, 57% of patients received a defunctioning stoma. At the time of the DSCA, 70% of all patients received a defunctioning stoma ($p < 0.001$). Anastomotic leakage rates were similar (11.4% and 12.1%; $p = 0.640$). The postoperative mortality rate differed (3.9% in the TME-trial vs. 1.1% in the DSCA; $p < 0.001$), but was not associated with a more frequent use of a stoma (OR 1.80, 95% CI 0.91-3.58).

CONCLUSION: In current surgical practice, 70% of patients undergoing LAR for rectal cancer receives a defunctioning stomas. This percentage seems increased when compared to data from the TME-trial. Clinically relevant anastomotic leakage rates remained similar. Therefore, current routine use of defunctioning stomas should be questioned.

Impactfactor: 2.614

Rutten HJ

Consensus statement on the multidisciplinary management of patients with recurrent and primary rectal cancer beyond total mesorectal excision planes

The Beyond TME Collaborative

Br J Surg. 2013 Jul;100(8):1009-14

BACKGROUND: The management of primary rectal cancer beyond total mesorectal excision planes (PRC-bTME) and recurrent rectal cancer (RRC) is challenging. There is global variation in standards and no guidelines exist. To achieve cure most patients require extended, multivisceral, exenterative surgery, beyond conventional total mesorectal excision planes. The aim of the Beyond TME Group was to achieve consensus on the definitions and principles of management, and to identify areas of research priority.

METHODS: Delphi methodology was used to achieve consensus. The Group consisted of invited experts from surgery, radiology, oncology and pathology. The process included two international dedicated discussion conferences, formal feedback, three rounds of editing and two rounds of anonymized web-based voting. Consensus was achieved with more than 80 per cent agreement; less than 80 per cent agreement indicated low consensus. During conferences held in September 2011 and March 2012, open discussion took place on areas in which there is a low level of consensus.

RESULTS: The final consensus document included 51 voted statements, making recommendations on ten key areas of PRC-bTME and RRC. Consensus agreement was achieved on the recommendations of 49 statements, with 34 achieving consensus in over 95 per cent. The lowest level of consensus obtained was 76 per cent. There was clear

identification of the need for referral to a specialist multidisciplinary team for diagnosis, assessment and further management.

CONCLUSION: The consensus process has provided guidance for the management of patients with PRC-bTME or RRC, taking into account global variations in surgical techniques and technology. It has further identified areas of research priority.

Impactfactor: 4.839

Rutten HJ

Diminishing differences in treatment between patients with colorectal cancer with and without diabetes: a population-based study

Zanders MM, van Steenberghe LN, Haak HR, Rutten HJ*, Pruijt JF, Poortmans PM, Lemmens VE, van de Poll-Franse LV

Diabet Med. 2013 Oct;30(10):1181-8

AIMS: An increasing number of oncologists will be confronted with individuals having diabetes and cancer. We assessed changes in patient-, tumour- and treatment-related variables in patients with colorectal cancer with and without diabetes.

METHODS: All 17 170 cases of primary colorectal cancer between 1995 and 2010 in the South-Eastern Netherlands were included. The Cochrane-Armitage test and logistic regression analysis were used to analyse trends.

RESULTS: In total, 11 893 patients were diagnosed with colon cancer and 5277 with rectal cancer, of whom 1711 (14%) and 609 (12%), respectively, had diabetes at the time of cancer diagnosis. Patients with colorectal cancer with diabetes compared with those without were approximately 5 years older and more often diagnosed with proximal colon tumours (60 vs. 54%; $P < 0.0001$). Chemotherapy administration significantly increased in patients with stage III colon cancer with and without diabetes (from 17% in 1995-1998 to 50% in 2007-2010, 38% to 63%, respectively; $P < 0.0001$). However, in the most recent period, and after adjusting for the co-variables age, gender, year of diagnosis and specific co-morbidities, patients with stage III colon cancer with diabetes received adjuvant chemotherapy less frequently than those without [odds ratio 0.7 (95% CI 0.5-0.9); $P = 0.002$]. The proportion of patients with stage II/III rectal cancer with and without diabetes who underwent radiotherapy has been similar in recent years (91 vs. 87%).

CONCLUSIONS: Although the administration of chemotherapy and radiotherapy increased between 1995 and 2010 in patients with colorectal cancer with and without diabetes, patients with colorectal cancer with diabetes continue to receive chemotherapy less frequently than those without diabetes.

Impactfactor: 3.241

Rutten HJ

Dynamic article: Vaginal and perineal reconstruction using rectus abdominis myocutaneous flap in surgery for locally advanced rectum carcinoma and locally recurrent rectum carcinoma

Holman FA, Martijnse IS*, Traa MJ, Boll D, Nieuwenhuijzen GA*, de Hingh IH*, Rutten HJ*

Dis Colon Rectum. 2013 Feb;56(2):175-85

Voor abstract zie: Chirurgie - Martijnse IS

Impactfactor: 2.615

Rutten HJ

EURECCA colorectal: Multidisciplinary Mission statement on better care for patients with colon and rectal cancer in Europe

van de Velde CJ, Aristei C, Boelens PG, Beets-Tan RG, Blomqvist L, Borrás JM, van den Broek CB, Brown G, Coebergh JW, Cutsem EV, Espin E, Gore-Booth J, Glimelius B, Haustermans K, Henning G, Iversen LH, Han van Krieken J, Marijnen CA, Mroczkowski P, Nagtegaal I, Naredi P, Ortiz H, Pahlman L, Quirke P, Rödel C, Roth A, Rutten HJ*, Schmoll HJ, Smith J, Tanis PJ, Taylor C, Wibe A, Gambacorta MA, Meldolesi E, Wiggers T, Cervantes A, Valentini V

Eur J Cancer. 2013 Sep;49(13):2784-90

BACKGROUND: Care for patients with colon and rectal cancer has improved in the last twenty years however still considerable variation exists in cancer management and outcome between European countries. Therefore, EURECCA, which is the acronym of European Registration of cancer care, is aiming at defining core treatment strategies and developing a European audit structure in order to improve the quality of care for all patients with colon and rectal cancer. In December 2012 the first multidisciplinary consensus conference about colon and rectum was held looking for multidisciplinary consensus. The expert panel consisted of representatives of European scientific organisations involved in cancer care of patients with colon and rectal cancer and representatives of national colorectal registries.

METHODS: The expert panel had delegates of the European Society of Surgical Oncology (ESSO), European Society for Radiotherapy & Oncology (ESTRO), European Society of Pathology (ESP), European Society for Medical Oncology (ESMO), European Society of Radiology (ESR), European Society of Coloproctology (ESCP), European Cancer Organisation (ECCO), European Oncology Nursing Society (EONS) and the European Colorectal Cancer Patient Organisation (EuropaColon), as well as delegates from national registries or audits. Experts commented and voted on the two webbased online voting rounds before the meeting (between 4th and 25th October and between the 20th November and 3rd December 2012) as well as one online round after the meeting (4th-20th March 2013) and were invited to lecture on the subjects during the meeting (13th-15th December 2012). The sentences in the consensus document were available during the meeting and a televoting round during the conference by all participants was performed. All sentences that were voted on are available on the EURECCA website www.canceraudit.eu. The consensus document was divided in sections describing evidence based algorithms of diagnostics, pathology, surgery, medical oncology, radiotherapy, and follow-up where applicable for treatment of colon cancer, rectal cancer and stage IV separately. Consensus was achieved using the Delphi method.

RESULTS: The total number of the voted sentences was 465. All chapters were voted on by at least 75% of the experts. Of the 465 sentences, 84% achieved large consensus, 6% achieved moderate consensus, and 7% resulted in minimum consensus. Only 3% was disagreed by more than 50% of the members.

CONCLUSIONS: It is feasible to achieve European Consensus on key diagnostic and treatment issues using the Delphi method. This consensus embodies the expertise of professionals from all disciplines involved in the care for patients with colon and rectal cancer. Diagnostic and treatment algorithms were developed to implement the current evidence and to define core treatment guidance for multidisciplinary team management of colon and rectal cancer throughout Europe.

Impactfactor: 5.061

Rutten HJ

Evaluating national practice of preoperative radiotherapy for rectal cancer based on clinical auditing

van Leersum NJ, Snijders HS, Wouters MW, Henneman D, Marijnen CA, Rutten HR*, Tollenaar RA, Tanis PJ

Eur J Surg Oncol. 2013 Sep;39(9):1000-6

OBJECTIVES: Internationally, the use of preoperative radiotherapy (RT) for rectal cancer varies largely, related to different decision-making based on the harm-benefit ratio. In the Dutch guideline, RT is indicated in all cT2-4 tumours. We aimed to evaluate the use of RT in the Netherlands and to discuss Dutch practice in the context of current literature

METHODS: Data of the Dutch Surgical Colorectal Audit (DSCA) were used and 6784 patients surgically treated for primary rectal cancer in 2009-2011 were included. The application and type of RT were described according to age, comorbidity, tumour localization and tumour stage at population level with analysis of hospital variation for specific subsets.

RESULTS: In total, 85% of patients who underwent resection for rectal cancer received RT. Comorbidity (Charlson Comorbidity Index 2+) and older age (≥ 70 years) were associated with a slight decrease in application of RT (75 and 80% respectively). In stage I tumours, 77% of patients received RT, but large hospital variation existed (0-100%). The proportion chemoradiotherapy of the whole group of RT increased with increasing N-stage, increasing T-stage, decreasing distance from the anus, younger age and less comorbidity with hospital variation from 0 to 73%.

CONCLUSION: From a European perspective, a high percentage of rectal cancer patients are treated with RT in the Netherlands. Considerable hospital variation was observed for RT in stage I and the proportion of chemoradiotherapy among all RT schemes. Data from clinical auditing enable evaluation of national practice and current standards from both a scientific and international perspective.

Impactfactor: 2.614

Rutten HJ

Evaluation of short-course radiotherapy followed by neoadjuvant bevacizumab, capecitabine, and oxaliplatin and subsequent radical surgical treatment in primary stage IV rectal cancer

van Dijk TH, Tamas K, Beukema JC, Beets GL, Gelderblom AJ, de Jong KP, Nagtegaal ID, Rutten HJ*, van de Velde CJ, Wiggers T, Hospers GA, Havenga K

Ann Oncol. 2013 Jul;24(7):1762-9

BACKGROUND: To evaluate the efficacy and tolerability of preoperative short-course radiotherapy followed by capecitabine and oxaliplatin treatment in combination with bevacizumab and subsequent radical surgical treatment of all tumor sites in patients with stage IV rectal cancer.

PATIENTS AND METHODS: Adults with primary metastasized rectal cancer were enrolled. They received radiotherapy (5 × 5 Gy) followed by bevacizumab (7.5 mg/kg, day 1) and oxaliplatin (130 mg/m², day 1) intravenously and capecitabine (1000 mg/m² twice daily orally, days 1-14) for up to six cycles. Surgery was carried out 6-8 weeks after the last bevacizumab dose. The percentage of radical surgical treatment, 2-year survival and recurrence rates, and treatment-related toxicity was evaluated.

RESULTS: Of 50 included patients, 42 (84%) had liver metastases, 5 (10%) lung metastases, and 3 (6%) both liver and lung metastases. Radical surgical treatment was possible in 36 (72%) patients. The 2-year overall survival rate was 80% [95% confidence interval (CI) 66.3%-

90.0%]. The 2-year recurrence rate was 64% (95% CI 49.8%-84.5%). Toxic effects were tolerable. No treatment-related deaths occurred.

CONCLUSIONS: Radical surgical treatment of all tumor sites carried out after short-course radiotherapy, and bevacizumab-capecitabine-oxaliplatin combination therapy is a feasible and potentially curative approach in primary metastasized rectal cancer.

Impactfactor: 7.384

Rutten HJ

Impact of the interval between short-course radiotherapy and surgery on outcomes of rectal cancer patients

van den Broek CB, Vermeer TA*, Bastiaannet E, Rutten HJ*, van de Velde CJ, Marijnen CA

Eur J Cancer. 2013 Oct;49(15):3131-9

Voor abstract zie: Chirurgie - Vermeer TA

Impactfactor: 5.061

Rutten HJ

Impaired postoperative leucocyte counts after preoperative radiotherapy for rectal cancer in the Stockholm III Trial

Rutten H*

Br J Surg. 2013 Jun;100(7):975

Geen abstract beschikbaar

Impactfactor: 4.839

Rutten HJ

Increasing prevalence of comorbidity in patients with colorectal cancer in the South of the Netherlands 1995-2010

Leersum NJ van, Janssen-Heijnen ML, Wouters MW, Rutten HJ*, Coebergh JW, Tollenaar RA, Lemmens VE

Int J Cancer. 2013 May 1;132(9):2157-63. Epub 2012 Nov 5

Comorbidity has large impact on colorectal cancer (CRC) treatment and outcomes and may increase as the population ages. We aimed to evaluate the prevalence and time trends of comorbid diseases in CRC patients from 1995-2010. The Eindhoven Cancer Registry registers comorbidity in all patients with primary CRC in the South of the Netherlands. We analyzed the prevalence of serious comorbid diseases in four time frames from 1995-2010. Thereby, we addressed its association with age, gender and socio-economic status (SES). The prevalence of comorbidity was registered in 27,339 patients with primary CRC. During the study period, the prevalence of comorbidity increased from 47% to 62%, multimorbidity increased from 20% to 37%. Hypertension and cardiovascular diseases were most prevalent and increased largely over time (respectively 16-29% and 12-24%). Pulmonary diseases increased in women, but remained stable in men. Average age at diagnosis increased from 68.3 to 69.5 years ($p=0.004$). A low SES and male gender were associated with a higher risk of comorbidity (not changing over time). This study indicates that comorbidity among CRC patients is common, especially in males and patients with a low SES. The prevalence of comorbidity increased from 1995-2010, in particular in presumably nutritional diseases. Ageing, increased life expectancy and life style changes may contribute to more comorbid diseases. Also, improved awareness among health care providers on the importance of

comorbidity may have resulted in better registration. The increasing burden of comorbidity in CRC patients emphasizes the need for more focus on individualized medicine.

Impactfactor: 6.198

Rutten HJ

Influence of Comorbidity and Age on 1-, 2-, and 3-Month Postoperative Mortality Rates in Gastrointestinal Cancer Patients

Gestel YR van , Lemmens VE, Hingh IH de*, Steevens J, Rutten HJ*, Nieuwenhuijzen GA*, Dam RM van , Siersema PD

Ann Surg Oncol. 2013 Feb;20(2):371-80. Epub 2012 Sep 18

Erratum: Ann Surg Oncol. 2013 Dec;20 Suppl 3:749

Voor abstract zie: Chirurgie - Hingh IH de

Impactfactor: 4.120

Rutten HJ

Intraoperative radiotherapy and cytoreductive surgery with hyperthermic intraperitoneal chemotherapy. Five consecutive case reports of locally advanced rectal cancer with synchronous peritoneal carcinomatosis

Klaver YL*, Lemmens VE, Nienhuijs SW*, Nieuwenhuijzen GA*, Rutten HJ*, de Hingh IH*

Strahlenther Onkol. 2013 Mar;189(3):256-60

Voor abstract zie: Chirurgie - Klaver YL

Impactfactor: 4.163

Rutten HJ

Large variation between hospitals in follow-up for colorectal cancer in southern Netherlands

van Steenbergen LN, de Hingh IH*, Rutten HJ*, Rijk MC, Orsini RG*, Coebergh JW, Lemmens VE

Int J Colorectal Dis. 2013 Sep;28(9):1257-65

PURPOSE: The aims of the study were to describe the follow-up of colorectal cancer (CRC) patients in southern Netherlands and examine their overall and disease-free survival.

METHODS: Patients newly diagnosed with CRC in 2003-2005 and 2008 with a survival of at least 1 year after diagnosis and recorded in the retrospective Eindhoven Cancer Registry were included (n=? 579). Follow-up was defined as at least one liver imaging and at least two carcinoembryonic antigen (CEA) measurements. Logistic regression analyses were conducted to assess determinants of followup. Proportions of patients undergoing colonoscopy, CEA measurements and liver and chest imaging were calculated. Overall and disease-free survival were calculated.

RESULTS: Patients ≥75 years (odds ratio (OR) 0.5 (95% confidence interval (CI) 0.3-0.7)) were less likely to receive follow-up, contrasting patients <50 years (OR 3.1 (95% CI 1.3-7.4)). In 2008, follow-up intensity increased (OR 2.3 (95% CI 1.2-4.3)), especially for liver imaging and CEA measurements. There were large differences in follow-up intensity and activities between hospitals, which were unaffected by comorbidity: ranges for colonoscopy 15-73 %, CEA measurement 46-91 % and imaging of the liver 22-70 % between hospitals. No effect of follow-up intensity was found on 5-year disease-free survival for patients aged <75 years (64 vs. 68 %; p=?0.6). Similarly, no effect of follow-up intensity on 5-year overall survival was found in these patients (77 vs. 82 %; p=?0.07).

CONCLUSION: Large variation in follow-up was found for patients with CRC, mainly declining with age and hospital of follow-up. Over time, follow-up became more intensive, especially with respect to liver imaging and CEA measurements. However, follow-up consisting of at least one liver imaging and at least two CEA measurements did not improve overall and disease-free survival.

Voor abstract zie: Chirurgie - Hingh IH de

Impactfactor: 2.238

Rutten HJ

Minimal excess mortality for long-term colon cancer survivors in the Netherlands 1989-2008

Steenbergen LN van, Steur M, Lemmens VE, Rutten HJ*, Spronsen DJ van, Janssen-Heijnen ML

Eur J Cancer. 2013 Feb;49(3):585-92. Epub 2012 Sep 8

We determined conditional 5-year relative survival rates for colon cancer patients, according to age, gender and tumour stage for each additional year of survival up to 15years after diagnosis. All 89,451 patients diagnosed in the Netherlands with colon cancer stage I-III in 1989-2008 aged 15-89years were selected from the Netherlands Cancer Registry. Conditional 5-year relative survival was computed for every additional year of survival up to 15years. There was minimal excess mortality (conditional 5-year relative survival >95%) 1-4years after diagnosis of stage I patients and 4-7years after diagnosis of stage II patients, with patients aged 45-74years reaching this point later compared to both younger and elderly patients. For stage III patients, minimal excess mortality was observed 5years after diagnosis for those aged 75-89years, but it remained elevated up to 13years after diagnosis for those aged 15-44 years. Initial differences in relative survival at diagnosis between age and stage groups largely disappeared with increasing number of years survived. The prognosis for colon cancer survivors improved with each additional year survived. In the first years after diagnosis conditional survival improved largely for all colon cancer patients, especially for stage III patients. There was minimal excess mortality for colon cancer patients stage I-III at some point within 15years of diagnosis, being later for more advanced stages. Quantitative insight into conditional survival for cancer patients is useful for caregivers to help plan optimal cancer surveillance and inform patients about their prognosis.

Impactfactor: 5.061

Rutten HJ

No difference between lowest and highest volume hospitals in outcome after colorectal cancer surgery in the southern Netherlands

van Erning FN, van Steenbergen LN, van den Broek WT, Rutten HJ*, Lemmens VE

Eur J Surg Oncol. 2013 Nov;39(11):1199-206

AIM: To investigate the quality of surgical colorectal cancer (CRC) care in the southern Netherlands by evaluating differences between the five hospitals with the lowest volume and the five hospitals with the highest volume.

METHODS: Patients who underwent resection for primary CRC diagnosed between 2008 and 2011 in southern Netherlands were included (n = 5655). The five hospitals performing <130 resections/year were classified 'low volume'; the five hospitals performing ≥ 130 resections/year 'high volume'. Differences in surgical approach, circumferential resection margins (CRM), anastomotic leakage and 30-day mortality between hospital volumes were analysed using Chi(2) tests. Expected proportions anastomotic leakage and 30-day mortality were calculated using multivariable logistic regression. Crude 3-year survival was calculated

using Kaplan-Meier curves. Cox regression was used to discriminate independent risk factors for death.

RESULTS: 23% of patients with locally advanced rectal cancer (LARC) diagnosed in a low volume centre was referred to a high volume centre. Patients with colon cancer underwent less laparoscopic surgery and less urgent surgery in low compared to high volume hospitals (10% versus 32%, $p < 0.0001$, and 8% versus 11%, $p = 0.003$, respectively). For rectal cancer, rates of abdominoperineal resections versus low anterior resections, and CRM were not associated with hospital volume. Anastomotic leakage, 30-day mortality, and survival did not differ between hospital volumes.

CONCLUSION: In southern Netherlands, low volume hospitals deliver similar high quality surgical CRC care as high volume hospitals in terms of CRM, anastomotic leakage and survival, also after adjustment for casemix. However, this excludes LARC since a substantial proportion was referred to high volume hospitals.

Impactfactor: 2.614

Rutten HJ

Patterns and determinants of surgical management of screen detected breast cancer in the South-East Netherlands

Liebrechts ME*, van Riet YE*, Nieuwenhuijzen GA*, Rutten HJ*, Duijm LE, Voogd AC
Breast. 2013 Oct;22(5):713-7

Voor abstract zie: Chirurgie - Liebrechts ME

Impactfactor: 1.967

Rutten HJ

Quality of life of older rectal cancer patients is not impaired by a permanent stoma

Orsini RG*, Thong MS, van de Poll-Franse LV, Slooter GD, Nieuwenhuijzen GA*, Rutten HJ*, de Hingh IH*

Eur J Surg Oncol. 2013 Feb;39(2):164-70

Voor abstract zie: Chirurgie - Orsini RG

Impactfactor: 2.614

Rutten HJ

The Dutch surgical colorectal audit

Van Leersum NJ, Snijders HS, Henneman D, Kolfschoten NE, Gooiker GA, ten Berge MG, Eddes EH, Wouters MW, Tollenaar RA; Dutch Surgical Colorectal Cancer Audit Group, Bemelman WA, van Dam RM, Elferink MA, Karsten TM, van Krieken JH, Lemmens VE, Rutten HJ*, Manusama ER, van de Velde CJ, Meijerink WJ, Wiggers T, van der Harst E, Dekker JW, Boerma D

Eur J Surg Oncol. 2013 Oct;39(10):1063-70

INTRODUCTION: In 2009, the nationwide Dutch Surgical Colorectal Audit (DSCA) was initiated by the Association of Surgeons of the Netherlands (ASN) to monitor, evaluate and improve colorectal cancer care. The DSCA is currently widely used as a blueprint for the initiation of other audits, coordinated by the Dutch Institute for Clinical Auditing (DICA). This article illustrates key elements of the DSCA and results of three years of auditing.

METHODS: Key elements include: a leading role of the professional association with integration of the audit in the national quality assurance policy; web-based registration by medical specialists; weekly updated online feedback to participants; annual external data verification with other data sources; improvement projects.

RESULTS: In two years, all Dutch hospitals participated in the audit. Case-ascertainment was 92% in 2010 and 95% in 2011. External data verification by comparison with the Netherlands Cancer Registry (NCR) showed high concordance of data items. Within three years, guideline compliance for diagnostics, preoperative multidisciplinary meetings and standardised reporting increased; complication-, re-intervention and postoperative mortality rates decreased significantly.

DISCUSSION: The success of the DSCA is the result of effective surgical collaboration. The leading role of the ASN in conducting the audit resulted in full participation of all colorectal surgeons in the Netherlands. By integrating the audit into the ASNs' quality assurance policy, it could be used to set national quality standards. Future challenges include reduction of administrative burden; expansion to a multidisciplinary registration; and addition of financial information and patient reported outcomes to the audit data.

Impactfactor: 2.614

Rutten HJ

The modern anatomical surgical approach to localised rectal cancer

Orsini RG*, T. Wiggers T, DeRuiter MC, Quirke P, Beets-Tan RG, van de Velde CJ, Rutten HJ*

Eur J Cancer Supplements. 2013;11(2):60-71

Geen abstract beschikbaar

Impactfactor: 5.061

Rutten HJ

The standardised mortality ratio is unreliable for assessing quality of care in rectal cancer

van Gestel YR, Rutten HJ*, de Hingh IH*, van den Broek E, Nieuwenhuijzen GA*

Neth J Med. 2013 May;71(4):209-14

Background: The standardised mortality ratio (SMR) for rectal or anal cancer was above average in a large tertiary referral centre for locally advanced rectal cancer in the Netherlands. The aim of this study was to investigate whether the increased SMR was indeed related to poor quality of care or whether it could be explained by inadequate adjustment for case-mix factors. **Methods:** Between 2006 and 2008, 381 patients were admitted for rectal or anal cancer. The SMR score of this diagnostic group was 230 (95% CI 140 to 355), corresponding with 20 in-hospital deaths. The hospital dataset was merged with data from the Eindhoven Cancer Registry to obtain more detailed information. **Results:** Patients admitted for palliative care only accounted for 45% (9÷20) of the in-hospital mortality. In contrast to the high SMR, postoperative mortality was low, i.e. 2.6%. The majority of the rectal or anal cancer patients were diagnosed in and referred from another hospital. Referred patients more often had an advanced tumour stage, more often underwent resection and were more frequently treated with chemotherapy and/or radiotherapy than non-referred patients.

Impactfactor: 2.072

Rutten HJ

Treatment and complications in elderly stage III colon cancer patients in the Netherlands

Hoeben KW, Steenberg LN van, Wouw AJ van de, Rutten HJ*, Spronsen DJ van, Janssen-Heijnen ML

Ann Oncol. 2013 Apr;24(4):974-9. Epub 2012 Nov 7

Background: We evaluated which patient factors were associated with treatment tolerance and outcome in elderly colon cancer patients. Design Population-based data from five regions included in the Netherlands Cancer Registry were used. Patients with resected stage III colon cancer aged ≥ 75 years diagnosed in 1997-2004 who received adjuvant chemotherapy (N = 216) were included as well as a random sample (N = 341) of patients who only underwent surgery. Results The most common motives for withholding adjuvant chemotherapy were a combination of high age, co-morbidity and poor performance status (PS, 43%) or refusal by the patient or family (17%). In 57% of patients receiving chemotherapy, adaptations were made in treatment regimens. Patients who received adjuvant chemotherapy developed more complications (52%) than those with surgery alone (41%). For the selection of patients who had survived the first year after surgery, receiving adjuvant chemotherapy resulted in better 5-year overall survival (52% versus 34%), even after adjustment for differences in age, co-morbidity and PS. Conclusion Despite high toxicity rates and adjustments in treatment regimens, elderly patients who received chemotherapy seemed to have a better survival. Prospective studies are needed for evaluating which patient characteristics predict the risks and benefits of adjuvant chemotherapy in elderly colon cancer patients.

Impactfactor: 7.384

Sambeek MR van

A Novel Experimental Approach for Three-Dimensional Geometry Assessment of Calcified Human Stenotic Arteries in Vitro

Boekhoven RW, Lopata RG, van Sambeek MR*, van de Vosse FN, Rutten MC

Ultrasound Med Biol. 2013 Oct;39(10):1875-86

To improve diagnosis and understanding of the risk of rupture of atherosclerotic plaque, new strategies to realistically determine mechanical properties of atherosclerotic plaque need to be developed. In this study, an in vitro experimental method is proposed for accurate 3-D assessment of (diseased) vessel geometry using ultrasound. The method was applied to a vascular phantom, a healthy porcine carotid artery and human carotid endarterectomy specimens (n = 6). Vessel segments were pressure fixed and rotated in 10° steps. Longitudinal cross sections were imaged over 360°. Findings were validated using micro-computed tomography (CT). Results show good agreement between ultrasound and CT-based geometries of the different segment types (ISI phantom = 0.94, ISI healthy = 0.79, ISI diseased = 0.75-0.80). The method does not suffer from acoustic shadowing effects present when imaging stenotic segments and allows future dynamic measurements to determine mechanical properties of atherosclerotic plaque in an in vitro setting.

Impactfactor: 2.455

Sambeek MR van

Challenging the evidence for pre-emptive coil embolisation of the internal iliac artery during endovascular aneurysm repair

Stokmans RA*, Willigendael EM*, Teijink JA*, Ten Bosch JA, van Sambeek MR*, Cuypers PW*

Eur J Vasc Endovasc Surg. 2013 Mar;45(3):220-6

Voor abstract zie: Chirurgie - Stokmans RA

Impactfactor: 2.820

Sambeek MR van

DISSECT: a new mnemonic-based approach to the categorization of aortic dissection.

Dake MD, Thompson M, van Sambeek M*, Vermassen F, Morales JP; DEFINE Investigators

Eur J Vasc Endovasc Surg. 2013 Aug;46(2):175-90

OBJECTIVE/BACKGROUND: Classification systems for aortic dissection provide important guides to clinical decision-making, but the relevance of traditional categorization schemes is being questioned in an era when endovascular techniques are assuming a growing role in the management of this frequently complex and catastrophic entity. In recognition of the expanding range of interventional therapies now used as alternatives to conventional treatment approaches, the Working Group on Aortic Diseases of the DEFINE Project developed a categorization system that features the specific anatomic and clinical manifestations of the disease process that are most relevant to contemporary decisionmaking.

METHODS AND RESULTS: The DISSECT classification system is a mnemonic-based approach to the evaluation of aortic dissection. It guides clinicians through an assessment of six critical characteristics that facilitate optimal communication of the most salient details that currently influence the selection of a therapeutic option, including those findings that are key when considering an endovascular procedure, but are not taken into account by the DeBakey or Stanford categorization schemes. The six features of aortic dissection include: duration of disease; intimal tear location; size of the dissected aorta; segmental extent of aortic involvement; clinical complications of the dissection, and thrombus within the aortic false lumen.

CONCLUSION: In current clinical practice, endovascular therapy is increasingly considered as an alternative to medical management or open surgical repair in select cases of type B aortic dissection. Currently, endovascular aortic repair is not used for patients with type A aortic dissection, but catheterbased techniques directed at peripheral branch vessel ischemia that may complicate type A dissection are considered valuable adjunctive interventions, when indicated. The use of a new system for categorization of aortic dissection, DISSECT, addresses the shortcomings of well-known established schemes devised more than 40 years ago, before the introduction of endovascular techniques. It will serve as a guide to support a critical analysis of contemporary therapeutic options and inform management decisions based on specific features of the disease process.

Impactfactor: 2.820

Sambeek MR van

Effect of white-matter lesions on the risk of periprocedural stroke after carotid artery stenting versus endarterectomy in the International Carotid Stenting Study (ICSS): a prespecified analysis of data from a randomised trial

Ederle J, Davagnanam I, van der Worp HB, Venables GS, Lyrer PA, Featherstone RL, Brown MM, Jäger HR; ICSS investigators: Sambeek MR van

Lancet Neurol. 2013 Sep;12(9):866-72

BACKGROUND: Findings from randomised trials have shown a higher early risk of stroke after carotid artery stenting than after carotid endarterectomy. We assessed whether white-matter lesions affect the perioperative risk of stroke in patients treated with carotid artery stenting versus carotid endarterectomy.

METHODS: Patients with symptomatic carotid artery stenosis included in the International Carotid Stenting Study (ICSS) were randomly allocated to receive carotid artery stenting or carotid endarterectomy. Copies of baseline brain imaging were analysed by two investigators, who were masked to treatment, for the severity of white-matter lesions using the age-related white-matter changes (ARWMC) score. Randomisation was done with a computer-generated sequence (1:1). Patients were divided into two groups using the median ARWMC. We analysed the risk of stroke within 30 days of revascularisation using a per-protocol analysis. ICSS is registered with controlled-trials.com, number ISRCTN 25337470.

FINDINGS: 1036 patients (536 randomly allocated to carotid artery stenting, 500 to carotid endarterectomy) had baseline imaging available. Median ARWMC score was 7, and patients were dichotomised into those with a score of 7 or more and those with a score of less than 7. In patients treated with carotid artery stenting, those with an ARWMC score of 7 or more had an increased risk of stroke compared with those with a score of less than 7 (HR for any stroke 2.76, 95% CI 1.17-6.51; $p=0.021$; HR for non-disabling stroke 3.00, 1.10-8.36; $p=0.031$), but we did not see a similar association in patients treated with carotid endarterectomy (HR for any stroke 1.18, 0.40-3.55; $p=0.76$; HR for disabling or fatal stroke 1.41, 0.38-5.26; $p=0.607$). Carotid artery stenting was associated with a higher risk of stroke compared with carotid endarterectomy in patients with an ARWMC score of 7 or more (HR for any stroke 2.98, 1.29-6.93; $p=0.011$; HR for non-disabling stroke 6.34, 1.45-27.71; $p=0.014$), but there was no risk difference in patients with an ARWMC score of less than 7.

INTERPRETATION: The presence of white-matter lesions on brain imaging should be taken into account when selecting patients for carotid revascularisation. Carotid artery stenting should be avoided in patients with more extensive white-matter lesions, but might be an acceptable alternative to carotid endarterectomy in patients with less extensive lesions.

Impactfactor: 23.917

Sambeek MR van

Influence of gender on EVAR outcomes with new low-profile devices

Bendermacher BL*, Grootenboer N, Cuypers PW*, Teijink JA*, Van Sambeek MR*

J Cardiovasc Surg (Torino). 2013 Oct;54(5):589-93

Voor abstract zie: Chirurgie - Bendermacher BL

Impactfactor: 1.510

Sambeek MR van

Local axial compressive mechanical properties of human carotid atherosclerotic plaques characterisation by indentation test and inverse finite element analysis

Chai CK, Akyildiz AC, Speelman L, Gijsen FJ, Oomens CW, van Sambeek MR*, van der Lugt A, Baaijens FP

J Biomech. 2013 Jun 21;46(10):1759-66

The fibrous cap of an atherosclerotic plaque may be prone to rupture if the occurring stresses exceed the strength of the cap. Rupture can cause acute thrombosis and subsequent ischaemic stroke or myocardial infarction. A reliable prediction of the rupture probability is essential for the appropriate treatment of atherosclerosis. Biomechanical models, which compute stresses and strain, are promising to provide a more reliable rupture risk prediction. However, these models require knowledge of the local biomechanical properties of atherosclerotic plaque tissue. For this purpose, we examined human carotid plaques using indentation experiments. The test set-up was mounted on an inverted confocal microscope to visualise the collagen fibre structure during the tests. By using an inverse finite element (FE) approach, and assuming isotropic neo-Hookean behaviour, the corresponding Young's moduli were found in the range from 6 to 891 kPa (median 30 kPa). The results correspond to the values obtained by other research groups who analysed the compressive Young's modulus of atherosclerotic plaques. Collagen rich locations showed to be stiffer than collagen poor locations. No significant differences were found between the Young's moduli of structured and unstructured collagen architectures as specified from confocal collagen data. Insignificant differences between the middle of the fibrous cap, the shoulder regions, and remaining plaque tissue locations indicate that axial, compressive mechanical properties of atherosclerotic plaques are independent of location within the plaque.

Impactfactor: 2.716

Sambeek MR van

Response to 'Re. Internal Iliac Artery Coverage During Endovascular Aneurysm Repair'

Stokmans RA*, Cuypers PW*, van Sambeek MR*, Teijink JA*

Eur J Vasc Endovasc Surg. 2013 Oct;46(4):495-6

Geen abstract beschikbaar

Impactfactor: 2.820

Sambeek MR van

Sex differences in 30-day and 5-year outcomes after endovascular repair of abdominal aortic aneurysms in the EUROSTAR study

Grootenboer N, Myriam Hunink MG, Hendriks JM, van Sambeek MR*, Buth J*; EUROSTAR collaborators

J Vasc Surg. 2013 Jul;58(1):42-49.e1

OBJECTIVE: The purpose of this study was to determine the effect of sex on 30-day and long-term outcomes after elective endovascular aneurysm repair.

METHODS: Patients entered into the European collaborators on stent graft techniques for abdominal aortic aneurysm repair (EUROSTAR) study formed the basis of our study. Data were analyzed by means of multivariable logistic regression for 30-day mortality and composite outcome of mortality, systemic complication, or conversion. Kaplan-Meier survival analyses were used to compare long-term survival and long-term event-free survival

times between women and men. The log-rank test was used to test for differences. Cox proportional hazards regression was used to analyze survival and event-free survival (with end point mortality or reintervention). Multivariable analyses were adjusted for age, comorbidities, aneurysm characteristics, and treatment characteristics.

RESULTS: There were 623 women and 8604 men available for analysis. No difference in 30-day mortality was demonstrated for women compared with men (odds ratio, 0.89; 95% confidence interval [CI], 0.48-1.67), but women did have a significantly higher cumulative incidence of the composite end point (odds ratio, 1.32; 95% CI, 1.05-1.66). The Kaplan-Meier curves demonstrated worse outcomes for both long-term survival ($P = .05$) and long-term event-free survival ($P = .005$). Survival analyses adjusting for covariates demonstrated a higher albeit nonsignificant difference in long-term mortality for women compared to men (hazard rate ratio, 1.21; 95% CI, 0.96-1.53) and a significant higher rate of the composite end point mortality or reintervention (hazard rate ratio, 1.28; 95% CI, 1.07-1.54).

CONCLUSIONS: Women undergoing endovascular aortic repair have higher complication and reintervention rates compared with men, implying that the role of elective endovascular aneurysm repair in women needs to be examined more closely.

Impactfactor: 2.879

Sambeek MR van

Standardized Definitions and Clinical Endpoints in Trials Investigating Endovascular Repair of Aortic Dissections

Diehm N, Vermassen F, van Sambeek MR*

Eur J Vasc Endovasc Surg. 2013 Dec;46(6):645-50. Epub 2013 Sep 6

OBJECTIVES: Endovascular therapy is a rapidly expanding option for the treatment of patients with aortic dissection (AD) and various studies have been published. These trials, however, are often difficult to interpret and compare because they do not utilize uniform clinical endpoint definitions.

METHODS: The DEFINE Group is a collaborative effort of an ad hoc multidisciplinary team from various specialties involved in AD therapy in Europe and the United States. DEFINE's goal was to arrive at a broad based consensus for baseline and endpoint definitions in trials for endovascular therapy of various vascular pathologies. In this project, which started in December 2006, the individual team members reviewed the existing pertinent literature. Following this, a series of telephone conferences and face-to-face meetings were held to agree upon definitions. Input was also obtained from regulatory (United States Food and Drug Administration) and industry (device manufacturers with an interest in peripheral endovascular revascularization) stakeholders, respectively.

RESULTS: These efforts resulted in the present document containing proposed baseline and endpoint definitions for clinical and morphological outcomes. Although the consensus has inevitably included certain arbitrary consensus choices and compromises, adherence to these proposed standard definitions would provide consistency across future trials, thereby facilitating evaluation of clinical effectiveness and safety of various endovascular revascularization techniques.

CONCLUSIONS: This current document is based on a broad based consensus involving relevant stakeholders from the medical community, industry and regulatory bodies. It is proposed that the consensus document may have value for study design of future clinical trials in endovascular AD therapy as well as for regulatory purposes.

Impactfactor: 2.820

Sambeek MR van**Validation of three models predicting in-hospital death in patients with an abdominal aortic aneurysm eligible for both endovascular and open repair**

van Beek SC, Blankensteijn JD, Balm R; Dutch Randomised Endovascular Aneurysm Management (DREAM) trial collaborators: Sambeek MR van

J Vasc Surg. 2013 Dec;58(6):1452-1457.e1

OBJECTIVE: The Medicare, the Vascular Governance North West (VGNW), and the British Aneurysm Repair (BAR) models can be used to predict in-hospital death after an intervention for an asymptomatic abdominal aortic aneurysm (AAA). Validation of these models in patients with suitable aortic anatomy for endovascular repair and a general condition fit for open repair is lacking. We validated the Medicare, VGNW, and BAR models in patients from a randomized controlled trial comparing open and endovascular AAA repair.

METHODS: A per-protocol analysis was done of 345 Dutch and Belgian patients with in-hospital death as the primary end point. The prediction models were validated taking into account discrimination (the ability to distinguish between death and survival) and calibration (the agreement between predicted and observed death rates). Discrimination was assessed using the area under the receiver-operating characteristics curve (AUC). An AUC >0.70 was considered to be sufficiently accurate. Calibration was assessed using the Hosmer-Lemeshow (HL) test, and $P > .05$ was considered to be sufficiently accurate.

RESULTS: The AUC was 0.77 (95% confidence interval [CI], 0.64-0.90; HL test, $P = .52$) for the Medicare model, 0.88 (95% CI, 0.81-0.95; HL test, $P = .31$) for the VGNW model, and 0.79 (95% CI, 0.67-0.91; HL test, $P = .15$) for the BAR model.

CONCLUSIONS: In AAA patients eligible for endovascular and open repair, the predictions of inhospital death by the Medicare, VGNW, and BAR models were sufficiently accurate. Therefore, these models can be used to support deciding between endovascular and open repair.

Impactfactor: 2.879

Simkens GA**Acute neurological disorders following intraperitoneal administration of cisplatin**

Simkens GA*, Hanse MC*, de Hingh IH*

Int J Gynaecol Obstet. 2013 Mar;120(3):291

Geen abstract beschikbaar

Impactfactor: 1.836

Smulders JF**Iron deficiency before and after bariatric surgery: The need for iron supplementation**

Ten Broeke R*, Bravenboer B, Smulders FJ*

Neth J Med. 2013 Oct;71(8):412-7

Voor abstract zie: Apotheek - Ten Broeke R

Impactfactor: 2.072

Smulders JF

Removable and repositionable covered metal self-expandable stents for leaks after upper gastrointestinal surgery: experiences in a tertiary referral hospital

Leenders BJ*, Stronkhorst A*, Smulders FJ*, Nieuwenhuijzen GA*, Gilissen LP*

Surg Endosc. 2013 Aug;27(8):2751-9

Voor abstract zie: Chirurgie - Leenders BJ

Impactfactor: 3.427

Smulders JF

Sleeve gastrectomy in older obese patients

van Rutte PW*, Smulders JF*, de Zoete JP*, Nienhuijs SW*

Surg Endosc. 2013 Jun;27(6):2014-9

Voor abstract zie: Chirurgie - Rutte PW van

Impactfactor: 3.427

Stokmans RA

A Comparison of Complications between Open Abdominal Sacrocolpopexy and Laparoscopic Sacrocolpopexy for the Treatment of Vault Prolapse

Coolen AL, van Oudheusden AM, van Eijndhoven HW, van der Heijden TP, Stokmans RA*, Mol BW, Bongers MY.

Obstet Gynecol Int. 2013;528636

Introduction. Sacrocolpopexy is a generally applied treatment for vault prolapse which can be performed laparoscopically or by open laparotomy.

Methods. Between October 2007 and December 2012, we performed a multicenter prospective cohort study in 2 university and 4 teaching hospitals in the Netherlands. We included patients with symptomatic posthysterectomy vaginal vault prolapse requiring surgical treatment, who either had abdominal or laparoscopic sacrocolpopexy. We studied surgery related morbidity, which was divided in pre-, peri-, and postoperative characteristics.

Results. We studied 85 patients, of whom 42 had open abdominal and 43 laparoscopic sacrocolpopexy. In the laparoscopic sacrocolpopexy group, estimated blood loss was significantly less compared to the abdominal group: 192d .001). Furthermore, hospital stay was significantly shorter in the laparoscopic group (4.2 days) as compared to the abdominal group (2.4 days) (P d .001). The overall complication rate was not significantly different (P = .121). However there was a significant difference in favor of the laparoscopic group in peri- and postoperative complications requiring complementary (conservative) treatment and/or extended admittance (RR 0.24 (95%-CI 0.07-0.80), P = .009). Conclusion. Laparoscopic sacrocolpopexy reduces blood loss and hospital stay as compared to abdominal sacrocolpopexy and generates less procedure related morbidity.

Impactfactor: --

Stokmans RA

Challenging the evidence for pre-emptive coil embolisation of the internal iliac artery during endovascular aneurysm repair

Stokmans RA*, Willigendael EM*, Teijink JA*, Ten Bosch JA, van Sambeek MR*, Cuypers PW*

Eur J Vasc Endovasc Surg. 2013 Mar;45(3):220-6

OBJECTIVES: We retrospectively analysed the results of a strategy in which coverage of the internal iliac artery (IIA) during endovascular aneurysm repair (EVAR) was routinely performed without coil embolisation.

METHODS: From January 2010 until May 2012, 32 patients (96.9% men; mean age 73.0 years, range 52-89 years) underwent EVAR with stent grafts extended into the external iliac artery (EIA), all without prior coil embolisation. Aneurysm morphology was determined on preoperative computed tomography (CT) images. During follow-up, patients were interviewed about buttock claudication, and the occurrence of endoleaks and evolution of aneurysm diameter were recorded.

RESULTS: At baseline, the mid-common iliac artery (CIA) diameter was 33.5 ± 16.8 mm and seven patients presented with ruptured aneurysms. Mean follow-up was 14.3 ± 7.4 months. There were eight deaths, none related to IIA coverage. Buttock claudication occurred in seven (22.6%) patients, which persisted after 6 months in two cases of bilateral IIA coverage. No Type-I or -II endoleaks occurred related to IIA coverage. Aneurysm growth was not observed.

CONCLUSION: Endovascular treatment of aortoiliac and iliac aneurysm without pre-emptive coil embolisation of the IIA appears safe and effective. No IIA-related endoleaks or re-interventions occurred in our series. This approach saves operating time, contrast load and costs and may reduce complications. However, a larger population and longer follow-up is required to confirm our findings.

Impactfactor: 2.820

Stokmans RA

Ginkgo biloba for intermittent claudication

Nicolaï SP, Kruidenier LM*, Bendermacher BL*, Prins MH, Stokmans RA*, Broos PP*, Teijink JA*

Cochrane Database Syst Rev. 2013 Jun 6;6:CD006888

Voor abstract zie: Chirurgie - Kruidenier LM

Impactfactor: --

Stokmans RA

Response to 'Re. Internal Iliac Artery Coverage During Endovascular Aneurysm Repair'

Stokmans RA*, Cuypers PW*, van Sambeek MR*, Teijink JA*

Eur J Vasc Endovasc Surg. 2013 Oct;46(4):495-6

Geen abstract beschikbaar

Impactfactor: 2.820

Stokmans RA

Targeted screening as a tool for the early detection of chronic Q fever patients after a large outbreak

Wegdam-Blans MC*, Stokmans RA*, Tjhe JH, Korbeeck JM, Koopmans MP, Evers SM, Voort PH van der*, Teijink JA*

Eur J Clin Microbiol Infect Dis. 2013 Mar;32(3):353-9. Epub 2012 Sep 26

Voor abstract zie: Pamm - Wegdam-Blans MC

Impactfactor: 3.024

Teijink JA

[A man with a bump on his forehead after a fall]

Klompshouwer EG*, Thomassen I*, Teijink JA*

Ned Tijdschr Geneesk. 2013;157(8):A4231

Voor abstract zie: Radiologie - Klompshouwer EG

Impactfactor: --

Teijink JA

A Variant in LDLR Is Associated With Abdominal Aortic Aneurysm

Bradley DT, Hughes AE, Badger SA, Jones GT, Harrison SC, Wright BJ, Bumpstead S, Baas AF, Grétarsdóttir S, Burnand K, Child AH, Clough RE, Cockerill G, Hafez H, Scott DJ, Ariëns RA, Johnson A, Sohrabi S, Smith A, Thompson MM, van Bockxmeer FM, Waltham M, Matthíasson SE, Thorleifsson G, Thorsteinsdóttir U, Blankensteijn JD, Teijink JA*, Wijmenga C, de Graaf J, Kiemeney LA, Wild JB, Edkins S, Gwilliam R, Hunt SE, Potter S, Lindholt JS, Golledge J, Norman PE, van Rij A, Powell JT, Eriksson P, Stefánsson K, Thompson JR, Humphries SE, Sayers RD, Deloukas P, Samani NJ, Bown MJ.

Circ Cardiovasc Genet. 2013 Oct 1;6(5):498-504

Background- Abdominal aortic aneurysm (AAA) is a common cardiovascular disease among older people and demonstrates significant heritability. In contrast to similar complex diseases, relatively few genetic associations with AAA have been confirmed. We reanalyzed our genome-wide study and carried through to replication suggestive discovery associations at a lower level of significance.

Methods and Results- A genome-wide association study was conducted using 1830 cases from the United Kingdom, New Zealand, and Australia with infrarenal aorta diameter ≥ 30 mm or ruptured AAA and 5435 unscreened controls from the 1958 Birth Cohort and National Blood Service cohort from the Wellcome Trust Case Control Consortium. Eight suggestive associations with $P < 1 \times 10^{-4}$ were carried through to in silico replication in 1292 AAA cases and 30 associated with $P < 0.05$ after Bonferroni correction in the in silico study underwent further replication (706 AAA cases and 1063 controls from the United Kingdom, 507 AAA cases and 199 controls from Denmark, and 885 AAA cases and 1000 controls from New Zealand). Low-density lipoprotein receptor (LDLR) rs6511720 A was significantly associated overall and in 3 of 5 individual replication studies. The full study showed an association that reached genome-wide significance (odds ratio, 0.76; 95% confidence interval, 0.70-0.83; $P = 2.08 \times 10^{-10}$). Conclusions- LDLR rs6511720 is associated with AAA. This finding is consistent with established effects of this variant on coronary artery disease. Shared causal pathways with other cardiovascular diseases may present novel opportunities for preventative and therapeutic strategies for AAA.

