

Wetenschappelijk Jaaroverzicht 2011

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Oplage: 400

Een uitgave van het Catharina Ziekenhuis
Eindhoven, 2012

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Woord Vooraf

Voor u ligt het “Wetenschappelijke Jaaroverzicht 2011” van het Catharina Ziekenhuis. Het biedt u informatie over de wetenschappelijke publicaties die zijn verschenen, dankzij de inspanning van medewerkers van ons ziekenhuis. In totaal zijn er 277 wetenschappelijke publicaties verschenen. Daar komt bij, dat het Catharina Ziekenhuis afgelopen 10 jaar het beste van alle Topklinische Ziekenhuizen scoort op het aantal publicaties in relatie tot de impactfactor en het eerste auteurschap (Bibliometric Analys of STZ hospitals, 2012).

Wij zijn hier erg trots op, en de uitdaging is deze lijn ook naar de toekomst vast te houden. In het visiedocument van De Stichting Topklinische Ziekenhuizen (STZ), waartoe het Catharina Ziekenhuis behoort, wordt gestreefd naar het stimuleren van wetenschappelijk onderzoek. Voor ons ziekenhuis betekent het, dat we de motivatie en de ambitie van onze professionals vast moeten blijven houden, waardoor ook junior-onderzoekers worden gestimuleerd. Een andere belangrijke component is een goede toekomstbestendige infrastructuur naast het investeren in netwerken met partners en instellingen in de gezondheidszorg, de universiteiten en daar buiten. En zo blijft er veel te doen om die prominente plaats van wetenschappelijk onderzoek in de toekomst te behouden.

Namens de Raad van Bestuur wil ik graag alle medewerkers die een directe of indirecte bijdrage hebben geleverd aan het wetenschappelijk onderzoek bedanken voor dit mooie resultaat in 2011.

Dr. P.L. Batenburg
Voorzitter Raad van Bestuur

Algemeen Klinisch Laboratorium

Impactfactor:
8.435

Berkel M van

Immune responses against domain I of (2) -glycoprotein I are driven by conformational changes: Domain I of glycoprotein I harbors a cryptic immunogenic epitope

Laat B de, Berkel M van*, Urbanus RT, Siregar B, Groot PG de, Gebbink MF, Maas C

Arthritis Rheum. 2011 Dec;63(12):3960-8

OBJECTIVE: The presence of autoantibodies against a cryptic epitope in domain I of (2) -glycoprotein I ((2) GPI) strongly associated with thrombotic events in patients with the antiphospholipid syndrome. We hypothesized that conformational change could be a trigger for the formation of antibodies against domain I of (2) GPI. Therefore, investigated whether immune responses against (2) GPI are related to its conformation. **METHODS:** Conformational changes in (2) GPI were studied using various techniques, either upon binding to cardiolipin or after disruption of the internal disulfide bonds. The immunogenicity of (2) GPI in different conformations as well as the individual domains of (2) GPI were studied in vivo by monitoring the generation of antibodies after intravenous administration of (2) GPI to mice. Furthermore, plasma samples from these mice were assessed for anticoagulant activity and thrombin-antithrombin complex levels. **RESULTS:** We observed that the interaction of (2) GPI with cardiolipin induced a conformational change in (2) electron microscopy revealed that (2) GPI assembled into polymeric meshworks. We next investigated the immunogenicity of both human and murine (2) GPI in mice. Both human and murine (2) GPI combined with cardiolipin and misfolded (2) GPI triggered antibody formation against the native protein as well as against domain (2) GPI, while native (2) GPI was not immunogenic. In addition, we observed that anti-domain I antibodies developed in mice injected with domain I of (2) GPI, and that antibodies did not develop in mice injected with domains II-V. induced anti-domain I antibodies prolonged the dilute Russell's viper venom plasma clotting time. The plasma of with anti-domain I antibodies had increased levels of circulating thrombin-antithrombin complexes. **CONCLUSION:** The results of our studies indicate that the exposure of cryptic epitopes due to conformational changes in (2) GPI can induce autoantibody formation.

Impactfactor:
2.069

Berkel M van

Electrolyte-balanced heparin in blood gas syringes can introduce a significant bias in the measurement of positively charged electrolytes

Berkel M van*, Scharnhorst V*

Clin Chem Lab Med. 2011 Feb;49(2):249-52. Epub 2010 Dec 14

Background: Heparin binds positively charged electrolytes. In blood gas syringes, electrolyte-balanced heparin is used to prevent a negative bias in electrolyte concentrations. The potential pre-analytical errors introduced by blood gas syringes are largely unknown. Here, we evaluate electrolyte concentrations in non-anticoagulated compared with concentrations measured in electrolyte-balanced blood gas syringes. **Methods:** Venous blood was collected into plain tubes. Ionized calcium, potassium, sodium and hydrogen ions were analyzed directly using a gas analyzer and the remaining blood was collected into different blood gas syringes in

random order: Preset (Becton Dickinson), Monovette (Sarstedt) and Pico 50-2 (Radiometer). Results: Ionized calcium and sodium concentrations were significantly lower in blood collected in Becton Dickinson and Sarstedt syringes compared to non-heparinized (NH) blood. The mean bias exceeded biological variation-based total allowable error, which in most cases leads clinically misleading individual results. In contrast, ionized calcium concentrations in blood collected in Pico 50-2 syringes were identical to values obtained from NH blood. Sodium showed a minor, yet statistically significant, bias. Conclusions: Despite the fact that blood gas syringes now contain electrolyte-balanced heparin, one should be of the fact that these syringes can introduce pre-analytical bias in electrolyte concentrations. The extent of the bias differs between syringes.

Boer AK

Ontwikkeling en validatie van een systematisch intern kwaliteitsbewakingprogramma voor microscopische semen beoordeling met behulp verse semenstalen

Boer AK*

Ned Tijdschr Klin Chem Labgeneesk 2011;36 (4):233-6

Impactfactor:

-

Coene KL ∞

KIF7 mutations cause fetal hydroletharus and acrocallosal syndromes

Putoux A, Thomas S, Coene KL ∞ , Davis EE, Alanay Y, Ogur G, Uz E, Buzas D, Gomes C, Patrier S, Bennett CL, Elkhartoufi N, Frison MH, Rigonnot L, Joyé N, Pruvost S, Utine GE, Boduroglu K, Nitschke P, Fertitta L, Thauvin-Robinet C, Munnich A, Cormier-Daire V, Hennekam R, Colin E, Akarsu NA, Bole-Feysot C, Cagnard N, Schmitt Goudin N, Lyonnet S, Encha-Razavi F, Siffroi JP, Winey M, Katsanis N, Gonzales M, Vekemans M, Beales PL, Bitach T

Nat Genet. 2011 Jun;43(6):601-6. Epub 2011 May 8

KIF7, the human ortholog of *Drosophila* Costal2, is a key component of the Hedgehog signaling pathway. Here report mutations in KIF7 in individuals with hydroletharus and acrocallosal syndromes, two multiple malformation disorders with overlapping features that include polydactyly, brain abnormalities and cleft palate. Consistent with of KIF7 in Hedgehog signaling, we show deregulation of most GLI transcription factor targets and impaired GLI3 processing in tissues from individuals with KIF7 mutations. KIF7 is also a likely contributor of alleles across the ciliopathy spectrum, as sequencing of a diverse cohort identified several missense mutations detrimental to protein function. In addition, in vivo genetic interaction studies indicated that knockdown of KIF7 could exacerbate the phenotype induced by knockdown of other ciliopathy transcripts. Our data show the role of KIF7 in human primary especially in the Hedgehog pathway through the regulation of GLI targets, and expand the clinical spectrum of ciliopathies.

Impactfactor:

-

Impactfactor: Coene KL[∞]
8.058 **The ciliopathy-associated protein homologs RPGRIP1 and RPGRIP1L are linked to cilium integrity through interaction with Nek4 serine/threonine kinase.**

Coene KL[∞], Mans DA, Boldt K, Gloeckner CJ, Reeuwijk J van, Bolat E, Roosing S, Letteboer SJ, Peters TA, Cremers FP, Ueffing M, Roepman R
Hum Mol Genet. 2011 Sep 15;20(18):3592-605. Epub 2011 Jun 17

Recent studies have established ciliary dysfunction as the underlying cause of a broad range of multi-organ phenotypes, known as 'ciliopathies'. Ciliopathy-associated proteins have a common site of action in the cilium, however, their overall importance for ciliary function differs, as implied by the extreme variability in ciliopathy phenotypes. The aim of this study was to gain more insight in the function of two ciliopathy-associated protein homologs, RPGR interacting protein 1 (RPGRIP1) and RPGRIP1-like protein (RPGRIP1L). Mutations in RPGRIP1 to the eye-restricted disease Leber congenital amaurosis, while mutations in RPGRIP1L are causative for Joubert Meckel syndrome, which affect multiple organs and are at the severe end of the ciliopathy spectrum. Using tandem affinity purification in combination with mass spectrometry, we identified Nek4 serine/threonine kinase as a prominent component of both the RPGRIP1- as well as the RPGRIP1L-associated protein complex. In ciliated cells, this kinase localized to basal bodies, while in ciliated organs, the kinase was predominantly detected at the ciliary rootlet. Downregulation of NEK4 in ciliated cells led to a significant decrease in cilium assembly, pointing to a role for Nek4 in dynamics. We now hypothesize that RPGRIP1 and RPGRIP1L function as cilium-specific scaffolds that recruit a signaling network which regulates cilium stability. Our data are in line with previously established roles in the cilium other members of the Nek protein family and define NEK4 as a ciliopathy candidate gene.