Impactfactor: --

Teijink JA

Challenges in diagnosing mesenteric ischemia

van den Heijkant TC*, Aerts BA, Teijink JA*, Buurman WA, Luyer MD*

World J Gastroenterol. 2013 Mar 7;19(9):1338-41

Voor abstract zie: Chirurgie - Heijkant AC van den

Impactfactor: 2.547

Teijink JA

Challenging the evidence for pre-emptive coil embolisation of the internal iliac artery during endovascular aneurysm repair

Stokmans RA*, Willigendaal EM*, Teijink JA*, Ten Bosch JA, van Sambeek MR*, Cuypers PW*

Eur J Vasc Endovasc Surg. 2013 Mar;45(3):220-6

Voor abstract zie: Chirurgie - Stokmans RA

Impactfactor: 2.820

Teijink JA

Ginkgo biloba for intermittent claudication

Nicolai SP, Kruidenier LM*, Bendermacher BL*, Prins MH, Stokmans RA*, Broos PP*, Teijink JA*

Cochrane Database Syst Rev. 2013 Jun 6;6:CD006888

Voor abstract zie: Chirurgie - Kruidenier LM

Impactfactor: --

Teijink JA

Influence of gender on EVAR outcomes with new low-profile devices

Bendermacher BL*, Grootenboer N, Cuypers PW*, Teijink JA*, van Sambeek MR*

J Cardiovasc Surg (Torino). 2013 Oct;54(5):589-93

Voor abstract zie: Chirurgie - Bendermacher BL

Impactfactor: 1.510

Teijink JA

Lifestyle interventions in patients with coronary heart disease: a systematic review

de Waure C, Lauret GJ*, Ricciardi W, Ferket B, Teijink J*, Spronk S, Myriam Hunink MG
Am J Prev Med. 2013 Aug;45(2):207-16

Voor abstract zie: Chirurgie - Lauret GJ

Impactfactor: 3.945

Teijink JA

Persisting pain after endovascular treatment of a symptomatic aortic aneurysm

Mandigers L*, Lauret GJ*, Luyer MD*, Teijink JA*

Int J Surg Case Rep. 2013;4(9):798-800

Voor abstract zie: Chirurgie - Mandigers L

Impactfactor: --

Teijink JA

Response to 'Re. Internal Iliac Artery Coverage During Endovascular Aneurysm Repair'

Stokmans RA*, Cuypers PW*, van Sambeek MR*, Teijink JA*

Eur J Vasc Endovasc Surg. 2013 Oct;46(4):495-6

Geen abstract beschikbaar

Impactfactor: 2.820

Teijink JA

Supervised exercise therapy versus non-supervised exercise therapy for intermittent claudication

Fokkenrood HJ*, Bendermacher BL*, Lauret GJ*, Willigendael EM, Prins MH,

Teijink JA*

Cochrane Database Syst Rev. 2013 Aug 23

Voor abstract zie: Chirurgie - Fokkenrood HJ

Impactfactor: --

Teijink JA

Targeted screening as a tool for the early detection of chronic Q fever patients after a large outbreak

Wegdam-Blans MC*, Stokmans RA*, Tjhie JH, Korbeeck JM, Koopmans MP, Evers SM, Voort PH van der*, Teijink JA*

Eur J Clin Microbiol Infect Dis. 2013 Mar;32(3):353-9. Epub 2012 Sep 26

Voor abstract zie: Pamm - Wegdam-Blans MC

Impactfactor: 3.024

Thomassen I

[A man with a bump on his forehead after a fall]

Klompenshouwer EG*, Thomassen I*, Teijink JA*

Ned Tijdschr Geneeskd. 2013;157(8):A4231

Voor abstract zie: Radiologie - Klompenshouwer EG

Impactfactor: --

Thomassen I

Incidence, Prognosis, and Possible Treatment Strategies of Peritoneal Carcinomatosis of Pancreatic Origin: A Population-Based Study

Thomassen I*, Lemmens VE, Nienhuijs SW*, Luyer MD*, Klaver YL*, Hingh IH de*

Pancreas. 2013 Jan;42(1):72-5. Epub 2012 Jul 30

OBJECTIVES: Peritoneal carcinomatosis (PC) is an important cause of morbidity and mortality among patients with pancreatic cancer. In an era where therapeutic options for PC of multiple origins are emerging, our aim was to provide population-based data on incidence, treatment, and prognosis of PC of pancreatic origin.

METHODS: All patients with a condition diagnosed as nonendocrine pancreatic cancer between 1995 and 2009 in the area of the Eindhoven Cancer Registry were included.

RESULTS: In total, 2924 patients had a diagnosis of pancreatic cancer of which 265 patients (9%) presented with synchronous PC. An increasing trend could be noted in patients treated with chemotherapy in more recent years (11% in 1995-1999 and 22% in 2005-2009; P =

0.060). Median survival in patients presenting with PC was only 6 weeks (95% confidence interval, 5-7 weeks) and did not improve over time, contrasting improvements among patients with nonmetastasized disease (19-30 weeks) and patients with metastasized disease confined to the liver (8-12 weeks).

CONCLUSION: Prognosis of patients with pancreatic cancer presenting with PC remains extremely poor. Treatment options are scarce and, given the magnitude of the problem, efforts should be undertaken to develop effective treatments in experimental and clinical studies.

Impactfactor: 2.953

Thomassen I

Incidence, prognosis, and treatment options for patients with synchronous peritoneal carcinomatosis and liver metastases from colorectal origin

Thomassen I*, van Gestel YR, Lemmens VE, de Hingh IH*

Dis Colon Rectum. 2013 Dec;56(12):1373-80

BACKGROUND: Peritoneal carcinomatosis and liver metastases are common metastatic sites in patients who have colorectal cancer. Quite frequently, patients present with both synchronous liver and peritoneal metastases, which may result in a dilemma regarding the optimal treatment.

OBJECTIVE: In the absence of reliable data, the aim of the current study was to provide populationbased data on such patients and to review the literature for possible treatment options.

DESIGN: This study is a retrospective analysis of a prospective database and a review.

PATIENTS: All patients diagnosed between 1995 and 2010 with synchronous peritoneal carcinomatosis and liver metastases were identified from the Eindhoven Cancer Registry.

OUTCOME MEASURES: Incidence and survival were analyzed. Next, the literature was reviewed for articles reporting on the results of treatment with curative intent.

RESULTS: In total, 27,632 patients were diagnosed with colorectal cancer, of whom 5638 patients (20%) presented with metastasized disease. Synchronous liver metastasis and peritoneal carcinomatosis were present in 440 patients, being 11% of patients with liver metastases, 34% of patients with peritoneal carcinomatosis, 8% of patients with metastasized disease, and 2% of all patients diagnosed with colorectal cancer. Median survival for patients with liver metastasis and peritoneal carcinomatosis was 5 months, in comparison with 95 months for patients with nonmetastasized disease. No improvement in survival was noted over time. None of the patients underwent treatment with curative intent during this period.

LIMITATIONS: No data on the extent of peritoneal carcinomatosis and liver metastases were available in the population-based study. This complicates comparison with treated patients from the literature review, which probably reflects a highly selected patient population.

CONCLUSIONS: Both liver metastasis and peritoneal carcinomatosis were present in 8% of patients presenting with metastasized colorectal cancer. Population-based survival was only 5 months, with none of the patients undergoing treatment with curative intent. Median survival rates of up to 36 months after treatment with curative intent as published in the literature may be regarded as promising for selected patients.

Impactfactor: 2.615

Thomassen I

Ultrasound-guided ilioinguinal/iliohypogastric nerve blocks for chronic pain after inguinal hernia repair

Thomassen I*, Suijlekom JA van*, Gaag A van de *, Ponten JE*, Nienhuijs SW*

Hernia. 2013 Jun;17(3):329-32. Epub 2012 Sep 27

PURPOSE: The aim of this study was to evaluate the outcome of ilioinguinal and iliohypogastric nerve blocks in patients with chronic pain after herniorrhaphy, by comparing nerve stimulator and ultrasound guidance to administer the block.

METHODS: A total of 43 patients who received nerve blocks for chronic inguinal post-herniorrhaphy pain received standardized questionnaires. Nerve stimulator-guided blocks were performed prior to January 2009, and thereafter, ultrasound-guided blocks were performed using a local anaesthetic solution and a corticosteroid.

RESULTS: The questionnaire was completed by 38 patients (88 %). The inguinal hernia repair was performed for a median 16 months (range 3-219) ahead of the nerve blocks. A median of 2 pain treatments (range 1-7) was calculated. Median follow-up was 21 months (range 3-68). According to the DN4, 21 patients (55.3 %) no longer reported neuropathic pain. Subjectively, 32 % no longer reported moderate-to-severe pain. After ultrasound-guided blocks, a higher VAS score (at rest and during activities), a higher proportion of daily pain and more anxiety and depression are reported compared to blocks performed after nerve stimulator guidance.

CONCLUSIONS: Ilioinguinal/iliohypogastric nerve blocks can be effective to treat chronic inguinal pain following surgery of the groin. The use of ultrasound was not superior to nerve stimulator-guided blocks. These blocks could be considered prior to more invasive procedures such as neurectomy.

Impactfactor: 1.693

Veen AH van der

Comparison of fondaparinux with low molecular weight heparin for venous thromboembolism prevention in patients requiring rigid or semi-rigid immobilization for isolated non-surgical below-knee injury

Samama CM, Lecoules N, Kierzek G, Claessens YE, Riou B, Rosencher N, Mismetti P, Sautet A, Barrellier MT, Apartsin K, Jonas M, Caeiro JR, van der Veen AH*, Roy PM

Thromb Haemost. 2013 Oct;11(10):1833-43

BACKGROUND: In several small studies, anticoagulant therapy reduced the incidence of venous thromboembolism (VTE) in patients with isolated lower-limb injuries.

OBJECTIVES: To compare the efficacy and safety of fondaparinux 2.5 mg (1.5 mg in patients with a creatinine clearance between 30 and 50 mL min⁻¹) over nadroparin 2850 anti-factor Xa IU. **PATIENTS AND METHODS:** In this international, multicenter, randomized, open-label study, patients with an isolated non-surgical unilateral below-knee injury having at least one additional major risk factor for VTE and requiring, in the Investigator's opinion, rigid or semi-rigid immobilization for 21-45 days with thromboprophylaxis up to complete mobilization received subcutaneously once-daily either fondaparinux or nadroparin. The primary efficacy outcome was the composite of VTE (symptomatic or ultrasonographically detected asymptomatic deep vein thrombosis of the lower limb or symptomatic pulmonary embolism) and death up to complete mobilization. The main safety outcome was major bleeding.

RESULTS: We randomized 1349 patients (mean age 46 years): 88.7% had a bone fracture, and 83.8% had a plaster cast fitted (mean duration of immobilization, 34 days). The primary efficacy outcome occurred in 15 of 584 patients (2.6%) in the fondaparinux group and 48 of

586 patients (8.2%) in the nadroparin group (odds ratio, 0.30; 95% confidence interval [CI], 0.15-0.54; $P < 0.001$). A single major bleed was experienced by fondaparinux-treated patients and none by nadroparin-treated patients. These results were maintained up to the end of follow-up. **CONCLUSIONS:** Fondaparinux 2.5 mg day⁻¹ may be a valuable therapeutic option over nadroparin 2850 anti-FXa IU day⁻¹ for preventing VTE after below-knee injury requiring prolonged immobilization in patients with additional risk factors.

Impactfactor: 6.094

Vermeer TA

Impact of the interval between short-course radiotherapy and surgery on outcomes of rectal cancer patients

van den Broek CB, Vermeer TA*, Bastiaannet E, Rutten HJ*, van de Velde CJ, Marijnen CA

Eur J Cancer. 2013 Oct;49(15):3131-9

AIMS: Pre-operative radiotherapy has proven to reduce local recurrences after curative surgery for rectal cancer. Radiotherapy is generally well tolerated, although postoperative morbidity and mortality was increased in some patients. Current study was undertaken to analyse whether the interval between preoperative radiotherapy and surgery influences post-operative mortality and recurrence for two cohorts. **METHODS:** All Dutch patients included in the total mesorectal excision (TME)-trial receiving radiotherapy for resectable rectal cancer were included in this study (n=642). The verification set consisted of all patients receiving short-course radiotherapy for resectable rectal cancer in two radiotherapy clinics in The Netherlands (n=600). Univariate and multivariable survival analyses for overall survival, disease-free survival, local recurrence-free survival and non-cancer related survival were calculated. **RESULTS:** Patients aged 75years and older treated during the TME-trial showed a worse overall and non-cancer-related survival when surgically treated 4-7days after the last fraction of radiotherapy. No differences in survival between the interval groups were found in the verification set. **CONCLUSION:** Present study found that elderly patients aged 75years and older operated 4-7days after the last fraction of radiotherapy had a higher chance of dying due to non-cancer-related causes during the TME-trial as compared to patients with an interval of 0-3days. In the verification set similar differences could not be confirmed, which could be due to awareness of the clinicians who avoided delayed surgery after radiotherapy since the results have been presented during congresses. A longer than recommended interval between radiotherapy and surgery should be avoided. Besides, the verification set suggests that radiotherapy duration of 7days is acceptable.

Impactfactor: 5.061

Vugts G

A man with a swelling of his lower leg since 69 years

Vugts G#, Vles GF, Meesters B

Ned Tijdschr Geneesk. 2013;157(44):A6735

A 76-year-old man visited the Emergency Room because of pain of a progressive, swelling of his right lower leg that had developed 69 years ago after a posttraumatic compartment syndrome. We performed debridement on the necrotic, infected wound and made the diagnosis 'calcific myonecrosis'

#Ten tijde van publicatie werkzaam bij: Atrium Medisch Centrum Parkstad, afd. Chirurgie, Heerlen.

Impactfactor: --

Vugts G

Late recovery of atrioventricular conduction after postsurgical chronic atrioventricular block is not exceptional

van Geldorp IE, Vanagt WY, Vugts G#, Willems R, Rega F, Gewillig M, Delhaas T
J Thorac Cardiovasc Surg. 2013 Apr;145(4):1028-32

OBJECTIVE: Postsurgical atrioventricular block may complicate surgery for congenital heart defects and is generally considered permanent when persisting longer than 14 days after surgery. In this study, we evaluate the occurrence of spontaneous late recovery of atrioventricular conduction in postsurgical chronic atrioventricular block and discuss its clinical implications.

METHODS: We retrospectively reviewed all cardiac surgical procedures on cardiopulmonary bypass between January 1993 and November 2010 in subjects younger than 18 years. Patients with postsurgical advanced second- or third-degree atrioventricular block persisting longer than 14 days after surgery were included.

RESULTS: Of a total of 2850 cardiac surgical procedures on cardiopulmonary bypass, 59 (2.1%) were immediately complicated by chronic postsurgical atrioventricular block of advanced second (n = 4) or third degree (n = 55). In another 6 patients (0.2%), late occurrence of chronic advanced second- (n = 3) or third-degree (n = 3) atrioventricular block, without signs of any etiology other than previous surgery, was seen 0.4 to 10 years after surgery (median, 5.7 years). Late (>2 weeks) regression to either completely normal atrioventricular conduction or asymptomatic first-degree atrioventricular block occurred 3 weeks to 7 years (median, 3.1 years) after surgery in 7 (12%) patients with immediate postsurgical chronic atrioventricular block.

CONCLUSIONS: Complete recovery of atrioventricular conduction or regression to asymptomatic firstdegree atrioventricular block occurred in 12% of patients with postsurgical chronic second- or thirddegree atrioventricular block. To prevent unnecessary adverse side effects of chronic ventricular pacing and to prolong battery longevity, ventricular pacing should be minimized in patients with recovered normal atrioventricular conduction.

*#Ten tijde van publicatie werkzaam bij: Department of Surgery, Atrium Medical Centre, Heerlen
Impactfactor: 3.526*

Vugts G

Re. internal iliac artery coverage during endovascular aneurysm repair

Vugts G#, Ten Bosch JA, Bouwman LH, Welten RJ

Eur J Vasc Endovasc Surg. 2013 Oct;46(4):495

#Ten tijde van publicatie werkzaam bij: Department of Surgery, Atrium Medical Centre, Heerlen

Geen abstract beschikbaar

Impactfactor: 2.820

Willigendael EM

[A chance finding in a woman with abdominal pain]

van den Heijkant AC*, Ponten JE*, Willigendael EM*

Ned Tijdschr Geneeskd. 2013;157(9):A4945

Voor abstract zie: Chirurgie - Heijkant AC van den

Impactfactor: --

Willigendael EM

Challenging the evidence for pre-emptive coil embolisation of the internal iliac artery during endovascular aneurysm repair

Stokmans RA*, Willigendael EM*, Teijink JA*, Ten Bosch JA, van Sambeek MR*, Cuypers PW*

Eur J Vasc Endovasc Surg. 2013 Mar;45(3):220-6

Voor abstract zie: Chirurgie - Stokmans RA

Impactfactor: 2.820

Zoete JP de

Sleeve gastrectomy in older obese patients

van Rutte PW*, Smulders JF*, de Zoete JP*, Nienhuijs SW*

Surg Endosc. 2013 Jun;27(6):2014-9

Voor abstract zie: Chirurgie - Rutte PW van

Impactfactor: 3.427

* = Werkzaam in het Catharina Ziekenhuis

Dermatologie

Geer S van der

Admission and capacity planning for the implementation of one-stop-shop in skin cancer treatment using simulation-based optimization

Romero HL, Dellaert NP, Geer S van der*, Frunt M, Jansen-Vullers MH, Krekels GA*

Health Care Manag Sci. 2013 Mar;16(1):75-86. Epub 2012 Sep 9

Hospitals and health care institutions are facing the challenge of improving the quality of their services while reducing their costs. The current study presents the application of operations management practices in a dermatology oncology outpatient clinic specialized in skin cancer treatment. An interesting alternative considered by the clinic is the implementation of a one-stop-shop concept for the treatment of new patients diagnosed with basal cell carcinoma. This alternative proposes a significant improvement in the average waiting time that a patient spends between the diagnosis and treatment. This study is focused on the identification of factors that influence the average throughput time of patients treated in the clinic from the logistic perspective. A two-phase approach was followed to achieve the goals stated in this study. The first phase included an integrated approach for the deterministic analysis of the capacity using a demand-supply model for the hospital processes, while the second phase involved the development of a simulation model to include variability to the activities involved in the process and to evaluate different scenarios. Results showed that by managing three factors: the admission rule, resources allocation and capacity planning in the dermato-oncology unit throughput times for treatments of new patients can be decreased with more than 90 %, even with the same resource level. Finally, a pilot study with 16 patients was also conducted to evaluate the impact of implementing the one stop shop concept from a clinical perspective. Patients turned out to be satisfied with the fast diagnosis and treatment.

Impactfactor: 0.705

Geer S van der

The incidence of skin cancer in dermatology

van der Geer S*, Siemerink M*, Reijers HA, Verhaegh ME*, Ostertag JU*, Neumann HA, Krekels GA*

Clin Exp Dermatol. 2013 Oct;38(7):724-9

BACKGROUND: It is known that the incidence of skin cancer is rising rapidly worldwide, but no reliable figures on multiple nonmelanoma skin cancer (NMSC) are available.

AIM: To determine the actual incidence of skin cancer in dermatology practice and to estimate how this relates to the first primary tumours (registered at the Eindhoven Cancer Registry).

METHODS: We examined 1001 randomly selected patient records at Catharina Hospital Eindhoven for mention of skin cancer. For each patient, skin cancers were recorded in a database, starting from 1 January 2004 until 1 March 2010. The time interval between tumours and any history of skin cancer were also recorded.

RESULTS: Of this group, 876 patients were treated for skin cancer during the study period. We recorded a total of 2106 tumours with a mean of 2.4 skin cancers per patient. Nearly half (46%) of patients developed multiple tumours, and the second tumour developed within a median period of 5 months. Over a quarter (28%) of patients were known to have had skin cancer before 2004, the start of the study period.

CONCLUSIONS: The number of NMSCs in practice differs substantially from the number of first primary histologically confirmed NMSCs, as usually reported by the Eindhoven Cancer Registry. To obtain the optimum benefit from registration of NMSC, it is recommended to register all NMSCs, because only this complete number will give an insight into the incidence

of the rising skin-cancer numbers. Because subsequent tumours occur frequently, NMSC should be regarded as a chronic disease, and innovations in disease management are required for cost-effective control.

Impactfactor: 1.329

Hamers ET

Superficial Hemangioma: Pulsed Dye Laser Versus Wait-and-See

Kessels JP*, Hamers ET*, Ostertag JU*

Dermatol Surg. 2013 Mar;39(3 Pt 1):414-21

Voor abstract zie: Dermatologie - Kessels JP

Impactfactor: 1.866

Kelleners - Smeets N

Malignant perivascular epithelioid cell tumor: A case report of a cutaneous tumor on the cheek of a male patient

Greveling K, Winnepenninckx VJ, Nagtzaam IF#, Lacko M, Tuinder SM, de Jong JM, Kelleners-Smeets NW#

J Am Acad Dermatol. 2013 Nov;69(5):e262-4

Voor abstract zie: Dermatologie - Nagtzaam IF

#Ten tijde van publicatie werkzaam bij: Department of Dermatology, Maastricht University Medical Center

Impactfactor: 4.906

Kessels JP

Superficial Hemangioma: Pulsed Dye Laser Versus Wait-and-See

Kessels JP*, Hamers ET*, Ostertag JU*

Dermatol Surg. 2013 Mar;39(3 Pt 1):414-21

BACKGROUND AND OBJECTIVES: Childhood hemangioma is the most common soft tissue tumor of infancy, occurring in 10% of children younger than 1 year old. Ten percent of these infantile hemangiomas involute yearly without intervention. Treatment with the pulsed dye laser (PDL) is the criterion standard for treating vascular lesions. It is well established as the most effective, safest treatment for port-wine stains. Previous studies of the use of PDL treatment in superficial hemangioma showed inconsistent results. Main objectives were to compare the efficacy and adverse effects of PDL treatment with those of observation in the treatment of superficial hemangiomas. Parental quality of life was also assessed.

MATERIALS AND METHODS: This was a prospective, randomized, controlled trial in which we enrolled 22 infants aged 1.5 to 5 months old with early hemangiomas with a maximum diameter of 5 cm. We assigned the infants to PDL treatment (n = 11) or observation (n = 11), and followed up until the age of 1 year. Patients in the intervention group were treated using a 595-nm PDL (VBEAM, Candela Corp., Wayland, MA) with a 7-mm spot diameter, 30/10 to 40/10-ms epidermal cooling, a 7- to 15-J/cm² fluence range, and a pulse duration of 0.45 to 40.0 ms. During follow-up, color measurements were made (Colori meter; Minolta, Tokyo, Japan), and surface area and echo depth of the hemangioma were determined.

RESULTS: No significant differences were seen between the groups at time of inclusion or at the age of 1 year in echo depth (p = .66) or surface area (p = .62). Results were significant for color difference (p = .03) between PDL treatment and observation. Cosmetic outcome judged by an independent panel consisting of a dermatologist, physician assistant, dermatology resident, dermatology nurse, and plastic surgery resident was significantly better in the PDL treatment group (46%) than in the observation group (18%) (p = .006).

CONCLUSIONS: Pulsed dye laser is only to be considered as an alternative treatment up to the age of 6 months, at which time parents and physicians consider cosmetic outcome to be a relevant factor, but laser therapy plays a major role in the treatment of residual lesions at older ages.

Impactfactor: 1.866

Krekels GA

Admission and capacity planning for the implementation of one-stop-shop in skin cancer treatment using simulation-based optimization

Romero HL, Dellaert NP, Geer S van der*, Frunt M, Jansen-Vullers MH, Krekels GA*

Health Care Manag Sci. 2013 Mar;16(1):75-86. Epub 2012 Sep 9

Voor abstract zie: Dermatologie - Geer S van der

Impactfactor: 0.705

Krekels GA

Photodynamic therapy versus topical imiquimod versus topical fluorouracil for treatment of superficial basal-cell carcinoma: a single blind, non-inferiority, randomised controlled trial

Arits AH, Mosterd K, Essers BA, Spoorenberg E, Sommer A, De Rooij MJ, van Pelt HP, Quaedvlieg PJ, Krekels GA*, van Neer PA, Rijzewijk JJ, van Geest AJ, Steijlen PM, Nelemans PJ, Kelleners-Smeets NW

Lancet Oncol. 2013 Jun;14(7):647-54. Epub 2013 May 15

BACKGROUND: Superficial basal-cell carcinoma is most commonly treated with topical non-surgical treatments, such as photodynamic therapy or topical creams. Photodynamic therapy is considered the preferable treatment, although this has not been previously tested in a randomised control trial. We assessed the effectiveness of photodynamic therapy compared with imiquimod or fluorouracil in patients with superficial basal-cell carcinoma.

METHODS: In this single blind, non-inferiority, randomised controlled multicentre trial, we enrolled patients with a histologically proven superficial basal-cell carcinoma at seven hospitals in the Netherlands. Patients were randomly assigned to receive treatment with methylaminolevulinic acid photodynamic therapy (MAL-PDT; two sessions with an interval of 1 week), imiquimod cream (once daily, five times a week for 6 weeks), or fluorouracil cream (twice daily for 4 weeks). Follow-up was at 3 and 12 months post-treatment. Data were collected by one observer who was blinded to the assigned treatment. The primary outcome was the proportion of patients free of tumour at both 3 and 12 month follow up. A pre-specified non-inferiority margin of 10% was used and modified intention-to-treat analyses were done. This trial is registered as an International Standard Randomised controlled trial (ISRCTN 79701845).

FINDINGS: 601 patients were randomised: 202 to receive MAL-PDT, 198 to receive imiquimod, and 201 to receive fluorouracil. A year after treatment, 52 of 196 patients treated with MAL-PDT, 31 of 189 treated with imiquimod, and 39 of 198 treated with fluorouracil had tumour residue or recurrence. The proportion of patients tumour-free at both 3 and 12 month follow-up was 72.8% (95% CI 66.8-79.4) for MAL-PDT, 83.4% (78.2-88.9) for imiquimod cream, and 80.1% (74.7-85.9) for fluorouracil cream. The difference between imiquimod and MAL-PDT was 10.6% (95% CI 1.5-19.5; $p=0.021$) and 7.3% (-1.9 to 16.5; $p=0.120$) between fluorouracil and MAL-PDT, and between fluorouracil and imiquimod was -3.3% (-11.6 to 5.0; $p=0.435$). For patients treated with MAL-PDT, moderate to severe pain and burning sensation were reported most often during the actual MAL-PDT session.

For other local adverse reactions, local skin redness was most often reported as moderate or severe in all treatment groups. Patients treated with creams more often reported moderate to severe local swelling, erosion, crust formation, and itching of the skin than patients treated with MAL-PDT. In the MAL-PDT group no serious adverse events were reported. One patient treated with imiquimod and two patients treated with fluorouracil developed a local wound infection and needed additional treatment in the outpatient setting.

INTERPRETATION: Topical fluorouracil was non-inferior and imiquimod was superior to MAL-PDT for treatment of superficial basal-cell carcinoma. On the basis of these findings, imiquimod can be considered the preferred treatment, but all aspects affecting treatment choice should be weighted to select the best treatment for patients.

Impactfactor: 25.117

Krekels GA

The incidence of skin cancer in dermatology

van der Geer S*, Siemerink M*, Reijers HA, Verhaegh ME*, Ostertag JU*, Neumann HA, Krekels GA*

Clin Exp Dermatol. 2013 Oct;38(7):724-9

Voor abstract zie: Dermatologie - Geer S van der

Impactfactor: 1.329

Mosterd K

Comment on 2012 appropriate use criteria for Mohs micrographic surgery

Kelleners-Smeets NW#, Mosterd K#

J Am Acad Dermatol. 2013 Aug;69(2):317-8

Geen abstract beschikbaar

#Ten tijde van publicatie werkzaam bij: Department of Dermatology, Maastricht University Medical Center, and GROW Research Institute for Oncology and Developmental Biology, Maastricht

Impactfactor: 4.906

Nagtzaam I

Malignant perivascular epithelioid cell tumor: A case report of a cutaneous tumor on the cheek of a male patient

Greveling K, Winnepenninckx VJ, Nagtzaam IF#, Lacko M, Tuinder SM, de Jong JM, Kelleners-Smeets NW#

J Am Acad Dermatol. 2013 Nov;69(5):e262-4

Geen abstract beschikbaar

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Impactfactor: 4.906

Ostertag JU

Superficial Hemangioma: Pulsed Dye Laser Versus Wait-and-See

Kessels JP*, Hamers ET*, Ostertag JU*

Dermatol Surg. 2013 Mar;39(3 Pt 1):414-21

Voor abstract zie: Dermatologie - Kessels JP

Impactfactor: 1.866

Ostertag JU

The incidence of skin cancer in dermatology

van der Geer S*, Siemerink M*, Reijers HA, Verhaegh ME*, Ostertag JU*, Neumann HA, Krekels GA*

Clin Exp Dermatol. 2013 Oct;38(7):724-9

Voor abstract zie: Dermatologie - Geer S van der

Impactfactor: 1.329

Siemerink M

The incidence of skin cancer in dermatology

van der Geer S*, Siemerink M*, Reijers HA, Verhaegh ME*, Ostertag JU*, Neumann HA, Krekels GA*

Clin Exp Dermatol. 2013 Oct;38(7):724-9

Voor abstract zie: Dermatologie - Geer S van der

Impactfactor: 1.329

Steensel M van

A de novo FLCN mutation in a patient with spontaneous pneumothorax and renal cancer; a clinical and molecular evaluation

Menko FH, Johannesma PC, van Moorselaar RJ, Reinhard R, van Waesberghe JH, Thunnissen E, Houweling AC, Leter EM, Waisfisz Q, van Doorn MB, Starink TM, Postmus PE, Coull BJ, van Steensel MA#, Gille JJ

Fam Cancer. 2013 Sep;12(3):373-9

Birt-Hogg-Dubé syndrome (BHD) is an autosomal dominant condition due to germline FLCN (folliculin) mutations, characterized by skin fibrofolliculomas, lung cysts, pneumothorax and renal cancer. We identified a de novo FLCN mutation, c.499C>T (p.Gln167X), in a patient who presented with spontaneous pneumothorax. Subsequently, typical skin features and asymptomatic renal cancer were diagnosed. Probably, de novo FLCN mutations are rare. However, they may be under-diagnosed if BHD is not considered in sporadic patients who present with one or more of the syndromic features. Genetic and immunohistochemical analysis of the renal tumour indicated features compatible with a tumour suppressor role of FLCN. The finding that mutant FLCN was expressed in the tumour might indicate residual functionality of mutant FLCN, a notion which will be explored in future studies.

#Ten tijde van publicatie werkzaam bij: Department of Dermatology, and GROW Research Institute for Oncology and Developmental Biology, University of Maastricht, Maastricht

Impactfactor: 1.935

Steensel M van

Birt-Hogg-Dubé syndrome and the skin

Vernooij M, Claessens T, Luijten M, van Steensel MA#, Coull BJ

Fam Cancer. 2013 Sep;12(3):381-5

Birt-Hogg-Dubé syndrome (MIM #135150) is characterized by the development of benign skin tumours called fibrofolliculomas, pulmonary cysts that may lead to pneumothorax and a high risk of developing kidney cancer. BHD is caused by mutations affecting the highly conserved protein folliculin (FLCN), which probably has a role in intracellular transport. Most of the research effort directed towards BHD has focused on understanding how loss of FLCN causes kidney cancer. The cutaneous manifestations have received comparatively little attention. Although understandable, it is unfortunate, as the fibrofolliculomas are highly

accessible and thus potentially are an excellent system for trying to understand the basic pathobiology of BHD. Also, patients can be very much burdened by the cosmetic consequences of having hundreds of facial skin tumours. Our lack of insight into what drives fibrofolliculoma growth translates into a very limited therapeutic arsenal. Thus, paying attention to fibrofolliculomas has both basic science and practical benefits. In this review, we will discuss the state of the art regarding our understanding of fibrofolliculoma pathogenesis and indicate future directions for research.

#Ten tijde van publicatie werkzaam bij: Department of Dermatology, and GROW Research Institute for Oncology and Developmental Biology, University of Maastricht, Maastricht
Impactfactor: 1.935

Steensel M van

Birt-Hogg-Dube syndrome is a novel ciliopathy

Luijten MN, Basten SG, Claessens T, Vernooij M, Scott CL, Janssen R, Easton JA, Kamps MA, Vreeburg M, Broers JL, van Geel M, Menko FH, Harbottle RP, Nookala RK, Tee AR, Land SC, Giles RH, Coull BJ, van Steensel MA#

Hum Mol Genet. 2013 Nov 1;22(21):4383-97

Birt-Hogg-Dubé (BHD) syndrome is an autosomal dominant disorder where patients are predisposed to kidney cancer, lung and kidney cysts and benign skin tumors. BHD is caused by heterozygous mutations affecting folliculin (FLCN), a conserved protein that is considered a tumor suppressor. Previous research has uncovered multiple roles for FLCN in cellular physiology, yet it remains unclear how these translate to BHD lesions. Since BHD manifests hallmark characteristics of ciliopathies, we speculated that FLCN might also have a ciliary role. Our data indicate that FLCN localizes to motile and non-motile cilia, centrosomes and the mitotic spindle. Alteration of FLCN levels can cause changes to the onset of ciliogenesis, without abrogating it. In three-dimensional culture, abnormal expression of FLCN disrupts polarized growth of kidney cells and deregulates canonical Wnt signalling. Our findings further suggest that BHD-causing FLCN mutants may retain partial functionality. Thus, several BHD symptoms may be due to abnormal levels of FLCN rather than its complete loss and accordingly, we show expression of mutant FLCN in a BHD-associated renal carcinoma. We propose that BHD is a novel ciliopathy, its symptoms at least partly due to abnormal ciliogenesis and canonical Wnt signalling.

#Ten tijde van publicatie werkzaam bij: Department of Dermatology, and GROW Research Institute for Oncology and Developmental Biology, University of Maastricht, Maastricht
Impactfactor: 7.692

Steensel M van

Haplotype analysis in western European patients with mal de Meleda: founder effect for the W15R mutation in the SLURP1 gene

Nellen RG, Steijlen PM, Hennies HC, Fischer J, Munro CS, Jonkman MF, van Steensel MA#, van Geel M

Br J Dermatol. 2013 Jun;168(6):1372-4

#Ten tijde van publicatie werkzaam bij: Department of Dermatology, and GROW Research Institute for Oncology and Developmental Biology, University of Maastricht, Maastricht
Impactfactor: 3.759

Steensel M van

Mutations in SNRPE, which encodes a core protein of the spliceosome, cause autosomal-dominant hypotrichosis simplex

Pasternack SM, Refke M, Paknia E, Hennies HC, Franz T, Schäfer N, Fryer A, van Steensel M#, Sweeney E, Just M, Grimm C, Kruse R, Ferrándiz C, Nöthen MM, Fischer U, Betz RC

Am J Hum Genet. 2013 Jan 10;92(1):81-7

Hypotrichosis simplex (HS) comprises a group of hereditary isolated alopecias that are characterized by a diffuse and progressive loss of hair starting in childhood and shows a wide phenotypic variability. We mapped an autosomal-dominant form of HS to chromosome 1q31.3-1q41 in a Spanish family. By direct sequencing, we identified the heterozygous mutation c.1A>G (p.Met1?) in SNRPE that results in loss of the start codon of the transcript. We identified the same mutation in a simplex HS case from the UK and an additional mutation (c.133G>A [p.Gly45Ser]) in a simplex HS case originating from Tunisia. SNRPE encodes a core protein of U snRNPs, the key factors of the pre-mRNA processing spliceosome. The missense mutation c.133G>A leads to a glycine to serine substitution and is predicted to disrupt the structure of SNRPE. Western blot analyses of HEK293T cells expressing SNRPE c.1A>G revealed an N-terminally truncated protein, and therefore the mutation might result in use of an alternative in-frame downstream start codon. Subcellular localization of mutant SNRPE by immunofluorescence analyses as well as incorporation of mutant SNRPE proteins into U snRNPs was found to be normal, suggesting that the function of U snRNPs in splicing, rather than their biogenesis, is affected. In this report we link a core component of the spliceosome to hair loss, thus adding another specific factor in the complexity of hair growth. Furthermore, our findings extend the range of human phenotypes that are linked to the splicing machinery.

#Ten tijde van publicatie werkzaam bij: Department of Dermatology, and GROW Research Institute for Oncology and Developmental Biology, University of Maastricht, Maastricht

Impactfactor: --

Steensel M van

The persistent embryonic vein in Klippel-Trenaunay syndrome

Oduber CE, Young-Afat DA, van der Wal AC, van Steensel MA#, Hennekam RC, van der Horst CM

Vasc Med. 2013 Aug;18(4):185-91

Klippel-Trenaunay syndrome (KTS) is a congenital malformation syndrome with prominent vascular anomalies. A persistent embryonic vein (PEV) may be located on the affected leg(s) of patients with KTS. Our understanding of PEVs of the legs is limited and their nomenclature is confusing. The objective of this study was to obtain further insight in the prevalence, nomenclature and etiology of PEVs of the legs in KTS and to propose a standardized description of anomalous leg veins in KTS. We investigated 70 KTS patients for the presence of PEVs (lateral marginal vein, LMV) of the legs by duplex ultrasonography. We performed histopathological analysis of a surgically excised PEV (LMV) of a typical KTS patient, and we conducted an extensive literature study. Duplex ultrasonography showed LMVs in 12/70 (17.1%) patients. The terms used to describe PEVs in the leg are quite variable, while indicating only two types: lateral marginal vein (LMV) and persistent sciatic vein (PSV). The histology of the excised LMV showed remarkable similarity with that of varicose veins found in the general population. In conclusion, the prevalence of LMVs in our KTS cohort is 17.1%. Two PEVs can be found in the legs and we propose nomenclature based on anatomical criteria, thereby using only the terms persistent lateral marginal vein and persistent sciatic

vein, combined with the patency of the deep venous system. We hypothesize that PEVs are most likely caused by a genetic defect leading to abnormal venous pattern formation, which is further supported by our histopathological findings.

#Ten tijde van publicatie werkzaam bij: Department of Dermatology, and GROW Research Institute for Oncology and Developmental Biology, University of Maastricht, Maastricht
Impactfactor: 1.617

Steensel M van

Topical treatment of ichthyoses

Fleckman P, Newell BD, van Steensel MA#, Yan AC

Dermatol Ther. 2013 Jan-Feb;26(1):16-25

Management of ichthyoses is a complex and continuously dynamic process. Primary treatments of ichthyosis are by means of topical moisturizers and topical medications. Patients and families need to have reasonable and realistic expectations when it comes to topical therapy. Topical medications cannot cure the scaling, but can gradually reduce it and thus improve their condition. No one treatment regimen works for everyone, and the best topical therapy for each patient may be the result of months (or years) of painstaking effort on both the physician's and the patient's behalf. As patients get older and their activities and lifestyles change, so should their topical treatment regimen. Bear in mind that the more complex the skin care regimen and costly the topical treatments, the less likely a patient and their family will be compliant.

#Ten tijde van publicatie werkzaam bij: Department of Dermatology, and GROW Research Institute for Oncology and Developmental Biology, University of Maastricht, Maastricht
Impactfactor: 1.963

Verhaegh ME

The incidence of skin cancer in dermatology

van der Geer S*, Siemerink M*, Reijers HA, Verhaegh ME*, Ostertag JU*, Neumann HA, Krekels GA*

Clin Exp Dermatol. 2013 Oct;38(7):724-9

Voor abstract zie: Dermatologie - Geer S van der
Impactfactor: 1.329

* = Werkzaam in het Catharina Ziekenhuis

Geriatric

Aa GC van der

Cost-effectiveness of one year dementia follow-up care by memory clinics or general practitioners: economic evaluation of a randomised controlled trial

Meeuwse E, Melis R, van der Aa G*, Golücke-Willemsse G, de Leest B, van Raak F, Schölzel-Dorenbos C, Verheijen D, Verhey F, Visser M, Wolfs C, Adang E, Olde Rikkert M

PLoS One. 2013 Nov 25;8(11):e79797

OBJECTIVE: To evaluate the cost-effectiveness of post-diagnosis dementia treatment and coordination of care by memory clinics compared to general practitioners' care.

METHODS: A multicentre randomised trial with 175 community dwelling patients newly diagnosed with mild to moderate dementia, and their informal caregivers, with twelve months' follow-up. Costeffectiveness was evaluated from a societal point of view and presented as incremental cost per quality adjusted life year. To establish cost-effectiveness, a cost-utility analysis was conducted using utilities based on the EQ-5D. Uncertainty surrounding the incremental cost-effectiveness ratio (difference in costs divided by difference in effects) was calculated by bootstrapping from the original data.

RESULTS: Compared to general practitioners' care, treatment by the memory clinics was on average -1024 (95% CI: -7723 to -5674) cheaper, and showed a non-significant decrease of 0.025 (95% CI: -0.114 to 0.064) quality adjusted life years. The incremental cost-effectiveness point estimate from the bootstrap simulation was - 41 442 per QALY lost if one would use memory clinic care instead of general practitioner care.

CONCLUSION: No evidence was found that memory clinics were more cost-effective compared to general practitioners with regard to post-diagnosis treatment and coordination of care of patients with dementia in the first year after diagnosis.

Impactfactor: --

Linden CM van der

[Falling due to vitamin B12 deficiency]

Jansen L, van der Linden CM*

Ned Tijdschr Geneesk. 2013;157(2):A5132

BACKGROUND: Ataxia due to a vitamin B12 deficiency can be a cause of falls in elderly patients.

CASE DESCRIPTION: An 86-year-old woman presented with functional decline and gait problems. She had been falling regularly. The patient's gait was ataxic and she was unable to stand without support. Additional laboratory tests showed a volume macrocytic blood picture and a severe vitamin B12 deficiency, as well as antibodies directed against intrinsic factor and parietal cells. We diagnosed her as having falls and ataxia caused by vitamin B12 deficiency. Vitamin B12 supplementation resulted in improvement of gait.

CONCLUSION: Ataxia due to vitamin B12 deficiency is a rare problem which in 20-25% of cases is not accompanied by anaemia. Prompt treatment reduces the chance of neurological sequelae.

Impactfactor: --

* = Werkzaam in het Catharina Ziekenhuis

Gynaecologie

Aichi N

Mode of delivery following successful external cephalic version: comparison with spontaneous cephalic presentations at delivery

Kuppens SM*, Hutton EK, Hasaart TH*, Aichi N*, Wijnen HA, Pop VJ

J Obstet Gynaecol Can. 2013 Oct;35(10):883-8

Voor abstract zie: Gynaecologie - Kuppens SM

Impactfactor: --

Avoort van der IA

Prevention, identification and treatment of vulvar squamous (pre)malignancies: a review focusing on quality of care

van den Einden LC, van der Avoort IA*, de Hullu JA

Expert Rev Anticancer Ther. 2013 Jul;13(7):845-59

Vulvar squamous cell carcinoma, its precursor lesions (usual and differentiated vulvar intraepithelial neoplasia) and lichen sclerosus are rare diseases that may have a large impact on the lives of affected women and their partners. Proper identification is vital, but the lesions are sometimes difficult to diagnose because of their rarity and variety of symptoms. High quality of care and proper treatment is important in order to minimize the morbidity and mortality caused by these lesions. This review gives an outline of the latest insights regarding the current evidence in this area and unresolved issues. Additionally, it highlights the improvements that should be made in order to optimize prevention and identification of (pre-)malignant vulvar lesions and to increase the quality of care for these patients.

Impactfactor: 2.066

Eerste CZE auteur: Ja

Ciliacus E

Multifocal Acquired Demyelinating Sensory and Motor Neuropathy in Pregnancy, a Case Report

Ciliacus E*, Kuppens SMI*, Cats EA, de Rijk MC*, Kortenhorst MSQ*

J Clin Cell Immunol 2013, 4(6):175

In this report we describe a case of MADSAM during pregnancy. MADSAM is a multifocal asymmetric demyelinating neuropathy that causes muscle weakness and sensory loss. The disease is caused by an autoimmune response of unknown origin. MADSAM has been described in literature but the effect of pregnancy on the course of MADSAM and vice versa remains uncertain. As far as we know this is the first report of MADSAM during pregnancy.

Impactfactor: --

Dietz V

Does the method of dissecting in anterior colporrhaphy lead to a difference in thickness of removed vaginal tissue?

Lensen EJ, van den Berg-van Erp SH, Stoutjesdijk JA, Hasaart TH*, Withagen MI, Kluivers KB, Dietz V*, Vierhout ME

Eur J Obstet Gynecol Reprod Biol. 2013 May;168(1):112-6

Voor abstract zie: Gynaecologie - Hasaart TH

Impactfactor: 1.843

Dietz V

Pelvic organ prolapse and sexual function

Dietz V*, Maher C

Int Urogynecol J. 2013 Nov;24(11):1853-7

INTRODUCTION AND HYPOTHESIS: The aim was to review the impact of pelvic organ prolapse surgery on sexual function.

METHODS: Every 4 years and as part of the Fifth International Collaboration on Incontinence we reviewed the English-language scientific literature after searching PubMed, Medline, Cochrane library and Cochrane database of systematic reviews, published up to January 2012. Publications were classified as level 1 evidence (randomised controlled trials [RCT] systematic reviews), level 2 (poor quality RCT, prospective cohort studies), level 3 (case series or retrospective studies) and level 4 (case reports). The highest level of evidence was utilised by the committee to make evidence based recommendations based upon the Oxford grading system. Grade A recommendation usually depends on consistent level 1 evidence. Grade B recommendation usually depends on consistent level 2 and/or 3 studies, or "majority evidence" from RCTs. Grade C recommendation usually depends on level 4 studies or "majority evidence" from level 2/3 studies or Delphi process expert opinion. Grade D "no recommendation possible" would be used where the evidence is inadequate or conflicting and when expert opinion is delivered without formal analytical process, such as by Delphi.

RESULTS: With regard to the anterior compartment, the use of mesh is associated with neither a worsening in sexual function nor an increase in de novo dyspareunia compared with traditional anterior colporrhaphy (grade B). There is insufficient information to provide evidence-based recommendations on sexual function after vaginal mesh in the posterior compartment or after new lightweight or absorbable meshes (grade D).

CONCLUSION: There is a paucity of data on the impact of prolapse surgery on sexual function. Sexual function and dyspareunia rates are similar after anterior polypropylene mesh and anterior colporrhaphy (grade B). We recommend using validated questionnaires measuring sexual function in women before and after prolapse surgery and reporting sexual activity and dyspareunia rates pre- and postintervention in all patients.

Impactfactor: 2.169

Dietz V

Value of urodynamics before stress urinary incontinence surgery: a randomized controlled trial

van Leijsen SA, Kluivers KB, Mol BW, Hout J', Milani AL, Roovers JP, Boon Jd, Vaart CH, Langen PH, Hartog FE, Dietz V*, Tiersma ES, Hovius MC, Bongers MY, Spaans W, Heesakkers JP, Vierhout ME; Dutch Urogynecology Consortium

Obstet Gynecol. 2013 May;121(5):999-1008

OBJECTIVE: : To estimate whether a strategy of immediate surgery was noninferior to a strategy based on discordant urodynamic findings followed by individually tailored therapy in women with stress urinary incontinence (SUI).

METHODS: : A multicenter diagnostic cohort study with an embedded noninferiority randomized controlled trial was conducted in six academic and 24 nonacademic Dutch hospitals. Women with predominant SUI eligible for surgical treatment based on clinical assessment were included between January 2009 and November 2010. All patients underwent urodynamics. In patients in whom urodynamics were discordant with clinical assessment, participants were randomly allocated to receive either immediate surgery or individually tailored therapy based on urodynamics. The primary outcome was clinical improvement assessed by the Urogenital Distress Inventory 12 months after baseline.

Analysis was by intention to treat; a difference in mean improvement of 5 points or less was considered noninferior.

RESULTS: : Five hundred seventy-eight women with SUI were studied, of whom 268 (46%) had discordant findings. One hundred twenty-six patients gave informed consent for randomization and were allocated to receive immediate surgery (n=64) or individually tailored therapy (n=62). The mean improvement measured with the Urogenital Distress Inventory after 1 year was 44 points (± 24) in the group receiving immediate surgery and 39 (± 25) points in the group receiving individually tailored treatment. The difference in mean improvement was 5 points in favor of the group receiving immediate surgery (95% confidence interval -8 to 5). There were no differences with respect to cure or complication rate.

CONCLUSION: In women with uncomplicated SUI, an immediate midurethral sling operation is not inferior to individually tailored treatment based on urodynamic findings.

Impactfactor: 4.798

Dietz V

Van de ezel en de steen...

Hamont D van, Dekkers CJ, Dietz V*

Nederlands Tijdschrift voor Obstetrie en Gynaecologie, 2013 ; 126(3);126-8

Perforatie van intra-uteriene anticonceptiva is geen noviteit en verloopt veelal zonder ernstige complicaties. Hoe korter postpartum des te hoger de kans op perforatie, waarbij mogelijk ook lactatie een rol speelt. Indien na de gebruikelijke onderzoeken getwijfeld wordt of het spiraal nog in situ is, dient aanvullend onderzoek te worden verricht alvorens over te gaan tot het plaatsen van een nieuw spiraal.

Impactfactor: --

Hasaart TH

Does the method of dissecting in anterior colporrhaphy lead to a difference in thickness of removed vaginal tissue?

Lensen EJ, van den Berg-van Erp SH, Stoutjesdijk JA, Hasaart TH*, Withagen MI, Kluivers KB, Dietz V*, Vierhout ME

Eur J Obstet Gynecol Reprod Biol. 2013 May;168(1):112-6

OBJECTIVE: To evaluate the difference in thickness of the anterior vaginal wall removed after different surgical dissecting techniques of anterior colporrhaphy.

STUDY DESIGN: In patients undergoing primary anterior colporrhaphy, trimmed vaginal tissue was taken following different surgical techniques of vaginal wall dissection. Tissues were preserved in formalin and stained with hematoxylin-eosin and elastica-van Giesen stains. The examiner was an experienced pathologist blinded to the surgical technique. The specimens were examined for the epithelial thickness (ET), lamina propria thickness (LPT), muscular layer thickness (MT) and total thickness (TT).

RESULTS: Tissue was analysed in 93 women who underwent anterior compartment pelvic organ prolapse surgery. There was no difference between the different surgical techniques in thickness measured in the three histological layers and for the total thickness. The use of hydrodissection was the only independent factor leading to thicker removed vaginal tissue.

CONCLUSIONS: Dissecting the vaginal wall as thin as possible does not result in a thinner vaginal layer than dissecting in the most optimal surgical plane. The use of hydrodissection provides a thicker trimmed tissue.

Impactfactor: 1.843

Hasaart TH

Economic analysis comparing induction of labour and expectant management for intrauterine growth restriction at term (DIGITAT trial)

Vijgen SM, Boers KE, Opmeer BC, Bijlenga D, Bekedam DJ, Bloemenkamp KW, de Boer K, Bremer HA, le Cessie S, Delemarre FM, Duvekot JJ, Hasaart TH*, Kwee A, van Lith JM, van Meir CA, van Pampus MG, van der Post JA, Rijken M, Roumen FJ, van der Salm PC, Spaanderman ME, Willekes C, Wijnen EJ, Mol BW, Scherjon SA

Eur J Obstet Gynecol Reprod Biol. 2013 Oct;170(2):358-63

OBJECTIVE: Pregnancies complicated by intrauterine growth restriction (IUGR) are at increased risk for neonatal morbidity and mortality. The Dutch nationwide disproportionate intrauterine growth intervention trial at term (DIGITAT trial) showed that induction of labour and expectant monitoring were comparable with respect to composite adverse neonatal outcome and operative delivery. In this study we compare the costs of both strategies.

STUDY DESIGN: A cost analysis was performed alongside the DIGITAT trial, which was a randomized controlled trial in which 650 women with a singleton pregnancy with suspected IUGR beyond 36 weeks of pregnancy were allocated to induction or expectant management. Resource utilization was documented by specific items in the case report forms. Unit costs for clinical resources were calculated from the financial reports of participating hospitals. For primary care costs Dutch standardized prices were used. All costs are presented in Euros converted to the year 2009.

RESULTS: Antepartum expectant monitoring generated more costs, mainly due to longer antepartum maternal stays in hospital. During delivery and the postpartum stage, induction generated more direct medical costs, due to longer stay in the labour room and longer duration of neonatal high care/medium care admissions. From a health care perspective, both strategies generated comparable costs: on average -7106 per patient for the induction group (N=321) and -6995 for the expectant management group (N=329) with a cost difference of -111 (95%CI: -1296 to 1641).

CONCLUSION: Induction of labour and expectant monitoring in IUGR at term have comparable outcomes immediately after birth in terms of obstetrical outcomes, maternal quality of life and costs. Costs are lower, however, in the expectant monitoring group before 38 weeks of gestation and costs are lower in the induction of labour group after 38 weeks of gestation. So if induction of labour is considered to pre-empt possible stillbirth in suspected IUGR, it is reasonable to delay until 38 weeks, with watchful monitoring.

Impactfactor: 1.843

Hasaart TH

Mode of delivery following successful external cephalic version: comparison with spontaneous cephalic presentations at delivery

Kuppens SM*, Hutton EK, Hasaart TH*, Aichi N*, Wijnen HA, Pop VJ

J Obstet Gynaecol Can. 2013 Oct;35(10):883-8

Voor abstract zie: Gynaecologie - Kuppens S

Impactfactor: --

Hasaart TH

The effect of change in a labour management protocol on caesarean section rate in nulliparous women

Kuppens SM*, Brugman A, Hasaart TH*, Hutton EK, Pop VJ.

J Obstet Gynaecol Can. 2013 Jun;35(6):508-14

Voor abstract zie: gynaecologie - Kuppens SM

Impactfactor: --

Hasaart TH

Women's prelabour preference for epidural analgesia: a cross-sectional study among women from the Netherlands and Belgium

Wassen M, Miggiels L, Devlieger R, Gyselaers W, Mertens H, Hasaart T*, Wijnen E,

Reu Pd, Roumen F, Nijhuis J, Smits L, Scheepers H

J Psychosom Obstet Gynaecol. 2013 Mar;34(1):22-8

BACKGROUND: This study describes variables related to women's prelabour preference for epidural analgesia (PEA) in two neighbouring countries with a comparable socio-economic and cultural background.

METHODS: Dutch women in midwifery (n = 36 weeks gestation with a singleton in cephalic presentation) completed questionnaires on demographic factors, received labour analgesia information, perceived attitude of the caregiver towards epidural analgesia (EA), pain catastrophising and coping with labour pain. Multiple logistic regression analysis was performed with PEA as dependent variable.

RESULTS: PEA was 9.9% in Dutch midwifery care, 25.5% in Dutch obstetrical care and 38.3% in Belgian care (p value confidence interval (CI) 2.03-12.08), positive attitude of the caregiver towards EA (OR 5.83; 95% CI 2.57-13.23) and a lower degree of coping (OR 3.61; 95% CI 2.24-5.82) were independently associated with PEA. In Belgium, only a lower degree of coping was associated with PEA (OR 4.06; 95% CI 2.45-6.73).

CONCLUSIONS: In both countries, women with a lower degree of coping had a higher PEA. Care setting in the Netherlands was not an independent variable.

Impactfactor: 1.590

Hermans RH

First report of transvaginal endoscopic microsurgery in a patient with squamous cell carcinoma of the vagina

Smink M*, Hermans RH*, Schoot DB*, Luyer M*, Pijnenborg JM

J Laparoendosc Adv Surg Tech A. 2013 Feb;23(2):154-7

Voor abstract zie: Gynaecologie - Smink M

Impactfactor:--

Huppelschoten AG

Differences in quality of life and emotional status between infertile women and their partners

Huppelschoten AG#, van Dongen AJ, Verhaak CM, Smeenk JM, Kremer JA, Nelen WL.

Hum Reprod. 2013 Aug;28(8):2168-76

STUDY QUESTION: Do the quality of life (QoL) and the risk factors for emotional problems during and after treatment of infertile women differ from their partners?

SUMMARY ANSWER: Women have lower levels of fertility-related QoL, and more and differing risk factors for emotional problems during and after treatment than their partners.

WHAT IS KNOWN ALREADY?: The psychological impact of infertility in patients negatively affects their QoL and is also related to increased discontinuation of treatment. Moreover, psychological factors might positively affect pregnancy rates. However, it is still unclear if differences in QoL and emotional status exist between infertile women and their partners. So far, research mainly focused on generic instruments to measure patients' QoL in the area of fertility care.

STUDY DESIGN, SIZE, DURATION: A cross-sectional study of infertile couples within 32 Dutch fertility clinics.

PARTICIPANTS/MATERIALS, SETTING, METHODS: We included infertile women and their partners (both heterosexual and lesbian couples) under any treatment and at any stage of treatment in one of the 32 participating clinics. Per clinic, 25-75 patients were randomly selected depending on clinic size. In total, 1620 women and their partners were invited separately to complete the FertiQoL and SCREENIVF questionnaires to measure their level of QoL and risk factors for emotional problems during and after treatment, respectively.

MAIN RESULTS AND THE ROLE OF CHANCE: A total of 946 women (response rate 58%) and 670 partners (response rate 41%) completed the questionnaire set. As 250 women and 150 partners were already pregnant, questionnaires from 696 women and 520 partners could be analysed. Women scored significantly lower on the FertiQoL total scores [$B = -6.31$; 95% confidence interval (CI) = -7.63 to 4.98] and three of the FertiQoL subscales (Emotional, Mind-Body and Social) than their partners, indicating lower QoL. Scores on the SCREENIVF questionnaire were significantly higher for women ($B = 0.22$; 95% CI = 0.06 - 0.38), indicating that women are more at risk for developing emotional problems (and these factors differed from those of their partners) during and after fertility treatment than their partners.

LIMITATIONS, REASONS FOR CAUTION: Although the number of participants is high ($n = 1216$), the relatively low response rate, especially for partners (41%), may have influenced the results through selection bias. An analysis of non-responders could not be performed. The FertiQoL and SCREENIVF questionnaires, which have been validated only in women starting a first IVF cycle, should also be validated for studying partners. In addition, the SCREENIVF questionnaire has been validated in Dutch women only and further research in an international setting is also required.

WIDER IMPLICATIONS OF THE FINDINGS: Our study results represent the Dutch infertile population as more than one-third of all Dutch clinics participated in the study. As the FertiQoL questionnaire is an internationally validated questionnaire already, these results can be put in a more broader and international perspective.

#Ten tijde van publicatie werkzaam bij: Department of Obstetrics and Gynaecology, Radboud University Nijmegen Medical Centre, Nijmegen
Impactfactor: 4.670

Huppelschoten AG

Different ways of subcutaneous tissue and skin closure at cesarean section: a randomized clinical trial on the long-term cosmetic outcome

Huppelschoten AG#, van Ginderen JC, van den Broek KC, Bouwma AE, Oosterbaan HP

Acta Obstet Gynecol Scand. 2013 Aug;92(8):916-24

OBJECTIVE: To study the effect of subcutaneous tissue closing and the effect of two different skin closure methods at cesarean section on long-term cosmetic results.

DESIGN: Randomized controlled trial.

SETTING: A large teaching hospital in the Netherlands.

POPULATION: Women undergoing a cesarean section.

METHODS: Women undergoing a cesarean section were assigned to subcutaneous tissue closure or not, and skin closure with staples or intracutaneous sutures. Operating time, postoperative pain and incidence of complications were recorded. Long-term cosmetic result was assessed 1 year postoperatively through the Patient and Observer Scar Assessment Scale (POSAS) and Numeric Rating Scale (NRS).

MAIN OUTCOME MEASURES: The POSAS for subjective and objective scar rating and the NRS to provide an overall opinion on appearance of the scar 1 year after surgery.

RESULTS: Of the 218 women randomized, data from 145 women could be analysed after 1 year of follow-up. No significant differences were detected in long-term cosmetic outcome between the different closure methods. Except for operating time, no differences in other secondary outcome measures were found.

CONCLUSIONS: At cesarean section, closing the subcutaneous tissue or not and using staples or intracutaneous sutures results in an equivalent long-term cosmetic appearance of the scar.

#Ten tijde van publicatie werkzaam bij: Department of Obstetrics and Gynaecology, Radboud University Nijmegen Medical Centre, Nijmegen
Impactfactor: 1.85

Huppelschoten AG

Do infertile women and their partners have equal experiences with fertility care?

Huppelschoten AG#, Aarts JW, van Empel IW, Cohlen BJ, Kremer JA, Nelen WL

Fertil Steril. 2013 Apr;99(5):832-8

OBJECTIVE: To study the possible differences between women and their partners' experiences with patient-centered fertility care.

DESIGN: A cross-sectional study.

SETTING: Thirty-two Dutch fertility clinics.

PATIENT(S): A total of 1,620 infertile women and their partners, under treatment in one of the participating clinics, were randomly selected to participate in this study.

INTERVENTION(S): None.

MAIN OUTCOME MEASURE(S): Level of patient-centeredness, measured with the validated Patient- Centeredness Questionnaire-Infertility questionnaire (PCQ-Infertility).

RESULT(S): Questionnaires from 696 women and 520 partners were analyzed. No significant difference in PCQ-Infertility total score was found between women and their partners. The partners scored significantly higher on the subscales "respect for patients values" and "staff's competence" compared with the women.

CONCLUSION(S): Patients' experiences with fertility care are only slightly different between women and their partners. This can be valuable in the process of improvement of patient-centered fertility care, one of the core dimensions of quality of care.

#Ten tijde van publicatie werkzaam bij: Department of Obstetrics and Gynaecology, Radboud University Nijmegen Medical Centre, Nijmegen
Impactfactor: 4.174

Huppelschoten AG

Feedback to professionals on patient-centered fertility care is insufficient for improvement: a mixedmethod study

Huppelschoten AG#, Aarts JW, van Empel IW, Cohlen BJ, Kremer JA, Nelen WL.

Fertil Steril. 2013 Apr;99(5):1419-27

OBJECTIVE: To determine the effect of audits and feedback on the level of patient-centeredness in fertility care, and to obtain a more in-depth understanding of professionals' views on patient-centered care and achieving improvements.

DESIGN: Mixed-method design, using semistructured in-depth interviews and patient questionnaires.

SETTING: Fifteen Dutch fertility clinics.

PATIENT(S): Women in infertility treatment (quantitative section) and fertility care professionals (qualitative section).

INTERVENTION(S): Audit of the level of patient-centeredness of care, and feedback provided to clinics by a personalized paper-based feedback report.

MAIN OUTCOME MEASURE(S): Quantitative section: the patient-reported differences in the level of patient-centered fertility care between 2009 and 2011 measured by the Patient-Centeredness Questionnaire-Infertility. Qualitative section: professionals views on improving patient-centered fertility care arranged into a Hibbard framework for behavioral change.

RESULT(S): Multilevel regression analysis showed no statistically significant differences between the overall levels of patient-centeredness in 2009 and 2011. Qualitative research showed that professionals' urge to change and their ability to translate feedback were suboptimal to achieve behavioral change.

CONCLUSION(S): Audits and feedback alone are not enough to improve the level of patientcenteredness in fertility care. Increasing professionals' desire to change and their ability to translate feedback about their performance into an optimal quality improvement strategy appear to be the key issues.

#Ten tijde van publicatie werkzaam bij: Department of Obstetrics and Gynaecology, Radboud University Nijmegen Medical Centre, Nijmegen

Impactfactor: 4.174

Huppelschoten AG

Predicting dropout in fertility care: a longitudinal study on patient-centredness

Huppelschoten AG#, van Dongen AJ, Philipse IC, Hamilton CJ, Verhaak CM, Nelen WL, Kremer JA

Hum Reprod. 2013 Aug;28(8):2177-86

STUDY QUESTION: Are clinic factors, including patients' experiences with patient-centred care, associated with dropout in fertility care?

SUMMARY ANSWER: Clinic factors, including patients' experiences with patient-centred care, are not related to dropout.

WHAT IS KNOWN ALREADY: In fertility care, a significant proportion of patients do not achieve pregnancy because they discontinue treatment prematurely. Many studies have tried to identify factors predicting dropout, showing incompatible results. However, these studies mainly focus on factors at the treatment and patient level, while clinic factors have received little attention.

STUDY DESIGN, SIZE, DURATION: This prospective, longitudinal study was nested within a large RCT, which aims to improve the level of patient-centredness of Dutch fertility care. Of the 1620 infertile women who were invited to participate, the baseline measurement of the

study (T0) included 693 women who completed a questionnaire about their experiences with patient-centred fertility care. The follow-up of the patients was 1 year (T1).

PARTICIPANTS/MATERIALS, SETTING, METHODS: All included women suffered from infertility and were undergoing treatment in one of the 32 Dutch clinics involved in the trial. Levels of patientcentredness were determined using the Patient-Centredness Questionnaire-Infertility (PCQ-Infertility) at T0. Meanwhile, a professionals' questionnaire was used to gather additional information on characteristics of the clinic (e.g. the number of patients per year or the presence of a fertility nurse). After 1 year, at T1 measurement, patients completed a questionnaire on their current status in fertility care, including their main reason for discontinuation if applicable.

MAIN RESULTS AND THE ROLE OF CHANCE: A total of 693 non-pregnant women completed the questionnaire set at T0 and 534 women (77.1%) provided consent for follow-up. At T1 measurement, 434 women (81.3%) completed the questionnaire and 153 of these women (35.2%) continued treatment while 76 women (17.5%) dropped out. Another 175 women (40.3%) had achieved pregnancy and 30 patients (7.9%) were advised to discontinue treatment for medical reasons. Neither levels of patientcentredness nor the additional clinic characteristics differed significantly between dropouts and compliers. However, patients who did not receive assisted reproduction treatment (ART; e.g. underwent intrauterine insemination, IUI) before they dropped out had significantly lower scores on the PCQInfertility subscale 'Respect for patients' values' than patients who continued their treatment [odds ratio (OR) 0.57; 95% confidence interval (CI) 0.34-0.95]. Patients who received ART and, subsequently, dropped out had higher scores on the PCQ-Infertility subscale 'Patient involvement' than those receiving non-ART (OR 2.39; 95% CI 1.02-5.59).

LIMITATIONS, REASONS FOR CAUTION: We were not able to follow-up a significant proportion (ca. 19%) of the 1620 women who were invited for T0 measurement, which might have biased our results. We also excluded patients who were still in the diagnostic work-up stage and this might have influenced our results as it is known that patients dropout at this stage. As the PCQ-Infertility was validated in patients who were already undergoing treatment, we decided to focus on this patient group only.

WIDER IMPLICATIONS OF THE FINDINGS: The results of this study provide a better insight into those factors influencing dropout from the perspective of factors in the clinic itself. Although most clinic factors were not related to dropout, clinic factors might be of use when predicting dropout for specific patient groups, such as patients receiving ART and non-ART. Future research should involve an exploration of more specific predictors of dropout at the patient, treatment and clinic levels.

*#Ten tijde van publicatie werkzaam bij: Department of Obstetrics and Gynaecology, Radboud University Nijmegen Medical Centre, Nijmegen
Impactfactor: 4.670*

Kortenhorst MS

Analysis of the genomic response of human prostate cancer cells to histone deacetylase inhibitors

Kortenhorst MS*, Wissing MD, Rodríguez R, Kachhap SK, Jans JJ, Van der Groep P, Verheul HM, Gupta A, Aiyetan PO, van der Wall E, Carducci MA, Van Diest PJ, Marchionni L.

Epigenetics. 2013 Sep 1;8(9):907-20. Epub 2013 Jul 19

Histone deacetylases (HDACs) have emerged as important targets for cancer treatment. HDACinhibitors (HDACis) are well tolerated in patients and have been approved for the treatment of patients with cutaneous T-cell lymphoma (CTCL). To improve the clinical

benefit of HDACis in solid tumors, combination strategies with HDACis could be employed. In this study, we applied Analysis of Functional Annotation (AFA) to provide a comprehensive list of genes and pathways affected upon HDACitreatment in prostate cancer cells. This approach provides an unbiased and objective approach to high throughput data mining. By performing AFA on gene expression data from prostate cancer cell lines DU-145 (an HDACi-sensitive cell line) and PC3 (a relatively HDACi-resistant cell line) treated with HDACis valproic acid or vorinostat, we identified biological processes that are affected by HDACis and are therefore potential treatment targets for combination therapy. Our analysis revealed that HDACinhibition resulted among others in upregulation of major histocompatibility complex (MHC) genes and deregulation of the mitotic spindle checkpoint by downregulation of genes involved in mitosis. These findings were confirmed by AFA on publicly available data sets from HDACi-treated prostate cancer cells. In total, we analyzed 375 microarrays with HDACi treated and non-treated (control) prostate cancer cells. All results from this extensive analysis are provided as an online research source (available at the journal's website and at <http://luigimarchionni.org/HDACis.html>). By publishing this data, we aim to enhance our understanding of the cellular changes after HDAC-inhibition, and to identify novel potential combination strategies with HDACis for the treatment of prostate cancer patients.

Impactfactor: 4.920

Kortenhorst MS

Multifocal Acquired Demyelinating Sensory and Motor Neuropathy in Pregnancy, a Case Report

Ciliacus E, Kuppens SMI*, Cats EA, de Rijk MC, Kortenhorst MSQ*

J Clin Cell Immunol 2013, 4(6):175

Voor abstract zie: Gynaecologie - Ciliacus E

Impactfactor: --

Kuppens SM

Maternal thyroid parameters, Body Mass Index and subsequent weight gain during pregnancy in healthy euthyroid women

Pop VJ, Biondi B, Wijnen HA, Kuppens SM*, Vader HL

Clin Endocrinol (Oxf). 2013 Oct;79(4):577-83

CONTEXT: Obesity and too much weight gain during gestation have a negative effect on obstetric and neonatal outcomes.

OBJECTIVE: To determine the relationship between thyroid hormone parameters, Body Mass Index (BMI) and weight gain during gestation.

DESIGN: Prospective follow-up study of thyroid parameters and gestational weight gain.

SETTING: Healthy pregnant women, included at first antenatal consultation.

PATIENTS: Thyroid function (TSH, FT4 and TPO-Ab) was assessed at 12, 24 and 36 weeks' gestation in 1035 Dutch Caucasian women who delivered at \approx 37 weeks. BMI (WHO criteria) was assessed at eight weeks, and weight gain throughout gestation was also assessed using the US Institute of Medicine (IOM) criteria.

MEASUREMENTS: Primary outcome measure: a possible relationship between maternal thyroid parameters and BMI at the first trimester. Secondary outcome measure: the relationship between thyroid parameters and weight gain throughout gestation.

RESULTS: At 12 weeks' gestation, BMI correlated with FT4 ($r = -0.14$, $P < 0.001$), but not with TSH ($r = 0.04$, $P = 0.89$). 415 (40%) of the women met the IOM criteria for appropriate weight gain, 326 (32%) showed less weight gain and 294 (28%) gained too much weight. At all

trimesters, the latter group of women showed higher median TSH and lower median FT4 compared with those with normal weight gain. FT4 at 24 weeks' gestation (OR: 0.84, 95% CI: 0.77-0.91), younger age (OR: 0.97, 95% CI: 0.95-0.99) and primiparity (OR: 0.51, 95% CI: 0.38-0.68) were independently related to too much weight gain.

CONCLUSIONS: Maternal thyroid parameters are related to both prepregnancy BMI and weight gain throughout gestation.

Impactfactor: 3.396

Kuppens SM

Mode of delivery following successful external cephalic version: comparison with spontaneous cephalic presentations at delivery

Kuppens SM*, Hutton EK, Hasaart TH*, Aichi N*, Wijnen HA, Pop VJ

J Obstet Gynaecol Can. 2013 Oct;35(10):883-8

Objective: To compare the obstetric outcomes of pregnant women after successful external cephalic version (ECV) (cases) with a large group of pregnant women with a spontaneously occurring cephalic fetal position at delivery (controls). **Methods:** We conducted a retrospective matched cohort study in a teaching hospital in the Netherlands. Delivery outcomes of women with a successful ECV were compared with those of women with spontaneously occurring cephalic presentations, controlling for maternal age, parity, gestational age at delivery, and onset of labour (spontaneous or induced). **Exclusion criteria** were a history of Caesarean section, delivery at < 35 weeks, and elective Caesarean section. The primary outcome was the prevalence of Caesarean section and instrumental delivery in both groups; secondary outcomes were the characteristics of cases requiring intervention such as Caesarean section or instrumental delivery. **Results:** Women who had a successful ECV had a significantly higher Caesarean section rate than the women in the control group (33/220 [15%] vs. 62/1030 [6.0 %]; $P < 0.001$). There was no difference in the incidence of instrumental delivery (20/220 [9.1%] vs. 103/1030 [10%]). Comparison of characteristics of women in the cases group showed that nulliparity, induction of labour, and occiput posterior presentation were associated with Caesarean section and instrumental deliveries. **Conclusion:** Compared with delivery of spontaneous cephalic presentations, delivery of cephalic presenting babies following successful ECV is associated with an increased rate of Caesarean section, especially in nulliparous women and women whose labour is induced.

Impactfactor: --

Kuppens SM

Multifocal Acquired Demyelinating Sensory and Motor Neuropathy in Pregnancy, a Case Report

Ciliacus E*, Kuppens SMI*, Cats EA, de Rijk MC, Kortenhorst MSQ*

J Clin Cell Immunol 2013, 4(6):175

Voor abstract zie: Gynaecologie - Ciliacus E

Impactfactor: --

Kuppens SM

SIMPLE: implementation of recommendations from international evidence-based guidelines on caesarean sections in the Netherlands. Protocol for a controlled before and after study

Melman S, Schoorel EN, Dirksen C, Kwee A, Smits L, de Boer F, Jonkers M, Woiski MD, Mol BW, Doornbos JP, Visser H, Huisjes AJ, Porath MM, Delemarre FM, Kuppens SM*, Aardenburg R, Van Dooren IM, Vrouwenraets FP, Lim FT, Kleiverda G, van der Salm PC, de Boer K, Sikkema MJ, Nijhuis JG, Hermens RP, Scheepers HC

Implement Sci. 2013 Jan 3;8:3

BACKGROUND: Caesarean section (CS) rates are rising worldwide. In the Netherlands, the most significant rise is observed in healthy women with a singleton in vertex position between 37 and 42 weeks gestation, whereas it is doubtful whether an improved outcome for the mother or her child was obtained. It can be hypothesized that evidence-based guidelines on CS are not implemented sufficiently. Therefore, the present study has the following objectives: to develop quality indicators on the decision to perform a CS based on key recommendations from national and international guidelines; to use the quality indicators in order to gain insight into actual adherence of Dutch gynaecologists to guideline recommendations on the performance of a CS; to explore barriers and facilitators that have a direct effect on guideline application regarding CS; and to develop, execute, and evaluate a strategy in order to reduce the CS incidence for a similar neonatal outcome (based on the information gathered in the second and third objectives).

METHODS: An independent expert panel of Dutch gynaecologists and midwives will develop a set of quality indicators on the decision to perform a CS. These indicators will be used to measure current care in 20 hospitals with a population of 1,000 women who delivered by CS, and a random selection of 1,000 women who delivered vaginally in the same period. Furthermore, by interviewing healthcare professionals and patients, the barriers and facilitators that may influence the decision to perform a CS will be measured. Based on the results, a tailor-made implementation strategy will be developed and tested in a controlled before-and-after study in 12 hospitals (six intervention, six control hospitals) with regard to effectiveness, experiences, and costs.

DISCUSSION: This study will offer insight into the current CS care and into the hindering and facilitating factors influencing obstetrical policy on CS. Furthermore, it will allow definition of patient categories or situations in which a tailor-made implementation strategy will most likely be meaningful and cost effective, without negatively affecting the outcome for mother and child.

Impactfactor: 2.37

Kuppens SM

The effect of change in a labour management protocol on caesarean section rate in nulliparous women

Kuppens SM*, Brugman A, Hasaart TH*, Hutton EK, Pop VJ

J Obstet Gynaecol Can. 2013 Jun;35(6):508-14

OBJECTIVE: To investigate the impact on obstetric outcome in nulliparous women of changing labour management from an expectant approach to proactive support of labour.

METHODS: We conducted a retrospective cohort study in a teaching hospital in the Netherlands among 858 women at 37 weeks' gestation with a singleton fetus in cephalic position and spontaneous labour who planned to have a vaginal birth in the hospital under the care of an obstetrician. Exclusion criteria were gestational age < 37 weeks, induction of

labour, primary Caesarean section, non-cephalic position, and non-Caucasian ethnicity. Labour outcomes in the period 1999 to 2002 (using an expectant approach) were compared with labour outcomes in the period 2008 to 2010 (using proactive support of labour). The primary outcome measure was the relationship between the CS rate and the form of labour management (expectant approach vs. proactive support). The secondary outcome measure was to identify risk factors for repeat CS.

RESULTS: The overall prevalence of CS in the study population was 12.2%. The CS rate increased significantly from 9.7% between 1999 and 2002, to 15.4% between 2008 and 2010 ($P < 0.001$). Meanwhile, the assisted vaginal delivery rate decreased from 22.7% to 16.7% ($P = 0.03$). Multiple logistic regression showed that epidural analgesia (OR 4.6; 95% CI 2.6 to 8.4), occiput posterior position (OR 7.4; 95% CI 4.3 to 12.8), and advanced maternal age (OR 1.91; 95% CI 1.31 to 2.76) were risk factors for CS.

CONCLUSION: Changing labour management from an expectant approach to proactive support of labour did not decrease the Caesarean section rate.

Impactfactor: --

Schoot BC

An alternative approach for removal of placental remnants: hysteroscopic morcellation

Hamerlynck TW, Blikkendaal MD, Schoot BC*, Hanstede MM, Jansen FW

J Minim Invasive Gynecol. 2013 Nov-Dec;20(6):796-802

STUDY OBJECTIVE: To evaluate our initial experience with hysteroscopic morcellation for removal of placental remnants. **DESIGN:** Retrospective case series (Canadian Task Force classification II-3). **SETTING:** University hospital and 2 teaching hospitals. **PATIENTS:** Women with histologic confirmation of placental remnants after miscarriage, termination of pregnancy, or delivery.

INTERVENTION: From January 2005 to May 2010, hysteroscopic morcellation was used for removal of placental remnants. Retrospective review of medical records was performed.

MEASUREMENTS AND MAIN RESULTS: Analysis of 105 procedures was performed. In 99 procedures (94.3%), placental remnants were removed successfully at the first approach, and 90 procedures (85.7%) were without any adverse events. In 6 patients (5.7%), uterine perforation occurred, in 4 during cervical dilation and in 2 during the hysteroscopic procedure. Postoperatively, 3 patients had fever, 1 had hemorrhage, and 1 had abdominal pain. Routine second-look hysteroscopy in 23 patients revealed mild intrauterine adhesions in 1 patient (4.4%).

CONCLUSION: Hysteroscopic morcellation seems to be an effective technique for management of placental remnants. Future studies comparing various surgical treatment methods are needed to define factors that influence the ability to obtain the safest and most complete removal of placental remnants because this remains a challenging pregnancy-related condition.

Impactfactor: 1.608

Schoot BC

First report of transvaginal endoscopic microsurgery in a patient with squamous cell carcinoma of the vagina

Smink M*, Hermans RH*, Schoot DB*, Luyer M*, Pijnenborg JM

J Laparoendosc Adv Surg Tech A. 2013 Feb;23(2):154-7

Voor abstract zie: Gynaecologie - Smink M

Impactfactor:--

Schoot BC

Preconceptional low-dose aspirin for the prevention of hypertensive pregnancy complications and preterm delivery after IVF: a meta-analysis with individual patient data

Groeneveld E1, Lambers MJ, Lambalk CB, Broeze KA, Haapsamo M, de Sutter P, Schoot BC, Schats R, Mol BW, Hompes PG

Hum Reprod. 2013 Jun;28(6):1480-8. Epub 2013 Mar 25

STUDY QUESTION: Does preconceptionally started low-dose aspirin prevent hypertensive pregnancy complications and preterm delivery in IVF patients?

SUMMARY ANSWER: The current data do not support the use of preconceptionally started low-dose aspirin treatment for the prevention of hypertensive pregnancy complications and preterm delivery in IVF women.

WHAT IS KNOWN ALREADY: Studies starting low-dose aspirin treatment as prevention in the second trimester of pregnancy found no or only moderate reductions in the relative risk of developing preeclampsia. Low-dose aspirin was possibly started too late, that is after the first episode of trophoblast invasion.

STUDY DESIGN, SIZE, DURATION: We performed a meta-analysis with individual patient data (IPD), in which four authors could provide IPD on a total of 268 pregnancies (n = 131 treated with aspirin, n = 137 placebo). Data on hypertensive pregnancy complications and preterm delivery were collected.

PARTICIPANTS/MATERIALS, SETTING, METHODS: All separate databases were merged into a summary database. Treatment effect of aspirin on the incidence of hypertensive pregnancy complications (n = 187) and preterm delivery (n = 180) were estimated with odds ratios (OR) and 95% confidence intervals (95% CI) using multivariable logistic regression.

MAIN RESULTS AND THE ROLE OF CHANCE: There were significantly fewer twin pregnancies in the aspirin group (OR 0.55 95% CI 0.30-0.98), but no significant differences for hypertensive pregnancy complications and preterm delivery: for singletons OR 0.62 (95% CI 0.22-1.7) and OR 0.52 (95% CI 0.16-1.7), respectively, as well as for twin pregnancies OR 1.2 (95% CI 0.35-4.4) and OR 1.6 (95% CI 0.51-5.0), respectively.

LIMITATIONS, REASONS FOR CAUTION: We have to bear in mind that the included studies showed clinical heterogeneity; there was variation in the duration of low-dose aspirin therapy and degree of hypertension between the different studies. Although we combined IPD from four studies, we have to realize that the studies were not powered for the outcome of the current IPD meta-analysis.

WIDER IMPLICATIONS OF THE FINDINGS: Based on the current meta-analysis with IPD we found no confirmation for the hypothesis that preconceptionally started low-dose aspirin reduces the incidence of hypertensive pregnancy complications or preterm delivery in IVF women. Larger studies are warranted.

Impactfactor: 4.670

Smink, M

First report of transvaginal endoscopic microsurgery in a patient with squamous cell carcinoma of the vagina

Smink M*, Hermans RH*, Schoot DB*, Luyer M*, Pijnenborg JM

J Laparoendosc Adv Surg Tech A. 2013 Feb;23(2):154-7

Transanal endoscopic microsurgery has been used by surgeons since 1983. All these years of experience and research have shown that this is a safe and successful approach for rectal neoplasms, both benign and malignant. The advantage of this procedure is the excellent

view and hence precise surgical margins in an operative field that is otherwise difficult to reach. Furthermore, selected patients who used to require major rectal surgery now may be treated using this minimally invasive technique. These advantages may also be favorable for the gynecological field, especially in intravaginal surgery. Our case report describes the first successfully performed transvaginal endoscopic microsurgery in a woman with residual disease after treatment with chemoradiation for squamous cell carcinoma of the vagina. Despite the difficulty of operating in tissue with post-radiation effect, the rest of the tumor was excised with clear surgical margins without damage to the rectum. The patient was discharged from the hospital 2 days after the procedure and recovered without complications.

Impactfactor:--

Vergeldt T

Comparison of two scoring systems for diagnosing levator ani muscle damage

Vergeldt TF8, Weemhoff M, Notten KJ, Kessels AG, Kluivers KB.

Int Urogynecol J. 2013 Sep;24(9):1501-6

INTRODUCTION AND HYPOTHESIS: Levator defects are risk factors for pelvic organ prolapse (POP) and its recurrence. The most widely used scoring systems for severity of defects shown on magnetic resonance imaging (MRI) and perineal ultrasound (US) are not identical. The aim of this study was to investigate the differences between these classification systems with regard to levator defects on US and their clinical relevance for recurrence after prolapse surgery. **METHODS:** Women with previous cystocele repair underwent transperineal 3D US. Levator defects were graded according to the scoring system described with regard to MRI (DeLancey et al.) and perineal US (Dietz et al.). The results were compared using the weighted kappa and receiver operating characteristic (ROC) curves (SPSS version 20.0). **RESULTS:** We assessed 152 women. On US classification, more defects were categorized as highest grade compared with MRI classification [n levator defects on both scoring systems showed very good agreement, with a weighted kappa of 0.82 [95 % confidence interval (CI) 0.75-0.88]. The predictive value of scoring systems for cystocele recurrence after prolapse surgery showed an area under the receiver operating curve (AUC) of 0.63 and 0.64, respectively. **CONCLUSIONS:** Comparison of the two scoring systems showed good agreement but was lowest for the highest-grade defects. There was no difference in predictive value between scoring systems for cystocele recurrence after prolapse surgery.

Impactfactor: 2.169

Vliet HA van

Effect of ethinylestradiol dose and progestagen in combined oral contraceptives on plasma sex hormone binding globulin levels in premenopausal women

Stegeman BH, Raps M, Helmerhorst FM, Vos HL, van Vliet HA*, Rosendaal FR, van Hylckama Vlieg A

J Thromb Haemost. 2013 Jan;11(1):203-5

The effect of a combined oral contraceptive (COC) on sex hormone binding globulin (SHBG) levels may be an indicator for venous thrombosis risk of the COC involved [1,2]. SHBG is a plasma glycoprotein primarily produced in hepatocytes that binds the sex steroid hormones testosterone and 17 β -estradiol but not ethinylestradiol. Users of COC containing a third generation progestagen have higher SHBG levels than second generation progestagen users [1,2] reflecting the difference in venous thrombosis risk.

Impactfactor: 6.081

Vliet HA van

Hormonal versus non-hormonal contraceptives in women with diabetes mellitus type 1 and 2

Visser J, Snel M, Van Vliet HA*

Cochrane Database Syst Rev. 2013 Mar 28;3:CD003990

BACKGROUND: Adequate contraceptive advice is important in both women with diabetes mellitus type 1 and type 2 to reduce the risk of maternal and infant morbidity and mortality in unplanned pregnancies.

A wide variety of contraceptives are available for these women. However, hormonal contraceptives might influence carbohydrate and lipid metabolism and increase micro- and macrovascular complications, so caution in selecting a contraceptive method is required.

OBJECTIVES: To investigate whether progestogen-only, combined estrogen and progestogen or nonhormonal contraceptives differ in terms of effectiveness in preventing pregnancy, in their side effects on carbohydrate and lipid metabolism, and in long-term complications such as micro- and macrovascular disease when used in women with diabetes mellitus.

SEARCH METHODS: The search was performed in CENTRAL, MEDLINE, EMBASE, POPLINE, CINAHL, WorldCat, ECO, ArticleFirst, the Science Citation Index, the British Library Inside, and reference lists of relevant articles. The last search was performed in January 2013. In addition, experts in the field and pharmaceutical companies marketing contraceptives were contacted to identify published, unpublished or ongoing studies.

SELECTION CRITERIA: Randomised and quasi-randomised controlled trials that studied women with diabetes mellitus comparing: 1. hormonal versus non-hormonal contraceptives; 2. progestogen-only versus estrogen and progestogen contraceptives; 3. contraceptives containing < 50 µg estrogen versus contraceptives containing = 50 µg estrogen; and 4. contraceptives containing first-, second- and thirdgeneration progestogens, drospirenone and cyproterone acetate. The principal outcomes were contraceptive effectiveness, diabetes control, lipid metabolism and micro- and macrovascular complications.

DATA COLLECTION AND ANALYSIS: Two investigators evaluated the titles and abstracts identified from the literature search. Quality assessment was performed independently with discrepancies resolved by discussion or consulting a third review author. Because the trials differed in studied contraceptives, participant characteristics and methodological quality, we could not combine the data in a meta-analysis. The trials were therefore examined on an individual basis and narrative summaries were provided.

MAIN RESULTS: Four randomised controlled trials were included. No unintended pregnancies were reported during the study periods. Only one trial was of good methodological quality. It compared the influence of a levonorgestrel-releasing intrauterine device (IUD) versus a copper IUD on carbohydrate metabolism in women with type 1 diabetes mellitus. No significant difference was found between the two groups. The other three trials were of limited methodological quality. Two compared progestogen-only pills with different estrogen and progestogen combinations, and one also included the levonorgestrel-releasing IUD and copper IUD. The trials reported that blood glucose levels remained stable during treatment with most regimens. Only high-dose combined oral contraceptives and 30 µg ethinylestradiol + 75 µg gestodene were identified as slightly impairing glucose homeostasis. The three studies found conflicting results regarding lipid metabolism. Some combined oral contraceptives appeared to have a minor adverse effect while others appeared to slightly improve lipid metabolism. The copper IUD and progestogen-only oral contraceptives also slightly improved lipid metabolism and no influence was seen while using the levonorgestrel-releasing IUD. Only one study reported on micro- and macrovascular complications. It observed no signs or symptoms of

thromboembolic incidents or visual disturbances, however study duration was short. Only minor adverse effects were reported in two studies.

AUTHORS' CONCLUSIONS: The four included randomised controlled trials in this systematic review provided insufficient evidence to assess whether progestogen-only and combined contraceptives differ from non-hormonal contraceptives in diabetes control, lipid metabolism and complications. Three of the four studies were of limited methodological quality, sponsored by pharmaceutical companies and described surrogate outcomes. Ideally, an adequately reported, high-quality randomised controlled trial analysing both intermediate outcomes (that is glucose and lipid metabolism) and true clinical endpoints (micro- and macrovascular disease) in users of combined, progestogen-only and non-hormonal contraceptives should be conducted. However, due to the low incidence of micro- and macrovascular disease and accordingly the large sample size and long follow-up period needed to observe differences in risk, a randomised controlled trial might not be the ideal design.

Impactfactor: --

Vliet HA van

Induction of labour with a Foley catheter or oral misoprostol at term: the PROBAAT-II study, a multicentre randomised controlled trial

Ten Eikelder ML, Neervoort F, Oude Rengerink K, Jozwiak M, de Leeuw JW, de Graaf I, van Pampus MG, Franssen M, Oudijk M, van der Salm P, Woiski M, Pernet PJ, Feitsma AH, van Vliet H*, Porath M, Roumen F, van Beek E, Versendaal H, Heres M, Mol BW, Bloemenkamp KW

BMC Pregnancy Childbirth. 2013 Mar 19;13:67

BACKGROUND: Induction of labour is a common obstetric procedure. At present, different methods are used for induction of labour in women with an unfavourable cervix. Recently, we showed that in term women with an unfavorable cervix the use of a Foley catheter in comparison with vaginal Prostaglandin E2 gel, results in a comparable vaginal delivery rate. A meta-analysis on the subject indicated lower rates of hyperstimulation, and probably as a sequel fewer cases of postpartum haemorrhage. Misoprostol (PgE1) is another type of prostaglandin frequently used for labour induction, recommended by the international federation of gynaecology and obstetrics (FIGO). Misoprostol can be administered by vaginal, rectal and oral route. There is evidence that oral administration results in less asphyxia and hyperstimulation than vaginal administration. At present, valid comparisons between oral misoprostol and Foley catheter are lacking. Therefore, we propose a randomised controlled trial comparing Foley catheter to oral misoprostol in order to assess safety and cost-effectiveness.

METHODS/DESIGN: We plan a multicentre, randomised, controlled, open-label clinical trial among term pregnant women with a vital singleton in cephalic presentation, unfavorable cervix, intact membranes and an indication for induction of labour. After informed consent, women will be randomly allocated by a webbased randomisation system to transcervical Foley catheter or oral misoprostol (50 mcg every 4 hours). The primary outcome will be a composite of complications of uterine hyperstimulation, i.e. post partum haemorrhage and asphyxia. Secondary outcomes are mode of delivery, maternal and neonatal morbidity, costs and women's preference. Serious adverse events such as severe maternal or neonatal morbidity or mortality will be monitored and reported to an independent data safety monitoring board. With a sample size of 1860 women we will be able to demonstrate a 5% non-inferiority of the Foley catheter as compared to misoprostol for the composite outcome.

DISCUSSION: Worldwide, various methods are being used for labour induction. Results of the

proposed trial will contribute to the answer which method of induction of labour is most safe, costeffective, and patient friendly and will help to construct evidence based guidelines.

Impactfactor: 2.52

Vliet HA van

Levonorgestrel releasing intrauterine system (Mirena) versus endometrial ablation (Novasure) in women with heavy menstrual bleeding: a multicentre randomised controlled trial

Herman MC, van den Brink MJ, Geomini PM, van Meurs HS, Huirne JA, Eising HP, Timmermans A, Pijnenborg J, Klinkert ER, Coppus SF, Nieboer T, Catshoek R, van der Voet LF, van Eijndhoven HW, Graziosi G, Veersema BS, van Kesteren PJ, Langenveld J, Smeets NA, van Vliet HA*, van der Steeg JW, Leeuwen YL, Dekker JH, Mol BW, Berger MY, Bongers MY

BMC Womens Health 2013 Aug 8;13(1):32

BACKGROUND: Heavy menstrual bleeding is an important health problem. Two frequently used therapies are the levonorgestrel intra-uterine system (LNG-IUS) and endometrial ablation. The LNG-IUS can be applied easily by the general practitioner, which saves costs, but has considerable failure rates. As an alternative, endometrial ablation is also very effective, but this treatment has to be performed by a gynaecologist. Due to lack of direct comparison of LNG-IUS with endometrial ablation, there is no evidence based preferred advice for the use of one of these treatment possibilities.

Method/design: A multicenter randomised controlled trial, organized in a network infrastructure in the Netherlands in which general practitioners and gynaecologists collaborate. Women \geq 34 years with heavy menstrual bleeding, a Pictorial Blood Assessment Chart (PBAC) score exceeding 150 points and no future child wish can participate in the trial. After informed consent, women will be randomised to a strategy starting with a levonorgestrel releasing intrauterine system or a strategy starting with endometrial ablation. The primary outcome is the PBAC score at 24 months of follow-up. Secondary outcomes are patient satisfaction, complications, number of re-interventions, menstrual bleeding pattern, quality of life, sexual function, sick leave and costs. As predictors of effect of intervention we also measure level of coagulation factors.

Discussion: This study, considering both effectiveness and cost effectiveness of LNG-IUS versus endometrial ablation may well improve care for women with heavy menstrual bleeding.

Impactfactor: --

Vliet HA van

Resistance to APC and SHBG levels during use of a four-phasic oral contraceptive containing dienogest and estradiol valerate: a randomized controlled trial

Raps M, Rosendaal F, Ballieux B, Rosing J, Thomassen S, Helmerhorst F, van Vliet H*

J Thromb Haemost. 2013 May;11(5):855-61

BACKGROUND: The use of combined oral contraceptives is associated with a 3- to 6-fold increased risk of venous thrombosis. This increased risk depends on the estrogen dose as well as the progestogen type of combined oral contraceptives. Thrombin generation-based activated protein C resistance (APC resistance) and sex hormone-binding globulin (SHBG) levels predict the thrombotic risk of a combined hormonal contraceptive. Recently, a four-phasic oral contraceptive containing dienogest (DNG) and estradiol valerate (E2V) has been marketed. The aim of this study was to evaluate the thrombotic risk of the DNG/E2V oral

contraceptive by comparing APC resistance by measuring normalized APC sensitivity ratios (nAPCsr) and SHBG levels in users of oral contraceptives containing dienogest and estradiol valerate (DNG/E2V) and oral contraceptives containing levonorgestrel and ethinyl estradiol (LNG/EE).

METHODS: We conducted a single-center, randomized, open label, parallel-group study in 74 women using DNG/E2V or LNG/EE, and measured nAPCsr and SHBG levels in every phase of the regimen of DNG/E2V.

RESULTS: During the pill cycle SHBG levels did not differ between DNG/E2V users and LNG/EE users. nAPCsr levels were overall slightly lower in DNG/E2V users than in LNG/EE users, mean difference -0.44 (95% CI, -1.04 to 0.17) for day 2, -0.20 (95% CI, -0.76 to 0.37) for day 7, -0.27 (95% CI, -0.81 to 0.28) for day 24 and -0.34 (95% CI, -0.91 to 0.24) for day 26.

CONCLUSION: No statistical significant differences in nAPCsr and SHBG levels were found between users of the oral contraceptive containing DNG/E2V and LNG/EE, suggesting a comparable thrombotic risk.

Impactfactor: 6.081

Vliet HA van

Sex hormone-binding globulin as a marker for the thrombotic risk of hormonal contraceptives: reply to a rebuttal

Raps M, Helmerhorst FM, Fleischer K, van Hylckama Vlieg A, Stegeman BH, Thomassen S, Rosendaal FR, Rosing J, Ballieux BE, Van Vliet HA*

J Thromb Haemost. 2013 Feb;11(2):396-7

Geen abstract beschikbaar

Impactfactor: 6.081

Vliet HA van

The effect of different hormonal contraceptives on plasma levels of free protein S and free TFPI

Raps M, Helmerhorst FM, Fleischer K, Dahm AE, Rosendaal FR, Rosing J, Reitsma P, Sandset PM, van Vliet HA*

Thromb Haemost. 2013 Apr 8;109(4):606-13

Use of combined oral contraceptives is associated with a three- to six-fold increased risk of venous thrombosis. Hormonal contraceptives induce acquired resistance to activated protein C (APC), which predicts the risk of venous thrombosis. The biological basis of the acquired APC resistance is unknown. Free protein S (PS) and free tissue factor pathway inhibitor (TFPI) are the two main determinants of APC. Our objective was to assess the effect of both hormonal and non-hormonal contraceptives with different routes of administration on free TFPI and free PS levels. We conducted an observational study in 243 users of different contraceptives and measured APC sensitivity ratios (nAPCsr), free TFPI and free PS levels. Users of contraceptives with the highest risk of venous thrombosis as reported in recent literature, had the lowest free TFPI and free PS levels, and vice versa, women who used contraceptives with the lowest risk of venous thrombosis had the highest free TFPI and free PS levels. An association was observed between levels of free TFPI and nAPCsr, and between free PS and nAPCsr. The effect of oral contraceptives on TFPI and PS is a possible explanation for the increased risk of venous thrombosis associated with oral contraceptives

Impactfactor: 6.094

* = Werkzaam in het Catharina Ziekenhuis

ICMT

Cheung A

Usability of digital media in patients with copd: a pilot study

Cheung A*, Janssen A, Amft O, Wouters EF, Spruit MA

Int J Technol Assess Health Care. 2013 Apr;29(2):162-5

Background: Digital media can be integrated in tele-monitoring solutions, serving as the main interface between the patient and the caregiver. Consequently, the selection of the most appropriate digital medium for the specified target group is critical to ensure compliance with the tele-monitoring system.

Objectives: This pilot study aims to gather insights from patients with chronic obstructive pulmonary disease (COPD) on the ease-of-use, efficacy, effectiveness, and satisfaction of different types of digital media. Methods: Five off-the-shelf digital media devices were tested on nine patients at CIRO+ in Horn, The Netherlands. Usability was evaluated by asking patients to use each device to answer questions related to their symptoms and health status. Subsequently, patients completed a paper-based device usability questionnaire, which assessed prior experience with digital media, device dimensions, device controllability, response speed, screen readability, ease-of-use, and overall satisfaction. After testing all the devices, patients ranked the devices according to their preference. Results: We identified the netbook as the preferred type of device due to its good controllability, fast response time, and large screen size. The smartphone was the least favorite device as patients found the size of the screen to be too small, which made it difficult to interact with. Conclusion: The pilot study has provided important insights to guide the selection of the most appropriate type of digital medium for implementation in telemonitoring solutions for patients with COPD. As the digital medium is an important interface to the patient in tele-monitoring solutions, it is essential that patients feel motivated to interact with the digital medium on a regular basis.

Impactfactor: 1.551

* = Werkzaam in het Catharina Ziekenhuis

Inwendige Geneeskunde

Ammerlaan H

Secular trends in nosocomial bloodstream infections: antibiotic-resistant bacteria increase the total burden of infection

Ammerlaan HS#, Harbarth S, Buiting AG, Crook DW, Fitzpatrick F, Hanberger H, Herwaldt LA, van Keulen PH, Kluytmans JA, Kola A, Kuchenbecker RS, Lingaas E, Meessen N, Morris-Downes MM, Pottinger JM, Rohner P, dos Santos RP, Seifert H, Wisplinghoff H, Ziesing S, Walker AS, Bonten MJ

Clin Infect Dis. 2013 Mar;56(6):798-805

BACKGROUND: It is unknown whether rising incidence rates of nosocomial bloodstream infections (BSIs) caused by antibiotic-resistant bacteria (ARB) replace antibiotic-susceptible bacteria (ASB), leaving the total BSI rate unaffected.

METHODS: We investigated temporal trends in annual incidence densities (events per 100 000 patientdays) of nosocomial BSIs caused by methicillin-resistant *Staphylococcus aureus* (MRSA), ARB other than MRSA, and ASB in 7 ARB-endemic and 7 ARB-nonendemic hospitals between 1998 and 2007.

RESULTS: 33 130 nosocomial BSIs (14% caused by ARB) yielded 36 679 microorganisms. From 1998 to 2007, the MRSA incidence density increased from 0.2 to 0.7 (annual increase, 22%) in ARBnonendemic hospitals, and from 3.1 to 11.7 (annual increase, 10%) in ARB-endemic hospitals ($P = .2$), increasing the incidence density difference between ARB-endemic and ARB-nonendemic hospitals from 2.9 to 11.0. The non-MRSA ARB incidence density increased from 2.8 to 4.1 (annual increase, 5%) in ARB-nonendemic hospitals, and from 1.5 to 17.4 (annual increase, 22%) in ARB-endemic hospitals ($P < .001$), changing the incidence density difference from -1.3 to 13.3. Trends in ASB incidence densities were similar in both groups ($P = .7$). With annual increases of 3.8% and 5.4% of all nosocomial BSIs in ARB-nonendemic and ARB-endemic hospitals, respectively ($P < .001$), the overall incidence density difference of 3.8 increased to 24.4.