Impactfactor: Scharnhorst V
3.608 **Effect of duration of red blood cell storage on early and late mortality after coronary artery bypass grafting**

Straten AH van*, Soliman Hamad MA*, Zundert AA van*, Martens EJ*, Woorst JF ter*, Wolf AM, Scharnhorst V*
J Thorac Cardiovasc Surg. 2011 Jan;141(1):231-7

Voor abstract zie: Cardiothoracale Chirurgie - Straten AH van

Impactfactor: Scharnhorst V
3.608 **Effect of storage time of transfused plasma on early and late mortality after coronary artery bypass grafting**

Straten AH van*, Soliman Hamad MA*, Martens EJ*, Tan ME*, Wolf AM de, Scharnhorst V*, Zundert AA van*
J Thorac Cardiovasc Surg. 2011 Jan;141(1):238-43.e1-2

Voor abstract zie: Cardiothoracale Chirurgie - Straten AH van

Impactfactor: Scharnhorst V
2.069 **Electrolyte-balanced heparin in blood gas syringes can introduce a significant bias in the measurement of positively charged electrolytes**

Berkel M van*, Scharnhorst V*
Clin Chem Lab Med. 2011 Feb;49(2):249-52. Epub 2010 Dec 14

Voor abstract zie: Algemeen Klinisch Laboratorium - Berkel M van

Scharnhorst V

Rapid detection of myocardial infarction with a sensitive troponin test

Scharnhorst V*, Krasznai K*, Veer M van't*, Michels R*

Am J Clin Pathol. 2011 ;135(3):424-8

Impactfactor:

2.504

Rapid identification and treatment of patients with a myocardial infarction (MI) is mandatory. We studied the diagnostic capacities of a sensitive troponin assay for detection of MI in emergency department patients within 2 hours after arrival. The study included 157 patients suspected of having non-ST-elevation acute coronary syndrome. Blood drawn on arrival (T0) and 2 (T2), 6, and 12 hours later. At T2, a troponin concentration above the MI cutoff is 87% sensitive and 100% specific for MI detection (positive predictive value [PPV], 100%; negative predictive value [NPV], 96%). If a difference of more than 30% between the troponin measurements at T0 and T2 in the absence of an absolute troponin increase above the 99th percentile of a reference population is also considered indicative of MI, sensitivity increases to 100% and specificity decreases to 87% (PPV, 70%; NPV, 100%). Sensitivity and specificity creatine kinase-MB and myoglobin are lower than those of troponin. By using a sensitive troponin assay and simple algorithms, the diagnosis of MI can be determined within 2 hours after arrival at the emergency department. Measurement of myoglobin and creatine kinase-MB has no added value.

* = *Werkzaam in het Catharina Ziekenhuis*

∞ = *Ten tijde van publicatie werkzaam bij: Department of Human Genetics & Nijmegen Centre for Molecular Life Sciences, Radboud Universiteit Nijmegen.*

Anesthesiologie

Impactfactor: Korsten HH
- **Three-dimensional quantification of regional left-ventricular dyssynchrony by magnetic resonance imaging**
Mischi M, Kaklidou F, Houthuizen P*, Aben JP, Prinzen FW, Bracke F*, Bosch H van den*, Korsten HH*
Conf Proc IEEE Eng Med Biol Soc. 2011 Aug;2011:2646-9
Voor abstract zie: Cardiologie - Houthuizen P

Impactfactor: Meeusen VC
- **No differences in job perceptions amongst Dutch nurse anaesthetists with and without nursing background**
Meeusen VC*, Dam K van, Brown-Mahoney C, Zundert AA van*, Knappe H
Anestezjoi Intens Ter. 2011 Jul-Sep;43(3):157-62
BACKGROUND: In the Netherlands, the employment as a "nurse anaesthetist" is comparable to that of a registered nurse anaesthetist in the Scandinavian countries and Poland. However, the Dutch healthcare system employs nurse anaesthetists both with and without nursing backgrounds. This study has investigated whether a nursing background influences the attitudes and perceptions of nurse anaesthetists in the Netherlands. METHODS: A survey was distributed to all nurse anaesthetists working in Dutch hospitals to discover differences their perceptions of their work context, job satisfaction, and work climate, as well as health and turnover intention. questionnaire also sought basic information on socio-demographic factors and psychosomatic symptoms. Descriptive statistics, factor analyses and independent T-tests were computed. RESULTS: Overall 923 of a total of 2,000 questionnaires were completed and analysed (response rate of 46%). Independent T-tests showed no significant differences between nurse anaesthetists with and those without nursing backgrounds in all the areas examined. CONCLUSION: Dutch nurse anaesthetists with and without nursing backgrounds reported similar perceptions of information about their work context, job satisfaction, work climate, psychosomatic symptoms, burnout, sickness absence, general health and turnover intention. Both academic tracks appeared to produce individuals who functioned similarly as professionals.

Impactfactor: Meeusen VC
1.721 **Understanding nurse anesthetists' intention to leave their job: How burnout and job satisfaction mediate the impact personality and workplace characteristics**
Meeusen VC*, Dam K van, Brown-Mahoney C, Zundert AA van*, Knappe HT.
Health Care Manage Rev. 2011 ;36(2):155-163
BACKGROUND: The retention of nurse anesthetists is of paramount importance, particularly in view of the fact health care workforce is shrinking. Although many health care providers find their work satisfying, they often consider leaving their jobs because of the stress. Are there ways to improve this situation? PURPOSE: This study investigated how work environment characteristics and personality dimensions relate to and job satisfaction and ultimately to turnover intention among Dutch nurse anesthetists.

METHODOLOGY: An online self-reporting questionnaire survey was performed among Dutch nurse anesthetists. The questionnaire included scales to assess personality dimensions, work climate, work context factors, burnout, job satisfaction, and turnover intention. The research model stated that personality dimensions, work climate, and work context factors, mediated by burnout and job satisfaction, predict turnover intention. Structural equation modeling used to test the research model. **FINDINGS:** Nine hundred twenty-three questionnaires were completed (46% response rate). Burnout mediated relationship between personality dimensions and turnover intention; job satisfaction mediated the relationship of climate and work context factors to turnover intention. **PRACTICE IMPLICATIONS:** To retain nursing staff and to maintain adequate staff strength, it is important to improve job satisfaction by creating a positive work climate and work context and to prevent burnout by selecting the most suitable employees through personality assessment.

Meeusen VC

Work climate related to job satisfaction among Dutch nurse anesthetists
Meeusen VC*, Dam K van, Brown-Mahoney C, Zundert AA van*, Knape HT
AANA J. 2011 Feb;79(1):63-70

Impactfactor:

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Finding ways to retain nurse anesthetists in the profession to meet the increasing demands of the healthcare system of paramount importance. The present study investigates the relationship between work climate and job satisfaction among Dutch nurse anesthetists. A questionnaire was distributed to Dutch nurse anesthetists to assess their perceptions of their work climates, and their levels of job satisfaction. Multiple regression analyses were performed obtain the predictive value of work climate for job satisfaction. All of the work climate characteristics had statistically significant correlations to job satisfaction, and explained 20% of the variance in job satisfaction. To achieve a higher level of job satisfaction among nurse anesthetists, it is necessary to improve some essential work climate characteristics, such as: (1) making the nurse anesthetist feel an important part of the organization's mission statement, (2) discussing progress at work, (3) giving recognition for delivered work, (4) encouraging development, (5) providing sufficient opportunities to learn and to grow.

Suijlekom H van

25. Ischemic Pain in the Extremities and Raynaud's Phenomenon

Devulder J, Suijlekom H van*, Dongen R van, Diwan S, Mekhail N, Kleef M van, Huygen F

Pain Pract. 2011 Sep-Oct;11(5):483-91. Epub 2011 Mar 25

Impactfactor:

-

Two important groups of disorders result from an insufficient blood supply to the extremities: critical vascular disease and the Raynaud's phenomenon. The latter can be subdivided into a primary and a secondary type. Critical ischemic disease is often caused by arteriosclerosis due to hypertension or diabetes. Primary Raynaud's is idiopathic and diagnosed as such if underlying systemic pathology has been excluded. Secondary Raynaud's is often a manifestation of a systemic disease. It is essential to try to establish a diagnosis as soon as possible in order to influence the evolution of the disease. A sympathetic nerve block can be considered in patients with critical ischemic vascular disease after extensive conservative treatment, preferably in the context of a

study (2B±). If this has insufficient spinal cord stimulation can be considered in a selected patient group (2B±). In view of the degree of invasiveness the costs involved, this treatment should preferably be applied in the context of a study and with the use of transcutaneous pO₂ measurements. In case of primary Raynaud's, life style changes are the first step. Sympathectomy can be considered as a treatment of Raynaud's phenomenon (2C+), but only after multidisciplinary evaluation of the patient and in close consultation with the patient's rheumatologist, vascular surgeon or internist..