CONCLUSIONS: Increased nosocomial BSI rates due to ARB occur in addition to infections caused by ASB, increasing the total burden of disease. Hospitals with high ARB infection rates in 2005 had an excess burden of BSI of 20.6 per 100 000 patient-days in a 10-year period, mainly caused by infections with ARB.

#Ten tijde van publicatie werkzaam bij: Department of Medical Microbiology University Medical Center Utrecht

Impactfactor: 9.374

Bernards N

No improvement in median survival for patients with metastatic gastric cancer despite increased use of chemotherapy

Bernards N*, Creemers GJ, Nieuwenhuijzen GA*, Bosscha K, Pruijt JF, Lemmens VE.

Ann Oncol. 2013 Dec;24(12):3056-60. Epub 2013 Oct 11

BACKGROUND: Gastric cancer often presents in a metastasized stage. We conducted a populationbased study to evaluate trends in systemic treatment and survival of metastatic noncardia gastric cancer.

PATIENTS AND METHODS: All patients with noncardia adenocarcinoma of the stomach, diagnosed between 1990 and 2011 in the Eindhoven Cancer Registry area in the Netherlands were included ($N = 4797$). We conducted multivariable logistic regression analysis to evaluate trends in administration of palliative chemotherapy and multivariable proportional hazards regression analyses to evaluate trends in crude overall survival.

RESULTS: The proportion of patients presenting with metastatic gastric cancer increased from 24% in 1990 to 44% in 2011 ($P < 0.0001$). The use of palliative chemotherapy increased,

from 5% in 1990 to 36% in 2011, with a strong increase in particular after 2006 ($P < 0.0001$). Younger patients (<50 years: adjusted odds ratio (ORadj) 3.9, $P < 0.001$; 50-59 years: ORadj 1.7, $P = 0.01$) and patients with a high socioeconomic status (ORadj 1.7, $P = 0.01$) more often received chemotherapy. In contrast, older patients (70-79 years: ORadj 0.3, $P < 0.001$; 80+ years: ORadj 0.02, $P < 0.001$), patients with comorbidity (ORadj 0.6, $P = 0.03$), linitis plastica (ORadj 0.5, $P = 0.03$) and multiple distant metastases (ORadj 0.5, $P = 0.01$) were less often treated with chemotherapy. A large hospital variation was observed in the administration of palliative chemotherapy (9%-27%). Median overall survival remained constant between 15 [95% confidence interval (CI) 11.9-17.7] and 17 (95% CI 15.0-20.0) weeks ($P = 0.10$).

CONCLUSIONS: The increased administration of chemotherapy in patients with metastatic gastric cancer did not lead to an increase in population-based overall survival. Identification of the subgroup of patients which benefits from palliative chemotherapy is of utmost importance to avoid unnecessary treatment.

Impactfactor: 7.384

Besselaar E

Instrument-dependent interference of Howell-Jolly bodies in reticulocyte enumeration

van Berkel M*, Besselaar E*, Kuijper P, Scharnhorst V*

Clin Chem Lab Med. 2013 Jun;51(6):e137-9

Voor abstract zie: Algemeen Klinisch Laboratorium - Berkel M van

Impactfactor: 3.009

Blonk MC

The Effects of a Mindfulness-Based Intervention on Emotional Distress, Quality-of-Life, and HbA1c in Outpatients With Diabetes (DiaMind): A randomized controlled trial

Son J van, Nyklíček I, Pop VJ, Blonk MC*, Erdtsieck RJ, Spooren PF, Toorians AW, Pouwer F

Diabetes Care. 2013 Apr;36(4):823-30

OBJECTIVE Emotional distress is common in outpatients with diabetes, affecting ~20-40% of the patients. The aim of this study was to determine the effectiveness of group therapy with Mindfulness-Based Cognitive Therapy (MBCT), relative to usual care, for patients with diabetes with regard to reducing emotional distress and improving health-related quality-of-life and glycemic control.

RESEARCH DESIGN AND METHODS In the present randomized controlled trial, 139 outpatients with diabetes (type 1 or type 2) and low levels of emotional well-being were randomized to MBCT ($n = 70$) or a waiting list group ($n = 69$). Primary outcomes were perceived stress (Perceived Stress Scale), anxiety and depressive symptoms (Hospital Anxiety and Depression Scale), mood (Profiles of Mood States), and diabetes-specific distress (Problem Areas In Diabetes). Secondary outcomes were health-related quality-of-life (12-Item Short-Form Health Survey), and glycemic control (HbA(1c)). Assessments were conducted at baseline and at 4 and 8 weeks of follow-up. **RESULTS** Compared with control, MBCT was more effective in reducing stress ($P < 0.001$, Cohen $d = 0.70$), depressive symptoms ($P = 0.006$, $d = 0.59$), and anxiety ($P = 0.019$, $d = 0.44$). In addition, MBCT was more effective in improving quality-of-life (mental: $P = 0.003$, $d = 0.55$; physical: $P = 0.032$, $d = 0.40$). We found no significant effect on HbA (1c) or diabetes-specific distress, although patients with elevated diabetes distress in the MBCT group tended to show a decrease in diabetes distress ($P = 0.07$, $d = 0.70$) compared with the control group.

CONCLUSIONS Compared with usual care, MBCT resulted in a reduction of emotional distress and an increase in health-related quality-of-life in diabetic patients who had lower levels of emotional well-being.

Impactfactor: 8.087

Creemers GJ

Addition of biological therapies to palliative chemotherapy prolongs survival in patients with peritoneal carcinomatosis of colorectal origin

Klaver YL*, Leenders BJ*, Creemers GJ*, Rutten HJ*, Verwaal VJ, Lemmens VE, Hingh IH de *

Am J Clin Oncol. 2013 Apr;36(2):157-61

Voor abstract zie: Chirurgie - Klaver YL

Impactfactor: 2.552

Creemers GJ

Information provision and patient reported outcomes in patients with metastasized colorectal cancer: results from the PROFILES registry

Husson O, Thong MS, Mols F, Smilde TJ, Creemers GJ*, van de Poll-Franse LV

J Palliat Med. 2013 Mar;16(3):281-8

BACKGROUND: Patients with metastasized colorectal cancer (mCRC) have different information needs compared with patients with nonmetastatic colorectal cancer (CRC). Appropriate information provision leads to better patient reported outcomes for patients with nonmetastatic disease.

OBJECTIVE: To measure the perceived level of, and satisfaction with, information received by patients with mCRC as compared with those with nonmetastatic (stage I,II,III) CRC. Also, associations of information provision with health status, anxiety, depression, and illness perceptions were investigated.

METHODS: A cross-sectional population-based survey was conducted. All CRC patients diagnosed between 2002 and 2007 according to the Eindhoven Cancer Registry (ECR) were selected. Response rate was 75% (n=1159, of which 139 had mCRC). Participants completed questionnaires on information provision (European Organization for Research and Treatment of Cancer Quality of Life Questionnaire-INFO25), health status (Short Form-36), anxiety and depression (Hospital Anxiety and Depression Scale [HADS]), and illness perceptions (Brief Illness Perception Questionnaire [B-IPQ]).

RESULTS: The perceived receipt of information was quite comparable between CRC patients with and without mCRC. Only perceived receipt of treatment information was higher for patients with mCRC (45 versus 37; $p<0.01$). Sixty percent of the patients with mCRC were satisfied with the amount of received information and almost 30% wanted to receive more information. The perceived receipt of more disease information and information about other services was associated with worse health outcomes, whereas satisfaction with the received information was not associated with health outcomes.

CONCLUSION: The findings of this study indicate that some improvements can be made in the provision of information to patients with mCRC. Adequate assessment of information needs of mCRC patients, as well as appropriate responses to these needs by providing the information in an appropriate way could possibly lead to improvements in patient satisfaction.

Impactfactor: --

Creemers GJ

Major changes in chemotherapy regimens administered to breast cancer patients during 2000-2008 in the Netherlands

van Herk-Sukel MP, van de Poll-Franse LV, Creemers GJ*, Lemmens VE, van der Linden PD, Herings RM, Coebergh JW, Voogd AC.

Breast J. 2013 Jul;19(4):394-401

There is little information available on the patterns of chemotherapy regimens administered in daily practice to patients with early stage and metastatic or recurrent breast cancer. To determine the trends in type of chemotherapy regimens used in breast cancer patients, newly diagnosed breast cancer patients in the period 2000-2008 who received chemotherapy were identified from the Eindhoven Cancer Registry (ECR) and linked to the PHARMO RLS, including data on, e.g., in- and outpatient drug use. Chemotherapy regimens were classified based on the received combinations and sequences. Trends in the distribution of adjuvant chemotherapy regimens (for early-stage breast cancer) and palliative chemotherapy regimens (for metastatic or recurrent breast cancer) were determined and stratified by Her2/neu status when possible. In this study, 422 patients diagnosed with early-stage breast cancer received adjuvant chemotherapy. The use of CMF (cyclophosphamide, methotrexate, and 5-fluorouracil) decreased from 90% in 2000 to almost none since 2005. Administration of regimens that included anthracyclines increased from 4% in 2000 to 96% in 2005, but decreased to 68% in 2008. The use of trastuzumab- and taxane-containing regimens (with or without anthracyclines) increased from 2005 onwards to 24% and 34%, respectively, in 2008. Among the 82 breast cancer patients who received palliative chemotherapy at diagnosis or after breast cancer recurrence, the use of CMF and anthracyclines (without taxanes) decreased, while the use of taxanes (with or without anthracyclines) increased (26% in 2008). Trastuzumab was used as palliative chemotherapy from 2003 onwards, with 22% of the metastatic breast cancer patients receiving trastuzumab-containing regimens in 2008, and bevacizumab was administered since 2007 with 19% of the patients receiving bevacizumab-containing regimens in 2008. In conclusion, major changes have taken place in the chemotherapeutic treatment of patients with early and recurrent breast cancer. These changes reflect the key findings from large clinical trials, as incorporated in the Dutch guidelines.

Impactfactor: 1.831

Creemers GJ

No improvement in median survival for patients with metastatic gastric cancer despite increased use of chemotherapy

Bernards N*, Creemers GJ*, Nieuwenhuijzen GA*, Bosscha K, Pruijt JF, Lemmens VE.

Ann Oncol. 2013 Dec;24(12):3056-60. Epub 2013 Oct 11

Voor abstract zie: Inwendige geneeskunde - Bernards N

Impactfactor: 7.384

Creemers GJ

Reduced risk of distant recurrence after adjuvant chemotherapy in patients with stage III colon cancer aged 75 years or older

van Erning FN, Creemers GJ*, De Hingh IH*, Loosveld OJ, Goey SH, Lemmens VE

Ann Oncol. 2013 Nov;24(11):2839-44. Epub 2013 Aug 8

BACKGROUND: Little is known about the effects of adjuvant chemotherapy on the risk of distant recurrence in elderly with stage III colon cancer, treated in daily practice.

PATIENTS AND METHODS: One thousand two hundred and ninety-one stage III colon cancer patients diagnosed in the southern Netherlands between 2003 and 2008 were included. Propensity score matching was applied to create a subsample to reduce bias caused by differences between patients receiving adjuvant chemotherapy and patients not receiving adjuvant chemotherapy. For both the total study population and the propensity score matched sample, Cox regression analysis was used to discriminate independent risk factors for distant recurrence.

RESULTS: Adjuvant chemotherapy (CT) was correlated with a reduced risk of distant recurrence in both the total study population [hazard ratio (HR) CT versus nCT 0.55, 95% confidence interval (CI) 0.42-0.70] and in the propensity score matched sample (HR CT versus nCT 0.46, 95% CI 0.33-0.63). In separate analyses for patients aged <75 and ≥ 75 years, the effect of adjuvant chemotherapy on the risk of distant recurrence remained comparable for both age groups (HR CT versus nCT 0.50, 95% CI 0.37-0.68 and 0.57, 95% CI 0.36-0.90, respectively).

CONCLUSION: Distant recurrence risks at higher age definitely warrant consideration of adjuvant chemotherapy for elderly stage III colon cancer patients. This decision should be based on a multidisciplinary and functional assessment of the patient, not on age.

Impactfactor: 7.384

Hellemond IE van

Consideration of QRS complex in addition to ST segment abnormalities in the estimation of the 'risk region' during acute inferior myocardial infarction

van Hellemond IE*, Bouwmeester S*, Olson CW, Hassell M, Bøtker HE, Kaltoft AK, Nielsen SS, Terkelsen CJ, Maynard C, Andersen MP, Gorgels AP, Wagner GS

J Electrocardiol. 2013 May-Jun;46(3):215-20

BACKGROUND: The myocardial area at risk (MaR) has been estimated in patients with acute myocardial infarction (AMI) by using ST segment based ECG methods. However, as the process from ischemia to infarction progresses, the ST segment deviation is typically replaced by QRS abnormalities, causing a falsely low estimation of the total MaR if determined by using ST segment based methods. A previous study showed the value of the consideration of the abnormalities in the QRS complex, in addition to those in the ST segment estimating the total MaR for patients with anterior AMI. The purpose of this study was to investigate the same method for patients with inferior AMI.

METHODS: Thirty-two patients with acute inferior ST elevation myocardial infarction received 99mTc-Sestamibi before percutaneous coronary intervention. SPECT was performed within 2 hours after treatment and was used as a gold standard for the estimation of the total MaR. The ECG recorded at admission in the hospital was used for the ECG estimates of the total MaR. This included a ST segment estimation of the ischemic component of the total MaR (Aldrich score) and an estimation of the infarcted component of the total MaR in the acute phase of AMI by QRS abnormalities (Selvester score). These scores were added for the combined ECG score.

RESULTS: The ischemic component of the total MaR estimated by the Aldrich score alone no statistically significant correlation with SPECT ($r=0.17$, $p=0.36$). The infarcted component of the total MaR estimated by the Selvester score showed a significant correlation with SPECT ($r=0.55$, $p=0.001$). When the Aldrich and Selvester scores were combined, the correlation with SPECT improved ($r=0.58$, $p<0.001$). Both the Aldrich and Selvester score alone underestimated the mean MaR measured by SPECT (respectively $p=0.007$ and $p<0.0001$). There was no statistically significant difference between the mean MaR estimated by the sum of Aldrich and Selvester and the MaR measured by SPECT ($p=0.636$).

CONCLUSION: The estimation of the total MaR was more accurate by taking both ST deviation and QRS abnormalities in account than by using either method alone. A new ECG method to determine the total MaR during acute coronary occlusion should consider both its ischemic and infarcted components.

Impactfactor: 1.093

Hellemond IE van

The predictive value of an ECG-estimated Acute Ischemia Index for prognosis of myocardial salvage and infarct healing 3months following inferior ST-elevated myocardial infarction

Hassell ME, Bekkers SC, Loring Z, Van Hellemond I*, Bouwmeester S*, Van der Weg K, Maynard C, Gorgels AP, Wagner GS

J Electrocardiol. 2013 May-Jun;46(3):221-8

BACKGROUND AND PURPOSE: Identification of prognostic markers can be used to stratify patients in the acute phase of ST-elevated myocardial infarction (STEMI) according to their potential to retain viable myocardium after reperfusion. The percentage of the myocardial area at risk (MaR) that is ischemic at admission, defined as the Acute Ischemia Index, is potentially salvageable. The percentage of the MaR viable at 3months post-reperfusion, by salvage and healing, was defined as the Chronic Salvage Index. A positive relationship between the Acute Ischemia Index and the Chronic Salvage Index was hypothesized.

METHODS: Both indices were assessed by using the ECG indices Aldrich ST and Selvester QRS scores estimating the ischemic and infarcted myocardium. The study population comprised inferior STEMI patients. (N=59).

RESULTS: A correlation of 0.253 ($P=0.053$) was found.

CONCLUSIONS: These results are relevant and suggest evidence of a trend in the association between these indices.

Impactfactor: 1.093

Hoorntje SJ

Dutch guideline for the management of electrolyte disorders - 2012 revision

Hoorn EJ, Tuut MK, Hoorntje SJ*, van Saase JL, Zietse R, Geers AB

Neth J Med. 2013 Apr;71(3):153-65

Electrolyte disorders are common and often challenging in terms of differential diagnosis and appropriate treatment. To facilitate this, the first Dutch guideline was developed in 2005, which focused on hypernatraemia, hyponatraemia, hyperkalaemia, and hypokalaemia. This guideline was recently revised. Here, we summarise the key points of the revised guideline, including the major complications of each electrolyte disorder, differential diagnosis and recommended treatment. In addition to summarising the guideline, the aim of this review is also to provide a practical guide for the clinician and to harmonise the management of these disorders based on available evidence and physiological principles.

Impactfactor: 2.072

Intven FA

Stewart analysis of apparently normal acid-base state in the critically ill

Moviat M, van den Boogaard M, Intven F*, van der Voort P, van der Hoeven H, Pickkers P

J Crit Care 2013 Dec;28(6):1048-54. Epub 2013 Jul 30

PURPOSE: This study aimed to describe Stewart parameters in critically ill patients with an apparently normal acid-base state and to determine the incidence of mixed metabolic acid-base disorders in these patients.

MATERIALS AND METHODS: We conducted a prospective, observational multicenter study of 312 consecutive Dutch intensive care unit patients with normal pH (7.35 d pH d 7.45) on days 3 to 5. Apparent (SIDa) and effective strong ion difference (SDe) and strong ion gap (SIG) were calculated from 3 consecutive arterial blood samples. Multivariate linear regression analysis was performed to analyze factors potentially associated with levels of SIDa and SIG.

RESULTS: A total of 137 patients (44%) were identified with an apparently normal acid-base state (normal pH and $-2 < \text{base excess} < 2$ and $35 < \text{PaCO}_2 < 45$ mm Hg). In this group, SIDa values were 36.6 ± 3.6 mEq/L, resulting from hyperchloremia (109 ± 4.6 mEq/L, sodium-chloride difference 30.0 ± 3.6 mEq/L); SDe values were 33.5 ± 2.3 mEq/L, resulting from hypoalbuminemia (24.0 ± 6.2 g/L); and SIG values were 3.1 ± 3.1 mEq/L. During admission, base excess increased secondary to a decrease in SIG levels and, subsequently, an increase in SIDa levels. Levels of SIDa were associated with positive cation load, chloride load, and admission SIDa (multivariate $r(2) = 0.40$, $P < .001$). Levels of SIG were associated with kidney function, sepsis, and SIG levels at intensive care unit admission (multivariate $r(2) = 0.28$, $P < .001$).

CONCLUSIONS: Intensive care unit patients with an apparently normal acid-base state have an underlying mixed metabolic acid-base disorder characterized by acidifying effects of a low SIDa (caused by hyperchloremia) and high SIG combined with the alkalinizing effect of hypoalbuminemia.

Impactfactor: 2.498

Konings CJ

Moderate elevations of high-sensitivity cardiac troponin I and B-type natriuretic peptide in chronic hemodialysis patients are associated with mortality

Geerse DA, Berkel M van*, Vogels S, Kooman JP, Konings CJ*, Scharnhorst V*

Clin Chem Lab Med. 2013 Jun;51(6):1321-8

Voor abstract zie: Algemeen Klinisch Laboratorium - Berkel M van

Impactfactor: 2.150

Peters WG

A high level of fatigue among (long-term) non-Hodgkin lymphoma survivors: results from the longitudinal population-based PROFILES registry in the south of the Netherlands

Oerlemans S, Mols F, Issa DE, Pruijt JF, Peters WG*, Lybeert M*, Zijlstra W, Coebergh JW, van de Poll-Franse LV

Haematologica. 2013 Mar;98(3):479-86. Epub 2012 Aug 28

Background: The course of fatigue and quality of life in non-Hodgkin lymphoma survivors is unknown. Therefore, the aims were to assess fatigue and quality of life following primary treatment, compare fatigue and quality of life with an age- and sex matched normative

population to assess the severity of concerns and identify associations with fatigue of survivors who remained fatigued.

Methods: The population-based Eindhoven Cancer Registry was used to select all patients diagnosed with non-Hodgkin lymphoma from 1999-2009. The European Organization for Research and Treatment of Cancer Quality of Life Questionnaire and the Fatigue Assessment Scale were completed once by 824 non-Hodgkin lymphoma survivors (80% response rate), subsequently 434 survivors completed these questionnaires again one year later. Results: Non-Hodgkin lymphoma survivors reported more clinically relevant fatigue up till 10 years post-diagnosis compared to a normative population ($p < .001$). Fatigue mean scores remained rather stable over time (T1: ± 28 , SD=26; T2: ± 30 , SD=27, $p = .14$), 22-28% of survivors reported deterioration and 19-23% improvement; 44-54% reported constant fatigue. Survivors who reported constant fatigue were more often diagnosed with stage IV disease and had more comorbid diseases. They were additionally more often female and divorced. Having comorbidities and being without partner were also associated with remained fatigue in the normative population.

Conclusion: Six out of 10 of responding non-Hodgkin lymphoma survivors reported a high level of fatigue up till 10 years after diagnosis. Fatigue mean scores remained stable over time and survivors reporting constant fatigue more often exhibited stage IV disease and comorbidities.

Impactfactor: 5.935

Peters WG

Chronische lymfatische leukemie in Nederland: trends in incidentie, behandeling en overleving (1989-2008)

E.C. van den Broek, A.P. Kater, S.A.M. van de Schans, H.E. Karim-Kos, M.L.G. Janssen-Heijnen, W.G. Peters*, P.T.G.A. Nooijen, J.W.W. Coebergh en E.F.M. Posthuma
Ned Tijdschr Hematol 2013;10:244-53

Wij berekenden trends in incidentie (aantal nieuw gediagnosticeerde patiënten), vroege behandeling en overleving van patiënten met chronische lymfatische leukemie (CLL) tussen 1989 en 2008, gebaseerd op _population-based_ gegevens van de Nederlandse Kankerregistratie. De incidentie was stabiel bij mannen (5,1 gevallen per 100.000 personen per jaar (=persoonsjaren)), maar nam licht toe bij vrouwen van 2,3 tot 2,5 gevallen per 100.000 persoonsjaren. De incidentie steeg met name bij vrouwen in de leeftijd van 50-64 jaar (van 3,6 tot 4,3 gevallen per 100.000 persoonsjaren). Over de tijd kregen patiënten minder vaak chemotherapie binnen 6 maanden na diagnose, er was een daling van 29% tot 24% bij mannen en van 25% tot 21% bij vrouwen. De relatieve vijfjaarsoverleving (dit is een benadering van de CLL-specifieke overleving) nam toe van 61% in 1989-1993 tot 70% in 2004-2008 voor mannen, en van 71% tot 76% voor vrouwen. De oversterfte ten gevolge van CLL nam af over de tijd en bleek hoger naarmate patiënten ouder zijn. Verschillen in incidentie van CLL op basis van geslacht bleven bestaan, maar werden wel kleiner. De incidentie voor vrouwen nam toe in de richting van de stabiele incidentie voor mannen, waarschijnlijk door toegenomen detectie bij vrouwen. De bescheiden toename in overleving is mogelijk onderschat als gevolg van onderregistratie van recentelijk gediagnosticeerde indolente patiënten en het effect met terugwerkende kracht van de introductie van nieuwe therapieën

Impactfactor: --

Vriens BE

Doxorubicin/cyclophosphamide with concurrent versus sequential docetaxel as neoadjuvant treatment in patients with breast cancer

Vriens BE*, Aarts MJ, de Vries B, van Gastel SM, Wals J, Smilde TJ, van Warmerdam LJ*, de Boer M, van Spronsen DJ, Borm GF, Tjan-Heijnen VC

Eur J Cancer. 2013 Oct;49(15):3102-10. Epub 2013 Jul 10

BACKGROUND: This study was designed to determine whether delivering neo-adjuvant chemotherapy at a higher dose in a shorter period of time improves outcome of breast cancer patients.

PATIENTS AND METHODS: Women with newly diagnosed breast cancer were randomly assigned to neoadjuvant chemotherapy of four cycles of doxorubicin and cyclophosphamide followed by four cycles of docetaxel (AC 60/600 - T 100mg/m²) or six cycles of TAC (75/50/500mg/m²) every 3 weeks. The primary endpoint was the pathologic complete response (pCR) rate, defined as no invasive tumour present in the breast.

RESULTS: In total, 201 patients were included. Baseline characteristics were well balanced. AC-T resulted in pCR in 21% and TAC in 16% of patients (odds ratio 1.44 (95% confidence interval (CI) 0.67 -3.10). AC-T without primary granulocyte-colony stimulating factor (G-CSF) prophylaxis was associated with more febrile neutropenia compared to TAC with primary G-CSF prophylaxis (23% versus 9%), and with more grade 3/4 sensory neuropathy (5% versus 0%).

CONCLUSIONS: With a higher cumulative dose for the concurrent arm, no differences were observed between the two treatment arms with respect to pCR rate. The differential toxicity profile could partly be explained by different use of primary G-CSF prophylaxis.

Impactfactor: 5.061

Vriens BE

If there is no overall survival benefit in metastatic breast cancer: does it imply lack of efficacy? Taxanes as an example

Vriens BE*, Lobbezoo DJ, de Hoon JP, Veeck J, Voogd AC, Tjan-Heijnen VC

Cancer Treat Rev. 2013 Apr;39(2):189-98. Epub 2012 May 31

In recent years, new drugs have shown activity in metastatic breast cancer, but not always resulting in an overall survival benefit. This has led to discussions if such drugs, mainly expensive drugs, should be reimbursed especially when also not leading to improvement in quality of life. For that reason, we decided to systematically review taxane-based chemotherapy studies in early and metastatic breast cancer, to assess which factors may have caused the differential outcome. Taxanes did not improve survival in metastatic breast cancer trials, whereas they did so in early breast cancer trials. We questioned if the differential outcome of taxanes in metastatic breast cancer might be caused by the chosen comparator and study design. We noticed that in the majority of metastatic breast cancer studies taxanes were used as a substitute for other active cytotoxic drugs, mainly cyclophosphamide, whereas in early breast cancer studies taxanes were generally delivered in addition to a standard regimen. We conclude from our analyses that use of taxanes instead of other active drugs explains the lack of overall survival benefit in metastatic breast cancer trials. Further, our results suggest that cyclophosphamide is an important drug in the treatment of breast cancer, being as effective as optimally dosed taxanes and anthracyclines. By studying the different study designs and comparators in both settings, we were able to demonstrate their impact on efficacy endpoints.

We conclude, therefore, that re-assessment of studies of drugs both assessed in metastatic and early breast cancer provides a new tool for improved understanding.

Impactfactor: 6.024

Warmerdam LJ van

Bioequivalence of Liposome-Entrapped Paclitaxel Easy-To-Use (LEP-ETU) Formulation and Paclitaxel in Polyethoxylated Castor Oil: A Randomized, Two-Period Crossover Study in Patients With Advanced Cancer

Slingerland M, Guchelaar HJ, Rosing H, Scheulen ME, van Warmerdam LJ*, Beijnen JH, Gelderblom H

Clin Ther. 2013 Dec;35(12):1946-54. Epub 2013 Nov 28

BACKGROUND: Preclinical studies comparing paclitaxel formulated with polyethoxylated castor oil with the sonicated formulation of liposome-entrapped paclitaxel (LEP) have demonstrated that LEP was associated with reduced toxicity while maintaining similar efficacy. Preliminary studies on the pharmacokinetics in patients support earlier preclinical data, which suggested that the LEP Easy-to-Use (LEP-ETU) formulation and paclitaxel formulated with castor oil may have comparable pharmacokinetic properties.

OBJECTIVES: Our objectives were: (1) to determine bioequivalence of paclitaxel pharmaceutically formulated as LEP-ETU (test) and paclitaxel formulated with castor oil (reference); and (2) to assess the tolerability of LEP-ETU following intravenous administration.

METHODS: Patients with advanced cancer were studied in a randomized, 2-period crossover bioequivalence study. Patients received paclitaxel 175 mg/m² administered as an intravenous infusion over 180 minutes, either as a single-treatment cycle of the test formulation followed by a single treatment cycle of the reference formulation, or vice versa.

RESULTS: Thirty-two of 58 patients were evaluable and were included in the analysis for bioequivalence. Mean total paclitaxel C_{max} values for the test and reference formulations were 4955.0 and 5108.8 ng/mL, respectively. Corresponding AUC_{0-∞} values were 15,853.8 and 18,550.8 ng·h/mL, respectively. Treatment ratios of the geometric means were 97% (90% CI, 91%-103%) for C_{max} and 84% (90% CI, 80%-90%) for AUC_{0-∞}. These results met the required 80% to 125% bioequivalence criteria. The most frequently reported adverse events after LEP-ETU administration were fatigue, alopecia, and myalgia.

CONCLUSION: At the studied dose regimen, LEP-ETU showed bioequivalence with paclitaxel formulated with polyethoxylated castor oil.

Impactfactor: 2.230

Warmerdam LJ van

Chemotherapy and cognitive complaints in women with breast cancer

Pullens MJ, Vries JD, Warmerdam LJ van*, Wal MA van de, Roukema JA.

Psychooncology. 2013 Aug;22(8):1783-9

BACKGROUND: Results of existing studies are inconclusive concerning the relationship between chemotherapy and subjective cognitive functioning (SCF). The aim of this study was to evaluate SCF of breast cancer (BC) patients and to find predictors of impaired SCF. Both satisfaction and frequency of complaints about SCF were measured.

METHODS: BC patients who were about to receive chemotherapy (N=74) and patients with a benign breast disease (BBD) (N=63) participated. Before chemotherapy started (Time 1) and 3 months after ending chemotherapy (and at comparable moments for the BBD group) (Time 2), women completed validated questionnaires concerning the frequency

of complaints and satisfaction with SCF, fatigue, perceived stress, anxiety, and depressive symptoms.

RESULTS: No differences were found between the BBD and BC patients concerning the frequency of complaints about SCF across time. Satisfaction with SCF decreased across time in BC patients but remained stable across time in BBD patients ($p < 0.001$; $p = 0.003$ after controlling for state anxiety and perceived stress). Correlation coefficients between the satisfaction and the frequency of complaints about SCF ranged between -0.26 and -0.49. Depressive symptoms and satisfaction with SCF (Time 1) predicted the frequency of complaints about SCF (Time 2). Diagnosis, frequency of complaints about SCF, and state anxiety (Time 1) predicted satisfaction with SCF (Time 2).

CONCLUSIONS: BC patients do not differ in the frequency of complaints about SCF compared with BBD patients, but their satisfaction with SCF decreased after treatment. Psychological factors predicted the frequency of complaints about SCF. Psychological factors and diagnosis predicted satisfaction with SCF.

Impactfactor: 3.506

Warmerdam LJ van

Cost Effectiveness of Primary Pegfilgrastim Prophylaxis in Patients With Breast Cancer at Risk of Febrile Neutropenia

Aarts MJ, Grutters JP, Peters FP, Mandigers CM, Dercksen MW, Stouthard JM, Nortier HJ, van Laarhoven HW, van Warmerdam LJ*, van de Wouw AJ, Jacobs EM, Mattijssen V, van der Rijt CC, Smilde TJ, van der Velden AW, Temizkan M, Batman E, Muller EW, van Gastel SM, Joore MA, Borm GF, Tjan-Heijnen VC

J Clin Oncol. 2013 Dec 1;31(34):4283-9. Epub 2013 Oct 28

PURPOSE: Guidelines advise primary granulocyte colony-stimulating factor (G-CSF) prophylaxis during chemotherapy if risk of febrile neutropenia (FN) is more than 20%, but this comes with considerable costs. We investigated the incremental costs and effects between two treatment strategies of primary pegfilgrastim prophylaxis.

METHODS: Our economic evaluation used a health care perspective and was based on a randomized study in patients with breast cancer with increased risk of FN, comparing primary G-CSF prophylaxis throughout all chemotherapy cycles (G-CSF 1-6 cycles) with prophylaxis during the first two cycles only (G-CSF 1-2 cycles). Primary outcome was cost effectiveness expressed as costs per patient with episodes of FN prevented.

RESULTS: The incidence of FN increased from 10% in the G-CSF 1 to 6 cycles study arm (eight of 84 patients) to 36% in the G-CSF 1 to 2 cycles study arm (30 of 83 patients), whereas the mean total costs decreased from - 20,658 (95% CI, - 20,049 to - 21,247) to - 17,168 (95% CI - 16,239 to - 18,029) per patient, respectively. Chemotherapy and G-CSF determined 80% of the total costs. As expected, FN-related costs were higher in the G-CSF 1 to 2 cycles arm. The incremental cost effectiveness ratio for the G-CSF 1 to 6 cycles arm compared with the G-CSF 1 to 2 cycles arm was - 13,112 per patient with episodes of FN prevented.

CONCLUSION: We conclude that G-CSF prophylaxis throughout all chemotherapy cycles is more effective, but more costly, compared with prophylaxis limited to the first two cycles. Whether G-CSF prophylaxis throughout all chemotherapy cycles is considered cost effective depends on the willingness to pay per patient with episodes of FN prevented.

Impactfactor: 18.038

Warmerdam LJ van

Doxorubicin/cyclophosphamide with concurrent versus sequential docetaxel as neoadjuvant treatment in patients with breast cancer

Vriens BE*, Aarts MJ, de Vries B, van Gastel SM, Wals J, Smilde TJ, van Warmerdam LJ*, de Boer M, van Spronsen DJ, Borm GF, Tjan-Heijnen VC

Eur J Cancer. 2013 Oct;49(15):3102-10. Epub 2013 Jul 10

Voor abstract zie: Inwendige geneeskunde - Vriens BE

Impactfactor: 5.061

Warmerdam LJ van

Primary Granulocyte Colony-Stimulating Factor Prophylaxis During the First Two Cycles Only or Throughout All Chemotherapy Cycles in Patients With Breast Cancer at Risk for Febrile Neutropenia

Aarts MJ, Peters FP, Mandigers CM, Dercksen MW, Stouthard JM, Nortier HJ, van Laarhoven HW, van Warmerdam LJ*, van de Wouw AJ, Jacobs EM, Mattijssen V, van der Rijt CC, Smilde TJ, van der Velden AW, Temizkan M, Batman E, Muller EW, van Gastel SM, Borm GF, Tjan-Heijnen VC

J Clin Oncol. 2013 Dec 1;31(34):4290-6

PURPOSE Early breast cancer is commonly treated with anthracyclines and taxanes. However, combining these drugs increases the risk of myelotoxicity and may require granulocyte colonystimulating factor (G-CSF) support. The highest incidence of febrile neutropenia (FN) and largest benefit of G-CSF during the first cycles of chemotherapy lead to questions about the effectiveness of continued use of G-CSF throughout later cycles of chemotherapy.

PATIENTS AND METHODS In a multicenter study, patients with breast cancer who were considered fit enough to receive 3-weekly polychemotherapy, but also had > 20% risk for FN, were randomly assigned to primary G-CSF prophylaxis during the first two chemotherapy cycles only (experimental arm) or to primary G-CSF prophylaxis throughout all chemotherapy cycles (standard arm). The noninferiority hypothesis was that the incidence of FN would be maximally 7.5% higher in the experimental compared with the standard arm. **Results** After inclusion of 167 eligible patients, the independent data monitoring committee advised premature study closure. Of 84 patients randomly assigned to G-CSF throughout all chemotherapy cycles, eight (10%) experienced an episode of FN. In contrast, of 83 patients randomly assigned to G-CSF during the first two cycles only, 30 (36%) had an FN episode (95% CI, 0.13 to 0.54), with a peak incidence of 24% in the third cycle (ie, first cycle without G-CSF prophylaxis).

CONCLUSION In patients with early breast cancer at high risk for FN, continued use of primary G-CSF prophylaxis during all chemotherapy cycles is of clinical relevance and thus cannot be abandoned.

Impactfactor: 18.038

Wlazlo N

Activated complement factor 3 is associated with liver fat and liver enzymes: the CODAM study

Wlazlo N*, van Greevenbroek MM, Ferreira I, Jansen EH, Feskens EJ, van der Kallen CJ, Schalkwijk CG, Bravenboer B, Stehouwer CD

Eur J Clin Invest. 2013 Jul;43(7):679-88

BACKGROUND: The complement system may be involved in the pathogenesis of alcoholic and nonalcoholic liver disease, although studies in humans are scarce. For this reason, we investigated whether circulating levels of activated complement factor 3 (C3a) were associated with hepatic steatosis and hepatocellular damage.

MATERIALS AND METHODS: Plasma C3a, aspartate aminotransferase (AST), alanine aminotransferase (ALT) and gamma-glutamyl transferase (GGT) were determined in 523 individuals (61% men, age 59 ± 7 years). Liver enzymes (LEs) were standardized and compiled into a LE score. Liver fat content was estimated using a predictive equation that has recently been validated with magnetic resonance spectrometry. Cross-sectional associations between C3a and liver fat or LEs were investigated with multiple linear regression analyses, stratified in no-to-moderate vs. heavy alcohol consumers (men: > 30 g/day; women: > 20 g/day).

RESULTS: C3a was associated with liver fat percentage both in the no-to-moderate ($\beta = 0.223$; 95%CI 0.036; 0.409) and in the heavy alcohol consumers ($\beta = 0.632$; 95%CI 0.259-1.004; P-interaction = 0.047). C3a was also associated with the LE score in heavy alcohol consumers ($\beta = 0.917$; 95%CI 0.443-1.392), but not in no-to-moderate alcohol consumers ($\beta = 0.042$; 95%CI -0.198 to 0.281; Pinteraction = 0.001).

CONCLUSIONS: C3a levels, as a marker of complement activation, were associated with liver fat content and hepatocellular injury, at least in subjects who consume considerable amounts of alcohol daily.

Impactfactor: 3.365

Wlazlo N

Iron Metabolism Is Associated With Adipocyte Insulin Resistance and Plasma Adiponectin: The Cohort on Diabetes and Atherosclerosis Maastricht (CODAM) study

Wlazlo N*, van Greevenbroek MM, Ferreira I, Jansen EH, Feskens EJ, van der Kallen CJ, Schalkwijk CG, Bravenboer B, Stehouwer CD

Diabetes Care. 2013 Feb;36(2):309-15. Epub 2012 Sep 6

OBJECTIVE Adipocyte insulin resistance (IR) is a key feature early in the pathogenesis of type 2 diabetes mellitus (T2DM), and although scarce, data in the literature suggest a direct role for iron and iron metabolism-related factors in adipose tissue function and metabolism. Serum ferritin and transferrin were shown to be associated with muscle insulin resistance (IR) and T2DM, but little is known about the role of iron metabolism on adipose tissue. We therefore investigated whether markers of iron metabolism were associated with adipocyte IR and plasma adiponectin.

RESEARCH DESIGN AND METHODS Serum ferritin, transferrin, total iron, non-transferrin-bound iron (NTBI), transferrin saturation, and plasma adiponectin were determined in 492 individuals. Adipocyte IR was defined by the product of fasting insulin and nonesterified fatty acids (NEFAs). Using linear regression analyses, we investigated the difference in adipocyte IR or adiponectin (in %) according to differences in iron metabolism markers.

RESULTS Serum ferritin ($\beta = 1.00\%$ increase in adipocyte IR per 10 $\mu\text{g/L}$ [95% CI 0.66-1.34]),

transferrin (4.18% per 0.1 g/L [2.88-5.50]), total iron (1.36% per $\mu\text{mol/L}$ [0.61-2.12]), and NTBI (5.14% per $\mu\text{mol/L}$ [1.88-8.52]) were associated with adipocyte IR after adjustment for several covariates, including inflammatory markers. All markers of iron metabolism were also associated with NEFAs (all $P < 0.01$). In addition, ferritin and transferrin were inversely associated with adiponectin (both $P < 0.01$).

CONCLUSIONS The observed associations of several markers of iron metabolism with adipocyte IR and adiponectin suggest that factors related to iron and iron metabolism may contribute to adipocyte IR early in the pathogenesis of T2DM.

Impactfactor: 8.087

Kindergeneeskunde

Bannier MA

Hair tourniquet syndrome

Bannier MA*, Miedema CJ*

Eur J Pediatr. 2013 Feb;172(2):277

A 6-year-old girl presented with necrosis of the left labium minus. An encircled hair at the base of the lesion was seen, and the diagnosis genital hair tourniquet syndrome was made.

Genital hair tourniquet syndrome in children is a rare but potentially severe syndrome that requires immediate medical attention to prevent resulting necrosis.

Impactfactor: 1.907

Brackel HJ

Assessment of asthma control by children and parents

Voorend-van Bergen S, Brackel H*, Caudri D, de Jongste J, Pijnenburg M

Eur Respir J. 2013 Jan;41(1):233-4

Geen abstract beschikbaar

Impactfactor: 6.355

Dors N

Factor VIII gene (F8) mutation and risk of inhibitor development in nonsevere hemophilia A

Eckhardt CL, van Velzen AS, Peters M, Astermark J, Brons PP, Castaman G, Cnossen MH, Dors N*, Escuriola-Ettingshausen C, Hamulyak K, Hart DP, Hay CR, Haya S, van Heerde WL, Hermans C, Holmström M, Jimenez-Yuste V, Keenan RD, Klamroth R, Laros-van Gorkom BA, Leebeek FW, Liesner R, Mäkipernaa A, Male C, Mauser-Bunschoten E, Mazzucconi MG, McRae S, Meijer K, Mitchell M, Morfini M, Nijziel M, Oldenburg J, Peerlinck K, Petrini P, Platokouki H, Reitter-Pfoertner SE, Santagostino E, Schinco P, Smiers FJ, Siegmund B, Tagliaferri A, Yee TT, Kamphuisen PW, van der Bom JG, Fijnvandraat K; INSIGHT Study Group

Blood 2013 Sep 12;122(11):1954-62. d Epub 2013 Aug 7

Neutralizing antibodies (inhibitors) toward factor VIII form a severe complication in nonsevere hemophilia A, profoundly aggravating the bleeding pattern. Identification of high-risk patients is hampered by lack of data that take exposure days to therapeutic factor VIII concentrates into account. In the INSIGHT study, we analyzed the association between F8 mutation and inhibitor development in patients with nonsevere hemophilia A (factor VIII 2-40 IU/dL). This analysis included 1112 nonsevere hemophilia A patients from 14 centers in Europe and Australia that had genotyped at least 70% of their patients. Inhibitor risk was calculated as Kaplan-Meier incidence with cumulative number of exposure days as the time variable. During 44 interquartile range [IQR, 7-90], 59 of the 1112 patients developed an inhibitor; cumulative incidence of 5.3% (95% confidence interval [CI], 4.0-6.6) after a median of 28 exposure days (IQR, 12-71). The inhibitor risk at 50 exposure days was 6.7% (95% CI, 4.5-8.9) and at 100 exposure days the risk further increased to 13.3% (95% CI, 9.6-17.0). Among a total of 214 different F8 missense mutations 19 were associated with inhibitor development. These results emphasize the importance of F8 genotyping in nonsevere hemophilia A.

Impactfactor: 9.06

Dors N

Two novel mutations in the prothrombin gene identified in a patient with compound heterozygous type 1/2 prothrombin deficiency

Kuijper PH, Schellings MW, van de Kerkhof D*, Nicolaes GA, Reitsma P, Halbertsma F, Dors N*

Haemophilia 2013 Sep;19(5):e304-6. Epub 2013 May 28

Geen abstract beschikbaar

Impactfactor: 3.17

Helmond LP

Koorts zonder grenzen

L.P.F.M. van Helmond*, I.A. Maartens, J.C. van Pelt-Koops, S. Henriët, J. Hopman, R.A.A. Pelleboer*, A. Warris

Tijdschr Kindergeneesk 2013;81(5)

Viscerale leishmaniasis is een vectorziekte die endemisch is in het Midden-Oosten, Centraal- en Zuid- Amerika, India, Noord- en Oost-Afrika en Zuid-Europa. Als gevolg van vakanties naar en een toename van migratie uit deze gebieden wordt deze tropische ziekte in toenemende mate gezien in niet-endemische gebieden. Ook in Nederland wordt de ziekte steeds vaker gediagnosticeerd. In dit artikel beschrijven wij echter een casus van een 2-jarige Nederlandse jongen met viscerale leishmaniasis bij een negatieve reisanamnese. Ondanks uitgebreid onderzoek blijft de bron van deze infectie onduidelijk. Bij een kind met koorts, een pancytopenie en een (hepato)splenomegalie mag daarom een viscerale leishmaniasisinfectie niet worden uitgesloten op basis van alleen een negatieve reisanamnese. Aanvullend onderzoek is in dat geval geïndiceerd om deze potentieel dodelijke ziekte uit te sluiten.

Impactfactor: --

Hendriks T

Anafylaxie bij kinderen

Hendriks, drs. T., Arends, dr. N.J.T

Praktische Pediatrie 2013; nr.4

Geen abstract beschikbaar

Impactfactor: --

Hendriks T

Late diagnose en therapie van infantiel botulisme

M. Haeseker, V. Hira, D. van Waardenburg, K. Heijman, T. Hendriks*, F. van Zijderveld

Infectieziekten Bulletin, 2013;24(7):200-1

Geen abstract beschikbaar

Impactfactor: --

Hoogenboom LA

Trends bij oriënterend medisch onderzoek van buitenlandse adoptiekinderen

Hoogenboom LA, Weerd CF de, Tjon A Ten WE, Mulder JC, Pelleboer RA

Tijdschrift voor Kindergeneeskunde, 2013;81(2):31-6

Doel. Beschrijven van trends in uitkomsten bij oriënterend medisch onderzoek van buitenlandse adoptiekinderen in de periode 2005-2010 en vergelijken met de bevindingen in de periode 2001- 2004. Bepalen of aanpassingen van het onderzoeksprotocol buitenlandse adoptiekinderen nodig zijn.

Opzet. Retrospectief statusonderzoek. Methode. In drie ziekenhuizen werden alle gegevens van alle buitenlandse adoptiekinderen in de periode 2005-2010, onderverdeeld in drie perioden van twee jaar, vergeleken met de bevindingen in de periode 2001-2004. Alle patiënten waren per ziekenhuis in alle drie de perioden aan de hand van hetzelfde protocol door dezelfde arts onderzocht.

Resultaten. Gedurende de onderzoeksperiode was er een geringe verschuiving in de landen van herkomst. In beide perioden werden bij 75% van de onderzochte kinderen een of meer afwijkingen gevonden; het grootste deel was goed behandelbaar of behoefde geen behandeling. Het merendeel van de kinderen had KNO- en (parasitaire) darminfecties en huidaandoeningen. Het aantal specialneeds kinderen steeg van 3 naar 31%. Het aantal kinderen met psychomotore ontwikkelingsachterstand verminderde, hoewel de voedingstoestand verslechterde. Het aantal kinderen dat positief was getest voor MRSA in twee ziekenhuizen was 6-14%.

Conclusies. Zes tot veertien procent van de buitenlandse adoptiekinderen is MRSA-positief en het aantal special-needs kinderen, die naar verwachting frequent opgenomen moeten worden, neemt toe. Daarom wordt voorgesteld MRSA-screening toe te voegen aan het onderzoeksprotocol buitenlandse adoptiekinderen. Er zijn geen redenen om het protocol in te korten of te ontdoen van diagnostiek.

Impactfactor: --

Miedema CJ

Hair tourniquet syndrome

Bannier MA*, Miedema CJ*

Eur J Pediatr. 2013 Feb;172(2):277

Voor abstract zie: Kindergeneeskunde - Bannier MA

Impactfactor: 1.907

Odink RJ

Eight years of growth hormone treatment in children with prader-willi syndrome: maintaining the positive effects

Bakker NE, Kuppens RJ, Siemensma EP, Tummers-de Lind van Wijngaarden RF, Festen DA, Bindels deHeus GC, Bocca G, Haring DA, Hoorweg-Nijman JJ, Houdijk EC, Jira PE, Lunshof L, Odink RJ*, Oostdijk W, Rotteveel J, Schroor EJ, Van Alfen AA, Van Leeuwen M, Van Pinxteren-Nagler E, Van Wieringen H, Vreuls RC, Zwaveling-Soonawala N, de Ridder MA, Hokken-Koelega AC

J Clin Endocrinol Metab. 2013 Oct;98(10):4013-22

Background: The most important reason for treating children with Prader-Willi syndrome (PWS) with GH is to optimize their body composition.

Objectives: The aim of this ongoing study was to determine whether long-term GH treatment can counteract the clinical course of increasing obesity in PWS by maintaining the improved body composition brought during early treatment. Setting: This was a multicenter prospective cohort study. Methods: We have been following 60 prepubertal children for 8 years of continuous GH treatment (1 mg/m(2)/d absorptiometry machine for annual measurements of lean body mass and percent fat. Results: After a significant increase during the first year of GH treatment ($P < .0001$), lean body mass remained stable for 7 years at a level above baseline ($P < .0001$). After a significant decrease in the first year, percent fat SD score (SDS) and body mass index SDS remained stable at a level not significantly higher than at baseline ($P = .06$, $P = .14$, resp.). However, body mass index SDSPWS was significantly

lower after 8 years of GH treatment than at baseline ($P < .0001$). After 8 years of treatment, height SDS and head circumference SDS had completely normalized. IGF-1 SDS increased to +2.36 SDS during the first year of treatment ($P < .0001$) and remained stable since then. GH treatment did not adversely affect glucose homeostasis, serum lipids, blood pressure, and bone maturation. Conclusion: This 8-year study demonstrates that GH treatment is a potent force for counteracting the clinical course of obesity in children with PWS.

Impactfactor: 6.430

Odink RJ

Goal Disturbance and Coping in Children with Type I Diabetes Mellitus: Relationships with Health-Related Quality of Life and A1C

van Bussel A, Nieuwesteeg A, Janssen E, van Bakel H, van den Bergh B, Maas-van Schaaik N*, Odink R*, Rijk K, Hartman E

Can J Diabetes. 2013 Jun;37(3):169-74

Voor abstract zie: Medische psychologie - Maas-van Schaaik N

Impactfactor: 0.458

Pelleboer RA

Koorts zonder grenzen

L.P.F.M. van Helmond*, I.A. Maartens, J.C. van Pelt-Koops, S. Henriët, J. Hopman, R.A.A. Pelleboer*, A. Warris

Tijdschr Kindergeneeskunde 2013;81(5)

Voor abstract zie: Kindergeneeskunde - Helmond LP van

Impactfactor: --

Pelleboer RA

Trends bij oriënterend medisch onderzoek van buitenlandse adoptiekinderen

Hoogenboom LA*, Weerd CF de, Tjon A Ten WE, Mulder JC, Pelleboer RA*

Tijdschrift voor Kindergeneeskunde, 2013;81(2):31-6

Voor abstract zie: Kindergeneeskunde - Hoogenboom LA

Impactfactor: --

Roeleveld-Versteegh AB

The Interrelationships Among Paternal and Maternal Parenting Stress, Metabolic Control, and Depressive Symptoms in Adolescents With Type 1 Diabetes Mellitus*

Maas-van Schaaik NM*, Roeleveld-Versteegh AB*, van Baar AL

J Pediatr Psychol. 2013 Jan-Feb;38(1):30-40. Epub 2012 Sep 16

Voor abstract zie: Medische psychologie - Maas-van Schaaik NM

Impactfactor: 2.647

Weerd CF de

Trends bij oriënterend medisch onderzoek van buitenlandse adoptiekinderen

Hoogenboom LA, Weerd CF de, Tjon A Ten WE, Mulder JC, Pelleboer RA

Tijdschrift voor Kindergeneeskunde, 2013;81(2):31-6

Voor abstract zie: Kindergeneeskunde - Hoogenboom LA

Impactfactor: --

* = Werkzaam in het Catharina Ziekenhuis

Klinische Fysica

Brands P

New image processing and noise reduction technology allows reduction of radiation exposure in complex electrophysiologic interventions while maintaining optimal image quality: A randomized clinical trial

Dekker LR*, van der Voort PH*, Simmers TA*, Verbeek XA, Bullens RW, Veer MV*, Brands PJ*, Meijer A*

Heart Rhythm. 2013 Nov;10(11):1678-82. Epub 2013 Aug 22

Voor abstract zie: Cardiologie - Dekker LR

Impactfactor: 5.045

Gelderblom E

The efficiency and stability of bubble formation by acoustic vaporization of submicron perfluorocarbon droplets

Reznik N, Shpak O, Gelderblom EC*, Williams R, de Jong N, Versluis M, Burns PN

Ultrasonics. 2013 Sep;53(7):1368-76

Submicron droplets of liquid perfluorocarbon converted into microbubbles with applied ultrasound have been studied, for a number of years, as potential next generation extravascular ultrasound contrast agents. In this work, we conduct an initial ultra-high-speed optical imaging study to examine the vaporization of submicron droplets and observe the newly created microbubbles in the first microseconds after vaporization. It was estimated that single pulses of ultrasound at 10 MHz with pressures within the diagnostic range are able to vaporize on the order of at least 10% of the exposed droplets. However, only part of the newly created microbubbles survives immediately following vaporization - the bubbles may recondense back into the liquid droplet state within microseconds of nucleation. The probability of bubble survival within the first microseconds of vaporization was shown to depend on ultrasound excitation pressure as well as on bubble coalescence during vaporization, a behavior influenced by the presence of coating material on the newly created bubbles. The results of this study show for the first time that although initial vaporization of droplets is necessary to create echogenic bubbles, additional factors, such as coalescence and bubble shell properties, are important and should be carefully considered for the production of microbubbles for use in medical imaging.

Impactfactor: 2.028

Hurkmans CW

Quality assurance of radiotherapy in the ongoing EORTC 22042-26042 trial for atypical and malignant meningioma: results from the dummy runs and prospective individual case Reviews

Coskun M, Straube W, Hurkmans CW*, Melidis C, de Haan PF, Villà S, Collette S, Weber DC

Radiat Oncol. 2013 Jan 30;8:23

BACKGROUND: The ongoing EORTC 22042-26042 trial evaluates the efficacy of high-dose radiotherapy (RT) in atypical/malignant meningioma. The results of the Dummy Run (DR) and prospective Individual Case Review (ICR) were analyzed in this Quality Assurance (QA) study.

MATERIAL/METHODS: Institutions were requested to submit a protocol compliant treatment plan for the DR and ICR, respectively. DR-plans (n=12) and ICR-plans (n=50) were uploaded to the Image-Guided Therapy QA Center of Advanced Technology Consortium server (<http://atc.wustl.edu/>) and were assessed prospectively.

RESULTS: Major deviations were observed in 25% (n=3) of DR-plans while no minor deviations were observed. Major and minor deviations were observed in 22% (n=11) and 10% (n=5) of the ICR-plans, respectively. Eighteen% of ICRs could not be analyzed prospectively, as a result of corrupted or late data submission. CTV to PTV margins were respected in all cases. Deviations were negatively associated with the number of submitted cases per institution ($p=0.0013$), with a cutoff of 5 patients per institutions. No association ($p=0.12$) was observed between DR and ICR results, suggesting that DR's results did not predict for an improved QA process in accrued brain tumor patients.

CONCLUSIONS: A substantial number of protocol deviations were observed in this prospective QA study. The number of cases accrued per institution was a significant determinant for protocol deviation. These data suggest that successful DR is not a guarantee for protocol compliance for accrued patients. Prospective ICRs should be performed to prevent protocol deviations.

Impactfactor: 2.11

Hurkmans CW

Quality assurance of the EORTC 22043-30041 trial in post-operative radiotherapy in prostate cancer: results of the Dummy Run procedure

Fenton PA, Hurkmans C*, Gulyban A, van der Leer J, Matzinger O, Poortmans P, Collette L, Bolla M.

Radiother Oncol. 2013 Jun;107(3):346-51. Epub 2013 May 23

BACKGROUND AND PURPOSE: The EORTC 22043-30041 trial investigates the role of the addition of androgen suppression to post-operative radiotherapy in patients who have undergone radical prostatectomy. As part of the quality assurance of radiotherapy (QART) a Dummy Run (DR) procedure was performed.

MATERIALS AND METHOD: The protocol included detailed and published delineation guidelines. Participating institutions digitally submitted radiotherapy treatment volumes and a treatment plan for a standard clinical case. Submissions were centrally reviewed using the VODCA software platform.

RESULTS: Thirty-eight submissions from thirty-one institutions were reviewed. Six were accepted without comments. Twenty-three were accepted with comments on one or more items: target volume delineation (22), OAR delineation (23), planning and dosimetry (3) or treatment verification (1). Nine submissions were rejected requiring resubmission, seven for target volume delineation reasons alone.

Intervention to highlight the importance of delineation guidelines was made prior to the entry of the first patient in the trial. After this, a lower percentage of resubmissions was required.

CONCLUSIONS: The EORTC 22043-30041 Dummy Run highlights the need for timely and effective QART in clinical trials. The variation in target volume and OAR definition demonstrates that clinical guidelines and radiotherapy protocols are not a substitute for QART procedures. Early intervention in response to the Dummy Run improved protocol understanding.

Impactfactor: 2.11

Hurkmans CW

Stereotactic body radiotherapy (SBRT) in central non-small cell lung cancer (NSCLC): Solid evidence or "no-go"?

Nestle U, Faivre-Finn C, Deruysscher D, Hurkmans C*, Guckenberger M, Belderbos J, Pechoux CI

Radiother Oncol. 2013 Oct;109(1):178-9. Epub 2013 Sep 7

Geen abstract beschikbaar

Impactfactor: 2.11

Schuring D

Multi-institutional comparison of volumetric modulated arc therapy vs. intensity-modulated radiation therapy for head-and-neck cancer: a planning study

Holt A, Van Gestel D, Arends MP, Korevaar EW, Schuring D*, Kunze-Busch MC, Louwe RJ, van Vliet-Vroegindeweij C

Radiat Oncol. 2013 Jan 31;8(1):26

BACKGROUND: Compared to static beam Intensity-Modulated Radiation Therapy (IMRT), the main advantage of Volumetric Modulated Arc Therapy (VMAT) is a shortened delivery time, which leads to improved patient comfort and possibly smaller intra-fraction movements. This study aims at a treatment planner-independent comparison of radiotherapy treatment planning of IMRT and VMAT for head-and-neck cancer performed by several institutes and based on the same CT- and contouring data.

METHODS: Five institutes generated IMRT and VMAT plans for five oropharyngeal cancer patients using either Pinnacle3 or Oncentra Masterplan to be delivered on Elekta linear accelerators.

RESULTS: Comparison of VMAT and IMRT plans within the same patient and institute showed significantly better sparing for almost all OARs with VMAT. The average mean dose to the parotid glands and oral cavity was reduced from 27.2?Gy and 39.4?Gy for IMRT to 25.0?Gy and 36.7?Gy for VMAT, respectively. The dose conformity at 95% of the prescribed dose for PTVboost and PTVtotal was 1.45 and 1.62 for IMRT and 1.37 and 1.50 for VMAT, respectively. The average effective delivery time was reduced from 13:15?min for IMRT to 5:54?min for VMAT.

CONCLUSIONS: Independently of institution-specific optimization strategies, the quality of the VMAT plans including double arcs was superior to step-and-shoot IMRT plans including 5-9 beam ports, while the effective treatment delivery time was shortened by ~50% with VMAT.

Impactfactor: 2.11

* = Werkzaam in het Catharina Ziekenhuis

Longgeneeskunde

Janssen A

Patient preference and satisfaction in hospital-at-home and usual hospital care for COPD exacerbations: Results of a randomised controlled trial

Utens CM*, Goossens LM, van Schayck OC, Rutten-van Mölken MP, van Litsenburg W*, Janssen A*, van der Pouw A, Smeenk FW*

Int J Nurs Stud. 2013 Nov;50(11):1537-49

Voor abstract zie: Longgeneeskunde - Utens CM

Impactfactor: 2.075

Litsenburg W van

Cost-Effectiveness of Early Assisted Discharge for COPD Exacerbations in The Netherlands

Goossens LM, Utens CM*, Smeenk FW*, van Schayck OC, van Vliet M, van Litsenburg W*, Braken MW, Rutten-van Mölken MP

Value Health. 2013 Jun;16(4):517-28

Voor abstract zie: longgeneeskunde - Utens CM

Impactfactor: 2.191

Litsenburg W van

Patient preference and satisfaction in hospital-at-home and usual hospital care for COPD exacerbations: Results of a randomised controlled trial

Utens CM*, Goossens LM, van Schayck OC, Rutten-van Mölken MP, van Litsenburg W*, Janssen A*, van der Pouw A, Smeenk FW*

Int J Nurs Stud. 2013 Nov;50(11):1537-49

Voor abstract zie: Longgeneeskunde - Utens CM

Impactfactor: 2.075

Romme EA

Associations between COPD related manifestations: a cross-sectional study

Romme EA*, McAllister DA, Murchison JT, Van Beek EJ, Petrides GS, Price CO, Rutten EP, Smeenk FW*, Wouters EF, Macnee W

Respir Res. 2013 Nov 19;14(1):129

BACKGROUND: Cardiovascular disease, osteoporosis and emphysema are associated with COPD. Associations between these factors and whether they predict all-cause mortality in COPD patients are not well understood. Therefore, we examined associations between markers of cardiovascular disease (coronary artery calcification [CAC], thoracic aortic calcification [TAC] and arterial stiffness), bone density (bone attenuation of the thoracic vertebrae), emphysema (PI-950 and 15th percentile) and allcause mortality in a COPD cohort.

METHODS: We assessed CAC, TAC, bone attenuation of the thoracic vertebrae, PI-950 and 15th percentile on low-dose chest computed tomography in COPD subjects. We measured arterial stiffness as carotid-radial pulse wave velocity (PWV), and identified deaths from the national register.

RESULTS: We studied 119 COPD subjects; aged 67.8 +/-7.3, 66% were males and mean FEV1% predicted was 46.0 +/-17.5. Subjects were classified into three pre-specified groups: CAC = 0 (n = 14), 0 < CAC <= 400 (n = 41) and CAC > 400 (n = 64). Subjects with higher CAC were more likely to be older (p < 0.001) and male (p = 0.03), and more likely to have higher systolic blood pressure (p = 0.001) and a history of hypertension (p = 0.002) or ischemic

heart disease ($p = 0.003$). Higher CAC was associated with higher PWV (OR 1.62, $p = 0.04$) and lower bone attenuation (OR 0.32, $p = 0.02$), but not with 15th percentile, after adjustment for age, sex and pack-years of smoking. In a Cox proportional hazards model, CAC, TAC and 15th percentile predicted all-cause mortality (HR 2.01, 2.09 and 0.66, respectively).

CONCLUSIONS: Increased CAC was associated with increased arterial stiffness and lower bone density in a COPD cohort. In addition, CAC, TAC and extent of emphysema predicted all-cause mortality.

Impactfactor: 3.64

Romme EA

Bone stiffness and failure load are related with clinical parameters in men with chronic obstructive pulmonary disease

Romme EA*, Rutten EP, Geusens P, de Jong JJ, van Rietbergen B, Smeenk FW*, Wouters EF, van den Bergh JP

J Bone Miner Res. 2013 Oct;28(10):2186-93

Osteoporosis is frequently seen in patients with chronic obstructive pulmonary disease (COPD). Since research on bone structure and bone strength in COPD patients is limited, the objectives of this pilot study were: 1. To compare bone structure, stiffness and failure load, measured at the peripheral skeleton, between men with and without COPD after stratification for areal bone mineral density (aBMD), and 2. To relate clinical parameters with bone stiffness and failure load in men with COPD. We included 30 men with COPD (normal aBMD $n=18$, osteoporosis $n=12$) and 17 men without COPD (normal aBMD $n=9$, osteoporosis $n=8$). We assessed pack-years of smoking, body mass index (BMI), fat free mass index (FFMI), pulmonary function (FEV1, FEV1/FVC, DLCO and KCO) and extent of emphysema. Bone structure of the distal radius and tibia was assessed by high resolution peripheral quantitative computed tomography (HR-pQCT), and bone stiffness and failure load of the distal radius and tibia were estimated from micro finite element analysis (μ FEA). After stratification for aBMD and COPD, men with osteoporosis showed abnormal bone structure ($p < 0.01$), lower bone stiffness ($p < 0.01$) and lower failure load ($p < 0.01$) compared with men with normal aBMD, and men with COPD had comparable bone structure, stiffness and failure load compared with men without COPD. In men with COPD, lower FFMI was related with lower bone stiffness and failure load of the radius and tibia and lower DLCO and KCO were related with lower bone stiffness and failure load of the tibia after normalization with respect to femoral neck aBMD. Thus, this pilot study could not detect differences in bone structure, stiffness and failure load between men with and without COPD after stratification for aBMD. FFMI and gas transfer capacity of the lung were significantly related with bone stiffness and failure load in men with COPD after normalization with respect to femoral neck aBMD.

Impactfactor: 6.128

Romme EA

Computed tomography: bone attenuation of the thoracic vertebrae as an indicator of bone health in COPD

Romme EA*, Murchison JT, Beek EJ v, Rutten EP, Smeenk FW*, Wouters EF, MacNee W

Diagnostic Imaging Europe 2013;29(1):16-7

Geen abstract beschikbaar

Impactfactor: --

Romme EA

CT measured bone attenuation in patients with chronic obstructive pulmonary disease: Relation to clinical features and outcomes

Romme EA*, Murchison JT, Edwards LD, van Beek EJ, Murchison DM, Rutten EP, Smeenk FW*, Williams MC, Wouters EF, Macnee W

J Bone Miner Res. 2013 Jun;28(6):1369-77

Osteoporosis is highly prevalent in COPD patients and has been related to several clinical features. However, most studies have been in relatively small COPD cohorts. Therefore, the objectives of this study were to compare bone attenuation measured on low-dose chest computed tomography (CT) between COPD subjects, smoker and non-smoker controls, and to relate bone attenuation to clinical parameters, inflammatory biomarkers and outcomes in a large, well-characterized COPD cohort. We studied 1634 COPD subjects, 259 smoker controls and 186 non-smoker controls who participated in a large longitudinal study (ECLIPSE). We measured bone attenuation, extent of emphysema and coronary artery calcification (Agatston score) on baseline CT scans, and clinical parameters, inflammatory biomarkers and outcomes. Bone attenuation was lower in COPD subjects compared with smoker and non-smoker controls (164.9 ± 49.5 HU versus 183.8 ± 46.1 HU versus 212.1 ± 54.4 HU, $p < 0.001$). Bone attenuation was not significantly different between COPD subjects and smoker controls after adjustment for age, sex and pack-years of smoking(=). In the COPD subjects, bone attenuation correlated positively with FEV(1) ($r = 0.062$, $p = 0.014$), FEV(1)/FVC ratio ($r = 0.102$, $p < 0.001$), body mass index ($r = 0.243$, $p < 0.001$), fat free mass index (FFMI, $r = 0.265$, $p < 0.001$) and C-reactive protein ($r = 0.104$, $p < 0.001$), and correlated negatively with extent of emphysema ($r = -0.090$, $p < 0.001$), Agatston score ($r = -0.177$, $p < 0.001$) and interleukin-8 ($r = -0.054$, $p = 0.035$). In a multiple regression model, older age, lower FFMI and higher Agatston score were associated with lower bone attenuation. Lower bone attenuation was associated with higher exacerbation ($r = -0.057$, $p = 0.022$) and hospitalization ($r = -0.078$, $p = 0.002$) rates, but was not associated with all-cause mortality. In conclusion, CT measured bone attenuation was lower in COPD subjects compared with non-smoker controls but not compared with smoker controls, after adjustment for age, sex and pack-years of smoking. In the COPD subjects, bone attenuation was associated with age, body composition and coronary artery calcification, but was not associated with all-cause mortality.

Impactfactor: 6.128

Romme EA

Osteoporosis in chronic obstructive pulmonary disease

Romme EA*, Smeenk FW*, Rutten EP, Wouters EF

Expert Rev Respir Med. 2013 Aug;7(4):397-410

Chronic obstructive pulmonary disease (COPD) is being regarded as a heterogeneous disease with clinically significant pulmonary and extrapulmonary manifestations, such as emphysema, cardiovascular disease and osteoporosis. Osteoporosis is characterized by low bone mass and microarchitectural deterioration of bone tissue, leading to enhanced bone fragility and, consequently, an increased risk of fracture. Fractures resulting from osteoporosis might contribute to increased morbidity and mortality, particularly in COPD patients. The high prevalence of osteoporosis in COPD patients is assumed to be due to common risk factors, such as older age and tobacco smoking, and COPD-specific risk factors, such as systemic inflammation, vitamin D deficiency and the use of oral or inhaled corticosteroids. This review provides a state-of-the-art summary of the prevalence,

pathophysiology, diagnosis, risk factors and treatment of osteoporosis in COPD patients. It also discusses potential mechanisms linking COPD with osteoporosis.

Impactfactor: --

Romme EA

Vitamin D status is associated with bone mineral density and functional exercise capacity in patients with chronic obstructive pulmonary disease

Romme EA*, Rutten EP, Smeenk FW*, Spruit MA, Menheere PP, Wouters EF

Ann Med. 2013 Feb;45(1):91-6. Epub 2012 Apr 2

Background. Chronic obstructive pulmonary disease (COPD) is associated with several extrapulmonary effects that contribute to the severity of the disease. Vitamin D is suggested to play a role in COPD and its related extrapulmonary effects. **Aims.** To determine the prevalence of vitamin D deficiency and its relation with bone density, muscle strength, and exercise capacity in patients with COPD.

Methods. Our cross-sectional study included patients with moderate to very severe COPD. We collected data on lung function, body composition, bone density, quadriceps muscle strength, 6-minute walking distance, and plasma 25-hydroxyvitamin D (25(OH)D) concentration. Vitamin D deficiency was defined as plasma 25 (OH)D concentration below 50 nmol/L.

Results. In total, 151 COPD patients were included; 87 patients (58%) had vitamin D deficiency. Plasma 25(OH)D concentration was positively associated with bone density ($P = ?0.005$) and 6-minute walking distance ($P < ?0.001$) after adjustment for potential confounders. Plasma 25(OH)D concentration was not associated with quadriceps muscle strength.

Conclusions. The majority of COPD patients had vitamin D deficiency. Plasma 25(OH)D concentration was positively associated with bone density and exercise capacity. Intervention studies are necessary to determine whether vitamin D supplementation is of benefit in the prevention or treatment of osteoporosis and poor exercise capacity in patients with COPD.

Impactfactor: 5.094

Romme EA

Vitamin D, vitamin D binding protein, lung function and structure in COPD

Berg I, Hanson C, Sayles H, Romberger D, Nelson A, Meza J, Miller B, Wouters EF, Macnee W, Rutten EP, Romme EA*, Vestbo J, Edwards L, Rennard S

Respir Med. 2013 Oct;107(10):1578-88. . Epub 2013 Jul 1

RATIONALE: Vitamin D and vitamin D binding protein (DBP) have been associated with COPD and FEV1. There are limited data regarding emphysema and vitamin D and DBP.

OBJECTIVE: This is a pilot study of a portion of the subjects in the Evaluation of COPD Longitudinally to Identify Predictive Surrogate Endpoints (ECLIPSE) study designed to examine the relationship between vitamin D status, DBP, FEV1 and emphysema in COPD patients.

METHODS: We measured serum 25(OH)D and DBP in 498 ECLIPSE subjects. Subjects were distributed amongst smoker controls, non-smoker controls, and GOLD stages 2, 3 and 4. Within each GOLD stage, the subjects were equally divided amongst high and low emphysema burden. The associations between 25(OH)D, DBP, and free vitamin D with FEV1, CT-defined emphysema, biomarkers and clinical data including CT-measured bone attenuation were assessed.

MEASUREMENTS: 25(OH)D and DBP were measured using tandem mass spectroscopy and

competitive enzyme-linked immunosorbent assay, respectively,

MAIN RESULT: 25(OH)D was correlated with FEV1 ($p = 0.01$) and with severity of emphysema ($p < 0.01$). 25(OH)D was also associated with six-minute walk ($p = 0.02$), bronchodilator response ($p = 0.04$), and Clara cell secretory protein (CC-16) ($p = 0.01$). 25(OH)D levels were not associated with CT-measured bone attenuation, however DBP was associated with bone attenuation in subjects with emphysema. DBP was not associated with FEV1 or emphysema. 25(OH)D and DBP were inversely associated ($p = 0.01$).

CONCLUSION: This is the first study to demonstrate a relationship between emphysema and vitamin D. We also provide further evidence for a relationship between vitamin D and FEV1.

Impactfactor: 2.585

Smeenk FW

Associations between COPD related manifestations: a cross-sectional study

Romme EA*, McAllister DA, Murchison JT, Van Beek EJ, Petrides GS, Price CO, Rutten EP, Smeenk FW*, Wouters EF, Macnee W.

Respir Res. 2013 Nov 19;14(1):129

Voor abstract zie: Longgeneeskunde - Romme EA

Impactfactor: 3.64

Smeenk FW

Bone stiffness and failure load are related with clinical parameters in men with chronic obstructive pulmonary disease

Romme EA*, Rutten EP, Geusens P, de Jong JJ, van Rietbergen B, Smeenk FW*, Wouters EF, van den Bergh JP

J Bone Miner Res. 2013 Oct;28(10):2186-93

Voor abstract zie: Longgeneeskunde - Romme EA

Impactfactor: 6.128

Smeenk FW

Computed tomography: bone attenuation of the thoracic vertebrae as an indicator of bone health in COPD

Romme EA*, Murchison JT, Beek EJ v, Rutten EP, Smeenk FW*, Wouters EF, MacNee W

Diagnostic Imaging Europe 2013;29(1):16-7

Geen abstract beschikbaar

Impactfactor: --

Smeenk FW

Cost-Effectiveness of Early Assisted Discharge for COPD Exacerbations in The Netherlands.

Goossens LM, Utens CM*, Smeenk FW*, van Schayck OC, van Vliet M, van Litsenburg W*, Braken MW, Rutten-van Mölken MP

Value Health. 2013 Jun;16(4):517-28

Voor abstract zie: Longgeneeskunde - Utens CM

Impactfactor: 2.191

Smeenk FW

CT measured bone attenuation in patients with chronic obstructive pulmonary disease: Relation to clinical features and outcomes

Romme EA*, Murchison JT, Edwards LD, van Beek EJ, Murchison DM, Rutten EP, Smeenk FW*, Williams MC, Wouters EF, Macnee W

J Bone Miner Res. 2013 Jun;28(6):1369-77

Voor abstract zie: Longgeneeskunde - Romme EA

Impactfactor: 6.128

Smeenk FW

De _Asthma Symptom Utility Index_ herontdekt Journal scan

F. Smeenk

Ned Tijdschr Allergie & Astma 2013;13:40-41

Impactfactor: --

Smeenk FW

Evaluation of health care providers' role transition and satisfaction in hospital-at-home for chronic obstructive pulmonary disease exacerbations: a survey study

Utens CM*, Goossens LM, van Schayck OC, Rutten-Vanmölken MP, Braken MW, van Eijdsden LM, Smeenk FW*

BMC Health Serv Res. 2013 Sep 27;13(1):363

Voor abstract zie: Longgeneeskunde - Utens CM

Impactfactor: 1.77

Smeenk FW

Osteoporosis in chronic obstructive pulmonary disease

Romme EA*, Smeenk FW*, Rutten EP, Wouters EF

Expert Rev Respir Med. 2013 Aug;7(4):397-410

Voor abstract zie: Longgeneeskunde - Romme EA

Impactfactor: --

Smeenk FW

Patient preference and satisfaction in hospital-at-home and usual hospital care for COPD exacerbations: Results of a randomised controlled trial

Utens CM*, Goossens LM, van Schayck OC, Rutten-van Mólken MP, van Litsenburg W*, Janssen A*, van der Pouw A, Smeenk FW*

Int J Nurs Stud. 2013 Nov;50(11):1537-49

Voor abstract zie: Longgeneeskunde - Utens CM

Impactfactor: 2.075

Smeenk FW

Vitamin D status is associated with bone mineral density and functional exercise capacity in patients with chronic obstructive pulmonary disease

Romme EA*, Rutten EP, Smeenk FW*, Spruit MA, Menheere PP, Wouters EF

Ann Med. 2013 Feb;45(1):91-6

Voor abstract zie: Longgeneeskunde - Romme EA

Impactfactor: 5.094

Utens CM

Cost-Effectiveness of Early Assisted Discharge for COPD Exacerbations in The Netherlands

Goossens LM, Utens CM*, Smeenk FW*, van Schayck OC, van Vliet M,

van Litsenburg W*, Braken MW, Rutten-van Mölken MP

Value Health. 2013 Jun;16(4):517-28

OBJECTIVES: Hospital admissions for exacerbations of chronic obstructive pulmonary disease are the main cost drivers of the disease. An alternative is to treat suitable patients at home instead of in the hospital. This article reports on the cost-effectiveness and cost-utility of early assisted discharge in The Netherlands.

METHODS: In the multicenter randomized controlled Assessment of GOing Home under Early Assisted Discharge trial (n = 139), one group received 7 days of inpatient hospital treatment (HOSP) and one group was discharged after 3 days and treated at home by community nurses for 4 days. Health care resource use, productivity losses, and informal care were recorded in cost questionnaires. Microcosting was performed for inpatient day costs.

RESULTS: Seven days after admission, mean change from baseline Clinical Chronic Obstructive Pulmonary Disease Questionnaire score was better for HOSP, but not statistically significantly: 0.29 (95% confidence interval [CI]-0.04 to 0.61). The difference in the probability of having a clinically relevant improvement was significant in favor of HOSP: 19.0%-point (95% CI 0.5%-36.3%). After 3 months of follow-up, differences in effectiveness had almost disappeared. The difference in quality-adjusted life-years was 0.0054 (95% CI-0.021 to 0.0095). From a health care perspective, early assisted discharge was cost saving:-€244 (treatment phase, 95% CI-€315 to-€168) and-€168 (3 months, 95% CI-€1253 to -€922). Societal perspective:-€65 (treatment phase, 95% CI-€152 to -€25) and -€908 (3 months, 95% CI-€553 to -€2296). The savings per quality-adjusted life-year lost were -€31,111 from a health care perspective. From a societal perspective, HOSP was dominant.

CONCLUSIONS: No clear evidence was found to conclude that either treatment was more effective or less costly.

Impactfactor: 2.191

Utens CM

Evaluation of health care providers' role transition and satisfaction in hospital-at-home for chronic obstructive pulmonary disease exacerbations: a survey study

Utens CM*, Goossens LM, van Schayck OC, Rutten-Vanmölken MP, Braken MW, van Eijdsen LM, Smeenk FW*

BMC Health Serv Res. 2013 Sep 27;13(1):363

BACKGROUND: Hospital-at-home is an accepted alternative for usual hospital treatment for patients with a Chronic Obstructive Pulmonary Disease (COPD) exacerbation. The introduction of hospital-at-home may lead to changes in health care providers' roles and

responsibilities. To date, the impact on providers' roles is unknown and in addition, little is known about the satisfaction and acceptance of care providers involved in hospital-at-home. METHODS: Objective of this survey study was to investigate the role differentiation, role transitions and satisfaction of professional care providers (i.e. pulmonologists, residents, hospital respiratory nurses, generic and specialised community nurses and general practitioners) from 3 hospitals and 2 home care organisations, involved in a community-based hospital-at-home scheme. A combined multiple-choice and open-end questionnaire was administered in study participants.

RESULTS: Response rate was 10/17 in pulmonologists, 10/23 in residents, 9/12 in hospital respiratory nurses, 15/60 in generic community nurses, 6/10 in specialised community nurses and 25/47 in general practitioners. For between 66% and 100% of respondents the role in early discharge was clear and between 57% and 78% of respondents was satisfied with their role in early discharge. For nurses the role in early discharge was different compared to their role in usual care. 67% of generic community nurses felt they had sufficient knowledge and skills to monitor patients at home, compared to 100% of specialised community nurses. Specialised community nurses felt they should monitor patients. 60% of generic community nurses responded they should monitor patients at home. 78% of pulmonologists, 12% of general practitioners, 55% of hospital respiratory nurses and 48 of community nurses was satisfied with early discharge in general. For coordination of care 29% of community nurses had an unsatisfied response. For continuity of care this was 12% and 10% for hospital respiratory nurses and community nurses, respectively.

CONCLUSION: A community-based early assisted discharge for COPD exacerbations is possible and well accepted from the perspective of health care providers' involved. Satisfaction with the different aspects is good and the transfer of patients in the community while supervised by generic community nurses is possible. Attention should be paid to coordination and continuity of care, especially information transfer between providers.

Impactfactor: 1.77

Utens CM

Patient preference and satisfaction in hospital-at-home and usual hospital care for COPD exacerbations: Results of a randomised controlled trial

Utens CM*, Goossens LM, van Schayck OC, Rutten-van Mölken MP, van Litsenburg W*, Janssen A*, van der Pouw A, Smeenk FW*

Int J Nurs Stud. 2013 Nov;50(11):1537-49

BACKGROUND: In the absence of clear differences in effectiveness and cost-effectiveness between hospital-at-home schemes and usual hospital care, patient preference plays an important role. This study investigates patient preference for treatment place, associated factors and patient satisfaction with a community-based hospital-at-home scheme for COPD exacerbations. METHODS: The study is part of a larger randomised controlled trial. Patients were randomised to usual hospital care or early assisted discharge which incorporated discharge at day 4 and visits by a home care nurse until day 7 of treatment (T+4 days). The hospital care group received care as usual and was discharged from hospital at day 7. Patients were followed for 90 days (T+90 days). Patient preference for treatment place and patient satisfaction (overall and per item) were assessed quantitatively and qualitatively using questionnaires at T+4 days and T+90 days. Factors associated with patient preference were analysed in the early assisted discharge group. RESULTS: 139 patients were randomised. No difference was found in overall satisfaction. At T+4 days, patients in the early assisted discharge group were less satisfied with care at night and were less able to

resume normal daily activities. At T+90 days there were no differences for the separate items. Patient preference for home treatment at T+4 days was 42% in the hospital care group and 86% in the early assisted discharge group and 35% and 59% at T+90 days. Patients' mental state was associated with preference. CONCLUSION: Results support the wider implementation of early assisted discharge for COPD exacerbations and this treatment option should be offered to selected patients that prefer home treatment.

Impactfactor: 2.075

Wielders PL

A new class of bronchodilator improves lung function in COPD: a trial with GSK961081

Wielders PL*, Ludwig-Sengpiel A, Locantore N, Baggen S, Chan R, Riley JH

Eur Respir J. 2013 Oct;42(4):972-81

GSK961081 is a bi-functional molecule demonstrating both muscarinic antagonist (MA) and beta agonist (BA) activities (MABA). This was a 4-week, multicentre, randomised, double-blind, doubledummy, placebo and salmeterol controlled parallel group study. Doses ranging across three twice-daily (BD) doses and three once-daily (OD) doses were assessed in moderate and severe COPD patients. Trough FEV1 at day 29 was the primary endpoint. At days 1 and 28, 12 h FEV1 spirometry was performed in all patients. A subset of patients had complete 24 h spirometry at day 28. The study recruited 436 patients. GSK961081 showed statistically and clinically significant differences from placebo in all doses and regimens for trough FEV1 on day 29 (155-277 mL). The optimal total daily dose was 400 µg, either as 400 µg OD or as 200 µg BD, with an improvement in day 29 trough FEV1 of 215 mL and 249 mL respectively. Other efficacy endpoints also showed improvement. No effects were observed on glucose, potassium, heart rate, blood pressure and no dose response effect on QTc elongation. This study showed that GSK961081 is an effective bronchodilator in COPD and appeared safe and well tolerated.

Impactfactor: 6.355

* = Werkzaam in het Catharina Ziekenhuis

Maag-darm-leverziekten

Friederich P

Diabetes mellitus at the time of diagnosis of cirrhosis is associated with higher incidence of spontaneous bacterial peritonitis, but not with increased mortality

Wlazlo N*, van Greevenbroek M, Curvers J*, Schoon EJ*, Friederich P*, Twisk J, Bravenboer B, Stehouwer CD

Clin Sci (Lond). 2013 Oct;125(7):341-8

Voor abstract zie: Maag- darm- Leverziekten - Wlazlo N

Impactfactor: 4.859

Gilissen LP

Removable and repositionable covered metal self-expandable stents for leaks after upper gastrointestinal surgery: experiences in a tertiary referral hospital

Leenders BJ*, Stronkhorst A*, Smulders FJ*, Nieuwenhuijzen GA*, Gilissen LP*

Surg Endosc. 2013 Aug;27(8):2751-9

Voor abstract zie: Chirurgie - Leenders BJ

Impactfactor: 3.427

Schoon EJ

A simplified regimen for focal radiofrequency ablation of Barrett's mucosa: a randomized multicenter trial comparing two ablation regimens

van Vilsteren FG, Phoa KN, Alvarez Herrero L, Pouw RE, Sondermeijer CM, Visser M, Ten Kate FJ, van Berge Henegouwen MI, Weusten BL, Schoon EJ*, Bergman JJ

Gastrointest Endosc. 2013 Jul;78(1):30-8. Epub 2013 Mar 23

BACKGROUND: The currently recommended regimen for focal radiofrequency ablation (RFA) of Barrett's esophagus (BE) comprises 2 applications of energy, cleaning of the device and ablation zone, and 2 additional applications of energy. A simplified regimen may be of clinical utility if it is faster, easier, and equally safe and effective.

OBJECTIVE: To compare the efficacy of 2 focal RFA regimens.

SETTING: Three tertiary referral centers.

PATIENTS: Consecutive patients scheduled for focal RFA of BE with flat type BE with at least 2 BE islands or mosaic groups of islands were enrolled.

INTERVENTIONS: BE areas were paired: 1 area was randomized to the "standard" regimen (2 × 15 J/cm(2)-clean-2 × 15 J/cm(2)) or to the "simplified" regimen (3 × 15 J/cm(2)-no clean), allocating the second area automatically to the other regimen. The percentage of surface area regression of each area was scored at 2 months by the endoscopist (blinded).

OUTCOME MEASURE: Proportion of completely removed BE areas at 2 months. Calculated sample size was 46 pairs of BE areas using a noninferiority design. Noninferiority was defined as <20% difference in the paired proportions.

RESULTS: Forty-five equivalent pairs of BE areas were included in 41 patients. The proportion of completely removed BE areas at 2 months after focal RFA was 30 (67%) for standard and 33 (73%) for simplified. Noninferiority was demonstrated by a 7% difference (95% CI, -10.6 to +20.9).

LIMITATIONS: Tertiary referral centers.

CONCLUSIONS: The results of this multicenter randomized trial suggest that a simplified 3 × 15 J/cm(2) focal ablation regimen is not inferior to the standard regimen, regarding the endoscopic removal of residual Barrett islands.

Impactfactor: 5.210

Schoon EJ

Diabetes mellitus at the time of diagnosis of cirrhosis is associated with higher incidence of spontaneous bacterial peritonitis, but not with increased mortality

Wlazlo N*, van Greevenbroek M, Curvers J*, Schoon EJ*, Friederich P*, Twisk J, Bravenboer B, Stehouwer CD

Clin Sci (Lond). 2013 Oct;125(7):341-8

Voor abstract zie: Maag- darm- Leverziekten - Wlazlo N

Impactfactor: 4.859

Schoon EJ

Predictive factors for initial treatment response after circumferential radiofrequency ablation for Barrett's esophagus with early neoplasia: a prospective multicenter study

van Vilsteren FG, Alvarez Herrero L, Pouw RE, Schrijnders D, Sondermeijer CM, Bisschops R, Esteban JM, Meining A, Neuhaus H, Parra-Blanco A, Pech O, Ragunath K, Rembacken B, Schenk BE, Visser M, ten Kate FJ, Meijer SL, Reitsma JB, Weusten BL, Schoon EJ*, Bergman JJ

Endoscopy. 2013 Jul;45(7):516-25. Epub 2013 Apr 11

BACKGROUND AND STUDY AIMS: Radiofrequency ablation (RFA) is safe and effective for the eradication of neoplastic Barrett's esophagus; however, occasionally there is minimal regression after initial circumferential balloon-based RFA (c-RFA). This study aimed to identify predictive factors for a poor response 3 months after c-RFA, and to relate the percentage regression at 3 months to the final treatment outcome.

METHODS: We included consecutive patients from 14 centers who underwent c-RFA for high grade dysplasia at worst. Patient and treatment characteristics were registered prospectively. "Poor initial response" was defined as < 50 % regression of the Barrett's esophagus 3 months after c-RFA, graded by two expert endoscopists using endoscopic images. Predictors of initial response were identified through logistic regression analysis.

RESULTS: There were 278 patients included (median Barrett's segment C4M6). In poor initial responders (n = 36; 13 %), complete response for neoplasia (CR-neoplasia) was ultimately achieved in 86 % (vs. 98 % in good responders; P < 0.01) and complete response for intestinal metaplasia (CR-IM) in 66 % (vs. 95 %; P < 0.01). Poor responders required 13 months treatment (vs. 7 months; P < 0.01) for a median of four RFA sessions (vs. three; P < 0.01). We identified four independent baseline predictors of poor response: active reflux esophagitis (odds ratio [OR] 37.4; 95 % confidence interval [CI] 3.2 - 433.2); endoscopic resection scar regeneration with Barrett's epithelium (OR 4.7; 95 %CI 1.1 - 20.0); esophageal narrowing pre-RFA (OR 3.9; 95 %CI 1.0 - 15.1); and years of neoplasia pre-RFA (OR 1.2; 95 %CI 1.0 - 1.4).

CONCLUSIONS: Patients with a poor initial response to c-RFA have a lower ultimate success rate for CR-neoplasia/CR-IM, require more treatment sessions, and a longer treatment period. A poor initial response to c-RFA occurs more frequently in patients who regenerate their endoscopic resection scar with Barrett's epithelium, and those with ongoing reflux esophagitis, neoplasia in Barrett's esophagus for a longer time, or a narrow esophagus.

Impactfactor: 5.735

Schoon EJ

Transluminal endoscopic step-up approach versus minimally invasive surgical step-up approach in patients with infected necrotising pancreatitis (TENSION trial): design and rationale of a randomised controlled multicenter trial [ISRCTN09186711]

van Brunschot S, van Grinsven J, Voermans RP, Bakker OJ, Besselink MG, Boermeester MA, Bollen TL, Bosscha K, Bouwense SA, Bruno MJ, Cappendijk VC, Consten EC, Dejong CH, Dijkgraaf MG, van Eijck CH, Erkelens GW, van Goor H, Hadithi M, Haveman JW, Hofker SH, Jansen JJ, Laméris JS, van Lienden KP, Manusama ER, Meijssen MA, Mulder CJ, Nieuwenhuis VB, Poley JW, de Ridder RJ, Rosman C, Schaapherder AF, Scheepers JJ, Schoon EJ*, Seerden T, Spanier BW, Straathof JW, Timmer R, Venneman NG, Vleggaar FP, Witteman BJ, Gooszen HG, van Santvoort HC, Fockens P; Dutch Pancreatitis Study Group

BMC Gastroenterol. 2013 Nov 25;13:161

BACKGROUND: Infected necrotising pancreatitis is a potentially lethal disease that nearly always requires intervention. Traditionally, primary open necrosectomy has been the treatment of choice. In recent years, the surgical step-up approach, consisting of percutaneous catheter drainage followed, if necessary, by (minimally invasive) surgical necrosectomy has become the standard of care. A promising minimally invasive alternative is the endoscopic transluminal step-up approach. This approach consists of endoscopic transluminal drainage followed, if necessary, by endoscopic transluminal necrosectomy. We hypothesise that the less invasive endoscopic step-up approach is superior to the surgical step-up approach in terms of clinical and economic outcomes.

METHODS/DESIGN: The TENSION trial is a randomised controlled, parallel-group superiority multicenter trial. Patients with (suspected) infected necrotising pancreatitis with an indication for intervention and in whom both treatment modalities are deemed possible, will be randomised to either an endoscopic transluminal or a surgical step-up approach. During a 4 year study period, 98 patients will be enrolled from 24 hospitals of the Dutch Pancreatitis Study Group. The primary endpoint is a composite of death and major complications within 6 months following randomisation. Secondary endpoints include complications such as pancreaticocutaneous fistula, exocrine or endocrine pancreatic insufficiency, need for additional radiological, endoscopic or surgical intervention, the need for necrosectomy after drainage, the number of (re-)interventions, quality of life, and total direct and indirect costs.

DISCUSSION: The TENSION trial will answer the question whether an endoscopic step-up approach reduces the combined primary endpoint of death and major complications, as well as hospital stay and related costs compared with a surgical step-up approach in patients with infected necrotising pancreatitis.

Impactfactor: 2.11

Schoon EJ

Validation of the Prague C&M classification of Barrett's esophagus in clinical practice

Alvarez Herrero L, Curvers WL, van Vilsteren FG, Wolfsen H, Ragunath K, Wong Kee Song LM, Mallant-Hent RC, van Oijen A, Scholten P, Schoon EJ*, Schenk EB, Weusten BL, Bergman JG

Endoscopy. 2013 Nov;45(11):876-82. Epub 2013 Oct 28

BACKGROUND AND STUDY AIMS: The Prague C&M classification for Barrett's esophagus has found widespread acceptance but has only been validated by Barrett's experts scoring video sequences. To date, validation has been lacking for its application in routine practice during

real-time endoscopy. The aim of this study was to evaluate agreement between Barrett's experts and community hospital endoscopists when using this classification to describe Barrett's esophagus and hiatal hernia length during real-time endoscopy.

PATIENTS AND METHODS: Patients underwent two consecutive endoscopies performed by different endoscopists. The study was performed in two cohorts: one cohort was seen by Barrett's experts and the other cohort by community hospital endoscopists. Landmarks were recorded according to the Prague classification. Outcomes were interobserver agreement (assessed with intraclass correlation coefficient [ICC]), absolute agreement, and relative agreement.

RESULTS: A total of 187 patients were included, with median extent of C3M5 (IQR C1 - 7 M4 - 9) for Barrett's esophagus and 3 cm (IQR 2-5) for hiatal hernia length. ICC was 0.91 (95 % confidence interval [CI] 0.88-0.93) for maximum length, 0.92 (95% CI 0.90-0.94) for circumferential extent, and 0.59 (95% CI 0.49-0.68) for hiatal hernia length. Absolute agreement within d 1 cm was 74% (95% CI 68-80) for circumference, 68% (95% CI 62-75) for length, and 63% (95% CI 56 - 70) for hiatal hernia length. Relative agreement was 91% for Barrett's esophagus and 80 % for hiatal hernia length. Barrett's experts and community hospital endoscopists showed no differences in agreement. Shorter Barrett's segments (d 5 cm) had lower agreement compared with longer segments (> 5 cm).

CONCLUSIONS: Agreement was good for Barrett's esophagus and reasonable for hiatal hernia length. These findings strengthen the value of the Prague C&M classification to describe Barrett's esophagus and hiatal hernia length. Although absolute agreement during real-time endoscopy was high, one should anticipate that Barrett's values may vary by 1 - 2 cm between two endoscopies.

Impactfactor: 5.735

Stronkhorst A

Removable and repositionable covered metal self-expandable stents for leaks after upper gastrointestinal surgery: experiences in a tertiary referral hospital

Leenders BJ*, Stronkhorst A*, Smulders FJ*, Nieuwenhuijzen GA*, Gilissen LP*

Surg Endosc. 2013 Aug;27(8):2751-9

Voor abstract zie: Chirurgie - Leenders BJ

Impactfactor: 3.427

Wlazlo N

Diabetes mellitus at the time of diagnosis of cirrhosis is associated with higher incidence of spontaneous bacterial peritonitis, but not with increased mortality

Wlazlo N*, van Greevenbroek M, Curvers J*, Schoon EJ*, Friederich P*, Twisk J, Bravenboer B, Stehouwer CD

Clin Sci (Lond). 2013 Oct;125(7):341-8

Diabetes mellitus (DM) is present in 20-40% of patients with liver cirrhosis, but its prognostic impact is unclear. Therefore, we investigated whether the presence of DM in patients with cirrhosis was associated with increased mortality, and/or with an increased incidence of spontaneous bacterial peritonitis (SBP). We reviewed medical and laboratory data of 230 patients with cirrhosis from the period 2001-2011, of whom data were complete in n=226. Follow-up for the outcomes mortality and SBP was performed until May 2012, with only 13 patients lost to follow-up. DM was present at baseline in 78 patients (35%). Median follow-up was 6.2 years [IQR 3.1-9.3], during which 118 patients died (47 out of 78 with DM (60%), and 71 out of 148 without DM (48%)). The presence of DM at baseline was not associated with increased mortality after adjustment for age (HR 1.00; 95%CI 0.67-1.50). Further

adjustment for sex, aetiology of cirrhosis, platelet count, and the Child-Pugh or MELD score did not change this finding. During follow-up, 37 patients developed incident SBP (19 with DM and 18 without DM). DM at baseline was associated with incident SBP, even after adjustment for age, sex, aetiology, platelet count, and the Child-Pugh (HR 2.39; 95%CI 1.10-5.18) or MELD score (HR 2.50; 95%CI 1.16 -5.40). In conclusion, the presence of DM at baseline in patients with cirrhosis was associated with an increased risk of SBP, which may represent an increased susceptibility to infections. On the other hand, DM was not clearly associated with increased mortality in these patients.

Impactfactor: 4.859

Medische psychologie

Maas-van Schaaijk NM

Goal Disturbance and Coping in Children with Type I Diabetes Mellitus: Relationships with Health-Related Quality of Life and A1C

van Bussel A, Nieuwesteeg A, Janssen E, van Bakel H, van den Bergh B, Maas-van Schaaijk N*, Odink R*, Rijk K, Hartman E

Can J Diabetes. 2013 Jun;37(3):169-74

OBJECTIVE: Our first objective was to compare the health-related quality of life (HRQoL) of children with type 1 diabetes mellitus (8-12 years) with that of a healthy reference group, and to compare glycated hemoglobin (A1C) values of these children to recommended guidelines. Our second objective was to examine how goal disturbance and coping behaviour were related to HRQoL and A1C.

METHOD: Forty-three children, 8-12 years of age, completed a set of questionnaires that assessed generic and diabetes-specific HRQoL, goal disturbance and coping behaviour. Demographic and clinical characteristics were extracted from medical records.

RESULTS: Children with type 1 diabetes reported lower psychosocial HRQoL than healthy references ($d=-0.48$), especially on emotional functioning ($d=-0.58$). Goal disturbance was associated with lower generic HRQoL. Furthermore, the coping strategies avoidance, emotional reaction and wishful thinking were negatively associated with lower generic and disease-specific HRQoL (r ranged from -0.33 to -0.65), whereas acceptance was positively associated with disease-specific HRQoL ($r=0.36$). The average A1C was with 8.1% significantly above the recommended guidelines of 7.5%. Moreover, the coping strategies avoidance ($r=0.31$) and emotional reaction ($r=0.32$) were positively associated with higher blood glucose levels.

CONCLUSIONS: The psychosocial HRQoL of children with type 1 diabetes was affected, which was directly associated with the inability to reach personal goals (goal disturbance). An accepting coping strategy might solve these HRQoL problems and additionally improve A1C values.

Impactfactor: 0.458

Maas-van Schaaijk NM

The Interrelationships Among Paternal and Maternal Parenting Stress, Metabolic Control, and Depressive Symptoms in Adolescents With Type 1 Diabetes Mellitus*

Maas-van Schaaijk NM*, Roeleveld-Versteegh AB*, van Baar AL

J Pediatr Psychol. 2013 Jan-Feb;38(1):30-40. Epub 2012 Sep 16

OBJECTIVE: To examine the relationship between paternal and maternal parenting stress, metabolic control, and depressive symptoms in adolescents with type 1 diabetes mellitus (T1DM).

METHODS: 151 adolescents with T1DM (mean age 14.9 ± 1.7 years) and a comparison group ($n = 122$) reported their depressive symptoms and behavior problems. Mothers (T1DM $n = 126$; comparison group $n = 106$) and fathers (T1DM $n = 103$; comparison group $n = 55$) each reported parenting stress. Metabolic control was assessed by the glycosylated hemoglobin (HbA1c) values obtained from the medical records.

RESULTS: Fathers of adolescents with T1DM reported significantly more parenting stress than fathers of the comparison group. Parenting stress was associated with depressive symptoms only in adolescents with T1DM. Parenting stress in fathers explained 25% of the variance in depressive symptoms in adolescents with T1DM and 18% of the variance in HbA1c. In mothers, this was 22% and 19%, respectively.

CONCLUSION: The combination of blood glucose control and depressive symptoms in adolescents with T1DM was found to be associated with both paternal and maternal parenting stress.