Impactfactor:
3.686

Suijlekom HA van

Differences in sensory processing between chronic cervical zygapophysial joint pain patients with and without cervicogenic headache

Chua NH, Suijlekom HA van*, Vissers KC, Arendt-Nielsen L, Wilder-Smith OH

Cephalalgia. 2011 Jun;31(8):953-63. Epub 2011 May 13

BACKGROUND: It is not known why some patients with underlying chronic nociceptive sources in the neck develop cervicogenic headache (CEH) and why others do not. This quantitative sensory testing (QST) study systematically explores the differences in sensory pain processing in 17 CEH patients with underlying chronic cervical zygapophysial joint pain compared to 10 patients with chronic cervical zygapophysial joint pain but without CEH. **METHODS:** The QST protocol comprises pressure pain threshold testing, thermal detection threshold testing, electrical pain threshold testing and measurement of descending inhibitory modulation using the conditioned pain modulation (CPM) paradigm. **RESULTS:** The main difference between patients with or without CEH was the lateralization of pressure hyperalgesia to the painful side of the head of CEH patients, accompanied by cold as well as warm relative hyperesthesia on painful side of the head and neck. **DISCUSSION:** From this hypothesis-generating study, our results suggest that rostral neuraxial spread of central sensitization, probably to the trigeminal spinal nucleus, plays a major role in the development of CEH.

Impactfactor:
5.486

Svircevic V∞

Meta-analysis of thoracic epidural anesthesia versus general anesthesia for cardiac surgery

Svircevic V, Dijk D van, Nierich AP, Passier MP, Kalkman CJ, Heijden GJ van der, Bax L.

Anesthesiology. 2011 Feb;114(2):271-82

BACKGROUND: A combination of general anesthesia (GA) with thoracic epidural anesthesia (TEA) may have a beneficial effect on clinical outcomes after cardiac surgery. We have performed a meta-analysis to compare mortality and cardiac, respiratory, and neurologic complications in patients undergoing cardiac surgery with GA alone or combination of GA with TEA. **METHODS:** Randomized studies comparing outcomes in patients undergoing cardiac surgery with either GA alone GA in combination with TEA were retrieved from PubMed, Science Citation index, EMBASE, CINHALL, and Central Cochrane Controlled Trial Register databases. **RESULTS:** The search strategy yielded 1,390 studies; 28 studies that included 2,731 patients met the selection Compared with GA alone, the combined risk ratio for patients

receiving GA with TEA was 0.81 (95% CI: 0.40-1.64) mortality, 0.80 (95% CI: 0.52-1.24) for myocardial infarction, and 0.59 (95% CI: 0.24-1.46) for stroke. The risk ratios for the respiratory complications and supraventricular arrhythmias were 0.53 (95% CI: 0.40-0.69) and 0.68 (95% CI: 0.40-1.03), respectively. CONCLUSIONS: This meta-analysis showed that the use of TEA in patients undergoing cardiac surgery reduces risk of postoperative supraventricular arrhythmias and respiratory complications. The sparsity of events precludes conclusions about mortality, myocardial infarction, and stroke, but the estimates suggest a reduced risk after TEA. risk of side effects of TEA, including epidural hematoma, could not be assessed with the current dataset, and therefore TEA should be used with caution until its benefit-harm profile is further elucidated.

Svircevic V

Thoracic epidural anesthesia for cardiac surgery: a randomized trial

Svircevic V, Nierich AP, Moons KG, Diephuis JC, Ennema JJ, Brandon Bravo Bruinsma GJ, Kalkman CJ, Dijk D van
Anesthesiology. 2011 Feb;114(2):262-70

Impactfactor:
5.486

BACKGROUND: The addition of thoracic epidural anesthesia (TEA) to general anesthesia (GA) during cardiac surgery may have a beneficial effect on clinical outcomes. TEA in cardiac surgery, however, is controversial because the insertion of an epidural catheter in patients requiring full heparinization for cardiopulmonary bypass may lead to epidural hematoma. The clinical effects of fast-track GA plus TEA were compared with those of with fast-track GA alone. **METHODS:** A randomized controlled trial was conducted in 654 elective cardiac surgical patients who were randomly assigned to combined GA and TEA versus GA alone. Follow-up was at 30 days and 1 yr after surgery. The primary endpoint was 30-day survival free from myocardial infarction, pulmonary complications, renal failure, and stroke. **RESULTS:** Thirty-day survival free from myocardial infarction, pulmonary complications, renal failure, and stroke 85.2% in the TEA group and 89.7% in the GA group (P = 0.23). At 1 yr follow-up, survival free from myocardial infarction, pulmonary complications, renal failure, and stroke was 84.6% in the TEA group and 87.2% in the GA (P = 0.42). Postoperative pain scores were low in both groups. **CONCLUSIONS:** This study was unable to demonstrate a clinically relevant benefit of TEA on the frequency of complications after elective cardiac surgery, compared with fast-track cardiac anesthesia without epidural anesthesia. Given the potentially devastating complications of an epidural hematoma after insertion of an epidural catheter, questionable whether this procedure should be applied routinely in cardiac surgical patients who require full heparinization.

Tacken MC

Torsade de pointes during sevoflurane anesthesia and fluconazole infusion in a patient with long QT syndrome. report

Tacken MC*, Bracke FA*, Zundert AA van*
Acta Anaesthesiol Belg. 2011;62(2):105-8

Impactfactor:
-

We present the occurrence of 'torsade de pointes' induced by the combination of perioperative fluconazole administration and sevoflurane anesthesia in a patient with 'long QT syndrome' (LQTS) scheduled for

resection sacral abscess. Eight minutes following uneventful induction of anesthesia 'torsade de pointes' occurred, terminated a counter shock. At this time the end-tidal concentration of sevoflurane was 2%. The fluconazole infusion was disconnected and the operation was continued. Post-operatively the patient awakened uneventfully. The direct postoperative ECG showed a QTc of 531 ms (preoperative QTc of 442 ms.) and remained prolonged afterwards. long QT syndrome was the most likely diagnosis. LQTS is classified as either congenital or acquired. Patients with acquired LQTS may have an underlying predisposition for QT prolongation. Many drugs have shown to be associated with a prolonged QT interval (1). The syndrome in this particular patient was unmasked by sevoflurane. Concomitant administration of fluconazole might have further predisposed the patient to the development of 'torsade des pointes'. Although LQTS is relatively rare, it is important for the anesthesiologist to be familiar with the disease because of associated morbidity and mortality and the potential for anesthesia to induce malignant arrhythmias in asymptomatic carriers.

Impactfactor: Verelst P
2.807 **Incidence of phrenic nerve block after interscalene brachial plexus block**
Verelst P*, Zundert AA van*
Reg Anesth Pain Med. 2011 Jul-Aug;36(4):411-2

Impactfactor: Zundert AA van
2.807 **Incidence of phrenic nerve block after interscalene brachial plexus block**
Verelst P*, Zundert AA van*
Reg Anesth Pain Med. 2011 Jul-Aug;36(4):411-2

Impactfactor: Zundert AA van
- **No differences in job perceptions amongst Dutch nurse anaesthetists with and without nursing background**
Meeusen V*, Dam K van, Brown-Mahoney C, Zundert AA van*, Knappe H.
Anestezjol Intens Ter. 2011 Jul-Sep;43(3):157-62
Voor abstract zie: Anesthesiologie Meeusen V

Impactfactor: Zundert AA van
- **Coasting: worth the effort?**
Hendrickx JF, Cooman S de, Zundert AA van*, Grouls RJ*, Mortier E, Wolf AM de
Acta Anaesthesiol Belg. 2011;62(3):147-50
A new anesthesia machine incorporates a "coasting mode", but the extent to which a coasting technique can maintain anesthesia at the end of a procedure under optimal conditions (closed circuit anesthesia) remains unknown. Sixty-patients undergoing peripheral or abdominal surgery were assigned to 1 of 9 groups, depending on when desflurane coasting (in O₂/air) was started (after 4, 9, 16, 25, 36, 49, 64, 81, or 100 min). The end-expired desflurane concentration was maintained at 4.5% in O₂/air prior to coasting with a conventional anesthesia machine. After initiating coasting (using a closed-circuit technique), we examined when the end-expired desflurane concentration reached 70, 60, 50, and 40% of its value during maintenance (= 30, 40, 50 and 60% decrement times, respectively). Decrement times increased with increasing duration of anesthesia, and varied

widely. After 64 min of maintenance anesthesia, the end-expired desflurane concentration remained at or above 70, 60, 50, and 40% of its maintenance value during 10.3 +/- 2.3, 16.0 +/- 3.5, 25.0 +/- 5.9, and 45.4 +/- 19.3 min, respectively (average +/- standard deviation). Coasting can briefly maintain anesthesia towards the end of a procedure. While savings with an automated coasting mode are likely to be modest per patient, they may become substantial when multiplied by the number of procedures per day per operating room with no increase in the clinical workload of the anesthesia provider.