Impactfactor: 2.647

Mondziekten en Kaakchirurgie

Pijpe J

[Sialendoscopy for obstructive disorders of the salivary glands]

van der Meij EH, Pijpe J*, van Ingen JM, de Visscher JG

Ned Tijdschr Geneeskd. 2013;157(6):A5675

Obstructive disorders of the salivary glands usually manifest as a swelling which is associated with meals ('mealtime syndrome') as well as inflammation of the gland. Obstruction of the salivary ducts of the parotid and submandibular glands is usually caused by a salivary stone, mucous plug or by a stenosis. Until recently, the options for diagnosis and treating these conditions were limited. Ultimately, the decision to remove the salivary gland was often made. Sialendoscopy is a recently developed semirigid optical technique that can be used to detect and usually treat obstructions in the salivary ductal system. This new, minimally invasive technique has resulted in the reduction of morbidity related to salivary gland obstruction. In many patients, surgical removal of the salivary gland can be avoided by using this technique.

Impactfactor: --

Pijpe J

[Sialendoscopy: endoscopic approach to obstructive salivary gland disease]

van der Meij EH, Pijpe J*, van Ingen JM, de Visscher JG

Ned Tijdschr Tandheelkd. 2013 Sep;120(9):452-7

Sialendoscopy: endoscopic approach to obstructive salivary gland defects Obstructive defects of the parotid and the submandibular gland often present themselves clinically by mealtime-related swelling of the affected salivary gland, the so-called 'mealtime syndrome'. Salivary ductal obstruction of the parotid and submandibular gland is predominantly caused by the presence of a salivary stone, a mucous plug, or by ductal stenosis. Until recently, diagnostic and treatment options for these obstructive salivary gland defects were restricted. Surgical removal of the affected salivary gland was often the treatment of choice. By applying sialendoscopy, a minimally invasive, semi rigid optical technique, it is possible to diagnose and treat obstructions which are found in the salivary ductal system. In many cases, therefore, the surgical removal of the salivary gland becomes unnecessary.

Impactfactor: --

* = Werkzaam in het Catharina Ziekenhuis

Neurologie

Gons RA

Cerebral microbleeds are related to subjective cognitive failures: the RUN DMC study

van Norden AG, van Uden IW, de Laat KF, Gons RA*, Kessels RP, van Dijk EJ, de Leeuw FE

Neurobiol Aging. 2013 Sep;34(9):2225-30

Cerebral small vessel disease (SVD), including white matter lesions (WML) and lacunar infarcts, is related to objective cognitive impairment but also to subjective cognitive failures (SCF). SCF have reported to be an early predictor of dementia. Cerebral microbleeds (MB) are another manifestation of SVD and have been related to cognitive impairment, but the role of MB in SCF has never been studied. We therefore investigated whether MB are related to SCF among non-demented elderly individuals with SVD, independent of coexisting WML and lacunar infarcts. The RUN DMC study is a prospective cohort study among 503 older persons with cerebral SVD between 50 and 85 years of age. All participants underwent FLAIR and T2* scanning. SCF, subjective memory failures (SMF), and subjective executive failures (SEF) were assessed. The relation between SCF and the presence, number and location of MB was assessed by linear regression analyses adjusted for age, sex, education, depressive symptoms, cognitive function, total brain volume, normalized hippocampal volume, territorial infarcts, WML, and lacunar infarcts. MB were present in 11%. We found a relation between the presence, total number and lobar located MB, and SCF, SMF, and SEF and the reported progression of these failures, especially in participants with good objective cognitive function. In conclusion, MB are related to SCF independent of co-existing WML and lacunar infarcts, especially in those with good objective cognitive performance.

These results suggest that MB are associated with the earliest manifestations of cognitive impairment. MB may help us to understand the role of the ever-expanding spectrum of SVD in cognitive impairment.

Impactfactor: 6.166

Gons RA

Physical activity is related to the structural integrity of cerebral white matter

Gons RA*, Tuladhar AM, de Laat KF, van Norden AG, van Dijk EJ, Norris DG, Zwiers MP, de Leeuw FE

Neurology. 2013 Sep 10;81(11):971-6

OBJECTIVE: To investigate the relation between physical exercise and the microstructural integrity of cerebral white matter.

METHODS: Four hundred forty individuals with cerebral small-vessel disease, aged between 50 and 85 years, without dementia, were included and underwent MRI scanning. Physical exercise was assessed with a structured questionnaire. The cross-sectional relation between physical exercise and the microstructural integrity of the white matter was assessed by applying Tract-Based Spatial Statistics to diffusion tensor imaging parameters.

RESULTS: Being more physically active was negatively related to the mean, axial, and radial diffusivity in numerous regions of the white matter, indicative of higher white matter integrity.

CONCLUSIONS: These data indicate an association between physical activity and the integrity of the cerebral white matter's microstructure. Prospective studies are required to investigate a possible causal association between physical activity and cognitive decline.

Impactfactor: 8.25

Hanse MC

Acute neurological disorders following intraperitoneal administration of cisplatin

Simkens GA*, Hanse MC*, de Hingh IH*

Int J Gynaecol Obstet. 2013 Mar;120(3):291

Voor abstract zie: Chirurgie - Simkens GA

Impactfactor: 1.836

Hengstman GJ

Prevalence of cutaneous adverse events associated with long-term disease-modifying therapy and their impact on health-related quality of life in patients with multiple sclerosis: a cross-sectional study

Balak DM, Hengstman GJ*, Hajdarbegovic E, van den Brule RJ, Hupperts RM, Thio HB
BMC Neurol. 2013 Oct 16;13(1):146

BACKGROUND: Glatiramer acetate (GA) and interferon-beta (IFN-beta) are disease-modifying therapies (DMTs) for multiple sclerosis that are administered through subcutaneous (SC) or intramuscular (IM) injections. Skin reactions associated with DMTs are common and may influence patient's health-related quality of life (QoL). We aimed to determine the prevalence of cutaneous adverse events associated with long-term DMT use, and to assess the impact of cutaneous adverse events on QoL.

METHODS: A cross-sectional study among patients with multiple sclerosis who had been treated with their first DMT for at least 2 years. Cutaneous events were assessed from photographs of injection-sites by dermatologists blinded for DMT. Generic and dermatology-specific health-related QoL were assessed using validated patient-reported questionnaires.

RESULTS: A total of 229 patients were enrolled, of whom 156 (68%) had at least one skin reaction. The prevalence of cutaneous adverse events was higher for SC DMTs (75-82%) compared to IM DMT (41%) ($P < 0.001$). Erythema and lipoatrophy were the most common skin reactions, observed in 156 (68%) and 45 (20%) patients, respectively. Dermatology-specific, but not generic, QoL was significantly lower among patients with skin reactions compared to those without.

CONCLUSIONS: The prevalence of cutaneous adverse events was high in long-term DMT-treatment. Patients with cutaneous adverse events had a lower perceived dermatology-specific QoL.

Impactfactor: 2.56

Nuenen BF van

Neural correlates of executive functions in healthy G2019S LRRK2 mutation carriers

Thaler A, Mirelman A, Helmich RC, van Nuenen BF*, Rosenberg-Katz K, Gurevich T, Orr-Urtreger A, Marder K, Bressman S, Bloem BR, Giladi N, Hendler T; the LRRK2 Ashkenazi Jewish consortium

Cortex. 2013 Oct;49(9):2501-11

INTRODUCTION: The G2019S mutation in the leucine rich repeat kinase 2 (LRRK2) gene is prevalent among Ashkenazi Jewish patients with Parkinson's disease (PD). Cognitive deficits are common in early stage PD. We aimed to characterize the effect of the G2019S mutation on neural mechanisms of executive function processing by testing whether healthy mutation carriers who are an "at risk" population for the future development of PD differed from non-carriers on an functional magnetic resonance imaging (fMRI) Stroop interference task.

METHODS: Cognitive performance and task related cerebral activity were measured in 40 healthy firstdegree relatives of Ashkenazi PD patients (19 carriers and 21 non-carriers of the

G2019S mutation). Both regional differences in neural activity and seed region driven functional connectivity methods were performed using fMRI.

RESULTS: Compared to non-carriers, mutation carriers had greater baseline deactivation and increased task related activity in the right inferior parietal lobe, right precuneus and right fusiform gyrus. Whole brain functional connectivity analysis revealed stronger coupling between these regions and both basal ganglia structures as well as cortical regions in the carrier group. Non-manifesting G2019S mutation carriers and non-carriers performed similarly on the task and on all other assessed measures, so behavioral differences in task performance and baseline cognitive functions cannot explain the observed imaging differences.

CONCLUSIONS: G2019S carriers, at risk for developing PD, had similar behavioral performance as non-carriers during the Stroop task, but increased activity in brain regions that have previously been found to be part of the ventral attention system together with stronger coupling between task related areas and structures that make up the ventral and dorsal attention system as well as the basal gangliathalamocortical network. This suggests a neural compensatory mechanism that enables intact cognitive performance in asymptomatic mutation carriers.

Impactfactor: 6.161

Rijk MC de Multifocal Acquired Demyelinating Sensory and Motor Neuropathy in Pregnancy, a Case Report

Ciliacus E*, Kuppens SMI* Cats EA, de Rijk MC*, Kortenhorst MSQ*

J Clin Cell Immunol 2013, 4(6):175

In this report we describe a case of MADSAM during pregnancy. MADSAM is a multifocal asymmetric demyelinating neuropathy that causes muscle weakness and sensory loss. The disease is caused by an autoimmune response of unknown origin. MADSAM has been described in literature but the effect of pregnancy on the course of MADSAM and vice versa remains uncertain. As far as we know this is the first report of MADSAM during pregnancy.

Impactfactor: --

Rijk MC de Uw diagnose?

B. Panis, M.C. de Rijk*

Tijdschr Neurol Neurochir 2013;114(4):182-3

Geen abstract beschikbaar

Impactfactor: --

* = Werkzaam in het Catharina Ziekenhuis

Nucleaire Geneeskunde

Huysmans DA

Development of a disease-specific health-related quality of life questionnaire (THYCA-QoL) for thyroid cancer survivors

Husson O, Haak HR, Mols F, Nieuwenhuijzen GA*, Nieuwlaat WA, Reemst PH, Huysmans DA*, Toorians AW, Poll-Franse LV van de
Acta Oncol. 2013 Feb;52(2):447-54. Epub 2012 Sep 27

Voor abstract zie: Chirurgie - Nieuwenhuijzen GA

Impactfactor: 2.867

** = Werkzaam in het Catharina Ziekenhuis*

Onderwijs en Onderzoek

Houterman S

A double-blind, randomized, controlled trial on surgery for chronic abdominal pain due to anterior cutaneous nerve entrapment syndrome

Boelens OB, van Assen T, Houterman S#, Scheltinga MR, Roumen RM

Ann Surg. 2013 May;257(5):845-9

OBJECTIVE: To clarify the role of a surgical neurectomy on pain in refractory patients after conservatively treated anterior cutaneous nerve entrapment syndrome (ACNES).

BACKGROUND: ACNES is hardly ever considered in the differential diagnosis of chronic abdominal pain. Treatment is usually conservative. However, symptoms are often recalcitrant.

METHODS: Patients older than 18 years with a diagnosis of ACNES were randomized to undergo a neurectomy or a sham procedure via an open surgical procedure in day care. Both the patient and the principal investigator were blinded to the nature of surgery. Pain was recorded using a visual analog scale (1-100 mm) and a verbal rating scale (score 0-5; 0 = no pain, 5 = severe pain) before surgery and 6 weeks postoperatively. A reduction of at least 50% in the visual analog scale score and/or 2 points on the verbal rating scale was considered a "successful response."

RESULTS: Forty-four patients were randomized between August 2008 and December 2010 (39 women, median age = 42 years; both groups, n = 22). In the neurectomy group, 16 patients reported a successful pain response. In contrast, significant pain reduction was obtained in 4 patients in the sham group (P = 0.001). Complications associated with surgery were hematoma (n = 5, conservative treatment), infection (antibiotic and drainage, n = 1), and worsened pain (n = 1).

CONCLUSIONS: Neurectomy of the intercostal nerve endings at the level of the abdominal wall is an effective surgical procedure for pain reduction in ACNES patients who failed to respond to a conservative regimen.

#Ten tijde van publicatie werkzaam bij: MMC Academy, Máxima Medical Center, Veldhoven

Impactfactor: 6.329

Houterman S

A survey of the current practice of the informed consent process in general surgery in the Netherlands

Leclercq WK, Keulers BJ, Houterman S#, Veerman M, Legemaate J, Scheltinga MR

Patient Saf Surg. 2013 Jan 21;7(1):4

BACKGROUND: A properly conducted surgical informed consent process (SIC) allows patients to authorize an invasive procedure with full comprehension of relevant information including involved risks. Current practice of SIC may differ from the ideal situation. The aim of this study is to evaluate whether SIC practiced by Dutch general surgeons and residents is adequate with involvement of all required elements.

METHODS: All members of the Dutch Society of Surgery received an online multiple choice questionnaire evaluating various aspects of SIC.

RESULTS: A total of 453 questionnaires obtained from surgeons and residents representing >95% of all Dutch hospitals were eligible for analysis (response rate 30%). Knowledge on SIC was limited as only 55% was familiar with all three basic elements ('assessment of preconditions', 'provision of information' and 'stage of consent'). Residents performance was inferior compared to surgeons regarding most aspects of daily practice of SIC. One in 6 surgeons (17%) had faced a SIC-related complaint in the previous five years possibly illustrating suboptimal SIC implementation in daily surgical practice.

CONCLUSIONS: The quality of the current SIC process is far from optimal in the Netherlands. Surgical residents require training aimed at improving awareness and skills. The SIC process is ideally supported using modern tools including web-based interactive programs. Improvement of the SIC process may enhance patient satisfaction and may possibly reduce the number of complaints.

#Ten tijde van publicatie werkzaam bij: MMC Academy, Máxima Medical Center, Veldhoven
Impactfactor: --

Houterman S

Hair mass index obtained by cross-section trichometry: an objective and clinically useful parameter to quantify hair in chemotherapy-induced alopecia

Vleut RE, van Poppel JE, Dercksen MW, Peerbooms M, Houterman S*, Breed WP
Support Care Cancer. 2013 Jul;21(7):1807-14

PURPOSE: In order to evaluate the efficacy of scalp cooling for the prevention of chemotherapy-induced alopecia (CIA), it is essential to precisely quantify the amount of hair mass that is present. We wanted to determine if the hair mass index (HMI), obtained by cross-section trichometry (CST), was a suitable parameter for hair mass measurement, and whether or not marking the measurement site on the scalp was necessary.

METHODS: Ten patients receiving chemotherapy were sequentially measured using CST during their treatment. At the same time, they were asked to report severity of hair loss via three subjective parameters: World Health Organization (WHO) grade, visual analog scale (VAS) score, and patients' need to wear wig or head cover. To investigate the need of marking of the measurement area, differences in HMI between a random 2×2-cm site (HMI-C) and four surrounding areas (HMI-S(4)) on the scalp of eight volunteers and eight chemotherapy patients were calculated and compared.

RESULTS: Using CST, hair loss due to CIA was quite measurable and ranged from 13 to 82 %. Reported VAS scores and WHO grades showed an increase in patients in time; 50 % of patients reported the need to wear a wig or head cover. The difference between HMI-S(4) and the HMI-C values in all subjects of the marking group was homogeneously distributed between -11 and +10 and was not statistically different between the volunteer and the patient groups ($p=0.465$).

CONCLUSIONS: CST for HMI measurement is a useful mechanical modality for assessing hair loss in CIA patients. It is quantitatively more precise than existing non-mechanical measuring methods. It is recommended when detection of minor changes in hair quantity is required. Marking a fixed sampling area to ensure return to the exact same site is only required when a minor change in pre- and posttreatment HMI values is anticipated and the mid-line locating device is not/cannot be used.

Impactfactor: 2.649

Houterman S

Prevention of ICU delirium and delirium-related outcome with haloperidol: a study protocol for a multicenter randomized controlled trial

van den Boogaard M, Slooter AJ, Brüggemann RJ, Schoonhoven L, Kuiper MA, van der Voort PH, Hoogendoorn ME, Beishuizen A, Schouten JA, Spronk PE, Houterman S*, van der Hoeven JG, Pickkers P
Trials. 2013 Nov 21;14:400

BACKGROUND: Delirium is a frequent disorder in intensive care unit (ICU) patients with serious consequences. Therefore, preventive treatment for delirium may be beneficial. Worldwide, haloperidol is the first choice for pharmacological treatment of delirious

patients. In daily clinical practice, a lower dose is sometimes used as prophylaxis. Some studies have shown the beneficial effects of prophylactic haloperidol on delirium incidence as well as on mortality, but evidence for effectiveness in ICU patients is limited. The primary objective of our study is to determine the effect of haloperidol prophylaxis on 28-day survival. Secondary objectives include the incidence of delirium and delirium-related outcome and the side effects of haloperidol prophylaxis.

METHODS: This will be a multicenter three-armed randomized, double-blind, placebo-controlled, prophylactic intervention study in critically ill patients. We will include consecutive non-neurological ICU patients, aged ≥ 18 years with an expected ICU length of stay > 1 day. To be able to demonstrate a 15% increase in 28-day survival time with a power of 80% and alpha of 0.05 in both intervention groups, a total of 2,145 patients will be randomized; 715 in each group. The anticipated mortality rate in the placebo group is 12%. The intervention groups will receive prophylactic treatment with intravenous haloperidol 1 mg/q8h or 2 mg/q8h, and patients in the control group will receive placebo (sodium chloride 0.9%), both for a maximum period of 28-days. In patients who develop delirium, study medication will be stopped and patients will subsequently receive open label treatment with a higher (therapeutic) dose of haloperidol. We will use descriptive summary statistics as well as Cox proportional hazard regression analyses, adjusted for covariates.

DISCUSSION: This will be the first large-scale multicenter randomized controlled prevention study with haloperidol in ICU patients with a high risk of delirium, adequately powered to demonstrate an effect on 28-day survival.

Impactfactor: 2.21

Houterman S

Randomized clinical trial of trigger point infiltration with lidocaine to diagnose anterior cutaneous nerve entrapment syndrome

Boelens OB, Scheltinga MR, Houterman S#, Roumen RM

Br J Surg. 2013 Jan;100(2):217-21

BACKGROUND: Anterior cutaneous nerve entrapment syndrome (ACNES) is hardly considered in the differential diagnosis of chronic abdominal pain. Some even doubt the existence of such a syndrome and attribute reported successful treatment results to a placebo effect. The objective was to clarify the role of local anaesthetic injection in diagnosing ACNES. The hypothesis was that pain attenuation following lidocaine injection would be greater than that after saline injection. **METHODS:** Patients aged over 18 years with suspected ACNES were randomized to receive an injection of 10 ml 1 per cent lidocaine or saline into the point of maximal abdominal wall pain just beneath the anterior fascia of the rectus abdominis muscle. Pain was recorded using a visual analogue scale (VAS; 1-100 mm) and a verbal rating scale (VRS; 0, no pain; 4, severe pain) during physical examination just before and 15-20 min after injection. A reduction of at least 50 per cent on the VAS and/or 2 points on the VRS was considered a successful response. **RESULTS:** Between August 2008 and December 2010, 48 patients were randomized equally (7 men and 41 women, median age 47 years). Four patients in the saline group reported a successful response compared with 13 in the lidocaine group ($P = 0.007$). **CONCLUSION:** Entrapped branches of intercostal nerves may contribute to the clinical picture in some patients with chronic abdominal pain. Pain reduction following local infiltration in these patients was based on an anaesthetic mechanism and not on a placebo or a mechanical (volume) effect.

#Ten tijde van publicatie werkzaam bij: MMC Academy, Máxima Medical Center, Veldhoven
Impactfactor: 4.839

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Oogheelkunde

Busch MJ

Adherence improvement in Dutch glaucoma patients: a randomized controlled trial

Beckers HJ, Webers CA, Busch MJ*, Brink HM, Colen TP, Schouten JS

Acta Ophthalmol. 2013 Nov;91(7):610-8. Epub 2012 Oct 1

Purpose: To study the effect of patient education and the TravAlert(®) -Eyot(®) drop guider on intraocular pressure (IOP) and adherence in patients with primary open angle glaucoma (POAG) or ocular hypertension (OHT) monitored with the TravAlert(®) dosing aid. Methods: Multicentre, randomized, controlled clinical trial among 18 Dutch hospitals. Patients were randomized to one of the four study arms: (1) use of the dosing aid, (2) use of the dosing aid with the drop guider, (3) use of the dosing aid together with patient education or (4) use of the dosing aid and drop guider together with patient education. IOP was recorded at baseline and after 3 and 6 months. Data on adherence generated by the dosing aid were collected and studied at the end of the study. Results: Mean IOP dropped from 20.3 ± 5.7 mmHg at baseline to 16.3 ± 4.0 mmHg (right eye) after 6 months and from 20.2 ± 5.9 mmHg to 16.4 ± 4.1 mmHg (left eye). The mean adherence rate was 0.91 ± 0.1 . IOP and adherence rate were not statistically different between the study arms. Patients with 'drug holidays' had a significantly higher mean IOP after 6 months. Patients who used the drop guider were less adherent. A lower adherence level was also associated with new patients with glaucoma and patients with a lower level of knowledge on glaucoma. Conclusion: Patient education is especially useful for new patients with glaucoma. The use of a drop guider does not improve adherence. Especially patients with 'drug holidays' are at risk for developing uncontrolled IOP levels.

Impactfactor: 2.345

Busch MJ

Prevalence of end-of-life visual impairment in patients followed for glaucoma

Ernest PJ, Busch MJ*, Webers CA, Beckers HJ, Hendrikse F, Prins MH, Schouten JS

Acta Ophthalmol. 2013 Dec;91(8):738-43

Purpose: To assess the prevalence of end-of-life visual impairment in patients followed for glaucoma. Methods: Data of 122 patients followed for glaucoma who had died between July 2008 and July 2010 and who had visited the ophthalmology outpatient department of a large non-academic Dutch hospital were collected from the medical files. Sixty-one patients had open-angle glaucoma (OAG), and 61 patients were suspect for glaucoma or had ocular hypertension (OHT). Visual impairment was defined as a mean deviation value < -15 dB or a Snellen visual acuity < 0.3 (20/60) of the better eye. We determined the number of patients with visual impairment on the last patient visit before death and investigated its main explanations. Results: Overall, the mean age at death was 81.8 years after a mean follow-up period of 9.2 years. Seventy-three per cent of all patients had their last visit in the year preceding death. In OAG, 16 patients (26%) had an end-of-life visual impairment. In nine patients (15%), this was caused by glaucoma. Eight of them had substantial visual loss at the initial visit. Six (10%) impaired OAG cases were mainly explained by ocular comorbidity, and there was an equal contribution of comorbidity and glaucoma in one case. Five glaucoma suspects or patients with OHT (8%) were visually impaired at death and these were all caused by ocular comorbidity. Conclusion: The prevalence of end-of-life visual impairment is considerable in patients with OAG. Substantial visual loss at baseline is an important contributing factor. In glaucoma suspects or patients with OHT, the prevalence is lower and can be attributed to ocular comorbidity.

Impactfactor: 2.345

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Operatie Kamers

Stepaniak PS

Completion thyroidectomy of well-differentiated thyroid cancer - a prospective, miserandomised study

Proczo M, Stefaniak T, Sworczak K, Kobiela J, Lachi ski AJ, Stepaniak P*, Sledzi ski Z
Endokrynol Pol. 2013;64(5):335-9

INTRODUCTION: Postoperatively diagnosed papillary or follicular thyroid cancer in subtotally thyroidectomised patients requires a completion thyroidectomy. Re-operation with a gamma probe can be particularly useful in these patients. The aim of this study was to evaluate the benefits of using an intraoperative hand-held gamma detector during completion thyroidectomy in patients with welldifferentiated thyroid cancer (WTC).

MATERIAL AND METHODS: 75 patients with WTC qualified for total re-thyroidectomy. In 43 patients, Group I (Nav), a hand-held gamma probe (Navigator GPS) was used intraoperatively. 32 patients were re-operated without the gamma probe (Group II). In Group I, thyroid remnants were removed based on counted gamma signals. To estimate the radicality of reoperation in both groups, thyroglobulin (Tg) levels were determined and total body scanning (TBS) - I(131) uptake - was performed.

RESULTS: Total thyroidectomy with central lymphadenectomy was performed in 75 cases. The average level of Tg and iodine uptake after radicalisation was lower in Group I (Nav) than in Group II (3.32 ± 2.09 v. 4.58 ± 2.5 ng/mL, respectively, for Tg [$p = 0.021$] and 6.29 ± 3.38 v. 7.31 ± 2.29 ng/mL, respectively, for iodine uptake [$p = 0.187$]). Additionally, the frequency of postoperative complications was comparable, the difference in both groups was not significant, despite the use of the gamma probe ($p = 0.109$).

CONCLUSIONS: The intraoperative use of a hand-held gamma detector can help to improve the radicality of a completion thyroidectomy procedure after an incomplete primary thyroid resection, but the results of this procedure in the hands of an experienced surgeon are comparable whether or not the gamma detector is used.

Impactfactor: 1.239

Stepaniak PS

Identification and use of operating room efficiency indicators: the problem of not performing the right search within PubMed

Stepaniak P

Can J Surg. 2013 Oct;56(5):E103

Geen abstract beschikbaar

Impactfactor: 1.054

Stepaniak PS

Monitoring anesthesiologists' and anesthesiology departments' managerial performance

Stepaniak PS*, Dexter F

Anesth Analg. 2013 Jun;116(6):1198-200

Geen abstract beschikbaar

Impactfactor: 3.300

* = Werkzaam in het Catharina Ziekenhuis

Orthopedie

Kempen R van

Reason for Revision TKA Predicts Clinical Outcome: Prospective Evaluation of 150 Consecutive Patients With 2-years Followup

van Kempen RW*, Schimmel JJ, van Hellemond G, Vandenneucker H, Wymenga AB
Clin Orthop Relat Res. 2013 Jul;471(7):2296-302

BACKGROUND: There is limited knowledge regarding the relationship between the reason for revising a TKA and the clinical outcome in terms of satisfaction, pain, and function with time.

QUESTIONS/PURPOSES: In a cohort of patients receiving a fully revised TKA, we hypothesized (1) outcomes would differ according to reason for revision at 2 years, (2) outcomes would improve gradually during those 2 years, (3) rates of complications differ depending on the reason for revision, and (4) patients with complications have lower scores.

METHODS: We studied a prospective cohort of 150 patients receiving a fully revised TKA using a single implant system in two high-volume centers at 24 months of followup. VAS satisfaction, VAS pain, The Knee Society Scoring System© (KSS) clinical and functional scores, and complication rate were correlated with their reasons for revision, including septic loosening, aseptic loosening, component malposition, instability, and stiffness.

RESULTS: The aseptic loosening group showed better outcomes compared with the instability, malposition, and septic loosening groups, which showed intermediate results ($p < 0.05$). The stiffness group performed significantly worse on all outcome measures. The outcome for patients with a complication, after treatment of the complication, was less favorable.

CONCLUSIONS: The reason for revision TKA predicts clinical outcomes. Satisfaction, pain reduction, and functional improvement are better and complication rates are lower after revision TKA for aseptic loosening than for other causes of failure. For component malposition, instability, and septic loosening groups, there may be more pain and a higher complication rate. For stiffness, the outcomes are less favorable in all scores.

LEVEL OF EVIDENCE: Level III, prognostic study. See Guidelines for Authors for a complete description of levels of evidence.

Impactfactor: 2.787

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Pamm

Aken R van

A dynamic case definition is warranted for adequate notification in an extended epidemic setting: the Dutch Q fever outbreak 2007-2009 as exemplar

Jaramillo-Gutierrez G, Wegdam-Blans MC*, ter Schegget R, Korbeek JM*, van Aken R*, Bijlmer HA, Tjhe JH*, Koopmans MP

Euro Surveill. 2013 Oct 10;18(41):20606

Voor abstract zie: Pamm - Wegdam-Blans MC

Impactfactor : 5.491

Beek M van

Trends in breast biopsies for abnormalities detected at screening mammography: a population-based study in the Netherlands

van Breest Smalenburg V*, Nederend J*, Voogd AC, Coebergh JW, van Beek M*, Jansen FH*, Louwman WJ, Duijm LE*

Br J Cancer. 2013 Jul 9;109(1):242-8

Voor abstract zie: Radiologie - Breest Smalenburg V van

Impactfactor: 5.082

Degreef E

Symptomatic cholecystolithiasis after cholecystectomy

van Dam PM, Alexander SM, Degreef E*, Salemans JM, Roumen RM

BMJ Case Rep. 2013 Jan 28;2013 pii: bcr2012007692

A 43-year-old woman was admitted to the gastroenterology department with colicky pain in the upper abdomen. Four years earlier, she had undergone a laparoscopic cholecystectomy because of cholecystitis. She recognised her current complaints from that previous episode. An endoscopic retrograde cholangiopancreatography showed a cavity with a diameter of 2 cm which contained multiple concretions near the liver hilus. An elective surgical exploration was performed. Near the clip of the previous cholecystectomy a bulging of the biliary tract with its own duct was visualised and resected. Histological examination of this "neo" gallbladder showed that the bulging was consistent with the formation of a reservoir secondary to bile leakage, probably caused by a small peroperative lesion of the common bile duct during the previous cholecystectomy. In conclusion, our patient presented with colicky pain caused by concretions inside a 'neo' gallbladder.

Impactfactor: --

Korbeek J

A dynamic case definition is warranted for adequate notification in an extended epidemic setting: the Dutch Q fever outbreak 2007-2009 as exemplar

Jaramillo-Gutierrez G, Wegdam-Blans MC*, ter Schegget R, Korbeek JM*, van Aken R*, Bijlmer HA, Tjhe JH*, Koopmans MP

Euro Surveill. 2013 Oct 10;18(41):20606

Voor abstract zie: Pamm - Wegdam-Blans MC

Impactfactor: 5.491

Merrienboer F van

[Diabetic mastopathy]

Wiersma HW*, Jansen FH*, van Merriënboer FJ*, van Riet YE*, Duijm LE*

Ned Tijdschr Geneeskd. 2013;157(8):A5071

Voor abstract zie: Radiologie - Wiersma HW

Impactfactor: --

Tjhie J

A dynamic case definition is warranted for adequate notification in an extended epidemic setting: the Dutch Q fever outbreak 2007-2009 as exemplar

Jaramillo-Gutierrez G, Wegdam-Blans MC*, ter Schegget R, Korbeek JM*, van Aken R*, Bijlmer HA, Tjhie JH*, Koopmans MP

Euro Surveill. 2013 Oct 10;18(41):20606

Voor abstract zie: Pamm - Wegdam-Blans MC

Impactfactor: 5.491

Wegdam-Blans MC

A dynamic case definition is warranted for adequate notification in an extended epidemic setting: the Dutch Q fever outbreak 2007-2009 as exemplar

Jaramillo-Gutierrez G, Wegdam-Blans MC*, ter Schegget R, Korbeek JM*, van Aken R*, Bijlmer HA, Tjhie JH*, Koopmans MP

Euro Surveill. 2013 Oct 10;18(41):20606

Q fever is a notifiable disease in the Netherlands: laboratories are obliged to notify possible cases to the Municipal Health Services. These services then try to reconfirm cases with additional clinical and epidemiological data and provide anonymised reports to the national case register of notifiable diseases. Since the start of the 2007_2009 Dutch Q fever outbreak, notification rules remained unchanged, despite new laboratory insights and altered epidemiology. In this study, we retrospectively analysed how these changes influenced the proportion of laboratory-defined acute Q fever cases (confirmed, probable and possible) that were included in the national case register, during (2009) and after the outbreak (2010 and 2011). The number of laboratory-defined cases notified to the Municipal Health Services was 377 in 2009, 96 in 2010 and 50 in 2011. Of these, 186 (49.3%) in 2009, 12 (12.5%) in 2010 and 9 (18.0%) in 2011 were confirmed as acute infection by laboratory interpretation. The proportion of laboratory-defined acute Q fever cases that was reconfirmed by the Municipal Health Services and that were included in the national case register decreased from 90% in 2009, to 22% and 24% in 2010 and 2011, respectively. The decrease was observed in all categories of cases, including those considered to be confirmed by laboratory criteria. Continued use of a pre-outbreak case definition led to over-reporting of cases to the Municipal Health Services in the post-epidemic years. Therefore we recommend dynamic laboratory notification rules, by reviewing case definitions periodically in an ongoing epidemic, as in the Dutch Q fever outbreak.

Impactfactor: 5.491

Wegdam-Blans MC

Comparison of the performance of IFA, CFA, and ELISA assays for the serodiagnosis of acute Q fever by quality assessment

Herremans T, Hogema BM, Nabuurs M, Peeters M, Wegdam-Blans M*, Schneeberger P, Nijhuis C, Notermans DW, Galama J, Horrevorts A, van Loo IH, Vlamincx B, Zaaijer HL, Koopmans MP, Berkhout H, Socolovschi C, Raoult D, Stenos J, Nicholson W, Bijlmer H

Diagn Microbiol Infect Dis. 2013 Jan;75(1):16-21

The indirect immunofluorescence assay (IFA) is considered the reference method for diagnosing Q fever, but serology is also performed by complement fixation assay (CFA) or enzyme-linked immunosorbent assay (ELISA). However, comparability between these assays is not clear, and therefore a quality assessment was performed. A total of 25 serum samples from negative controls, Q fever patients, and a serial diluted high-positive sample were analyzed in 10 Dutch laboratories. Six laboratories performed CFA, 5 performed IFA, and 5 performed ELISAs. Three international reference laboratories from Australia, France, and the USA also participated in this study. Qualitative values between laboratories using the same methods were within close range, and all 3 methods correctly identified acute Q fever patients. The IFA, ELISA, and CFA are all suitable serodiagnostic assays to diagnose acute Q fever, but the IFA remains an important tool in the follow-up of patients and in identifying patients at risk for developing chronic Q fever.

Impactfactor: 2.528

Wegdam-Blans MC

[Intestinal perforation caused by *Salmonella typhimurium*]

van Vuuren TM, Wegdam JA, Wegdam-Blans MC*

Ned Tijdschr Geneeskd. 2013;157(24):A6161

BACKGROUND: In most patients, infection with a non-typhoid *Salmonella* species usually results in self-limiting gastroenteritis. Severe complications such as bacteraemia and extra-abdominal infections are most often attributed to typhoid subspecies like *S. typhi* and *S. paratyphi*. In this article, we present the case of a healthy patient with non-typhoid salmonellosis who nevertheless developed severe complications.

CASE DESCRIPTION: A 63-year-old man with an unremarkable medical history presented at the emergency department with abdominal complaints suggestive of gastroenteritis. Cultures of faeces and blood yielded *S. typhimurium*. The infection was complicated by many intra-abdominal abscesses, abdominal sepsis and an intestinal perforation requiring multiple interventions. The patient has been symptom-free for half a year now.

CONCLUSION: Severe complications related to infection with non-typhoid *S. typhimurium* are rare. The incidence of salmonellosis has risen over the past few years, however; the risk of severe complications has therefore also increased.

Impactfactor: --

Wegdam-Blans MC

Large regional differences in serological follow-up of Q fever patients in the Netherlands

Morroy G, Wielders CC, Kruisbergen MJ, van der Hoek W, Marcelis JH, Wegdam-Blans MC*, Wijkmans CJ, Schneeberger PM

PLoS One. 2013;8(4):e60707

BACKGROUND: During the Dutch Q fever epidemic more than 4,000 Q fever cases were notified. This provided logistical challenges for the organisation of serological follow-up, which is considered mandatory for early detection of chronic infection. The aim of this study was to investigate the proportion of acute Q fever patients that received serological follow-up, and to identify regional differences in follow-up rates and contributing factors, such as knowledge of medical practitioners.

METHODS: Serological datasets of Q fever patients diagnosed between 2007 and 2009 (N=73,198) were obtained from three Laboratories of Medical Microbiology (LMM) in the province of Noord-Brabant. One LMM offered an active follow-up service by approaching patients; the other two only tested on physician's request. The medical microbiologist in charge of each LMM was interviewed. In December 2011, 240 general practices and 112 medical specialists received questionnaires on their knowledge and practices regarding the serological follow-up of Q fever patients.

RESULTS: Ninety-five percent (2,226/2,346) of the Q fever patients diagnosed at the LMM with a followup service received at least one serological follow-up within 15 months of diagnosis. For those diagnosed at a LMM without this service, this was 25% (218/852) (OR 54, 95% CI 43-67). Although 80% (162/203) of all medical practitioners with Q fever patients reported informing patients of the importance of serological follow-up, 33% (67/203) never requested it.

CONCLUSIONS: Regional differences in follow-up are substantial and range from 25% to 95%. In areas with a low follow-up rate the proportion of missed chronic Q fever is potentially higher than in areas with a high follow-up rate. Medical practitioners lack knowledge regarding the need, timing and implementation of serological follow-up, which contributes to patients receiving incorrect or no follow-up. Therefore, this information should be incorporated in national guidelines and patient information forms.

Impactfactor: --

Wegdam-Blans MC

Spatial analysis of positive and negative Q fever laboratory results for identifying high- and low-risk areas of infection in the Netherlands

van den Berg EJ, Wielders CC, Schneeberger PM, Wegdam-Blans MC*, van der Hoek W. Infect Ecol Epidemiol. 2013 Nov 28;3

BACKGROUND: The Netherlands faced a large Q fever epidemic from 2007 to 2010, in which thousands of people were tested for the presence of antibodies against *Coxiella burnetii* as part of individual patient diagnosis. So far, only data of notified cases were used for the identification of highrisk areas, which can lead to misclassification of risk. Therefore, we identified high- and low-risk areas based on laboratory test results to make control measures more efficient.

METHODS: Data on diagnostic Q fever laboratory tests were obtained from two regional laboratories of medical microbiology in the high-incidence area in the south of the Netherlands. The proportion of patients testing positive was mapped per postal code area. Patients testing positive were compared to patients testing negative based on the distance

between residential address and the nearest infected goat farm with adjustment for age and sex.

RESULTS AND CONCLUSION: Of 11,035 patients tested, 4,011 (36.4%) had a positive laboratory test result for Q fever. Maps showing the spatial pattern of tests performed and proportion of positive tests allowed for the identification of high- and low-risk Q fever areas. The proportion of patients testing positive was higher in areas close to infected goat farms compared to areas further away. Patients living <1 km from an infected goat farm had a substantially higher risk of testing positive for antibodies to *C. burnetii* than those living >10 km away (OR 21.70, 95% CI 16.28-28.92). Laboratory test results have the potential to make control measures more efficient by identifying high-risk areas as well as low-risk areas.

Impactfactor: --

Wegdam-Blans MC

Targeted screening as a tool for the early detection of chronic Q fever patients after a large outbreak.

Wegdam-Blans MC*, Stokmans RA*, Tjhie JH, Korbeeck JM, Koopmans MP, Evers SM, Voort PH van der*, Teijink JA*

Eur J Clin Microbiol Infect Dis. 2013 Mar;32(3):353-9. Epub 2012 Sep 26

In the aftermath of the Dutch Q fever outbreak, an increasing number of patients are being diagnosed with chronic Q fever. Most of these patients are unaware of being infected with *Coxiella burnetii*, the causative agent of Q fever. To find patients in an earlier, asymptomatic stage, a targeted screening strategy (TSS) for patients with risk factors for chronic Q fever was started in the southeast region of Noord-Brabant. In total, 763 patients were tested using an IgG phase II indirect fluorescent antibody test (IFAT), of which 52 (7 %) patients tested positive. Ten of these 52 patients displayed a chronic Q fever serological profile. All of these 10 patients had a heart valve(s) or (endo-)vascular prosthesis. All except one were asymptomatic. Suggestive signs for chronic infections on positron emission tomography/computed tomography (PET-CT) were demonstrated in 5 (50 %) of these patients. Forty-two out of the 52 patients with a positive screening test showed a past Q fever serological profile. After a year of follow-up (every 3 months), none of these patients showed elevation of antibody titres and no new chronic Q fever patients were found in this group. A targeted screening programme is a useful instrument for detecting patients at risk of developing chronic Q fever.

Impactfactor: 3.024

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Plastische Chirurgie

Klein S

Evaluation of the lower limb vasculature before free fibula flap transfer. A prospective blinded comparison between magnetic resonance angiography and digital subtraction angiography

Klein S*, Van Lienden KP, Van't Veer M*, Smit JM*, Werker PM

Microsurgery. 2013;33(7):539-44

Introduction The aim of this study was to compare magnetic resonance angiography (MRA) with digital subtraction angiography (DSA) in the preoperative assessment of crural arteries and their skin perforators prior to free fibular transfer. **Patients and methods** Fifteen consecutive patients, scheduled for free vascularized fibular flap transfer, were subjected to DSA as well as MRA of the crural arteries of both legs (n = 30). All DSA and MRA images were assessed randomly, blindly, and independently by two radiologists. Each of the assessors scored the degree of stenosis of various segments on a 5 point scale from 0 (occlusive) to 4 (no stenosis). The Cohen's Kappa coefficient was used to assess the agreement between DSA and MRA scores. In addition, the number of cutaneous perforators were scored and the assessors were asked if they would advise against fibula harvest and transplantation based on the images. **Results** A Cohen's Kappa of 0.64, indicating "substantial agreement of stenosis severity scores" was found between the two imaging techniques. The sensitivity of MRA to detect a stenosis compared with DSA was 79% (CI95%:60-91), and a specificity of 98% (CI95%: 97-99). In 53 out of 60 assessments, advice on suitability for transfer were equal between DSA and MRA. The median number of cutaneous perforators that perfuse the skin overlying the fibula per leg was one for DSA as well as MRA (P = 0.142). **Conclusions** A substantial agreement in the assessment of stenosis severity was found between DSA and MRA. The results suggest that MRA is a good alternative to DSA in the preoperative planning of free fibula flap transplantation.

Impactfactor: 1.605

Smit JM

Evaluation of the lower limb vasculature before free fibula flap transfer. A prospective blinded comparison between magnetic resonance angiography and digital subtraction angiography

Klein S*, Van Lienden KP, Van't Veer M*, Smit JM*, Werker PM

Microsurgery. 2013;33(7):539-44

Voor abstract zie: Plastische Chirurgie - Klein S

Impactfactor : 1.605

* = Werkzaam in het Catharina Ziekenhuis

Radiologie

Bosch HC van den

Peripheral Arterial Occlusive Disease: 3.0-T versus 1.5-T MR Angiography Compared with Digital Subtraction Angiography

Bosch HC van den*, Westenberg JJ, Caris R, Duijm LE*, Tielbeek AV*, Cuypers PW*, Roos A de*

Radiology. 2013 Jan;266(1):337-46. Epub 2012 Nov 9

Purpose:To prospectively evaluate the diagnostic accuracy of 3-T versus 1.5-T contrast material-enhanced (CE) magnetic resonance (MR) angiography with high spatial resolution in patients who have peripheral arterial occlusive disease, with conventional digital subtraction angiography (DSA) serving as the reference standard.

Materials and Methods:Institutional review board approval and written informed consent were obtained. DSA and standardized single-injection, three-station, moving-table CE MR angiography, with similar acquisition protocols and contrast agent doses at 3 T and 1.5 T, were consecutively performed in 19 patients (13 men and six women; mean age \pm standard deviation, 67 years \pm 9). Stenosis was scored visually in 500 arterial segments (97.5% of all available) in consensus by two radiologists in a blinded manner (the radiologists were unaware of the field strength and prior DSA and MR angiographic results and used randomized analysis order). Contrast-to-noise ratio was determined in the vascular tree of both legs. Statistical significance in stenosis scoring was evaluated by using generalized estimating equations. Contrast-to-noise differences were evaluated with paired t tests. Agreement between MR angiography and DSA was evaluated by using Fleiss-Cohen κ statistics.

Results:Both 3-T and 1.5-T CE MR angiography showed similar excellent agreement with DSA regarding stenosis classification ($\kappa = 0.96$ and 0.93 , respectively). All sensitivity and specificity values exceeded 90%. Mean contrast-to-noise ratio was 3.0-4.2 times higher at 3 T than at 1.5 T.

Conclusion: Standardized single-injection, three-station, moving-table 3-T CE MR angiography is reliable for classification of stenosis in patients suspected of having peripheral arterial occlusive disease, and diagnostic performance was similar to that seen with 1.5-T MR angiography. There was a significantly increased contrast-to-noise ratio for identical contrast agent dose at 3-T MR angiography.

Impact factor: 6.339

Breest Smallenburg V van

Trends in breast biopsies for abnormalities detected at screening mammography: a population-based study in the Netherlands

van Breest Smallenburg V*, Nederend J*, Voogd AC, Coebergh JW, van Beek M*, Jansen FH*, Louwman WJ, Duijm LE*

Br J Cancer. 2013 Jul 9;109(1):242-8

Background: Diagnostic surgical breast biopsies have several disadvantages, therefore, they should be used with hesitation. We determined time trends in types of breast biopsies for the workup of abnormalities detected at screening mammography. We also examined diagnostic delays.

Methods: In a Dutch breast cancer screening region 6230 women were referred for an abnormal screening mammogram between 1 January 1997 and 1 January 2011. During two year follow-up clinical data, breast imaging-, biopsy-, surgery- and

pathology-reports were collected of these women. Furthermore, breast cancers diagnosed >3 months after referral (delays) were examined, this included review of mammograms and pathology specimens to determine the cause of the delays.

Results: In 41.1% (1997-1998) and in 44.8% (2009-2010) of referred women imaging was sufficient for making the diagnosis ($P < 0.0001$). Fine-needle aspiration cytology decreased from 12.7% (1997-1998) to 4.7% (2009-2010) ($P < 0.0001$), percutaneous core-needle biopsies (CBs) increased from 8.0 to 49.1% ($P < 0.0001$) and surgical biopsies decreased from 37.8 to 1.4% ($P < 0.0001$). Delays in breast cancer diagnosis decreased from 6.7 to 1.8% ($P = 0.003$). Conclusion: The use of diagnostic surgical breast biopsies has decreased substantially. They have mostly been replaced by percutaneous CBs and this replacement did not result in an increase of diagnostic delays.

Impactfactor: 5.082

Duijm LE

[Diabetic mastopathy] [Article in Dutch]

Wiersma HW*, Jansen FH*, van Merriënboer FJ*, van Riet YE*, Duijm LE*

Ned Tijdschr Geneesk. 2013;157(8):A5071

Voor abstract zie: Radiologie - Wiersma HW

Impactfactor: --

Duijm LE

Peripheral Arterial Occlusive Disease: 3.0-T versus 1.5-T MR Angiography Compared with Digital Subtraction Angiography

Bosch HC van den*, Westenberg JJ, Caris R, Duijm LE*, Tielbeek AV*, Cuypers PW*, Roos A de*

Radiology. 2013 Jan;266(1):337-46. Epub 2012 Nov 9

Voor abstract zie: Radiologie - Bosch HC van den

Impactfactor: 6.339

Duijm LE

Re-attendance after false-positive screening mammography: a population-based study in the Netherlands

Setz-Pels W*, Duijm LE*, Coebergh JW, Rutten M, Nederend J*, Voogd AC

Br J Cancer. 2013 Oct 15;109(8):2044-50. Epub 2013 Sep 19

Voor abstract zie: Radiologie - Setz-Pels W

Impactfactor: 5.082

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Voor abstract zie: Radiologie - Wiersma HW

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Trends in breast biopsies for abnormalities detected at screening mammography: a population-based study in the Netherlands

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Br J Cancer. 2013 Jul 9;109(1):242-8

Voor abstract zie: Radiologie - Breest Smalenburg V van

Impactfactor: 5.082

Klompenshouwer E

[A man with a bump on his forehead after a fall]

Klompenshouwer EG*, Thomassen I*, Teijink JA*

Ned Tijdschr Geneeskd. 2013;157(8):A4231

An 84-year-old male patient presented with a swelling on his forehead which had developed gradually over a period of three weeks after a fall. Ultrasound examination revealed a complex fluid collection with a yin-yang flow pattern (revealed by colour Doppler imaging), which was suggestive of a pseudoaneurysm of the frontal branch of the superficial temporal artery. This was successfully treated with an injection of thrombin. Diagnosis: traumatic pseudoaneurysm of the superficial temporal artery.

Impactfactor: --

Klompenshouwer E

[Axillary reverse mapping. preserving nodes during an axillary lymph node dissection]

Gobardhan PD, Klompenshouwer EG*, Beek MA, Voogd AC, Luiten EJ

Ned Tijdschr Geneeskd. 2013;157(22):A5646

A considerable percentage of breast cancer patients who have undergone an axillary lymph node dissection (ALND) experience postoperative complications, with lymphoedema occurring most frequently. Axillary Reverse Mapping (ARM) is a new technique in which the lymphatic drainage system of the upper extremity can be visualized during an ALND. If lymphoedema is caused by severing of the lymphatic drainage system or removal of its associated lymph nodes, the preservation of these structures should reduce the incidence of lymphoedema. Patients who might benefit from ARM are patients for whom a subsequent ALND is indicated following a positive sentinel lymph node diagnostic procedure, and perhaps also patients who have an indication for a primary ALND following neo-adjuvant chemotherapy. A multicenter RCT is to start in the near future, during which we will investigate whether the preservation of axillary lymph nodes results in reduced morbidity.

Impactfactor: --

Klompenshouwer E

The clinical relevance of axillary reverse mapping (ARM): study protocol for a randomized controlled trial

Klompenshouwer EG*, Gobardhan PD, Beek MA, Voogd AC, Luiten EJ

Trials. 2013 Apr 25;14:111

BACKGROUND: Axillary lymph node dissection (ALND) in patients with breast cancer has the potential to induce side-effects, including upper-limb lymphedema. Axillary reverse mapping (ARM) is a technique that enables discrimination of the lymphatic drainage of the breast from that of the upper limb in the axillary lymph node (LN) basin. If lymphedema is caused by removing these lymphatics and nodes in the upper limb, the possibility of identifying these lymphatics would enable surgeons to preserve them. The aim of this study is to determine the clinical relevance of selective axillary LN and lymphatic preservation by means of ARM. To minimize the risk of overlooking tumor-positive ARM nodes and the associated risk of undertreatment, we will only include patients with a tumor-positive sentinel lymph node (SLN). Patients who are candidates for ALND because of a proven positive axillary LN at clinical examination can be included in a registration study.