Zundert AA van

Mathematical method to build an empirical model for inhaled anesthetic agent wash-in

Hendrickx JF, Lemmens H, De Cooman S, Zundert AA van*, Grouls RJ* Mortier E, Wolf AM de

BMC Anesthesiol. 2011 Jun 24;11(1):13

Impactfactor:

BACKGROUND: The wide range of fresh gas flow - vaporizer setting (FGF - FD) combinations used by different anesthesiologists during the wash-in period of inhaled anesthetics indicates that the selection of FGF and FD is on habit and personal experience. An empirical model could rationalize FGF - FD selection during wash-in. METHODS: During model derivation, 50 ASA PS I-II patients received desflurane in O2 with an ADU(R) anesthesia machine with a random combination of a fixed FGF - FD setting. The resulting course of the end-expired desflurane concentration (FA) was modeled with Excel Solver, with patient age, height, and weight as covariates; NONMEM used to check for parsimony. The resulting equation was solved for FD, and prospectively tested by having the calculate FD to be used by the anesthesiologist after randomly selecting a FGF, a target FA (FAt), and a specified interval (1 - 5 min) after turning on the vaporizer after which FAt had to be reached. The following targets were tested: desflurane FAt 3.5 % after 3.5 min (n=40), 5 % after 5 min (n=37), and 6 % after 4.5 min (n=37). RESULTS: Solving the equation derived during model development for FD yields $FD = \frac{-0.23 + FGF * 0.24 * ((FGF * -0.23) * FAt * Ht * 0.1 - e^{(FGF * -0.23)} * FGF * 2.55 + 40.46 - e^{(FGF * -0.23)} * 40.46 + e^{(FGF * -0.23 + Time / -4.08)} * 40.46 - e^{-4.08} * 40.46))}{(-1 + e^{(FGF * 0.24)}) * (-1 + e^{(Time / -4.08)}) * 39.29}$. Only height (Ht) could be withheld as a significant covariate. Median performance error and median absolute performance error were -2.9 and 7.0 % in the 3.5 % 3.5 min group, -3.4 and 11.4 % in the 5 % after 5 min group, and -16.2 and 16.2 % in the 6 % after 4.5 min groups, respectively. CONCLUSIONS: An empirical model can be used to predict the FGF - FD combinations that attain a target end-anesthetic agent concentration with clinically acceptable accuracy within the first 5 min of the start of administration. The sequences are easily calculated in an Excel file and simple to use (one fixed FGF - FD setting), and will minimize agent consumption and reduce pollution by allowing to determine the lowest possible FGF that can be used. Different anesthesia machines will likely have different equations for different agents.

Impactfactor: **Zundert AA van**
- **Torsade de pointes during sevoflurane anesthesia and fluconazole infusion in a patient with long QT syndrome**
Tacken MC*, Bracke FA*, Zundert AA van*
Acta Anaesthesiol Belg. 2011;62(2):105-8
Voor abstract zie: Anesthesiologie - Tacken MC

Impactfactor: **Zundert AA van**
- **Which method of estimating renal function is the best predictor of mortality after coronary artery bypass grafting?**
Straten AH van*, Soliman Hamad MA*, Koene BM*, Martens EJ*, Tan ME*, Berreklouw E*, Zundert AA van*
Neth Heart J. 2011 Nov;19(11):464-9
Voor abstract zie: Cardiothoracale Chirurgie - Straten AH van

Impactfactor: **Zundert AA van**
- **An unusual case of left chest stab wound.**
Zebele C*, Gianoli M*, Elenbaas T*, Brink PR, Zundert AA van*
Asian Cardiovasc Thorac Ann. 2011 Oct;19(5):349-51.
Voor abstract zie: Cardiothoracale chirurgie – Zebele C

Impactfactor: **Zundert AA van**
- **Prehospital airway management: A prospective case study**
Wilbers NE, Hamaekers AE, Jansen J, Wijering SC, Thomas O, Wilbers-van Rens R, Zundert AA van*
Acta Anaesthesiol Belg. 2011;62(1):23-31

We conducted a one-year prospective study involving a prehospital Emergency Medical Service in the Netherlands investigate the incidence of failed or difficult prehospital endotracheal intubation. During the study period the paramedics were asked to fill in a registration questionnaire after every endotracheal intubation. Of the 26,271 patient contacts, 256 endotracheal intubations were performed by paramedics in one year. Endotracheal intubation failed patients (4.8%). In 12.0% of 249 patients, a Cormack and Lehane grade III laryngoscopy was reported and a grade laryngoscopy was reported in 10.4%. The average number of endotracheal intubations per paramedic in one year 4.2 and varied from zero to a maximum of 12. The median time between arrival on the scene and a positive capnograph was 7 min.38 s in the case of a Cormack and Lehane grade I laryngoscopy and 14 min.58 s in the a Cormack and Lehane grade 4 laryngoscopy. The incidence of endotracheal intubations performed by Dutch paramedics in one year was low, but endotracheal intubation was successful in 95.2%, which is comparable with findings in international literature. Early capnography should be used consistently in prehospital airway management

Impactfactor: **Zundert AA van**
- **Work climate related to job satisfaction among Dutch nurse anesthetists**
Meeusen VC*, Dam K van, Brown-Mahoney C, Zundert AA van*, Knape HT
AANA J. 2011 Feb;79(1):63-70
Voor abstract zie: Anesthesiologie - Meeusen VC

- Zundert AA van**
Preoperative Prediction of Early Mortality in Patients with Low Ejection Fraction Undergoing Coronary Artery Bypass Grafting
 Soliman Hamad MA*, Straten AH van*, Zundert AA van*, Woorst JF ter*, Martens EJ, Penn OC*
 J Card Surg. 2011 Jan;26(1):9-15
Voor abstract zie: Cardiothoracale chirurgie - Soliman Hamad MA
- Impactfactor:*
0.557
-
- Zundert AA van**
Understanding nurse anesthetists' intention to leave their job: How burnout and job satisfaction mediate the impact personality and workplace characteristics
 Meeusen VC*, Dam K van, Brown-Mahoney C, Zundert AA van*, Knape HT
 Health Care Manage Rev. 2011 ;36(2):155-163
Voor abstract zie: Anesthesiologie - Meeusen VC
- Impactfactor:*
1.721
-
- Zundert AA van**
Effect of storage time of transfused plasma on early and late mortality after coronary artery bypass grafting
 Straten AH van*, Soliman Hamad MA*, Martens EJ*, Tan ME*, de Wolf AM, Scharnhorst V*, Zundert AA van*
 J Thorac Cardiovasc Surg. 2011 Jan;141(1):238-43.e1-2
Voor abstract zie: Cardiothoracale chirurgie - Straten AH van
- Impactfactor:*
3.608
-
- Zundert AA**
Effect of duration of red blood cell storage on early and late mortality after coronary artery bypass grafting
 Straten AH van*, Soliman Hamad MA*, Zundert AA van*, Martens EJ*, Woorst JF ter*, Wolf AM, Scharnhorst V*
 J Thorac Cardiovasc Surg. 2011 Jan;141(1):231-7
Voor abstract zie: Cardiothoracale chirurgie - Straten AH van
- Impactfactor:*
3.608
-
- Zundert AA van**
Predictive value of the additive and logistic euroSCOREs in patients undergoing aortic valve replacement
 Koene BM*, Straten AH van*, Soliman Hamad MA*, Berreklouw E*, Woorst JF ter*, Tan ME*, Zundert AA van*
 J Cardiothorac Vasc Anesth. 2011 Dec;25(6):1071-5. Epub 2011 Jul 2
Voor abstract zie: Cardiothoracale chirurgie – Koene BM
- Impactfactor:*
1.596

* = Werkzaam in het Catharina Ziekenhuis

Apotheek

Impactfactor: Ackerman EW

- **Toepassing van clinical rules bij therapeutisch drug monitoring en hun effect op medicatie- veiligheid**

Wezel RA, Scheepers-Hoeks AM*, Schoemakers R*, Wasylewicz AT*, Broeke R ten*, Ackerman EW*, Wessels-Basten SJ*, Grouls RJ*
Pharmaceutisch Weekblad : Wetenschappelijk Platform 2011;5(8)

Impactfactor: Ackerman EW

- **Validatie van de schoonmaakprocedure voor een automatisch geneesmiddelen distributie- systeem, op basis van kruiscontaminatie met paracetamol**

Taks M*, Wessels-Basten SJ*, Mestrom M*, Ackerman EW*, Grouls RJ*
Pharmaceutisch Weekblad : Wetenschappelijk Platform 2011;5(7):105-9

Impactfactor: Blois M de

2.551

Consensus-based evaluation of clinical significance and management of anticancer drug interactions

Jansman FG, Reyners AK, Roon EN van, Smorenburg CH, Helgason HH, Comte M le, Wensveen BM, Tweel AM van den, Blois M de*, Kwee W, Kerremans AL, Brouwers JR; Scientific Institute for Dutch Pharmacists (WINAp); Dutch Society for Medical Oncology (NVMO); Dutch Society of Clinical Pharmacology and Biopharmacy (NVKF&B)
Clin Ther. 2011 Mar;33(3):305-14. Epub 2011 Apr 2

BACKGROUND: Anticancer drug interactions can affect the efficacy and toxicity of anticancer treatment and that interacting drugs. However, information on the significance, prevention, and management of these interactions currently lacking. **OBJECTIVE:** The purpose of this study was to assess the clinical significance of interaction among anticancer agents and comedications and to provide recommendations for the management of clinically significant interactions. **METHODS:** Members of a multidisciplinary expert group of hospital and community pharmacists, medical oncologists, internists, and clinical pharmacologists were selected by their professional organizations, which participated in this consensus project. Literature was extensively searched for any drug interactions with anticancer agents using registration files, reference books, handbooks, and electronic databases. Interactions between anticancer agents not considered. Interactions were classified by level of best available evidence for the interaction and by severity clinical effect, according to a structured assessment procedure. This assessment distinguished 5 levels for the amount and quality of evidence available and 6 severity levels for classification of potential drug-to-drug interactions. **RESULTS:** A total of 88 drug interactions with anticancer agents were identified from 146 combinations of drugs anticancer agents found in literature. For 58 combinations, there was insufficient evidence of an interaction. Of the identified interactions, 38 were classified as clinically significant, defined as necessitating an alert or intervention, as dose adaptation, comedication, discontinuation of treatment, or additional monitoring of treatment. Recommendations were made for management of these interactions. **CONCLUSION:** Numerous interactions with anticancer

agents are clinically significant and should be considered pharmacists and doctors in daily oncology practice.

Broeke R ten

Toepassing van clinical rules bij therapeutic drug monitoring en hun effect op medicatieveiligheid

Wezel RA, Scheepers-Hoeks AM*, Schoemakers R*, Wasylewicz AT*, Broeke R ten*, Ackerman EW*, Wessels-Basten SJ*, Grouls RJ*
Pharmaceutisch Weekblad : Wetenschappelijk Platform 2011;5(8)

Impactfactor:

-

Grouls RJ

Coasting: worth the effort?

Hendrickx JF, De Cooman S, Zundert AA van*, Grouls RJ*, Mortier E, De Wolf AM.

Acta Anaesthesiol Belg. 2011;62(3):147-50

Voor abstract zie: Anesthesiologie – Zundert AA van

Impactfactor:

-

Grouls RJ

Mathematical method to build an empirical model for inhaled anesthetic agent wash-in.

Hendrickx JF, Lemmens H, Cooman S de, Zundert AA van *, Grouls RJ*
Mortier E, Wolf AM de

BMC Anesthesiol. 2011 Jun 24;11(1):13

Voor abstract zie: Zundert AA van

Impactfactor:

-

Grouls RJ

Validatie van de schoonmaakprocedure voor een automatisch geneesmiddelendistributie- systeem, op basis van kruiscontaminatie met paracetamol

Taks M*, Wessels-Basten SJ*, Mestrom M*, Ackerman WE*, Grouls RJ*

Pharmaceutisch Weekblad : Wetenschappelijk Platform 2011;5(7):105-9

Impactfactor:

-

Harmsze AM

Combined influence of proton-pump inhibitors, calcium-channel blockers and CYP2C19*2 on on-treatment platelet reactivity and on the occurrence of atherothrombotic events after percutaneous coronary intervention

Harmsze AM*, van Werkum JW, Souverein PC, Breet NJ, Bouman HJ, Hackeng CM, Ruven HJ, Berg JM ten, Klungel OH, Boer A de, Deneer VH
J Thromb Haemost. 2011 Oct;9(10):1892-901

Impactfactor:

5.439

BACKGROUND: The carriage of CYP2C19*2 and the use of proton-pump inhibitors (PPIs) and calcium-channel blockers (CCBs) has been associated with the diminished efficacy of clopidogrel. However, previous studies have assessed the isolated impact of these risk factors for clopidogrel poor response. **OBJECTIVES:** The aim of the present study was to investigate the impact of the combined presence of three risk factors for clopidogrel poor response, that is, the use of CCBs, PPIs and the carriage of CYP2C19*2, on on-treatment platelet reactivity and the occurrence of atherothrombotic events in 725 patients on dual antiplatelet therapy undergoing elective coronary

stenting. METHODS: In a prospective, follow-up study, on-treatment platelet reactivity was quantified using ADP-induced transmittance aggregometry (LTA) and the VerifyNow P2Y12 assay. The clinical study endpoint was the composite all-cause mortality, myocardial infarction, stent thrombosis and stroke at 1 year after stenting. RESULTS: Patients with either one or more than one risk factor exhibited increased platelet reactivity (mean relative increase one risk factor: 11% and > 1 risk factor: 22%, respectively). Sixty-four events occurred during follow-up of the study population). Patients with one risk factor for clopidogrel poor response did not have an increased risk the composite endpoint. However, patients using both CCBs and PPIs and carriers of CYP2C19*2 who used CCBs had a statistically significant increased risk of the composite endpoint [hazard ratio(HR)(adj) 2.2 95% CI, 1.0-5.3, 0.044 and HR(adj) 3.3 95% CI, 1.1-9.8, P = 0.032, respectively]. CONCLUSIONS: The presence of more than one of the three investigated risk factors for clopidogrel poor response associated with an increased risk of adverse cardiovascular events within 1 year after elective coronary stenting.

Impactfactor: Harmsze AM
4.306 **CYP2C19 and ABCB1 genes and individualized treatment with clopidogrel**

Peters BJ, Harmsze AM*, Berg JM ten, Maitland-van der Zee AH, Tjoeng MM, Boer A de, Deneer VH
Pharmacogenomics. 2011 Feb;12(2):141-4

Impactfactor: Harmsze AM
- **Effect of gender difference on platelet reactivity**

Breet NJ, Sluman MA, Berkel MA van, Werkum JW van, Bouman HJ, Harmsze AM*, Kelder JC, Zijlstra F, Hackeng CM, Berg JM ten
Neth Heart J. 2011 Nov;19(11):451-7

BACKGROUND: Previous studies have suggested that women do not accrue equal therapeutic benefit from antiplatelet medication as compared with men. The physiological mechanism and clinical implications behind this gender disparity have yet to be established. METHODS: On-treatment platelet reactivity was determined in 717 men and 234 women on dual antiplatelet therapy, undergoing elective coronary stent implantation. Platelet function testing was performed using arachidonic acid adenosine diphosphate-induced light transmittance aggregometry (LTA) and the VerifyNow P2Y12 and Aspirin. Also the incidence of all-cause death, non-fatal acute myocardial infarction, stent thrombosis and ischaemic stroke evaluated. RESULTS: Women had higher baseline platelet counts than men. Women exhibited a higher magnitude of on-aspirin platelet reactivity using LTA, but not using the VerifyNow Aspirin assay. The magnitude of on-clopidogrel platelet reactivity was significantly higher in women as compared with men with both tests used. The cut-off value to identify patients at risk as well as the incidence of clinical endpoints was similar between women and men (16/234[6.8%] 62/717[8.6%], p CONCLUSION: Although the magnitude of platelet reactivity was higher in women, the absolute difference between genders was small and both the cut-off value to identify patients at risk and the incidence of the composite endpoint were similar between genders. Thus, it is unlikely that the difference prognosis in women.