METHODS/DESIGN: The study will enroll 280 patients diagnosed with SLN biopsy-proven metastasis of invasive breast cancer with an indication for a completion ALND. Patients will be randomized to undergo standard ALND or an ALND in which the ARM nodes and their corresponding lymphatics will be left in situ. Primary outcome is the presence of axillary surgery-related lymphedema at 6, 12, and 24 months post-operatively, measured by the water-displacement method. Secondary outcome measures include pain, paresthesia, numbness, and loss of shoulder mobility, quality of life, and axillary recurrence risk.

DISCUSSION: The benefit of ALND in patients with a positive SLN is a subject of debate. For many patients, an ALND will remain the treatment of choice. This multicenter randomized trial will provide evidence of whether or not axillary LN preservation by means of ARM decreases the side-effects of an ALND. Enrolment of patients will start in April 2013 in five breast-cancer centers in the Netherlands, and is expected to conclude by April 2016.

Impactfactor: 2.21

Nederend J

Re-attendance after false-positive screening mammography: a population-based study in the Netherlands

Setz-Pels W*, Duijm LE*, Coebergh JW, Rutten M, Nederend J*, Voogd AC

Br J Cancer. 2013 Oct 15;109(8):2044-50. Epub 2013 Sep 19

Voor abstract zie: Radiologie - Setz-Pels W

Impactfactor: 5.082

Nederend J

Trends in breast biopsies for abnormalities detected at screening mammography: a population-based study in the Netherlands

van Breest Smalenburg V*, Nederend J*, Voogd AC, Coebergh JW, van Beek M*, Jansen FH*, Louwman WJ, Duijm LE*

Br J Cancer. 2013 Jul 9;109(1):242-8

Voor abstract zie: Radiologie - Breest Smalenburg V van

Impactfactor: 5.082

Setz-Pels W

Re-attendance after false-positive screening mammography: a population-based study in the Netherlands

Setz-Pels W*, Duijm LE*, Coebergh JW, Rutten M, Nederend J*, Voogd AC

Br J Cancer. 2013 Oct 15;109(8):2044-50. Epub 2013 Sep 19

Background:In the current study, mammography adherence of women who had experienced a falsepositive referral is evaluated, with emphasis on the probability of receiving surveillance mammography outside the national screening programme.

Methods:We included 424 collected imaging, biopsy and surgery reports of 3463 women who experienced a false-positive referral. Adherence to screening, both in and outside the screening programme, was evaluated.

Results:Two years after the false-positive referral, overall screening adherence was 94.6%, with 64.7% of women returning to the national screening programme, compared with 94.9% of women re-attending the screening programme after a negative screen ($P<0.0001$). Four years after the false-positive screen, the overall adherence had decreased to 85.2% ($P<0.0001$) with a similar proportion of the women reattending the screening programme (64.4%) and a lower proportion (20.8%) having clinical surveillance mammography. Women who had experienced a false-positive screen at their first screening round were less likely to adhere to mammography than women with an abnormal finding at one of the following screening rounds (92.4% vs 95.5%, $P<0.0001$). **Conclusion:**Overall screening adherence after previous false-positive referral was comparable to the re-attendance rate of women with a negative screen at 2-year follow-up. Overall adherence decreased 4 years after previous false-positive referral from 94.6% to 85.2%, with a relatively high estimate of women who continue with clinical surveillance mammography (20.8%). Women with false-positive screens should be made aware of the importance to re-attend future screening rounds, as a way to improve the effectiveness of the screening programme.

Impactfactor: 5.082

Tielbeek AV

Peripheral Arterial Occlusive Disease: 3.0-T versus 1.5-T MR Angiography Compared with Digital Subtraction Angiography

Bosch HC van den*, Westenberg JJ, Caris R, Duijm LE*, Tielbeek AV*, Cuypers PW*, Roos A de*

Radiology. 2013 Jan;266(1):337-46. Epub 2012 Nov 9

Voor abstract zie: Radiologie - Bosch HC van den

Impactfactor: 6.339

Wiersma H

[Diabetic mastopathy] [Article in Dutch]

Wiersma HW* Jansen FH*, van Merriënboer FJ*, van Riet YE*, Duijm LE*

Ned Tijdschr Geneesk. 2013;157(8):A5071

BACKGROUND: Diabetic mastopathy is a rare condition, which is clinically not easily to differentiate from breast cancer.

CASE DESCRIPTION: A 32-year-old woman, with a long-standing history of insulin-dependent diabetes mellitus presented at the breast outpatient clinic with a firm palpable, painless mass in her right breast. Mammography and ultrasound examination showed, respectively, slight asymmetry with dense glandular tissue and a hypoechoic area with posterior shadowing. MR mammography showed no suspicious abnormalities. Histopathological

examination revealed fibrous tissue with lymphocytic inflammation. The combination of clinical presentation, history of diabetes mellitus, and histological findings led to a diagnosis of diabetic mastopathy.

CONCLUSION: A palpable breast abnormality in a woman with diabetes mellitus can be caused by diabetic mastopathy. Knowledge of this condition by the disciplines involved can prevent over-diagnosis and unnecessary interventions.

Impactfactor: --

Wolters SL

Distal anastomotic patency of the Cardica C-PORT(R) xA system vs the hand-sewn technique: a prospective randomized controlled study in patients undergoing coronary artery bypass grafting

Verberkmoes NJ*, Wolters SL*, Post JC*, Soliman-Hamad MA*, Ter Woorst JF*, Berreklouw E*

Eur J Cardiothorac Surg. 2013 Sep;44(3):512-8; discussion 518-9

Voor abstract zie: Cardiothoracale chirurgie -Verberkmoes NJ

Impactfactor: 2.574

* = Werkzaam in het Catharina Ziekenhuis

Radiotherapie

Budiharto TC

Mapping of pelvic lymph node metastases in prostate cancer

Joniau S, Van den Bergh L, Lerut E, Deroose CM, Haustermans K, Oyen R, Budiharto T#, Ameye F, Bogaerts K, Van Poppel H

Eur Urol. 2013 Mar;63(3):450-8

BACKGROUND: Opinions about the optimal lymph node dissection (LND) template in prostate cancer differ. Drainage and dissemination patterns are not necessarily identical.

OBJECTIVE: To present a precise overview of the lymphatic drainage pattern and to correlate those findings with dissemination patterns. We also investigated the relationship between the number of positive lymph nodes (LN+) and resected lymph nodes (LNs) per region.

DESIGN, SETTING, AND PARTICIPANTS: Seventy-four patients with localized prostate adenocarcinoma were prospectively enrolled. Patients did not show suspect LNs on computed tomography scan and had an LN involvement risk of $\leq 10\%$ but $\geq 35\%$ (Partin tables) or a cT3 tumor.

INTERVENTION: After intraprostatic technetium-99m nanocolloid injection, patients underwent planar scintigraphy and single-photon emission computed tomography imaging. Then surgery was performed, starting with a sentinel node (SN) procedure and a superextended lymphadenectomy followed by radical prostatectomy.

OUTCOME MEASUREMENTS AND STATISTICAL ANALYSIS: Distribution of scintigraphically detected SNs and removed SNs per region were registered. The number of LN+, as well as the percentage LN+ of the total number of removed LNs per region, was demonstrated in combining data of all patients. The impact of the extent of LND on N-staging and on the number of LN+ removed was calculated.

RESULTS AND LIMITATIONS: A total of 470 SNs were scintigraphically detected (median: 6; interquartile range [IQR]: 3-9), of which 371 SNs were removed (median: 4; IQR: 2.25-6). In total, 91 LN+ (median: 2; IQR: 1-3) were found in 34 of 74 patients. The predominant site for LN+ was the internal iliac region. An extended LND (eLND) would have correctly staged 32 of 34 patients but would have adequately removed all LN+ in only 26 of 34 patients. When adding the presacral region, these numbers increased to 33 of 34 and 30 of 34 patients, respectively.

CONCLUSIONS: Standard eLND would have correctly staged the majority of LN+ patients, but 13% of the LN+ would have been missed. Adding the presacral LNs to the template should be considered to obtain a minimal template with maximal gain. **NOTE:** This manuscript was invited based on the 2011 European Association of Urology meeting in Vienna.

#Ten tijde van publicatie werkzaam bij: Department of Radiation Oncology, University Hospitals Leuven, Leuven, Belgium

Impactfactor: 10.476

Budiharto TC#

Multiparametric MRI for prostate cancer localization in correlation to whole-mount histopathology

Isebaert S, Van den Bergh L, Haustermans K, Joniau S, Lerut E, De Wever L, De Keyzer F, Budiharto T#, Slagmolen P, Van Poppel H, Oyen R

J Magn Reson Imaging. 2013 Jun;37(6):1392-401

PURPOSE: To prospectively evaluate multiparametric magnetic resonance imaging (MRI) for accurate localization of intraprostatic tumor nodules, with whole-mount histopathology as the gold standard.

MATERIALS AND METHODS: Seventy-five patients with biopsy-proven, intermediate, and high-risk prostate cancer underwent preoperative T2-weighted (T2w), dynamic contrast-

enhanced (DCE) and diffusion-weighted (DW) MRI at 1.5T. Localization of suspicious lesions was recorded for each of 24 standardized regions of interest on the different MR images and correlated with the pathologic findings. Generalized estimating equations (GEE) were used to estimate the sensitivity, specificity, accuracy, positive, and negative predictive value for every MRI modality, as well as to evaluate the influence of Gleason score and pT-stage. Tumor volume measurements on histopathological specimens were correlated with those on the different MR modalities (Pearson correlation).

RESULTS: DW MRI had the highest sensitivity for tumor localization (31.1% vs. 27.4% vs. 44.5% for T2w, DCE, and DW MRI, respectively; $P < 0.005$), with more aggressive or more advanced tumors being more easily detected with this imaging modality. Significantly higher sensitivity values were obtained for the combination of T2w, DCE, and DW MRI (58.8%) as compared to each modality alone or any combination of two modalities ($P < 0.0001$). Tumor volume can most accurately be assessed by means of DW MRI ($r = 0.75$; $P < 0.0001$).

CONCLUSION: Combining T2w, DCE, and DW imaging significantly improves prostate cancer Localization.

#Ten tijde van publicatie werkzaam bij: Department of Radiation Oncology, University Hospitals Leuven, Leuven, Belgium

Impactfactor: 2.566

Budiharto TC#

Patient positioning based on a radioactive tracer implanted in patients with localized prostate cancer: a performance and safety evaluation

de Kruijf WJ, Verstraete J, Neustadter D, Corn BW, Hol S, Venselaar JL, Davits RJ, Wijsman BP, Van den Bergh L, Budiharto T#, Oyen R, Haustermans K, Poortmans PM
Int J Radiat Oncol Biol Phys. 2013 Feb 1;85(2):555-60. Epub 2012 May 30

PURPOSE: To evaluate the performance and safety of a radiation therapy positioning system (RealEye) based on tracking a radioactive marker (Tracer) implanted in patients with localized prostate cancer.

METHODS AND MATERIALS: We performed a single-arm multi-institutional trial in 20 patients. The iridium-192 (^{192}Ir)-containing Tracer was implanted in the patient together with 4 standard gold seed fiducials. Patient prostate-related symptoms were evaluated with the International Prostate Symptom Score (IPSS) questionnaire. Computed tomography (CT) was performed for treatment planning, during treatment, and after treatment to evaluate the migration stability of the Tracer. At 5 treatment sessions, cone beam CT was performed to test the positioning accuracy of the RealEye.

RESULTS: The Tracer was successfully implanted in all patients. No device or procedure-related adverse events occurred. Changes in IPSS scores were limited. The difference between the mean change in Tracer-fiducial distance and the mean change in fiducial-fiducial distance was -0.39 mm (95% confidence interval [CI] upper boundary, -0.22 mm). The adjusted mean difference between Tracer position according to RealEye and the Tracer position on the CBCT for all patients was 1.34 mm (95% CI upper boundary, 1.41 mm).

CONCLUSIONS: Implantation of the Tracer is feasible and safe. Migration stability of the Tracer is good. Prostate patients can be positioned and monitored accurately by using RealEye.

#Ten tijde van publicatie werkzaam bij: Department of Radiation Oncology, University Hospitals Leuven, Leuven, Belgium

Impactfactor: 4.524

Lybeert ML

A high level of fatigue among (long-term) non-Hodgkin lymphoma survivors: results from the longitudinal population-based PROFILES registry in the south of the Netherlands

Oerlemans S, Mols F, Issa DE, Pruijt JF, Peters WG*, Lybeert M*, Zijlstra W, Coebergh JW, van de Poll-Franse LV

Haematologica. 2013 Mar;98(3):479-86.Epub 2012 Aug 28

Voor abstract zie: Inwendige geneeskunde – Peters WG

Impactfactor: 5.935

Lybeert ML

Follow-up practice in endometrial cancer and the association with patient and hospital characteristics: a study from the population-based PROFILES registry

Nicolaije KA, Ezendam NP, Vos MC, Boll D, Pijnenborg JM, Kruitwagen RF, Lybeert ML*, van de Poll-Franse LV

Gynecol Oncol. 2013 May;129(2):324-31

OBJECTIVE: To examine to what extent endometrial cancer survivors experienced follow-up according to the Dutch national guidelines, and to identify associations between follow-up care consumption and socio-demographic and clinical characteristics, Health-Related Quality of Life (HRQL), and worry (including fear of recurrence). Patients' preferences with the received follow-up care were also evaluated.

METHODS: All patients diagnosed with endometrial cancer FIGO stages I-II between 1999 and 2007, registered in the Eindhoven Cancer Registry (ECR), received a questionnaire including patients' followup care consumption, preferences regarding the follow-up schedule, HRQL (SF36 and EORTC-QLQEN24), and worry (IOCv2).

RESULTS: 742 (77%) endometrial cancer survivors returned a completed questionnaire. Overall, 19% reported receiving more follow-up visits than recommended by the guidelines. Overconsumption of follow-up care was lowest in follow-up year 1 (13%), and highest in follow-up years 6-10 (27%). In addition, overconsumption was associated with having a comorbid condition, a higher score on the worry subscale, and hospital of treatment. Most patients (83%) felt comfortable with their follow-up schedule. Patients in follow-up years 6-10 felt least comfortable (69%).

CONCLUSION: Follow-up frequency was higher than recommended in a large group of endometrial cancer survivors, mainly in follow-up years 6-10. Moreover, a substantial variation in follow-up practice was observed between the different hospitals. Despite limited evidence to support the use of intensive follow-up schedules, the current study suggests that intensive routine follow-up after endometrial cancer continues to be standard practice.

Possibly, patients should be better informed in order to reduce overconsumption and worry.

Impactfactor: 3.929

Lybeert ML

Health Care Use Among Endometrial Cancer Survivors: A Study From PROFILES, a Population-Based Survivorship Registry

Ezendam NP, Nicolaije KA, Boll D, Lybeert ML*, Mols F, Pijnenborg JM, van de Poll-Franse LV

Int J Gynecol Cancer. 2013 Sep;23(7):1258-65

OBJECTIVE: Increasing numbers of endometrial cancer survivors place a high burden on the health care system. This study describes the number of visits to the general practitioner, the

medical specialist and other care services, compared with the general population, and factors associated with this health care use: age, marital status, education, body mass index, comorbidity, years since diagnosis, and radiotherapy.

METHODS: Survivors of stage I to stage II endometrial cancer diagnosed between 1999 and 2007 were selected from the Eindhoven Cancer Registry. Survivors (N = 742) completed a questionnaire about their demographic characteristics and health care use. Cancer-related information was retrieved from the Eindhoven Cancer Registry.

RESULTS: Endometrial cancer survivors visited their medical specialist more often (3.4 times per year) than the general population. In relation to their cancer, they visited their general practitioner once and their medical specialist twice per year. Use of additional care services was low (14%) but higher among younger survivors (33%). Younger women were more likely to make cancer-related visits to their general practitioner, whereas more highly educated women were less likely to visit their general practitioner and more likely to make cancer-related medical specialist visits. Women with more comorbid conditions were more likely to make general and cancer-related general practitioner visits. Radiotherapy and body mass index were not related to health care use.

CONCLUSIONS: Endometrial cancer survivors use more health care than women in the general population. Younger women visit their general practitioner more often in relation to their cancer and use more additional care services. More highly educated survivors were more likely to visit a medical specialist in relation to their cancer.

Impactfactor: 1.941

Sangen MJ van der

Detection of local recurrence following breast-conserving treatment in young women with early breast cancer: Optimization of long-term follow-up strategies

Sangen MJ van der* , Scheepers SW, Poortmans PM, Luiten EJ, Nieuwenhuijzen GA*, Voogd AC

Breast. 2013 Jun;22(3):351-6. Epub 2012 Sep 16

The detection of a local recurrence (LR) in young women with breast cancer after breast-conserving treatment (BCT) was investigated to compare the impact of different long-term follow-up strategies.

Between 1988 and 2005, 937 women aged ≥ 40 years were treated with BCT for early-stage breast cancer in the southern part of the Netherlands. Up to October 2009, 152 had developed an isolated LR.

Information on follow-up visits was available for 124 of them. Fifty-four LRs (44%) were diagnosed within 5 years and 70 (56%) more than 5 years after BCT. Fifty-six LRs (45%) were detected during routine follow-up visits and 68 (55%) presented between two visits. Sixty-six LRs (53%) were diagnosed in patients reporting symptoms. In 31 patients (25%) the LR was found by mammography alone. About a quarter of the LRs was larger than 2 cm in diameter. These results imply that current follow-up strategies for young women with BCT do not guarantee a timely detection of LR.

Impactfactor: 1.967

Sangen MJ van der

Effectiveness of routine follow-up in the detection of contralateral breast cancer in young women with early breast cancer

Koedijk MS, van der Sangen MJ*, Poortmans PM, van Mierlo-Jansen P, van den Broek WT, Storck BH, Voogd AC

Eur J Surg Oncol. 2013 Nov;39(11):1186-91

BACKGROUND: The purpose of the study was to determine the effectiveness of routine follow-up to detect contralateral breast cancer (CBC) in young women.

METHODS: We used the data of the population-based Eindhoven Cancer Registry, which covers the southern part of the Netherlands. Between 1988 and 2005, 1451 women aged <40 years were treated for early-stage breast cancer with breast-conserving treatment or mastectomy.

RESULTS: Of the 94 patients who developed CBC 17 had an in situ carcinoma. Fifty-seven CBCs (61%) were diagnosed more than 5 years after the primary tumour. Forty-two CBCs (45%) were detected during routine follow-up visits, while 52 (55%) presented between two visits. Of the CBC diagnosed between two visits, only 27 (60%) were visible on mammography. Of the invasive CBCs more than 25% was larger than 2 cm in diameter and in 34% positive axillary lymph nodes were found.

CONCLUSIONS: These figures indicate that routine follow-up does not guarantee early detection of CBC in young women with breast cancer.

Impactfactor: 2.614

Sangen MJ van der

Local recurrence following breast-conserving treatment in women aged 40years or younger: Trends in risk and the impact on prognosis in a population-based cohort of 1143 patients

van Laar C, van der Sangen MJ*, Poortmans PM, Nieuwenhuijzen GA*, Roukema JA, Roumen RM, Tjan-Heijnen VC, Voogd AC.

Eur J Cancer. 2013 Oct;49(15):3093-101

AIM: To evaluate trends in the risk of local recurrences after breast-conserving treatment (BCT) and to examine the impact of local recurrence (LR) on distant relapse-free survival in a large, population-based cohort of women aged ≥40years with early-stage breast cancer.

METHODS: All women (n=1143) aged ≥40years with early-stage (pT1-2/cT1-2, N0-2, M0) breast cancer who underwent BCT in the south of the Netherlands between 1988 and 2010 were included. BCT consisted of local excision of the tumour followed by irradiation of the breast. **RESULTS:** After a median follow-up of 8.5 (0.1-24.6)years, 176 patients had developed an isolated LR. The 5-year LR-rate for the subgroups treated in the periods 1988-1998, 1999-2005 and 2006-2010 were 9.8% (95% confidence interval (CI) 7.1-12.5), 5.9% (95% CI 3.2-8.6) and 3.3% (95% CI 0.6-6.0), respectively (p=0.006). In a multivariate analysis, adjuvant systemic treatment was associated with a reduced risk of LR of almost 60% (hazard ratio (HR) 0.42; 95%CI 0.28-0.60; p<0.0001). Patients who experienced an early isolated LR (≥5years after BCT) had a worse distant relapse-free survival compared to patients without an early LR (HR 1.83; 95% CI 1.27-2.64; p=0.001). Late local recurrences did not negatively affect distant relapse-free survival (HR 1.24; 95% CI 0.74-2.08; p=0.407). **CONCLUSION:** Local control after BCT improved significantly over time and appeared to be closely related to the increased use and effectiveness of systemic therapy. These recent results underline the safety of BCT for young women with early-stage breast cancer.

Impactfactor: 5.061

Sangen MJ van der

Prognosis following local recurrence after breast conserving treatment in young women with early breast cancer

van der Sangen MJ*, Poortmans PM, Scheepers SW, Lemaire BM, van Berlo CL, Tjan-Heijnen VC, Voogd AC.

Eur J Surg Oncol. 2013 Aug;39(8):892-8

BACKGROUND: Few studies have focussed on the prognosis of young women with local recurrence (LR) after breast-conserving therapy and the factors that can be used to predict their prognosis.

METHODS: We studied the outcome and related prognostic factors in 124 patients with an isolated local recurrence in the breast following breast-conserving surgery and radiotherapy for early stage breast cancer diagnosed at the age of 40 years or younger.

RESULTS: The median follow-up of the patients after diagnosis of LR was 7.0 years. At 10 years from the date of salvage treatment, the overall survival rate was 73% (95% CI, 63-83), the distant recurrence-free survival rate was 61% (95% CI, 53-73), and the local control rate (i.e. survival without subsequent LR or local progression) was 95% (95% CI, 91-99). In the multivariate analysis, the risk of distant metastases also tended to be higher for patients with LR occurring within 5 years after BCT, as compared to patients with LR more than 5 years after BCT (Hazard ratio [HR], 1.89; $p = 0.09$). A worse distant recurrence-free survival was also observed for patients with a LR measuring more than 2 cm in diameter, compared to those with a LR of 2 cm or smaller (HR, 2.88; $p = 0.007$), and for patients with a LR causing symptoms or suspicious findings at clinical breast examination, compared to those with a LR detected by breast imaging only (HR 3.70; $p = 0.03$).

CONCLUSIONS: These results suggest that early detection of LR after BCT in young women can improve treatment outcome.

Impactfactor: 2.614

* = Werkzaam in het Catharina Ziekenhuis

Spoedeisende Hulp

Thijssen WA

Emergency departments in The Netherlands: is there a difference in emergency departments with and without emergency physicians? a cross-sectional web-based survey

Thijssen WA*, Koetsenruijter J, Giesen P, Wensing M

Int J Emerg Med. 2013 Apr 15;6(1):11

BACKGROUND: There is a growing interest in emergency departments (EDs) and the development of emergency medicine in The Netherlands. In the last decade several policy reports have stated that the quality of emergency care should be improved and that emergency physicians (EPs) play a large role in the quality improvement. The Netherlands Society of Emergency Physicians (NVSHA) has developed an emergency medicine training program, which has been nationally recognized since 2009. Nevertheless, not all EDs are staffed with EPs yet. This study aimed to explore differences between Dutch EDs with EPs and those without EPs.

METHODS: A cross-sectional web-based survey was performed on data over the year 2008 or 2009 in all 105 Dutch hospitals with an emergency department. We documented which ED-specific courses were attended by physicians working in the ED (list of 3 courses) and which clinical audit activities were implemented (list of 6 activities). The choice of courses and clinical audits was based on those mentioned in published quality reports and in national debates on emergency care. We compared EDs with and without EPs. The final analysis was based on a linear regression analysis, controlling for ED size and having an EP training program. We considered $P < 0.05$ significant.

RESULTS: Our survey's response rate was 67%. EPs worked significantly more often in larger EDs. The linear regression analysis shows that the total number of courses attended by physicians was on average 0.51 higher ($P = 0.000$) in EDs with EPs than in EDs without EPs, and the total number of implemented clinical audits was on average 0.49 higher ($P = 0.008$). After controlling for potential confounders, the effect of both the composite number of courses attended ($P = 0.001$) and the composite number of implemented clinical activities ($P = 0.032$) remained significant.

CONCLUSION: This study shows that EPs are significantly more present in larger EDs and in EDs where there is more continuing professional education and where there are more clinical audit activities. Our findings suggest that the presence of emergency physicians is positively associated with the quality of emergency care, but prospective research is required to examine causality.

Impactfactor: --

Thijssen WA

GP cooperative and emergency department: an exploration of patient flows

Huibers L, Thijssen W*, Koetsenruijter J, Giesen P, Grol R, Wensing M

J Eval Clin Pract. 2013 Apr;19(2):243-9. Epub 2012 Feb 5

RATIONALE, AIMS AND OBJECTIVES: In most countries, different health care providers are involved in emergency care. In the Netherlands, out-of-hours care is provided by general practitioner cooperatives (GPCs) and emergency departments (EDs). Our aim was to describe the flow of patients attending emergency care in these settings.

METHOD: A retrospective record review was performed, concerning patients who had visited a GPC or ED. Recorded information included urgency, diagnostic tests, and follow-up contacts. Descriptive figures were determined for patient flows in GPC and ED for urgent contacts and non-urgent contacts.

RESULTS: We included 319 GPC contacts and 356 ED contacts, of which 78% were non-urgent. The majority of GPC contacts were completed at the GPC without follow-up; 37% of non-urgent patients had a follow-up contact, usually with primary care. Only 5% of non-urgent GPC patients received diagnostic tests compared to 63% of non-urgent ED patients (mostly X-rays). The majority of non-urgent ED patients (88%) had a follow-up contact, usually at an outpatient clinic (67%). Most non-urgent ED patients (83%) who received a diagnostic test also had an outpatient clinic follow-up contact. Of urgent ED patients, the majority had a follow-up contact (85%), mostly with an outpatient clinic (74%).

CONCLUSION: Although most out-of-hours care patients present non-urgent health problems, at the ED they are more likely to receive diagnostic tests and follow-up contacts. This may reflect differences in patient populations between the ED and GPC or suggest opportunities for improving efficiency of planning follow-up contacts.

Impactfactor: --

Thijssen WA

The Impact on Emergency Department Utilization and Patient Flows after Integrating with a General Practitioner Cooperative: An Observational Study

Thijssen WA*, Wijnen-van Houts M*, Koetsenruijter J, Giesen P, Wensing M

Emerg Med Int. 2013;2013:364659. Epub 2013 Oct 3

Introduction. A new model, an emergency care access point (ECAP) for after-hours emergency care, is emerging in The Netherlands. This study assessed the effect on emergency department (ED) utilization and patient flows. Methods. Routinely recorded clinical ED patient data, covering a six-year period, was collected. Segmented regression analysis was used to analyze after-hours changes over time.

Results. 59.182 patients attended the ED before the start of the ECAP and 51.513 patients after, a decrease of 13%. Self-referred ED patients decreased 99.5% (OR 0.003; 95% CI 0.002-0.004). Referred patients increased by 213.4% and ED hospital admissions increased by 20.2%. A planned outpatient follow-up increased by 5.8% (OR 1.968 95% CI 1.870-2.071). The latter changed from fewer contacts to more contacts (OR 1.015 95% CI 1.013-1.017). Consultations at the regional general practitioner cooperative (GPC) increased by 26.0% (183.782 versus 232.246). Conclusion. ECAP implementation resulted in a decrease in ED utilization, a near absence of self-referring patients, and a higher probability of hospital admission and clinical follow-up. This suggests either an increase of ED patients with a higher acuity or a lower threshold of admitting referred patients compared to self-referred patients. Overall, increased collaboration with after-hours primary care and emergency care seemed to optimize ED utilization.

Impactfactor: --

Wijnen - van Houts M

The Impact on Emergency Department Utilization and Patient Flows after Integrating with a General Practitioner Cooperative: An Observational Study

Thijssen WA*, Wijnen-van Houts M*, Koetsenruijter J, Giesen P, Wensing M.

Emerg Med Int. 2013;2013:364659. Epub 2013 Oct 3

Voor abstract zie: *Spoeisende Hulp - Thijssen WA*

Impactfactor: --

* = *Werkzaam in het Catharina Ziekenhuis*

Urologie

Brinkman WM

da Vinci skills simulator for assessing learning curve and criterion-based training of robotic basic skills

Brinkman WM*, Luursema JM, Kengen B, Schout BM, Witjes JA, Bekkers RL

Urology. 2013 Mar;81(3):562-6

OBJECTIVE: To answer 2 research questions: what are the learning curve patterns of novices on the da Vinci skills simulator parameters and what parameters are appropriate for criterion-based robotic training.

MATERIALS AND METHODS: A total of 17 novices completed 2 simulator sessions within 3 days. Each training session consisted of a warming-up exercise, followed by 5 repetitions of the "ring and rail II" task. Expert participants (n = 3) performed a warming-up exercise and 3 repetitions of the "ring and rail II" task on 1 day. We analyzed all 9 parameters of the simulator.

RESULTS: Significant learning occurred on 5 parameters: overall score, time to complete, instrument collision, instruments out of view, and critical errors within 1-10 repetitions (P <.05). Economy of motion and excessive instrument force only showed improvement within the first 5 repetitions. No significant learning on the parameter drops and master workspace range was found. Using the expert overall performance score (n = 3) as a criterion (overall score 90%), 9 of 17 novice participants met the criterion within 10 repetitions.

CONCLUSION: Most parameters showed that basic robotic skills are learned relatively quickly using the da Vinci skills simulator, but that 10 repetitions were not sufficient for most novices to reach an expert level. Some parameters seemed inappropriate for expert-based criterion training because either no learning occurred or the novice performance was equal to expert performance.

Impactfactor: 2.424

Hendrikx AJ

Program for laparoscopic urological skills assessment: Setting certification standards for residents

Tjiam IM*, Schout BM, Hendrikx AJ*, Muijtjens AM, Scherpbier AJ, Witjes JA, Van Der Vleuten CP

Minim Invasive Ther Allied Technol. 2013 Feb;22(1):26-32

Voor abstract zie: Urologie - Tjiam IM

Impactfactor: 1.186

Koldewijn EL

The impact of socioeconomic status on prostate cancer treatment and survival in the southern Netherlands

Aarts MJ, Koldewijn EL*, Poortmans PM, Coebergh JW, Louwman M

Urology. 2013 Mar;81(3):593-9

OBJECTIVE: To investigate if socioeconomic status (SES) played a role in the selection of prostate cancer treatment and overall survival.

METHODS: Treatment and survival by SES of all newly diagnosed patients with prostate cancer (1998-2008) from the population-based Eindhoven Cancer Registry (n = 11,086) were studied.

RESULTS: Younger patients (<75) with early stage disease, including prostate-specific antigen (PSA)- detected stage cT1c, with low SES underwent prostatectomy and brachytherapy less often (10%-16% lower prostatectomy rates in low SES and 0%-7% lower brachytherapy rates

in low SES) compared to those with high SES, but underwent more external beam radiotherapy, hormonal therapy, and watchful waiting policy (6%-9%, 5%-7%, and 3%-7% more in low SES, respectively). This was partially related to the prevalence of comorbidity. The introduction of brachytherapy for localized disease occurred first in high SES patients and these socioeconomic differences were hardly affected by socioeconomic differences in the presence of comorbidities. Overall 10-year survival was superior in high SES patients compared to low SES (localized disease 67% vs 44%, advanced disease 29% vs 20%), and was related to treatment and comorbidity. Multivariable adjusted death rates remained significantly elevated for patients with low SES, especially cT1c, age <60 (hazard ratio [HR]low_vs_high_SES 4.2, 95% confidence interval [CI]1.3-13.7).

CONCLUSION: SES affected treatment selection and overall survival for patients with prostate cancer in the Southern Netherlands, where treatment guidelines exist and health care is fully covered. Presence of comorbidities only partly contributed to these differences. The relation with other SES-associated factors (eg, ability to understand medical information or to cope with health problems) remains to be explored.

Impactfactor: 2.424

Koldewijn EL

Urine flow cytometry as a primary screening method to exclude urinary tract infections

Boonen KJ*, Koldewijn EL*, Arents NL, Raaymakers PA, Scharnhorst V*

World J Urol. 2013 Jun;31(3):547-51. Epub 2012 May 16

Voor abstract zie: Algemeen Klinisch Laboratorium - Boonen KJ

Impactfactor: 2.888

Tjiam IM

Assessment of basic laparoscopic skills on virtual reality simulator or box trainer

Brinkman WM*, Tjiam IM*, Buzink SN*

Surg Endosc. 2013 Oct;27(10):3584-90

Voor abstract zie: Chirurgie - Brinkman WM

Impactfactor: 3.427

Tjiam IM

Program for laparoscopic urological skills assessment: Setting certification standards for residents

Tjiam IM*, Schout BM, Hendriks AJ*, Muijtens AM, Scherpbier AJ, Witjes JA, Van Der Vleuten CP

Minim Invasive Ther Allied Technol. 2013 Feb;22(1):26-32

Aim: There is growing pressure from the government and the public to define proficiency standards for surgical skills. **Aim of this study** was to estimate the reliability of the Program for Laparoscopic Urological Skills (PLUS) assessment and to set a certification standard for second-year urological residents. **Methods:** Fifty participants were assessed on performance time and performance quality to investigate the reliability of the PLUS assessment. Generalisability coefficient of 0.8, on a scale of 0 to 1.0, was considered to indicate good reliability for assessment purposes. Pass/fail standards were based on laparoscopic experience: Novices, intermediates, and experts (>100 procedures). The pass/fail standards were investigated for the PLUS performances of 33 second-year urological residents. **Results:**

Fifteen novices, twenty-three intermediates and twelve experts were included. An inter-trial reliability of >0.80 was reached with two trials for each task. Inter-rater reliability of the quality measurements was 0.79 for two judges. Pass/fail scores were determined for the novice/ intermediate boundary and the intermediate/expert boundary. Pass rates for second-year residents were 63.64% and 9.09%, respectively. Conclusion: The PLUS assessment is reliable for setting a certification standard for second-year urological residents that serves as a starting point for residents to proceed to the next level of laparoscopic competency

Impactfactor: 1.186

Vrijhof HJ

Minimally invasive prostatic urethral lift: surgical technique and multinational experience

McNicholas TA, Woo HH, Chin PT, Bolton D, Fernández Arjona M, Sievert KD, Schoenthaler M, Wetterauer U, Vrijhof EJ, Gange S, Montorsi F

Eur Urol. 2013 Aug;64(2):292-9. Epub 2013 Jan 19

BACKGROUND: Many men with benign prostatic hyperplasia (BPH) are dissatisfied with current treatment options. Although transurethral resection of the prostate (TURP) remains the gold standard, many patients seek a less invasive alternative.

OBJECTIVE: We describe the surgical technique and results of a novel minimally invasive implant procedure that offers symptom relief and improved voiding flow in an international series of patients.

DESIGN, SETTING, AND PARTICIPANTS: A total of 102 men with symptomatic BPH were consecutively treated at seven centers across five countries. Patients were evaluated up to a median follow-up of 1 yr postprocedure. Average age, prostate size, and International Prostate Symptom Score (IPSS) were 68 yr, 48 cm(3), and 23, respectively.

SURGICAL PROCEDURE: The prostatic urethral lift mechanically opens the prostatic urethra with UroLift implants that are placed transurethrally under cystoscopic visualization, thereby separating the encroaching prostatic lobes.

OUTCOME MEASUREMENTS AND STATISTICAL ANALYSIS: Patients were evaluated pre- and postoperatively by the IPSS, Quality-of-Life (QOL) scale, Benign Prostatic Hyperplasia Impact Index, maximum flow rate (Qmax), and adverse event reports including sexual function.

RESULTS AND LIMITATIONS: All procedures were completed successfully with a mean of 4.5 implants without serious adverse effects. Patients experienced symptom relief by 2 wk that was sustained to 12 mo. Mean IPSS, QOL, and Qmax improved 36%, 39%, and 38% by 2 wk, and 52%, 53%, and 51% at 12 mo ($p<0.001$), respectively. Adverse events were mild and transient. There were no reports of loss of antegrade ejaculation. A total of 6.5% of patients progressed to TURP without complication. Study limitations include the retrospective single-arm nature and the modest patient number.

CONCLUSIONS: Prostatic urethral lift has promise for BPH. It is minimally invasive, can be done under local anesthesia, does not appear to cause retrograde ejaculation, and improves symptoms and voiding flow. This study corroborates prior published results. Larger series with randomisation, comparator treatments, and longer follow-up are underway.

Impactfactor: 10.476

Wildt MJ de

TOOKAD(®) Soluble vascular-targeted photodynamic (VTP) therapy: determination of optimal treatment conditions and assessment of effects in patients with localised prostate cancer

Azzouzi AR, Barret E, Moore CM, Villers A, Allen C, Scherz A, Muir G, de Wildt M*, Barber NJ, Lebdaï S, Emberton M

BJU Int. 2013 Oct;112(6):766-74

OBJECTIVES: To evaluate the optimal treatment conditions and effects of TOOKAD(®) Soluble vascular-targeted photodynamic (VTP) therapy in patients with localised prostate cancer. To evaluate the safety and quality of life after TOOKAD(®) Soluble VTP treatment in patients with localised prostate cancer.

PATIENTS AND METHODS: Men (aged >18 years) diagnosed with localised prostate cancer, who were suitable for active surveillance, were invited to take part in the study. Patients who had received prior or current treatment for their cancer were excluded. There were two parts to the study: in part one, patients were assigned to one of two treatment groups based on the size of their prostates (patients with prostate size <60 e 60 patients were assigned to one of two treatment groups based on predefined criteria and received either 4 or 6 anaesthesia using TOOKAD(®) Soluble administered intravenously and activated by light-diffusing fibres within the prostate via the perineum. Follow-up was conducted for 6 months. Magnetic resonance imaging (MRI) carried out at 1 week after VTP and transrectal prostate biopsy at 6 months were the key endpoints. Adverse event (AE) recording and patient-reported outcome measures were collected.

RESULTS: In all, 86 patients were enrolled in the study and 85 patients received treatment. Of the 85 treated patients, one patient discontinued (due to withdrawal of consent). At 6 months, 61/83 (74%) patients who underwent prostate biopsy had histopathology that was negative for prostate cancer (95% confidence interval (CI) 62.7-82.6%). Considering patients who received 4 and 200 patients had histopathology from the biopsies that was negative for prostate cancer at 6 months (95% CI 68.6-92.2%; $P < 0.001$). The mean percentage of necrosis of the targeted prostate tissue at 7 days after VTP was 78% overall (83 patients) with extraprostatic necrosis reported in 76% (63/83) of patients. Considering patients who received 4 mean 7-day necrosis percentage was 88% (46 patients) with extraprostatic necrosis reported in 72% (33/46) of patients. All occurrences of extraprostatic necrosis were considered clinically acceptable and none were associated with any clinical sequelae. The mean percentage prostate necrosis at 7 days was statistically significantly higher ($P < 0.001$) in patients treated with a therapeutic light density index (LDI) of e 1 than those treated with a LDI of <1. The percentage of patients with negative biopsies at 6 months was also higher in patients treated with a therapeutic LDI of e 1 than those treated with a LDI of <1 (78.6% and 63.0%, respectively). In all, 87% (75/86) of patients reported at least one treatmentemergent AE during the study. Most AEs were mild or moderate in intensity and considered related to the technical procedures of the study. No treated patients had hypotension or discontinued due to AEs. Eight patients (9.3%) had serious AEs; none resulted in discontinuation from the study.

CONCLUSIONS: Biopsy data, post-treatment dynamic contrast-enhancement MRI at 1 week after VTP and analysis of the safety data have shown that 4 the optimal treatment conditions for the VTP procedure resulting in >80% of patients treated with this regimen having a negative biopsy at 6 months. Overall, the treatment was well tolerated and exhibited early signs of efficacy for minimally invasive focal treatment of localised prostate cancer.

Impact Factor: 3.046

** = Werkzaam in het Catharina Ziekenhuis*

Boeken

Algemeen Klinisch Laboratorium

Scharnhorst V*

Handboek medische laboratoriumdiagnostiek / Hooijkaas H, Mohrmann K, Smeets LC, Souverijn JHM, Tax GHM (editors)
2e geheel herziene druk
Houten : Prelium Uitgevers, 2013
ISBN: 9789085621188

Cardiologie

Sels JEM*, Tonino WAL*, Pijls NHJ*

Fractional Flow Reserve - 349-361

In: Catheter-Based Cardiovascular Interventions / Peter Lanzer
Berlijn Heidelberg : Springer, 2013
ISBN: 978-3-642-27675-0 (print) / 978-3-642-27676-7 (online)

Chirurgie

Bastiaannet E, **Rutten HJT ***, Timmer-Bonte JNH

Hoofdstuk 12.3: Extralevatore abdominoperineale rectumsectie - 147-54

Hoofdstuk 15: Ouderen - 219-228

In: Handboek colorectaal carcinoom / dr. C.J. A. Punt, dr. C.A.M. Marijnen, dr. I.D. Nagtegaal, dr. C.J.H. van de Velde (redactie)
Utrecht : De Tijdstroom, 2013
ISBN: 9789058981967

Harm J.T. Rutten*, Gerrit-Jan Liefers, and Valery E.P.P. Lemmens

Chapter 6: Surgical treatment of colorectal cancer in older people - 53-64

Management of colorectal cancer in older people / Papamichael, Demetris; Audisio, Riccardo A. (Eds.)
London : Springer, 2013
ISBN: 9780857299840

Geestelijke Verzorging

Koen Jordens*, Judith Wilmer, **Frank van de Poel***, **Eric van de Laar***

Beter ouder : zorg voor de kwetsbare oudere

Antwerpen-Apeldoorn : Garant, 2013
ISBN: 9789044129700

Ingrid Neijnsens* en Harmke Nijboer

2.1 'Laat me niet los.' Over versnippering in de zorg. De ervaringen van mevrouw Kahyargil -106-111

Laurien Schrijver* en Harmke Nijboer

2.2 De heer van Dongen : loslaten en accepteren- 112-117

Frank van de Poel* en Judith Wilmer

2.3 'Het leven heeft geen zin meer en toch ben ik gelukkig.' Harrie Hoppenbrouwers, 88 jaar - 118-124

Eric van de Laar*, Geert van der Aa* en Jan Peil

3.2 'Het verhaal van de patient. Remedie voor de behandelmodus?' - 148-164

In: Beter ouder : zorg voor de kwetsbare oudere / Koen Jordens*, Judith Wilmer*, Frank van de Poel*, Eric van de Laar*

Antwerpen-Apeldoorn : Garant, 2013

ISBN: 9789044129700

Geriatric

Koen Jordens*, Judith Wilmer*, Frank van de Poel*, Eric van de Laar*

Beter ouder : zorg voor de kwetsbare oudere

Antwerpen-Apeldoorn : Garant, 2013

ISBN: 9789044129700

Paul Dautzenberg en Judith Wilmer*

1.2 Geriatric : verleden, heden en toekomst in Nederland en in het Catharina Ziekenhuis - 33-45

Ingrid Neijnsens* en Harmke Nijboer*

2.1 'Laat me niet los.' Over versnippering in de zorg. De ervaringen van mevrouw Kahyargil -106-111

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Antwerpen-Apeldoorn : Garant, 2013

ISBN: 9789044129700

Longgeneeskunde

Romme EA*, **Smeenk FW***, Wouters EF, Rutten EP

Chapter 7. Osteoporosis in COPD – p. 93-104

In: European Respiratory Monograph 59: COPD and comorbidity / Rabe KF, Wedzicha JA, Wouters EF (editors)

Norwich (UK) : Page Bros Ltd, 2013

ISBN: 9781849840323

** = Werkzaam in het Catharina Ziekenhuis*

Promoties

Cardiologie

Sels JE

Markers of inducible myocardial ischemia in the systemic circulation

Sels JE

Eindhoven : Technische Universiteit Eindhoven, 2013

9789038633503

Promotor: Pijls NH

Cardiothoracale Chirurgie

Bramer S

Peri-operative atrial fibrillation in cardiac surgery : impact on outcome

Bramer S

Maastricht : [s.n.]2013

97890946169419

Copromotores: Straten AH van, Berreklouw E

Chirurgie

Ten Bosch J

Endovascular repair of acute and paraanastomotic abdominal aneurysms : clinical results and detection of complications

Ten Bosch J

2013

9789461592453

Promotor: Prof. dr. J.A.W. Teijink

Geriatricie

Linden CMJ van der

Adverse drug reactions in individual patient care : documentation and prevention of represcription

Linden CMJ van der

Eindhoven : Technische Universiteit Eindhoven, 2013

9789461917171

Promoter: Korsten HHM

Copromoter: Grouls RJE

Gynaecologie

Rumste MME van

Outcome measures in reproductive medicine trials

Rumste MME van

Amsterdam: Universiteit van Amsterdam, 2013

9789090276335

Inwendige geneeskunde

Beijers HJBH

Mechanisms of cardiovascular disease in the metabolic syndrome and type 2 diabetes mellitus : focus on adverse intermediate phenotypes

Beijers HJBH

Eindhoven : [s.n.], 2013

978-94-6191-876-5

Radiologie

Breest Smalenburg V van

Improving the sensitivity of screening mammography in the south of the Netherlands

Breest Smalenburg V van

Rotterdam : Erasmus Universiteit Rotterdam, 2013

9789064646645

Radiotherapie

Sangen MJC van der

Loco-regional control of breast cancer with an emphasis on the role of young age and lobular histology

Sangen MJC van der

Maastricht : [s.n.], 2013

9789090278216

Smet M de

MR-HIFU mediated local drug delivery using temperature-sensitive liposomes

Smet M de

Eindhoven : Technische Universiteit Eindhoven, 2013

9789038633367

**Wetenschapsavond
Catharina Ziekenhuis
2014**

Presentaties

Cardiologie

Nunen LX van

Intra-aortic Balloon Counterpulsation in Patients with Large Acute Anterior Myocardial Infarction Complicated by Persistent Ischemia: CRISP AMI Revisited

Lokien X. van Nunen MD*, Marcel van 't Veer PhD*, Stéphanie Schampaert MSc, Marcel C.M. Rutten PhD, Frans N. van de Vosse PhD, Manesh R. Patel MD, Nico H.J. Pijls MD PhD*

Background: The CRISP AMI trial investigating intra-aortic balloon pump (IABP) as adjunct to percutaneous coronary intervention (PCI) in anterior ST-elevation myocardial infarction (STEMI) did not show a difference in infarct size or mortality at 6 months. A major limitation were the small infarctions (40%), reflected by a summed ST-elevation of <6mm.

Aim: Our aim was to investigate IABP in electrocardiographic large STEMI, in particular those with persistent ischemia despite successful PCI.

Methods: Patients were included if the ECG showed a summed ST-deviation ≥ 15 mm. Persistent ischemia was defined as <50% ST resolution post-PCI. Primary endpoints were all-cause mortality at 6 months, and the composite endpoint of death, cardiogenic shock or new or worsening heart failure at 6 months.

Results: We included 146 patients, 33 patients had signs of persistent ischemia. Almost half (N=65, 45%) of the patients were treated with IABP. Mean summed ST-elevation was 24 ± 9 mm. Although statistically not significant, all-cause mortality at 6 months was numerically different between the IABP-group and control-group (1 patient (1.5%) versus 6 patients (7.4%); log-rank $P=0.10$). There was a trend towards statistical significance when focussing on persistent ischemia (0 patients (0%) versus 5 patients (25%); log-rank $P=0.06$).

In the IABP-group, 2 patients (3.1%) reached the composite endpoint, versus 10 patients (11.8%) in the control-group (log-rank $P=0.04$). In patients with persistent ischemia, the population was too small for the numerical difference to reach statistical significance (1 patient (7.7%) versus 6 patients (30%); log-rank $P=0.14$).

Conclusions In large STEMI, IABP decreases the combined endpoint of mortality, cardiogenic shock and heart failure at 6 months and improves outcome.

Chirurgie

Broos PP

Long-term outcome of endovascular repair for elective and ruptured abdominal aortic aneurysms; a 15-year single centre experience

Pieter Broos*, Rutger Stokmans*, Giuseppe Corte, Philippe Cuypers*, Joep Teijink*, Marc van Sambeek*

Purpose: Endovascular aneurysm repair (EVAR) is now the standard of care for elective and ruptured infrarenal abdominal aortic aneurysms (AAAs). We used a single centre database to evaluate the differences in outcome and secondary interventions between elective-EVAR (E-EVAR) and ruptured-EVAR (R-EVAR) procedures.

Material and Methods: We included all primary EVAR cases for infrarenal aortic and aorto-iliac aneurysms conducted in our hospital from January 1998 until July 2012. R-EVAR was

defined as an AAA accompanied by the presence of a retroperitoneal haematoma on computed tomography angiography (CTA). The E-EVAR group consisted of patients with asymptomatic and symptomatic AAA. The primary study endpoint was 30-day mortality. Secondary endpoints included freedom from secondary interventions and late survival.

Results: Among the 863 patients admitted in the current study, the E-EVAR group included 773 (89,6%) patients and the R-EVAR group included 90 (10,4%) patients. 99.2% of the patients completed follow-up. Mean follow-up time was 50.2 ± 41.4 months for EEVAR and 37.0 ± 41.9 months for R-EVAR. At baseline, R-EVAR patients had larger aneurysms on average, respectively 70.4 ± 18.1 mm vs. 59.2 ± 12.2 mm ($P < 0.001$). Significantly more patients died in the first month in the R-EVAR group (18.9% vs. 2.2%, $P < 0.001$). At five-year, there was an overall survival of 64.9% for E-EVAR and 49.8% for R-EVAR ($P < 0.001$), with a secondary intervention free survival of 84.7% and 75.2% ($P < 0.004$), respectively.

Conclusions: Within our cohort of primary EVAR patients, R-EVAR cases showed higher mortality and more secondary interventions. Specific complications and secondary intervention rates for E-EVAR and R-EVAR are surprisingly similar at long-term follow up. Our results support the use of EVAR in ruptured cases.