Harmsze AM**High on-treatment platelet reactivity to both aspirin and clopidogrel is associated with the highest risk of adverse following percutaneous coronary intervention***Impactfactor:***4.706**

Breet NJ, Werkum JW van, Bouman HJ, Kelder JC, Harmsze AM*, Hackeng CM, Berg JM ten

Heart. 2011 Jun;97(12):983-90

AIM: High on-clopidogrel platelet reactivity (HCPR) and high on-aspirin platelet reactivity (HAPR) are associated atherothrombotic events following coronary stenting. There are, however, few data concerning high on-treatment platelet reactivity to both aspirin and clopidogrel simultaneously. The aim of the present study was to determine incidence of dual high on-treatment platelet reactivity (DAPR) and its impact on clinical outcome. METHODS: On-treatment platelet reactivity was measured in parallel by ADP- and arachidonic acid-induced light transmittance aggregometry (LTA) (n=921) and the point-of-care VerifyNow system (P2Y12 and aspirin) (n=422) patients on dual antiplatelet therapy undergoing elective stent implantation. HCPR and HAPR were established receiver-operator characteristic curve analysis. The primary endpoint was a composite of all-cause death, non-fatal acute myocardial infarction, stent thrombosis and ischaemic stroke at 1-year follow-up. RESULTS: The incidence of DAPR varied between 14.7% and 26.9% depending on the platelet function test used. DAPR, assessed by LTA and the VerifyNow system, was highly associated with an adverse clinical outcome. At follow-up the primary endpoint occurred more frequently in patients with isolated HCPR (11.7%), isolated HAPR or DAPR (10.7%) compared with patients without high on-treatment platelet reactivity (4.2%, all p<0.01) when platelet function was evaluated with LTA. Using the VerifyNow system, patients exhibiting DAPR had the highest risk for primary endpoint (17.7% vs 4.1% in patients without high on-treatment platelet reactivity, p=0.001). CONCLUSIONS: In patients undergoing elective percutaneous coronary intervention, DAPR to aspirin and clopidogrel is present in one in five patients and is associated with a high risk for atherothrombotic events. DAPR measured point-of-care VerifyNow system has a higher predictability for atherothrombotic events than LTA. CLINICAL TRIAL..

Harmsze AM**Interactie tussen clopidogrel en protonpompremmers. [Interaction between clopidogrel and proton pump inhibitors].***Impactfactor:***1.842**Harmsze AM*, Boer A de, Boot H, Deneer VH, Heringa M, Mol PG, Schalekamp T, Verduijn MM, Verheugt FW, Comte M
Ned Tijdschr Geneeskd. 2011;155(28):A2442

The drug interaction between proton pump inhibitors and clopidogrel has been the subject of much study in recent years. Contradictory results regarding the effect of proton pump inhibitors on platelet reactivity and on clinical outcome in clopidogrel-treated patients have been reported in literature. Concomitant use of omeprazole and clopidogrel found to decrease the exposure (AUC) to clopidogrel's active metabolite by 50% and to sharply increase platelet reactivity, as a result of inhibition by omeprazole of CYP2C19, a cytochrome P450 (CYP) enzyme. Pantoprazole much weaker effect

on clopidogrel's pharmacokinetics and on platelet reactivity during concomitant use. The influence of the other proton pump inhibitors when used simultaneously with clopidogrel has not yet been investigated in adequately randomized studies. Regulatory agencies state that the combination of clopidogrel and the CYP2C19 inhibitors omeprazole and esomeprazole should be avoided. To date, there is no conclusive evidence of a clinically relevant interaction between any of the proton pump inhibitors and clopidogrel.

Impactfactor:
4.706

Harmsze AM

Variability in on-treatment platelet reactivity explained by CYP2C19*2 genotype is modest in clopidogrel pretreated patients undergoing coronary stenting

Bouman HJ, Harmsze AM*, Werkum JW van, Breet NJ, Bergmeijer TO, Cate H ten, Hackeng CM, Deneer VH, Berg JM ten
Heart. 2011 Aug;97(15):1239-44. Epub 2011 May 31

BACKGROUND: An inadequate response to clopidogrel is mainly attributable to the variable formation of its active metabolite. The CYP2C19*2 loss-of-function polymorphism leads to reduced generation of the active metabolite similarly to high on-treatment platelet reactivity (HPR), associated with recurrent atherothrombotic events following coronary stent implantation. **AIM:** To determine the relative contribution of CYP2C19*2 genotype to HPR. **METHODS AND RESULTS:** CYP2C19*2 genotyping and platelet function testing using 5 and 20 mol/l ADP-induced light transmittance aggregometry (LTA), the PlateletWorks assay and the VerifyNow P2Y12 assay, were performed 1069 clopidogrel pretreated patients undergoing elective coronary stenting (POPular study, <http://clinicalTrials.gov/NCT00352014>). The relative contributions of CYP2C19*2 genotype and clinical variables to the interindividual variability of on-treatment platelet reactivity and the occurrence of HPR were established using multivariate regression models. CYP2C19*2 carrier status was associated with a more frequent occurrence of HPR. CYP2C19*2 genotype alone could explain 5.0%, 6.2%, 4.4% and 3.7% of the variability in 5 and 20 mol/l ADP-induced LTA, the PlateletWorks assay and the VerifyNow P2Y12 assay, respectively, which increased to 13.0%, 15.2%, 5.6% and when clinical variables were considered as well. Besides the CYP2C19*2 genotype, multiple clinical variables could be identified as independent predictors of HPR, including age, gender, body mass index, diabetes mellitus, clopidogrel loading dose regimen, use of amlodipine and platelet count. **CONCLUSION:** The CYP2C19*2 loss-of-function polymorphism is associated with a more frequent occurrence. However, the part of the interindividual variability in on-treatment platelet reactivity explained by CYP2C19*2 genotype is modest

Impactfactor:

Mestrom M

Validatie van de schoonmaakprocedure voor een automatisch geneesmiddelendistributie-systeem, op basis van kruiscontaminatie met paracetamol

Taks M*, Wessels-Basten SJ*, Mestrom M*, Ackerman WE*, Grouls RJ*
Pharmaceutisch Weekblad : Wetenschappelijk Platform 2011;5(7):105-9

Scheepers-Hoeks AM*Impactfactor:***Toepassing van clinical rules bij therapeutic drug monitoring en hun effect op medicatieveiligheid**

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Wezel RA, Scheepers-Hoeks AM*, Schoemakers R*, Wasylewicz AT*, Broeke R ten*, Ackerman EW*, Wessels-Basten SJ*, Grouls RJ*
Pharmaceutisch Weekblad : Wetenschappelijk Platform 2011;5(8)

Schoemakers R*Impactfactor:***Toepassing van clinical rules bij therapeutic drug monitoring en hun effect op medicatieveiligheid**

-

Wezel RA, Scheepers-Hoeks AM*, Schoemakers R*, Wasylewicz AT*, Broeke R ten*, Ackerman EW*, Wessels-Basten SJ*, Grouls RJ*
Pharmaceutisch Weekblad : Wetenschappelijk Platform 2011;5(8)

Taks M*Impactfactor:***Validatie van de schoonmaakprocedure voor een automatisch geneesmiddelendistributie- systeem, op basis van kruiscontaminatie met paracetamol**

-

Taks M*, Wessels-Basten SJ*, Mestrom M*, Ackerman WE*, Grouls RJ*
Pharmaceutisch Weekblad : Wetenschappelijk Platform 2011;5(7):105-9

Wasylewicz AT*Impactfactor:***Toepassing van clinical rules bij therapeutic drug monitoring en hun effect op medicatieveiligheid**

-

Wezel RA , Scheepers-Hoeks AM*, Schoemakers R*, Wasylewicz AT*, Broeke R ten*, Ackerman EW*, Wessels-Basten SJ*, Grouls RJ*
Pharmaceutisch Weekblad : Wetenschappelijk Platform 2011;5(8)

Wessels-Basten SJ*Impactfactor:***Toepassing van clinical rules bij therapeutic drug monitoring en hun effect op medicatieveiligheid**

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Wezel RA , Scheepers-Hoeks AM*, Schoemakers R*, Wasylewicz AT*, Broeke R ten*, Ackerman EW*, Wessels-Basten SJ*, Grouls RJ*
Pharmaceutisch Weekblad : Wetenschappelijk Platform 2011;5(8)

Wessels-Basten SJ*Impactfactor:***Validatie van de schoonmaakprocedure voor een automatisch geneesmiddelendistributie-systeem, op basis van kruiscontaminatie met paracetamol**

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Taks M*, Wessels-Basten SJ*, Mestrom M*, Ackerman WE*, Grouls RJ*
Pharmaceutisch Weekblad : Wetenschappelijk Platform 2011;5(7):105-9

* = Werkzaam in het Catharina Ziekenhuis

Cardiologie

- Impactfactor:** **Botman KJ**
1.332 **Type B Aortic Dissection Resulting in Acute Esophageal Necrosis**
Wal-Visscher E van de*, Nieuwenhuijsen GA*, Sambeek MR van*, Haanschoten M*, Botman KJ*, Hingh IH de*
Ann Vasc Surg. 2011 Aug;25(6):837.e1-3. Epub 2011 May 28
Voor abstract zie: Intensive Care - Wal-Visscher, E van de
- Impactfactor:** **Bracke FA**
- **Three-dimensional quantification of regional left-ventricular dyssynchrony by magnetic resonance imaging**
Mischi M, Kaklidou F, Houthuizen P*, Aben JP, Prinzen FW, Bracke FA*, Bosch H van den*, Korsten HH*
Conf Proc IEEE Eng Med Biol Soc. 2011 Aug;2011:2646-9
Voor abstract zie: Cardiologie - Houthuizen P
- Impactfactor:** **Bracke FA**
- **Treatment of pacemaker-induced superior vena cava syndrome by balloon angioplasty and stenting**
Klop B, Scheffer MG, McFadden E, Bracke FA*, Gelder BM van*
Neth Heart J. 2011 Jan;19(1):41-6
Superior vena cava (SVC) syndrome is a rare but serious complication after pacemaker implantation. This report describes three cases of SVC syndrome treated with venoplasty and venous stenting, with an average follow-up 30.7 (± 3.1) obstruction, can only be determined by venography.
- Impactfactor:** **Bracke FA**
3.761 **Atrioventricular and interventricular delay optimization in cardiac resynchronization therapy: physiological principles overview of available methods**
Houthuizen P*, Bracke FA*, Gelder BM van*
Heart Fail Rev. 2011 May;16(3):263-7
Voor abstract zie: Cardiologie - Houthuizen P
- Impactfactor:** **Bracke FA**
4.512 **Baseline left ventricular dP/dtmax rather than the acute improvement in dP/dtmax predicts clinical outcome in patients with cardiac resynchronization therapy**
Bogaard MD, Houthuizen P*, Bracke FA*, Doevendans PA, Prinzen FW, Meine M, Gelder BM van*.
Eur J Heart Fail. 2011 Oct;13(10):1126-32. Epub 2011 Jul 26
Voor abstract zie: Cardiologie - Houthuizen P
- Impactfactor:** **Bracke FA**
- **Torsade de pointes during sevoflurane anesthesia and fluconazole infusion in a patient with long QT syndrome**
Tacken MC*, Bracke FA*, Zundert AA van*
Acta Anaesthesiol Belg. 2011;62(2):105-8
Voor abstract zie: Anesthesiologie - Tacken MC

Bracke FA

Transseptal left ventricular endocardial pacing: preliminary experience from a femoral approach with subclavian pull-through

Gelder BM van*, Houthuizen P*, Bracke FA*

Europace. 2011 Oct;13(10):1454-8. Epub 2011 May 11

Voor abstract zie: Cardiologie - Gelder BM van

Impactfactor:

1.839

Brueren BR

Optical coherence tomography (OCT) of overlapping bioresorbable scaffolds: from benchwork to clinical application

Farooq V, Onuma Y, Radu M, Okamura T, Gomez-Lara J, Brugaletta S, Gogas BD, Geuns RJ van, Regar E, Schultz C, Windecker S, Lefèvre T, Brueren BR*, Powers J, Perkins LL, Rapoza RJ, Virmani R, García-García HM, Serruys PW

EuroIntervention. 2011 Jul;7(3):386-99

Impactfactor:

-

Dantzig JM van

Right atrial thrombus migrating to the superior vena cava during surgery.

Gevel DF van de*, Soliman Hamad MA*, Schönberger J*, Dantzig JM van*, Straten AH van*

Asian Cardiovasc Thorac Ann. 2011 Oct;19(5):363-6

Voor abstract zie: Cardiothoracale chirurgie -Gevel D van de

Impactfactor:

-

Dekker LR

Cardiac abnormalities in a follow-up study on carriers of Duchenne and Becker muscular dystrophy

Westrum SM van, Hoogerwaard EM, Dekker L*, Standaar TS, Bakker E, Ippel PF, Oosterwijk JC, Majoor-Krakauer, Essen AJ van, Leschot NJ, Wilde AA, Haan RJ de, Visser M de, Kooi AJ van der

Neurology. 2011 Jul 5;77(1):62-6. Epub 2011 Jun 22

Impactfactor:

8.17

OBJECTIVES: Cardiac involvement has been reported in carriers of dystrophin mutations giving rise to Duchenne muscular dystrophy (DMD) and Becker muscular dystrophy (BMD). The progress of these abnormalities during follow-up is unknown. We describe the long-term follow-up of dilated cardiomyopathy (DCM) in DMD/BMD carriers. METHODS: A long-term follow-up study was performed among Dutch DMD/BMD carriers first analyzed in 1995. cardiac history was taken, and all carriers were assigned a functional score to assess skeletal muscle involvement. Electrocardiography and M-mode and 2-D echocardiography were performed. DCM was defined as an enlarged ventricle with a global left ventricle dysfunction or fractional shortening less than 28%. Slow vital capacity of the was measured by a hand-held spirometer. RESULTS: Ninety-nine carriers were monitored with a median follow-up of 9 years (range 7.0-10.6 years). Eleven carriers with DCM (10 DMD, 1 BMD) were identified. Nine of them developed DCM in the follow-up period. One patients with DCM reported in the 1995 study died of cardiac failure at age 57 years. DCM was more frequently in carriers who were functionally symptomatic. CONCLUSION: Cardiac abnormalities in DMD/BMD carriers are progressive, as in patients with DMD/BMD.

Impactfactor:
5.499

Dekker LR

Activated human platelet products induce proarrhythmic effects in ventricular myocytes

Jong JS de, Verkerk AO, Borren MM van, Zakhrabova-Zwiauwer OM, Nieuwland R, Meijers JC, Akkerman JW, Wilde AA, Tan HL, Dekker LR*
J Mol Cell Cardiol. 2011 Sep;51(3):347-56. Epub 2011 May 30

Sudden cardiac death remains one of the most prevalent modes of death and is mainly caused by ventricular fibrillation (VF) in the setting of acute ischemia resulting from coronary thrombi. Animal experiments have shown that platelet activation may increase susceptibility of ischemic myocardium to VF, but the mechanism is unknown. In the present study, we evaluated the effects of activated blood platelet products (ABPPs) on electrophysiological properties and intracellular Ca²⁺ (Ca²⁺(i)) homeostasis. Platelets were collected from healthy volunteers. After activation, their secreted ABPPs were added to superfusion solutions. Rabbit ventricular myocytes were freshly isolated, and membrane potentials and Ca²⁺(i) were recorded using patch-clamp methodology and indo-1 fluorescence measurements, respectively. ABPPs prolonged action potential duration and induced early and delayed afterdepolarizations. ABPPs increased L-type Ca²⁺ current (I_{Ca,L}) density, but left densities of sodium current, inward rectifier K⁺ current, transient outward K⁺ current, and rapid component of the delayed rectifier K⁺ current unchanged. ABPPs did not affect kinetics or (in)activation properties of membrane currents. ABPPs increased systolic Ca²⁺(i), Ca²⁺(i) transient amplitude, and sarcoplasmic reticulum Ca²⁺ content. ABPPs did not affect the Na⁺-2⁺ exchange current (I_{NCX}) in Ca²⁺-buffered conditions. Products secreted from activated human platelets changes in I_{Ca,L} and Ca²⁺(i), which result in action potential prolongation and the occurrence of early and delayed afterdepolarizations in rabbit myocytes. These changes may trigger and support reentrant arrhythmias in ischemia models of coronary thrombosis.

Impactfactor:
-

Dekker LR

Treatment of atrial fibrillation in the elderly: time for a change?

Dekker LR*

Neth Heart J. 2011 Oct;19(10):403-4

Impactfactor:
14.292

Entjes R

Functional SYNTAX Score for Risk Assessment in Multivessel Coronary Artery Disease

Nam CW, Mangiacapra F, Entjes R*, Chung IS, Sels JW*, Tonino PA*, De Bruyne B, Pijls NH*, Fearon WF; FAME Study Investigators
J Am Coll Cardiol. 2011 Sep 13;58(12):1211-8

OBJECTIVES: This study was aimed at investigating whether a fractional flow reserve (FFR)-guided SYNTAX score (SS), termed "functional SYNTAX score" (FSS), would predict clinical outcome better than the classic SS in patients with multivessel coronary artery disease (CAD) undergoing percutaneous coronary intervention (PCI). **BACKGROUND:** The SS is a purely anatomic score based on the coronary angiogram and predicts outcome after in patients with multivessel CAD. FFR-guided PCI improves

outcomes by adding functional information to the anatomic information obtained from the angiogram. METHODS: The SS was prospectively collected in 497 patients enrolled in the FAME (Fractional Flow Reserve Angiography for Multivessel Evaluation) study. FSS was determined by only counting ischemia-producing lesions (d 0.80). The ability of each score to predict major adverse cardiac events (MACE) at 1 year was compared. RESULTS: The 497 patients were divided into tertiles of risk based on the SS. After determining the FSS for each patient, 32% moved to a lower-risk group as follows. MACE occurred in 9.0%, 11.3%, and 26.7% of patients in low-, medium-, and high-FSS groups, respectively ($p < 0.001$). Only FSS and procedure time were independent predictors of 1-year MACE. FSS demonstrated a better predictive accuracy for MACE compared with SS (Harrell's FSS, 0.677 vs. SS, 0.630, $p = 0.02$; integrated discrimination improvement of 1.94%, $p < 0.001$). CONCLUSIONS: Recalculating SS by only incorporating ischemia-producing lesions as determined by FFR decreases the number of higher-risk patients and better discriminates risk for adverse events in patients with multivessel CAD undergoing PCI. (Fractional Flow Reserve versus Angiography for Multivessel Evaluation [FAME]; NCT00267774).