Oudheusden TR van

Cytoreduction and hyperthermic intraperitoneal chemotherapy: a feasible and effective option for colorectal cancer patients after emergency surgery in the presence of peritoneal carcinomatosis

T.R. van Oudheusden*, H.J. Braam, S.W. Nienhuijs*, M.J. Wiezer, B. van Ramshorst, M.D.P. Luyer*, I.H.J.T. de Hingh*

Background: Patients presenting with acute symptoms (e.g. obstruction or perforation) of colorectal cancer requiring emergency surgery are known to have an unfavourable long-term oncological outcome. At least 5% of CRC patients will also be diagnosed with peritoneal carcinomatosis (PC). When both of these factors are present, further treatment with curative intent may seem futile. Therefore, the aim of the current study was to investigate the feasibility and effectiveness of cytoreductive surgery and hyperthermic intraperitoneal chemotherapy (HIPEC) for colorectal cancer patients who previously had emergency surgery in the presence of peritoneal carcinomatosis (PC).

Methods: All patients with synchronous peritoneal metastasis of colorectal origin referred to the Catharina Hospital Eindhoven and St. Antonius Hospital Nieuwegein between April 2005 and June 2013 were included in this study. Operative, post-operative and survival details were compared between patients presenting with acute symptoms and those presenting in an elective setting.

Results: In total, 178 patients with synchronous PC were referred to evaluate the possibility of CRS+HIPEC of which 127 underwent cytoreductive surgery and HIPEC. Among those, 32 (25.2%) initially presented with acute symptoms requiring emergency surgery. Acute presentation did not result in a longer interval between the initial operation and HIPEC (2.3 vs. 2.1 months, $P = 0.41$). When comparing operative outcomes, no significant differences were found in blood loss ($P = 0.37$), operation time ($P = 0.25$) or completeness of cytoreduction. Also, complication rates, degree and types of complication did not differ between the groups. Five-year survival rate was 48% for emergency presentation compared to 47% in the elective group for patients treated with CRS+HIPEC ($P = 0.79$).

Conclusion: This study shows that CRS and HIPEC may be performed safely in PC-patients of colorectal origin presenting with acute symptoms requiring emergency surgery. More importantly, the five-year survival rate in these patients is equal to elective cases and should

be regarded as promising. Therefore, treatment with curative intent should also be considered in these patients.

Inwendige geneeskunde

Beijers AJ

Fully automated closed-loop ventilation is safe and effective in post-cardiac surgery patients

Drs. A.J.R. Beijers*, dr. A.N. Roos*, dr. A.J.G.H. Bindels*

Background: Automated ventilation, like Assisted Support Ventilation (ASV), reduces duration of weaning, ventilation, and ICU stay. The fully automated closed-loop ventilating mode Intellivent-ASV (iASV) is an extension of ASV. Unlike ASV, this mode uses automated feedback mechanisms to constantly ventilate and oxygenate patients based on their individual needs.

Purpose: We compared iASV with ASV and conventional ventilation (Pressure controlled and Pressure support ventilation). The safety and efficiency of iASV was assessed based on the number of safety events, interactions with the ventilator, reintubations within 24 hours and mechanical ventilation time.

Method: This prospective non inferior study included 128 low risk post-cardiac surgery adults, suitable to wean on the post anesthesia care unit (PACU). Patients were divided in three groups defined as iASV (n=53), ASV (n=26) and conventional ventilation (n=49). Excluded were patients with a positive history of COPD gold >3, lung surgery and patients in shock.

Results: In our study no ventilation-related safety issues requiring interventions were observed. No statistically significant differences regarding mechanical ventilation time, number of reintubations and desaturations ($SpO_2 < 85\%$) were observed between the three groups. Although mechanical ventilation time was short, the number of interactions was statistically significantly ($p < 0.001$) lower with iASV (mean=1.45) compared to ASV (mean=2.35) and conventional ventilation (mean=2.85).

Conclusion: Our non-inferiority trial confirms that iASV is as safe and efficient as conventional ventilation and ASV to ventilate patients after cardiac surgery. More studies are needed in critical ill and postoperative patients to fully understand the clinical impact of fully closed-loop ventilation.

Vernieuwende elementen:

1. Het is de eerste studie die iASV met zowel ASV als de conventionele beademingsmodi(PSV/PCV) vergelijkt.
2. T.o.v. vergelijkbare studies bevat het de grootste onderzoekspopulatie.
3. Opmerkelijk is dat iASV voor significant minder interacties door zorgverleners met de ventilator zorgt, ondanks een al korte mechanische ventilatietijd.

Beste presentatie wetenschapsavond Catharina Ziekenhuis 2014

Kindergeneeskunde

Stokbroekx, MA

Usefulness of different Carbohydrate-Deficient Transferrin (CDT) assays in the detection of recurrent excessive alcohol consumption children with an alcohol intoxication in the emergency department

Margot A.L. Stokbroekx*, Rolf A.A. Pelleboer*, Nico van der Lely, Stefan Coolen

Background: Adolescents who experienced alcohol intoxication are invited at the outpatient clinic for youth and alcohol. They receive information and education to prevent more events in the future. The CDT assay is a well investigated test for adults to detect chronic alcohol abuse. Such test could be useful to detect recurrent excessive alcohol consumption in adolescents. Aims: The aim of this study was to evaluate the CDT assay for the detection of recurrent excessive alcohol abuse in adolescents prior to acute alcohol intoxication.

Methods: Data on drinking behaviour and CDT levels of adolescents (13-18 years) registered at the outpatient clinic for youth and alcohol at three hospitals in the Netherlands was retrospectively collected.

Results: 198 samples were collected. 83 samples were assessed by the N Latex CDT, 78 with the Helander HPLC method and 37 with the Recipe ClinRep CDT. For the N Latex CDT method, no differences were found in mean CDT levels for binge versus non-binge-drinkers ($P=0.752$). The Helander HPLC and the Recipe ClinRep method gave higher values for binge-drinkers than for non-binge-drinkers (mean 1.20 %DST, SD 0.28 versus mean 1.01 %DST, SD, 0.31 $P=0.014$ respectively mean 1,17 %DST, SD 0.36 versus mean 0.89 %DST, SD 0.34, $P=0.032$)

Conclusions: Levels measured with Helander HPLC and the Recipe ClinRep were higher in binge-drinkers than in non-bingedrinkers. It remains unclear why no differences were found with the N Latex method. More research is needed to evaluate the usefulness of CDT assays to detect recurrent excessive alcohol consumption in adolescents.

What is new?

To our knowledge there is no literature describing CDT in children. This is the first research investigating different CDT methods in binge-drinking and non-binge-drinking adolescents. Significant differences between groups were found for the HPLC methods but more research needs to be done.

Posters

Algemeen Klinisch Laboratorium

Berkel M van

The influence of anti-hypertensive drugs on the aldosterone-to-renin ratio: an automated solution

Miranda van Berke*I and Arjen-Kars Boer*

Introduction: One of the initial landmarks in the diagnosis of primary hyperaldosteronism is the aldosterone-to-renin ratio (ARR). For an accurate interpretation of the ARR clinical and biochemical information such as blood pressure and potassium- and/or sodium concentration is essential. Furthermore, antihypertensive medication should be discontinued, which is often problematical for patients with resistant hypertension. Retrieval of above mentioned information from medical charts is time-consuming and complicated.

Goal: The goal of this study is to construct an automated interpretation of the ARR based on the electronical data available with clinical decision support system (CDSS) Gaston.

Material & Methods: We retrospectively included 493 patients in which renin and aldosterone was determined for diagnostic reasons. The medical charts were evaluated using CDSS Gaston (Medecs BV, Eindhoven).

Results: Gaston retrieved information from the medical charts within 2-3 hours, and a database was created including age, gender, aldosterone, renin, potassium- and sodium concentration, anti-hypertensive drugs and diagnosis. The ARR in patients with severe hypertension was significantly higher than patients with mild hypertension. Almost half of the ARR (46%) were determined while maintaining antihypertensive drugs. The ARR in patients using calcium antagonists was similar to the ARR in the control group, whereas patients using beta blockers tend to display higher ARR.

Conclusion: Gaston is an effective aid in the retrieval of data from medical charts. Furthermore, it can generate a context-dependent interpretation of the ARR, taken into account suboptimal sampling conditions, such as hypertension, use of anti-hypertensive drugs and high/low potassium. In conclusion, use of Gaston can improve clinical decision making in patients with resistant hypertension.

Novel findings in this study: Using Gaston, we have found that ARR are sampled under suboptimal conditions which complicate the interpretation of the results. Novelty in this study is the application of CDSS Gaston to retrieve and integrate information from the medical charts to construct a context-dependent interpretation of the ARR.

Boer AK

The influence of anti-hypertensive drugs on the aldosterone-to-renin ratio: an automated solution

Miranda van Berkel* and Arjen-Kars Boer*

Voor abstract zie: Algemeen Klinisch Laboratorium – Berkel, M van

Apotheek

Taks M

The clinical significance of factor anti-Xa measurements in hemodialysis patients, the FAX-HD study

MJE Dekker*, M Taks*, CHM Kerskes*, M Hengst*, CJAM Konings*, V Scharnhorst*

Voor abstract zie: Inwendige Geneeskunde – Dekker MJE

Wasylewicz AT

The incidence rate and argumentation of prescribing contraindicated drugs in nursing home residents with heart failure. A retrospective cohort study

N. Alhaidary, J.C.G.H. van der Stegen, A.T.M. Wasylewicz*, W.van_t Geloof, A.M.J.W. Scheepers-Hoeks*, R.J.E. Grouls*

The Dutch G-standard is an evidence based guideline database, which contains i.a. drugs that are contraindicated in patients with heart failure (HF). (1) Currently it is unknown if the physician took this contraindication into account before prescribing a contraindicated drug.

Aim: The aim of this study was to determine the incidence rate in which G-standard contraindicated drugs (CIDs) were prescribed in nursing home residents with HF. Secondly; we analysed the argumentation for deviating from the guideline.

Methods: All residents of selected wards admitted at the Vitalis Nursing Homes Eindhoven (n=567) with HF were included. The drug history of the included residents was retrospectively screened using a clinical decision support system. Every dose adjustment and restart of a CID was counted as a separate prescription. Reasons for prescribing were determined by a semistructured interview.

Results: Sixty-eight residents met the inclusion criteria and had a total of 381 CID prescriptions (average 5.6; range 0-36) in a total of 142.2 resident-years (average 2.1 resident-years; range 0.1-11.2) which yielded an incidence rate of 2.7 prescriptions per resident-year. Of all included residents 69% (n=47) had one or more prescriptions. The most frequently mentioned argumentation to deviate from the guideline was that the indication of CID outweighed the contraindication itself, only temporary use or previous trouble-free use of the CID.

Conclusion: The high incidence rate of prescribed CIDs and the argumentation thereof raises questions about guideline awareness but also about usefulness of the guideline in daily nursing home practise.

Wasylewicz AT

Therapeutic drug monitoring of gentamicin solely based on changes in renal function

S. Bloem, A.T.M. Wasylewicz*, A.M.J.W. Scheepers-Hoeks*, W.van_t Geloof*, R.J.E. Grouls*

A clinical rule (CR) was developed in the Catharina Hospital Eindhoven (CZE) to alert physicians towards guideline compliance. [1]. This CR was among other things based on changes in renal function of $\geq 20\%$ and checks on periodical monitoring every 96 hours [2]. In daily practice periodical TDM often does not lead to dose adjustments (DAs). Therefore, we hypothesize that gentamicin TDM can be optimized by solely monitoring changes in renal function (RF) after reaching stable dosing regimen.

Aim: The aim was to examine the difference in number of correct DAs after TDM gentamicin based on periodical monitoring and changes in RF versus TDM gentamicin based on changes in RF alone.

Methods: Patients using gentamicin intravenously in 2012 and admitted to CZE were included. Exclusion criteria were dialysis, unstable dosing regimen or intensive care admission. The original clinical rule was adapted to only provide alerts when RF changed. Both CRs were retrospectively tested using the same clinical decision support system on the electronic medical records of included patients. Every day of gentamicin usage in a steady state was marked as unique case.

Results: A significant difference in false positives between both rules was found

Conclusions: It appears that periodical TDM of gentamicin does not lead to more DAs compared to TDM only based on changes in renal function. However, the amount of false negative alerts in both rules implies that there are other factors that affect DAs. More research should be done to identify factors that influence the decision to adjust dose.

Cardiologie

Nunen LX van

Single bolus intravenous Regadenoson injection versus central venous infusion of Adenosine to induce maximum coronary hyperemia for measurement of Fractional Flow Reserve

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Background: Fractional Flow Reserve (FFR) measured with adenosine is the gold standard for assessing if a particular stenosis can induce myocardial ischemia. Regadenoson is an A2A-receptor selective hyperemic stimulus known for its rapid onset and simple administration.

Aim: Aim of this study was to compare the hyperemic effect of single bolus regadenoson injection to central venous adenosine infusion for FFR measurement. Duration of steady state maximum hyperemia was studied, central versus peripheral venous regadenoson injections were compared and safety and reproducibility of repeated injections was investigated.

Methods: One hundred patients scheduled for FFR measurement were enrolled. FFR was first measured by IV adenosine (140µg/kg/min), thereafter by IV bolus regadenoson injection (400µg), followed by another measurement by IV adenosine and regadenoson. The administration of both regadenoson injections was randomized to central or peripheral venous.

Results: Mean age was 66±8 years, 75% of the patients were male. The target stenosis was located in the LM, LAD, LCX, and RCA in 7%, 54%, 20% and 19% respectively, with a reference diameter of 3.2±0.6mm. There was no difference in FFR measured by adenosine or by regadenoson, irrespective whether the last was administered centrally or peripherally (FFR=0.00±0.01, r=0.994, p<0.001). Duration of maximum hyperemia was variable (10-600s). No noticeable side-effects of either drug were observed.

Conclusions: Maximum myocardial hyperemia can be achieved easily, rapidly, and safely by one single intravenous bolus of regadenoson administered either centrally or peripherally. Repeated regadenoson injections are safe. The hyperemic plateau is variable.

Importance of this study: Functional assessment of coronary stenoses by FFR to justify stenting is increasingly important, although the induction of maximum hyperemia is felt cumbersome by some cardiologists. Abandoning maximum hyperemia reduces diagnostic accuracy to approximately 80% compared to FFR. Endeavors to find new, easy and safe hyperemic stimuli are therefore indisputable.

Cardiothoracale Chirurgie

Soliman Hamad MA

The fast-track practice in cardiac surgery, results and predictors of outcome

Marco C. Haanschoten*, Albert H.M. van Straten*, Joost F. ter Woorst*, Pieter S. Stepaniak*, Auke-Dick van der Meer*, André A.J. van Zundert*, and Mohamed A. Soliman Hamad*

Background and objectives: Various studies showed different parameters as independent risk factors in predicting success of fast track postoperative management in cardiac surgery. In the present study, we evaluated our seven-year experience with the fast track protocol and investigated the preoperative predictors of successful outcome.

Methods: Between 2004 and 2010, 5367 consecutive patients undergoing cardiac surgery were preoperatively selected for postoperative admission in the post-anesthesia care unit (PACU) and were included in this study. These patients were then transferred to the ordinary ward on the same day of the operation. The primary end-point of the study was success of the PACU protocol, defined as discharge to the ward on the same day, no further admission to the ICU and no operative mortality. Logistic regression analysis was performed to detect the independent risk factors for failure of the PACU pathway.

Results: Out of 11 895 patients undergoing cardiac surgery, 5367 patients (45.2%) were postoperatively admitted to the PACU. The protocol was successful in 4510 patients (84.0%). Using the multivariate logistic regression analysis, older age and left ventricular dysfunction were found as independent risk factors for failure of the PACU protocol [Odds ratio of 0.98 /year (0.97-0.98) and 0.31(0.14-0.70) respectively].

Conclusions: Our fast track management, called the PACU protocol, is efficient and safe for the postoperative management of selected patients undergoing cardiac surgery. Age and left ventricular dysfunction are significant preoperative predictors of failure of this protocol.

Chirurgie

Bosman S J

Reirradiation is safe and effective in the treatment of locally recurrent rectal cancer

SJ Bosman*, FA Holman*, GAP Nieuwenhuijzen*, H Martijn*, GJ Creemers*, HJT Rutten*

Background. The majority of patients with local recurrent rectal cancer have received prior irradiation during primary tumour treatment. It has been shown that reirradiation is feasible, however it remains unclear if this leads to a better oncologic outcome and if long term morbidity is acceptable.

Objective. Aim of this article is to evaluate the oncologic and functional outcome of reirradiation in patients with local recurrent rectal carcinoma.

Methods. From 1994 until 2012, a total of 235 patients with locally recurrent rectal cancer were prospectively enrolled in a database of which 114 patients were reirradiated. Morbidity of radiotherapy, postoperative complications, development of local re-recurrence, metastasis and overall survival are evaluated.

Results. Patients (mean age 64 years; 65 male, 49 female) were treated with reirradiation before undergoing surgery. In 54% of the surgical procedures an R0 was achieved. Thirty-eight patients experienced grade 3-4 complication post-operative; the perioperative mortality of the reirradiated group was 6%. The toxicity rates of the neoadjuvant treatment

were low in irradiated and reirradiated patients. Multivariate analysis showed that radicality of resection is the main factor influencing oncological outcome.

Conclusion. A radical resection is the most important factor influencing oncological outcome in patients with local recurrent rectal cancer without distant metastasis. Reirradiation (combined with chemotherapy) is a safe treatment, showed little sideeffects and did contribute to accomplish a radical resection and subsequently curation. Reirradiation is feasible, safe and improves oncological outcome and should be provided to all patients with local recurrent rectal cancer prior to surgery.

Dekkers M

Postoperative ileus and its relation to inflammation and anastomotic leakage

M. Dekkers*, E.G. Peters*, D.G.C. vd Lee, S. Housterman*, M.D.P. Luyer*

Background: Postoperative ileus (POI) is regarded as an inevitable and common complication of abdominal surgery. Experimental studies show that inflammation is essential in the pathogenesis of POI. However, the importance of inflammation in a clinical setting remains unknown. Furthermore, the clinical consequences of POI are not fully appreciated. Recently, we showed that gum chewing reduces POI in patients after colorectal surgery. Surprisingly, complications that needed reoperation were significantly reduced.

Aim: To investigate the relation of POI, inflammation and anastomotic leakage after colorectal surgery (CAL); a serious postoperative complication often needing reoperation.

Methods: 120 patients underwent colorectal surgery and were randomised to gum chewing intervention (n=58) and dermal patch placebo (n=62). POI and CAL were registered prospectively. Inflammatory parameters were analysed in blood and tissue samples using ELISA and PCR techniques. Patients were stratified for POI, and a post-hoc analysis was performed.

Results: A total of 43 patients developed POI (48%). Plasma levels of tumor necrosis factor (TNF) at 4 hours postoperatively and C-reactive protein at the second day postoperatively, were significantly higher in patients developing POI ($p=0.04$ and $p=0.002$ respectively).

Tissue expression of inflammatory parameters (IL6 and CCL2) were significantly higher in patients developing POI ($p=0.004$ and $p=0.02$ respectively). CAL was more prevalent in patients with POI ($p<0.001$). Interestingly, this association of POI with CAL was independent of preoperative risk factors.

Conclusions: This is the first clinical study showing that POI is associated with an increased inflammatory response. Furthermore, CAL was more prevalent in patients with POI.

Innovatory aspects: Reduction of the inflammatory response is an important therapeutic target to reduce the incidence of POI and prevent the detrimental sequelae such as anastomotic leakage. Based on previous results gum chewing may be a simple and effective way to reduce early inflammation and thereby reduce POI and associated complications.

Lauret GJ

Physical Activity Monitoring in Patients with Intermittent Claudication

G.J. Lauret *, H.J.P. Fokkenrood *, B.L. Bendermacher *, M.R.M. Scheltinga, J.A.W. Teijink *

Introduction: Reduced physical activity (PA) is associated with a higher mortality rate and more rapid functional decline in patients with intermittent claudication (IC). The newest generation of accelerometers can assess both direction and intensity of activities three-dimensionally and may also adequately calculate energy expenditure in daily life. The aim of this study was to quantify daily PA level and energy expenditure of newly diagnosed patients

with IC and healthy controls. PA outcomes are compared with contemporary public health physical activity guidelines.

Materials & methods: Before initiating treatment, 94 patients with newly diagnosed IC and 36 healthy controls were instructed to wear a tri-axial seismic accelerometer for 1 week. Daily PA levels (in metabolic equivalents, METs) were compared to the ACSM/AHA public health PA minimum recommendations (e 64 METs"min"day, in bouts of e 10 min). A subgroup analysis assessed the effect of functional impairment on daily PA levels.

Results: Data of 56 IC patients and 27 healthy controls were available for analysis. Patients with IC demonstrated significantly lower daily PA levels compared to controls (387 ± 198 METs min vs. 500 ± 156 METs min, $p < 0.05$). This difference was solely attributable to a subgroup of IC patients with the largest functional impairment (WIQ-score < 0.4). Only 45% of IC patients met the public health physical activity guidelines compared to 74% of the healthy controls ($p < 0.05$).

Conclusion: More than half of patients with intermittent claudication (IC) do not meet recommended standards of physical activity (PA). Considering the serious health risks associated with low PA levels, these findings underscore the need for more awareness to improve physical exercise in patients with IC.

WHAT THIS STUDY ADDS?: This study demonstrates that less than half of these patients meet the current minimal PA recommendations. The quantified daily level of PA in IC is significantly lower compared to healthy adults. Because a low PA level in IC is considered a strong predictor of mortality and functional decline, this study emphasises the need for more awareness to improve physical exercise in patients with IC.

Oudheusden TR van

Analysis of open-close HIPEC-procedure patients in peritoneal metastasis of colorectal origin

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Background: Cytoreductive surgery (CRS) combined with hyperthermic intraperitoneal chemotherapy (HIPEC) is currently the only curative intervention for peritoneal carcinomatosis of colorectal origin. It has been established that when disease presentation is to severe, performing this extensive operation will not result in additional survival gain and a palliative track is set in motion. This study aimed to investigate what factors lead to poor presentation at the time of operation and to report on factors influencing survival.

Methods: All consecutive patients with peritoneal carcinomatosis of colorectal origin who underwent exploratory surgery to determine whether cytoreduction and HIPEC was feasible were included in this study. All interventions took place at the Catharina hospital Eindhoven (CHE) or St Antonius hospital Nieuwegein (AHN) between April 2005 and August 2013. Data was extracted from a prospective database, focussing on pre-operative patient characteristics, peri-operative outcomes, postoperative palliative treatment and survival.

Results: In total, 178 patients with synchronous PC were referred to evaluate the possibility of CRS+HIPEC of which 124 (69.7%) underwent CRS and HIPEC and 54 (30.3%) were labelled as open-close. The reason for discontinuing surgery was disease spread in 51.9%, irresectability of the primary tumor in 27.8% and extensive small bowel involvement in 11.1%. In a significant proportion of open-closed patients, T and N stage could not be determined prior to exploratory laparotomy. Also, more open-close patients had a primary tumor localized in the right colon. 5 year survival was 0% compared to 36% in those treated with CRS and HIPEC. Primary tumor resection had no effect on survival ($p = 0.380$). Palliative adjuvant chemotherapy increased overall survival ($p = 0.026$)

Conclusion: This study shows that the main reason for not being able to perform CRS + HIPEC is the extensiveness of the disease followed by an irresectable presentation of the primary tumor. Right colon and indeterminable T and N stage more often result in open-close procedures. Furthermore, survival can be increased when a chemoregiment is a feasible option. More importantly, no strong predictors were found, marking the relevance of referral to a dedicated HIPEC centre to evaluate further potential treatment options.

Vugts G

Neoadjuvant chemotherapy and timing of sentinel node biopsy in breast cancer. A population based study

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Background. Neoadjuvant chemotherapy (NAC) is used to downstage inoperable or locally advanced breast cancer, or to downsize tumours to make them suitable for breast conserving surgery. In clinically node negative patients, no definitive evidence exists regarding the timing of the sentinel node biopsy (SNB) in relation to NAC. NAC could theoretically sterilize the axilla and thus reduce the need for axillary lymph node dissection (ALND). A positive sentinel node prior to NAC could therefore result in an unnecessary ALND. On the other hand, patients could be subjected to a potentially worse oncological outcome if SNB is performed after NAC due to the higher false negative rate. A population based study was conducted to evaluate the use of NAC and the timing of SNB.

Methods. All female patients with breast cancer, treated in 10 general hospitals in the Eindhoven Cancer Registry area in the Netherlands between 2003 and June 2012 were included (N=18.427).

Results. A total of 1,402 patients (7.6%) were treated with NAC during this period, increasing from 2.5% in 2003 to 13.0% in 2011. This increase was significant ($P<0.001$) for all tumour sizes. Use of NAC increased from 0.5% up to 2.3% for clinically T1 tumours, from 2.8% to 27.0% for T2, from 30.6% to 70.9% for T3 and from 40.5% to 58.1% for T4 tumours. In clinically N0 patients use of NAC increased from 1.0% to 4.4% and in clinically N+ from 12.0% to 57.5% ($P<0.001$). Patients receiving NAC were younger ($P<0.001$) and showed a higher clinical T and N status ($P<0.001$) compared to those undergoing surgery first. In 2011, there were 3 hospitals in which NAC was administered in <10% of patients, in 5 hospitals 10-15% received NAC and in 2 hospitals the proportion of patients receiving NAC was >20% ($P<0.001$). 495 of the 1,402 patients with NAC underwent a SNB, 91.5% of which prior to NAC. Of the patients who underwent a SNB prior to NAC (N=453), 59.4% were N+ and 46.8% underwent ALND. When SNB was performed after NAC (N=42), 61.9% were N+ patients ($P=.749$) resulting in a ALND rate of 59.5% ($P=.114$).

Discussion. The administration of NAC has strongly increased over the past decade, especially in T2 tumours. Presently, in the Netherlands up to 1 in 8 patients receive NAC. Considerable variation exists in the administration of NAC between hospitals. 91.5% Of the patients underwent SNB before the NAC. In our population based study the expected decrease of ALND frequency in patients receiving SNB after NAC was not observed.

Vugts G

Sentinel Node And Recurrent Breast Cancer: Feasibility of repeat sentinel node biopsy after extended inclusion

G. Vugts*, A.J.G. Maaskant-Braat*, R.M.H. Roumen, A. Voogd, Y.E.A. van Riet*, G.A.P. Nieuwenhuijzen*

Background. Knowledge of regional lymph node involvement is important in patients with recurrent breast cancer for obtaining better locoregional control and predicting prognosis.

The _Sentinel Node and Recurrent Breast Cancer (SNARB-1)_ study is a nationwide registration study to assess feasibility and validity of performing repeat sentinel node biopsy (SNB) in patients with locally recurrent breast cancer. In order to evaluate prognostic factors in the identification and success rates as well as aberrant drainage patterns in different treatment groups, extended inclusion was performed.

Methods. In the SNARB-1 and SNARB-2 study patients with locally recurrent breast cancer, who underwent lymphatic mapping and SNB after previous axillary surgery were included from 24 hospitals in The Netherlands. Repeat SNB was performed and described, aiming to predict factors influencing the repeat SNB procedure and report drainage patterns and oncological outcome.

Results. The SNARB-1 study, included 150 patients with recurrent breast cancer, of whom 41 previously underwent breast conserving therapy (BCT) with SNB, 82 patients BCT with axillary lymph node dissection (ALND), and 21 patients a mastectomy, 9 of whom with SNB and 12 with ALND. In 95 patients (63.3%) a sentinel node was identified and in 78 patients (52%) the sentinel node was successfully removed. In 18 patients (22.8%) a (micro)metastasis was found on pathologic examination. Confirmation ALND in 18 patients showed no axillary lymph node metastases. Aberrant drainage patterns were visualized in 58.9% of the patients, significantly more frequently after a previous ALND (79.3%) than after a previous SNB (25.0%) ($P < .0001$). Overall, the result of this repeat SNB led to a change in the adjuvant treatment plan in 16.5% of the patients with a successful repeat SNB. SNARB-2 is ongoing and will contain at least 230 patients and will be presented to provide additional information regarding identification and success of repeat SNB and aberrant drainage patterns. Also, follow-up data regarding disease status and survival will be assessed.

Conclusions. Repeat SNB is technically feasible, Aberrant drainage patterns are observed in more than half of the patients and provides results in patients with locally recurrent breast cancer, leading to change in management in 1 of 6 patients.

Wezenbeek MR van

Long-term outcome of primary Vertical Banded Gastroplasty

M.R. van Wezenbeek; J.F. Smulders; J.P. de Zoete; M.D. Luyer; G. van Montfort; S.W. Nienhuijs

Background: The Vertical Banded Gastroplasty (VBG) was considered a surgical option to treat morbid obesity for many years. Due to early reports on weight regain and complications, this technique was regarded as obsolete. Due to recently published favourable long-term outcome and the upcoming banded gastric bypass which introduces the same mechanical restriction, new interest in this old technique is developed.

Methods: Medical charts of primary VBG operated between 2005 and 2008 at the Catharina Obesity Center were reviewed. Included were patients' characteristics, operative details, evolution on weight and comorbidities, complications and outcome of revisions.

Results: A total of 207 patients (75% female) were included with a mean follow-up of 37 ± 29 months. The mean age was 41 ± 10 years and BMI was 43 ± 3.5 kg/m². Mean excess weight loss (EWL) after VBG was $57 \pm 24\%$. After VBG, 57% of comorbidities improved. Main long-term complications: vomiting/food intolerance 18%, weight regain 15%, insufficient weight loss 7%, band erosion 1%, GERD 1%. Revisional surgery was necessary in 81 patients (39%). This resulted in an additional 31% EWL and 64% improvement of comorbidity. Analysis before revision showed pouch dilatation in 17%, outlet stenosis 15% and wide outlet 11%.

Conclusion: An acceptable EWL of 57% was achieved after primary VBG. However, a high complication rate, often related to technical failure, frequently necessitated revision. This

underlines the inferiority of this technique and should be taken into account when considering the banding of the gastric bypass.

Dermatologie

Sengers H

Pijnbeleving tijdens lokale anesthesie bij chirurgische ingrepen aan de huid

Sengers H

Achtergrond: Binnen het vakgebied dermatologie worden steeds meer kleine chirurgische ingrepen uitgevoerd, mede door de enorme toename van het aantal gevallen van huidkanker. De meest gebruikte verdovingsvloeistof, lidocaïne/epinefrine 1%, heeft een lagere zuurgraad (pH) dan die van het subcutane weefsel, waardoor de verdoving als pijnlijk kan worden ervaren. Het bufferen door toevoeging van natriumbicarbonaat aan lidocaïne/epinefrine 1% zou volgens de literatuur de pijnbeleving kunnen verlagen.

Doelstelling: Doel van dit onderzoek is de exploratie van het verschil in pijnbeleving tijdens lokale anesthesie bij chirurgische ingrepen aan de huid bij gebruik van lidocaïne/epinefrine 1% vergeleken met de gebufferde variant, waaraan natriumbicarbonaat 8,4% is toegevoegd. Secundair wordt gekeken naar pijnbeleving bij mannen en vrouwen, in diverse leeftijdscategorieën, bij roodharigen, bij gebruik van chronische pijnmedicatie, bij naald-en/of spuitfobie en bij drie vooraf gedefinieerde operatiegebieden.

Methode: Het betreft een vergelijkend onderzoek tussen twee groepen van dermatologische patiënten, waarbij de pijnbeleving op een Numeric Rating Scale (NRS) pijnscorelijst van 0-10 wordt gemeten, direct na het toedienen van de lokale anesthesie bij een kleine chirurgische ingreep. De controlegroep (n=32) wordt verdoofd middels lidocaïne/epinefrine 1% en de interventiegroep (n=32) middels gebufferde lidocaïne/epinefrine 1%.

Resultaten: De mediane pijnscores van de controlegroep (4,5) en die van de interventiegroep (1,0) verschilden significant ($p < 0,001$). Leeftijd en locatie lieten geen significant verschil zien (p -waarde respectievelijk 0,8 en 0,7). De mediane pijnscore bij mannen was 2,0 (min-max: 0-7) en bij vrouwen 3,0 (0-9) ($p=0,03$); dit geldt voor de gehele onderzoekspopulatie. De mediane pijnscore van de roodharigen (n=3) was 6,0 (0-7) en niet-roodharigen (n=61) 2,0 (0-9) ($p=0,06$). Géén van de geïnccludeerde patiënten hadden chronische pijnmedicatie en/of een naald/spuitfobie.

Conclusie: Het bufferen van lidocaïne/epinefrine 1% middels toevoeging van natriumbicarbonaat leidt tot statistisch significante en klinisch relevante lagere pijnscores tijdens het injecteren van de verdovingsvloeistof bij kleine chirurgische ingrepen bij dermatologische patiënten.

Beste posterpresentatie wetenschapsavond Catharina Ziekenhuis 2014

Inwendige geneeskunde

Dekker MJ

The clinical significance of factor anti-Xa measurements in hemodialysis patients, the FAX-HD study

MJE Dekker*, M Taks*, CHM Kerskes, M Hengst, CJAM Konings*, V Scharnhorst*

Background: To prevent coagulation of the extracorporeal circuit, dalteparine (low molecular weight heparin) is administered to hemodialysis patients at the start of every dialysis. Dalteparine dosages are based on target weight, under 50kg 2500 IE and above 5000IE, and adjusted to the occurrence of clinical events. The desired anti-Xa activity at 15

minutes is between 0.5-1.0 IU/L. The aim of this study was to determine the percentage of patients who reaches desirable anti-Xa activity, and the relation between non-therapeutic anti-Xa values and clinical events.

Methods: In this prospective study, anti-Xa, APTT and PT were measured before and after dialysis and 15 minutes after dalteparine administration. Dialysis characteristics, medication use, target weight and clinical events (coagulation or bleeding) were scored.

Results: We included 109 hemodialysis patients, of which 53% reached the desired anti-Xa value between 0.5-1.0IU/L. The highest subtherapeutic percentages (60%) was observed in the 1250 IE dalteparine group. A correlation was observed between higher anti-Xa values and higher dalteparine dosages. The higher dalteparine dosages were not related with a higher percentages of patients reaching a desirable anti-Xa activity, only with a higher percentage of patients with an anti-Xa activity above the therapeutic range. We observed 6 clinical events, diffusely spread among the different dalteparine dosage groups, with variable anti-Xa activities.

Conclusion: Dalteparine dosages are highly variable among hemodialysis patients, with only 53% of patients in the therapeutic range. If anti-Xa activity guided dosage leads to a higher percentage of patients within the target range needs to be determined.

Longgeneeskunde

Mandigers L

Tumor-specific diagnostic values of the diagnostics in lung cancer

L. Mandigers*, S. Houterman*, B. van den Borne*

Background: Accurate diagnostics is crucial for patients with suspected lung cancer, since delay in the diagnostic process may result in an even poorer prognosis.

Aim of this study: to give an overview of tumor-specific diagnostic values of chest radiograph, CT, PET-CT, bronchoscopy, TBNA, EBUS-TBNA, EUS-FNA and thoracentesis in patients with suspected lung cancer.

Methods: In this retrospective study, data were collected of patients who had a diagnostic procedure for suspected lung cancer at the Catharina Hospital in Eindhoven, the Netherlands, between January 2011 and August 2013 if their reason to visit the hospital was registered with the diagnosis treatment combination _tumors_. We included patients with suspected lung cancer, recurrent disease, pulmonary metastases or pleuritis carcinomatosa. We evaluated the results of the tests and calculated diagnostic values using the standard definitions.

Results: We included 785 patients with suspected lung cancer. Sensitivity of imaging modalities and bronchoscopy were influenced by size, histology and location of the tumor. Sensitivities of TBNA, EBUS-TBNA, and EUS-FNA were influenced by result of mediastinal staging with PET-CT. Chest radiograph and bronchoscopy had a low NPV, negative results should therefore be confirmed with further tests. Approximately half of the mediastinoscopies could be avoided using endosonographic procedures.

Conclusions: A standard work-up for patients with suspected lung cancer is available. However, for each individual patient the most appropriate tests should be chosen. This choice should be based on test characteristics, but tumor characteristics should also be taken into account, including size, location, histology and result of mediastinal staging with PET-CT.

Mondziekten en kaakchirurgie

Pijpe J

Sialoadenitis en xerostomie na behandeling met radioactief jodium

J.Pijpe*, M.C. Reuland*, D.Huysmans*

Achtergrond: Sialoadenitis en xerostomie is een belangrijke bijwerking van behandeling met hoge doseringen radioactief jodium (I131).

Doelstelling: Het in kaart brengen van de prevalentie van sialoadenitis en de mate van xerostomie na behandeling met I131 in patiënten met schildkliercarcinoom en struma.

Methode: Retrospectief onderzoek bij patiënten behandeld met I131 voor schildkliercarcinoom of struma tussen 1995-2012 in het Catharina ziekenhuis. Er werd gebruik gemaakt van een vragenlijst met betrekking tot klachten van de speekselklieren en de orale gezondheid (via een 5-punts Likertschaal) en van de Nederlandse vertaling van de Xerostomia Inventory. Deze bestaat uit 11 items die gescoord worden op een 5-punts Likertschaal, resulterend in een totale XI-score tussen 11 (geen xerostomie) en 55 (ernstige xerostomie).

Resultaten: Van de 605 behandelde patiënten hebben 258 de vragenlijst geretourneerd. Van deze patiënten (193 vrouw, 53 man) hadden 178 patiënten schildkliercarcinoom en 68 patiënten een struma. De dosering voor patiënten met een maligniteit en een struma bedroeg respectievelijk gemiddeld 6522 ± 5232 MBq en 2833 ± 875 MBq. Patiënten behandeld voor een maligniteit lieten een toename zien in klachten van (maaltijd-gerelateerde) zwelling en pijn van de speekselklieren tijdens de eerste zes maanden na behandeling ($p < 0.005$). Deze klachten hielden gemiddeld 4.5 (± 5.2) jaar aan. Ook hadden deze patiënten met schildkliercarcinoom een hogere XI-score na behandeling met I131 (15 ± 6 vs 20 ± 10 , $p < 0.005$). Patiënten behandeld voor een struma lieten geen toename in klachten zien.

Conclusie: Patiënten behandeld met I131 voor schildkliercarcinoom hebben een verhoogd risico op sialoadenitis en op het ontwikkelen van xerostomie, waarbij de klachten jaren kunnen aanhouden.

Urologie

Vries AH de

Initial experience with the Dutch Urology Practical Skills training program: Opinions of residents and urologists on quality of education

A.H. de Vries*, B.M.A. Schout, J.J.G. van Merriënboer, R.C.M. Pelger, E.L. Koldewijn*, C. Wagner

Background Simulation training is gradually being integrated into urological curricula. Recently, the pilot phase of the Dutch Urology Practical Skills (DUPS) program has been completed.

Objective In this study we aimed to answer the questions: _Are simulation-based training programs such as DUPS of value in addition to current residency training?_ and _What are points of attention for future implementation?_

Methods A questionnaire was sent to residents and supervising urologists from 8 pilot hospitals, measuring opinions on 1. Practical aspects, 2. The DUPS-program in general and 3. Training-specific matters e.g. quality and expected effects.

Results Response was 87% ($n=41$) for residents and 82% ($n=23$) for supervisors. According to 98% of residents a supervisor was present during all training sessions. Training sessions did

not always proceed according to plan according to 46% of residents vs. 14% of supervisors ($p < 0.01$). 59% of residents and 55% of supervisors considered the DUPS-program as a useful addition to current residency training. Overall, positive points were familiarizing with equipment of the local hospital, repeated application of theory and skills, and a national uniform foundation of skills. Points for improvement were suitability of models, adaptation of training level to senior residents, and financial constraints.

Conclusions The majority of residents and supervisors consider the DUPS-program as a useful addition to current residency training. Points that should be taken into account for future implementation of DUPS and similar programs include: Improving the educational value by making it adaptive for junior and senior residents, using suitable models and applying a manageable cost model.

Tabellen

Tabel 1: Overzicht aantal publicaties

Specialisme	Tijdschrift artikelen	Promoties	Boeken	Hoofstuk	Totaal
Algemeen Klinisch Laboratorium	6		1		7
Anesthesiologie	17				17
Apotheek	4				4
Cardiologie	49	1		1	51
Cardiothoracale chirurgie	14	1			15
Chirurgie	83	1		3	87
Dermatologie	13				13
Geestelijke verzorging			1	4	5
Geriatric	2	1		1	4
Gynaecologie	29	1			30
ICMT	1				1
Inwendige geneeskunde	21	1			22
Kindergeneeskunde	8				8
Klinische Fysica	5				5
Longgeneeskunde	12			1	13
Maag, darm en leverziekten	5				5
Medische psychologie	2				2
Mondziekten en kaakchirurgie	2				2
Neurologie	6				6
Onderwijs en Onderzoek	5				5
Operatie Kamers	3				3
Pamm	7				7
Plastische chirurgie	1				1
Radiologie	7	1			8
Radiotherapie	9	2			11
SEH	3				3
Urologie	5				5
Totaal	322	9	2	10	343

Tabel 2 Wetenschapsavonden

Specialisme	Wetenschaps avond 2014 Presentaties	Wetenschaps avond 2014 Posters	Totaal
Algemeen Klinisch Laboratorium		2	2
Apotheek		3	3
Cardiologie	1	1	2
Cardiothoracale chirurgie		1	1
Chirurgie	2	7	9
Dermatologie		1	1
Inwendige geneeskunde	1	1	2
Kindergeneeskunde	1		1
Longgeneeskunde		1	1
Mond- en Kaakchirurgie		1	1
Urologie		1	1
Totaal	5	19	24

Tabel 3: Overzicht aantal aantal artikelen en gemiddelde impactfactor per specialisme

Specialisme	Artikelen met impactfactor	Artikelen zonder impactfactor	Totaal aantal artikelen	Gemiddelde impactfactor	Standaard deviatie
Algemeen Klinisch					
Laboratorium	6	0	6	2.543	0.720
Anesthesiologie	13	4	17	2.222	1.533
Apotheek	2	2	4	0.857	1.032
Cardiologie	40	9	49	4.940	6.785
Cardiothoracale chirurgie	12	2	14	2.377	3.851
Chirurgie	72	11	83	3.150	2.898
Dermatologie	12	1	13	4.441	6.555
Geriatric		2	2	0	0
Gynaecologie	22	7	29	2.753	2.140
ICMT	1	0	1	1.551	0
Inwendige geneeskunde	19	2	21	7.717	11.241
Kindergeneeskunde	4	4	8	2.969	3.721
Klinische Fysica	5	0	5	2.094	0.037
Longgeneeskunde	9	3	12	2.997	2.446
Maag, darm en leverziekten	5	0	5	4.730	1.511
Mondziekten en kaakchirurgie	0	2	2	0	0
Neurologie	4	2	6	3.856	3.504
Onderwijs en Onderzoek	4	1	5	3.205	2.450
Operatie Kamers	3	0	3	2.000	1.160
Orthopedie	1	0	1	2,787	0
Pamm	3	4	7	1.539	2.153
Plastische chirurgie	1	0	1	1.623	0
Radiologie	4	3	7	2.673	2.790
Radiotherapie	9	0	9	4.123	2.760
SEH	0	3	3	0	0
Urologie	5	0	5	3.911	3.731
Totaal	260	62	322	3.623	4.971

Tabel 4: Impactfactor per tijdschrift

Titel	Impact factor	Titel	Impact factor
Acta Anaesthesiol Scand	2.355	Cardiovasc Ultrasound	1.32
Acta Obstet Gynecol Scand	1.85	Catheter Cardiovasc Interv	2.514
Acta Oncol	2.867	Circ Arrhythm Electrophysiol	--
Acta Ophthalmol	2.345	Circ Cardiovasc Genet.	--
Am J Clin Oncol	2.552	Circ Cardiovasc Interv	6.543
Am J Hum Genet	--	Circ Cardiovasc Qual Outcomes	--
Am J Prev Med	3.945	Circ J	3.766
Anaesthesia	3.486	Circulation	15.202
Anaesth Analg	3.300	Clin Chem Lab Med	3.009
Ann Med	5.094	Clin Endocrinol	3.396
Ann Oncol	7.384	Clin Exp Dermatol	1.329
Ann Surg Oncol	4.120	Clin Infect Dis	9.374
Ann Surg	6.329	Clin Orthop Relat Res	2.787
Ann Thorac Cardiovasc Surg	0.466	Clin Res Cardiol	3.667
Ann Thorac Surg	3.454	Clin Sci (Lond)	4.859
Arch Pathol Lab Med	2.781	Clin Ther	2.230
Arrhythmia & Electrophysiology Review	--	Colorectal Dis	2.081
Artif Intell Med	1.355	Comput Math Methods Med	0.791
Artif Organs	1.964	Cortex	6.161
ASAIO J	1.491	Curr Opin Clin Nutr Metab Care	4.519
Asian Cardiovasc Thorac Ann	--		
		Dermatol Surg	1.866
BJU Int	3.046	Dermatol Ther	1.963
Blood	9.06	Diabet Med	3.241
BMC Gastroenterology	2.11	Diabetes Care	7.735
BMC Health Serv Res	1.77	Diagn Microbiol Infect Dis	2.260
BMC Neurol	2.56	Diagnostic Imaging Europe	--
BMC Pregnancy Childbirth	2.52	Dig Surg	--
BMC Womens Health	--	Dis Colon Rectum	2.615
BMJ Case Rep	--		
Br J Anaesth	4.237	Emerg Med Int	--
Br J Cancer	5.082	Endocr Relat Cancer	5.261
Br J Dermatol	3.759	Endokrynol Pol	1.070
Br J Surg	4.839	Endoscopy	5.735
Breast	1.967	Epigenetics	4.920
Breast Cancer Res Treat.	4.469	Eur Heart J.	14.097
Breast J	1.831	Eur J Cancer.	5.061
		Eur J Cardiothorac Surg.	2.574
Can J Anaesth	2.127	Eur J Clin Invest	3.365
Can J Diabetes	0.458	Eur J Clin Microbiol Infect Dis	3.024
Can J Surg	1.63	Eur J Hosp Pharm	--
Cancer Treat Rev	6.024	Eur J Obstet Gynecol Reprod Biol	1.843
Cardiovasc Diabetol	4.21	Eur J Pediatr	1.907

Eur J Surg Oncol	2.614	J Am Acad Dermatol	4.906
Eur J Vasc Endovasc Surg	2.820	J Am Coll Cardiol	14.086
Eur Respir J	3.222	J Biomech	2.716
Euro Surg Res	--	J Bone Miner Res	6.128
EuroIntervention	3.285	J Cardiothorac Surg	0.90
Europace	1.980	J Cardiothorac Vasc Anesth.	1.448
Eur Urol	10.476	J Cardiovasc Surg (Torino).	1.510
European Surveill	5.491	J Clin Anesth	1.145
Eurointervention	3.173	J Clin Cell Immunol	--
Europace	2.765	J Clin Endocrinol Metab.	6.430
Expert Rev Anticancer Ther	2.066	J Clin Oncol	18.038
Expert Rev Respir Med	--	J Crit Care	2.498
		J Electrocardiol	1.093
Fam Cancer	1.935	J Eval Clin Pract	--
Fertil Steril.	4.174	J Heart Valve Dis	1.071
		J Laparoendosc Adv Surg Tech A	--
Gastrointest Endosc	5.210	J magn reson imaging	2.566
Gynecol Oncol.	3.929	J Minim Invasive Gynecol	1.608
		J Obstet Gynaecol Can	--
Haematologica	5.935	J Palliat Med	--
Haemophilia	3.17	J Pediatr Psychol	2.647
Health Care Manag Sci	0.705	J Psychosom Obstet Gynaecol	1.590
Heart	5.014	J Surg Oncol	2.644
Heart Rhythm	5.045	J Surg Res	2.018
Heart Vessels	2.126	J Thorac Cardiovasc Surg	3.526
Hernia	1.693	J Thorac Dis	--
Herz	0.779	J Thromb Haemost	6.081
HPB	1.939	J Vasc Surg	2.879
Hum Mol Genet	7.692	JAMA Surg	4.42
Hum Reprod	4.670		
		Lancet	39.060
IEEE Trans Biomed Eng	--	Lancet Neurol	23.917
Implement Sci	2.37	Lancet Oncol	25.117
Infect Ecol Epidemiol	--		
Infectieziekten Bulletin	--	Med Eng Phys	1.779
Int J Cancer	6.198	Microsurgery	1.623
Int J Cardiol	5.509	Minerva Anesthesiol	2.818
Int J Colorectal Dis	2.238	Minim Invasive Ther Allied Technol	1.186
		Multimed Man Cardiothorac Surg	--
Int J Emerg Med	--		
Int J Gynaecol Obstet	1.836		
Int J Gynaecol Cancer	1.941	N Engl J Med	51.658
Int J Nurs Stud	2.075	Ned Tijdschr Allergie & Astma	--
Int J Oral Maxillofac Surg	4.105	Ned Tijdschr Geneesk	--
Int J Surg Case Rep	--	Ned Tijdschr Hematol	--
Int J Technol Assess Health Care	1.551	Ned Tijdschr Tandheelkd	--
Int J Urogynecol J	2.169	Ned tijdschr anesthesiemed	--
Interact Cardiovasc Thorac Surg	1.112	Ned tijdschr Obstet Gynaecol	--

Neth Heart J.	1.411
Neth J Med	2.072
Neurobiol Aging	6.166
Neurology	8.25
Obstet Gynecol	4.799
Obstet Gynecol Int	--
Pacing Clin Electrophysiol	1.746
Pancreas	2.953
Patient Saf Surg	--
Pediatr Res	2.673
Plos One	--
Praktische Pediatrie	--
Psychooncology	3.506
Psychosom Med	4.077
PW Wetenschappelijk Platform	--
Radiology	6.339
Radiat Oncol	2.11
Reg Anesth Pain Med.	3.464
Respir Med	2.585
Respir Res	3.64
Shock	2.612
Strahlenther Onkol	4.163
Support Care Cancer	2.649
Surg Endosc	3.427
Tijdschr Kindergeneeskd	--
Thorac Cardiovasc Surg	0.925
Thromb Haemost	6.094
Tijdschr Gerontol Geriatr	--
Tijdschr Neurol Neurochir	--
Transfus Med	1.259
Trials	2.21
Ultrasonics	2.028
Ultrasound Med Biol	2.455
Urology	2.424
Value Health	2.191
Vasc Med	1.617
World J Gastroenterol	2.547
World J Gastrointest Surg	--
World J Urol	2.888

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Het Catharina Ziekenhuis maakt deel uit van Santeon



Het Catharina Ziekenhuis is lid van de vereniging
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