Gelder BM van

ICD-shocktherapie bij bewustzijn vaak traumatisch : technische analyse en klinische gevolgen

Nathoe R*, Gelder BM van*
 Cordiaal 2011;32(2):40-44

Impactfactor:

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Gelder BM van

Treatment of pacemaker-induced superior vena cava syndrome by balloon angioplasty and stenting

Klop B, Scheffer MG, McFadden E, Bracke F*, Gelder BM van*
 Neth Heart J. 2011 Jan;19(1):41-6
 Voor abstract zie: *Cardiologie - Bracke F*

Impactfactor:

-

Gelder BM van

Atrioventricular and interventricular delay optimization in cardiac resynchronization therapy: physiological principles overview of available methods

Houthuizen P*, Bracke FA*, Gelder BM van*
 Heart Fail Rev. 2011 May;16(3):263-76
 Voor abstract zie: *Cardiologie - Houthuizen P*

Impactfactor:

3.761

Gelder BM van

Atrioventricular cross-talk leading to ventricular pacing inhibition in a dual-chamber ICD

Debie L, Broers B, van Opstal J, Gelder BM van*
 Case Reports in Cardiology 2011; article ID 624508 9 (3 p.)

Impactfactor:

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Impactfactor:
1.839

Gelder BM van

Transseptal left ventricular endocardial pacing: preliminary experience from a femoral approach with subclavian pull-through

Gelder BM van *, Houthuizen P*, Bracke FA*

Europace. 2011 Oct;13(10):1454-8. Epub 2011 May 11

Aims Coronary sinus (CS) lead placement for transvenous cardiac resynchronization therapy (CRT) even combined with transseptal left ventricular (LV) endocardial implantation from a superior approach still does not have 100% success rate. The aim of this study was to assess the feasibility of a femoral transseptal endocardial LV approach pacing in patients in whom a transvenous CS or a transseptal LV endocardial implantation with a superior approach had failed. We report our first experience with LV endocardial lead placement for CRT with a femoral transseptal technique followed by intravascular pull-through to the pectoral location. Methods and results In 11 patients, 10 (61.5 ± 9.5 years) with failed CS implant (four patients) or repeated CS lead malfunction (seven patients), a 4.1 active fixation lead was implanted endocardially in the left ventricle employing a femoral approach using an 8F transseptal sheath combined with a hooked 6F catheter. After successful implantation, the lead was pulled through from the femoral insertion site to the pectoral device location. The LV endocardial implantation was successfully performed in all patients. Stimulation threshold was 0.62 ± 0.33 V, lead impedance 825 ± 127 Ω , and R wave 12.8 ± 8.3 mV. Threshold and lead impedance were stable during follow-up, which varied from 1 to 6 months. No dislodgements were observed and there were no thromboembolic events during follow-up. Conclusion This technique for LV endocardial lead implantation is an alternative for failed CS and superior transseptal attempts using standard techniques and equipment. It is also applicable for pacing sites that are more easily reached from a femoral approach.

Impactfactor:
4.512

Gelder BM van

Baseline left ventricular dP/dtmax rather than the acute improvement in dP/dtmax predicts clinical outcome in patients with cardiac resynchronization therapy

Bogaard MD, Houthuizen P*, Bracke FA*, Doevendans PA, Prinzen FW, Meine M, Gelder BM van*

Eur J Heart Fail. 2011 Oct;13(10):1126-32. Epub 2011 Jul 26

Voor abstract zie: *Cardiologie - Houthuizen P*

Impactfactor:
1.839

Habibovic M

Gender disparities in anxiety and quality of life in patients with an implantable cardioverter-defibrillator

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

Europace. 2011 Dec;13(12):1723-30. Epub 2011 Aug 6

Aims A paucity of studies in implantable cardioverter-defibrillator (ICD) patients has examined gender disparities patient-reported outcomes, such as anxiety and quality of life (QoL). We investigated (i) gender disparities in anxiety and QoL and (ii) the magnitude of the effect of gender vs. New York Heart Association (NYHA) functional class ICD shock, and Type D personality

on these outcomes. Methods and results Implantable cardioverter-defibrillator patients (n = 718; 81% men) completed the State-Trait Anxiety Inventory (STAI) and the Short-Form Health Survey (SF-36) at baseline and 12 months post-implantation. The magnitude of the effect was indicated using Cohen's size index. Multivariate analysis of covariance for repeated measures showed no differences between men and on mean scores of anxiety ($F(1,696) = 2.67, P = 0.10$). Differences in QoL were observed for only two of the eight subscales of the SF-36, with women reporting poorer physical functioning ($F(1,696) = 7.14, P = 0.008$) and vitality ($F(1,696) = 4.88, P = 0.028$) than men. With respect to anxiety, effect sizes at baseline and 12 months for gender, class, and ICD shocks were small. A large effect size for Type D personality was found at both time points. For baseline and 12 months, the effect sizes for gender were small, while the influence of NYHA class and Type D personality was moderate to large. Conclusions Men and women did not differ on mean anxiety or QoL scores, for women reporting poorer QoL on two domains. The relative influence of gender on anxiety and QoL was less than that of NYHA functional class and Type D personality.

Houthuizen P

Atrioventricular and interventricular delay optimization in cardiac resynchronization therapy: physiological principles overview of available methods

Houthuizen P*, Bracke FA*, Gelder BM van*

Heart Fail Rev. 2011 May;16(3):263-76

In this review, the physiological rationale for atrioventricular and interventricular delay optimization of cardiac resynchronization therapy is discussed including the influence of exercise and long-term cardiac resynchronization therapy. The broad spectrum of both invasive and non-invasive optimization methods is reviewed with critical appraisal of the literature. Although the spectrum of both invasive and non-invasive optimization methods is broad, no single method can be recommended for standard practice as large-scale studies using hard endpoints are lacking. Current efforts mainly investigate optimization during resting conditions; however, there is a need to develop automated algorithms to implement dynamic optimization in order to adapt to physiological alterations during exercise and anatomical remodeling.

Impactfactor:

3.761

Houthuizen P

Baseline left ventricular dP/dtmax rather than the acute improvement in dP/dtmax predicts clinical outcome in patients with cardiac resynchronization therapy

Bogaard MD, Houthuizen P*, Bracke FA*, Doevendans PA, Prinzen FW, Meine M, Gelder BM van*

Eur J Heart Fail. 2011 Oct;13(10):1126-32. Epub 2011 Jul 26

AIMS: The maximum rate of left ventricular (LV) pressure rise (dP/dt(max)) has been used to assess the acute haemodynamic effect of cardiac resynchronization therapy (CRT). We tested the hypothesis that LV dP/dt(max) predicts long-term clinical outcome after initiation of CRT.

METHODS AND RESULTS: This was a retrospective observational multicentre

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study in 285 patients in whom $dP/(max)$ was measured invasively following implantation of a CRT device. The minimum required follow-up was 1 We analysed the relationship between $dP/dt(max)$ and time to the composite endpoint, consisting of all-cause mortality, heart transplantation (HTX), or LV assist device (LVAD) implantation within the first year of CRT. Thirty-four events occurred after a mean follow-up of 160 days (range 21-359). Patients with an event had lower $dP/dt(max)$ than without an event both at baseline (705 ± 194 vs. 800 ± 222 mmHg/s, $P= 0.018$) and during CRT (894 ± 224 vs. 244 mmHg/s, $P= 0.033$), but the acute increase in $dP/dt(max)$ was similar in patients with and without an event 133 vs. 185 ± 115 mmHg/s, $P= n.s.$). Left ventricular $dP/dt(max)$ -level at baseline and during CRT both predicted clinical outcome after adjustment for gender, aetiology and New York Heart Association class: hazard ratio (HR) [95% confidence interval (CI) 0.658-0.950, $P= 0.012$] and HR 0.846 (95% CI 0.723-0.991, $P= 0.038$), respectively. CONCLUSION: Left ventricular $dP/dt(max)$ measured at baseline and during CRT are predictors of 1-year survival from all-cause mortality, HTX, or LVAD implantation, but the acute improvement in $dP/dt(max)$ is not correlated clinical outcome.

Impactfactor:

Houthuizen P

Three-dimensional quantification of regional left-ventricular dyssynchrony by magnetic resonance imaging

Mischi M, Kaklidou F, Houthuizen P*, Aben JP, Prinzen FW, Bracke F*, Bosch H van den*, Korsten HH*

Conf Proc IEEE Eng Med Biol Soc. 2011 Aug;2011:2646-9

Heart failure accounts for over five million patients in the United States alone. Many of them present dyssynchronous left ventricular (LV) contraction, whose treatment by cardiac resynchronization therapy (CRT) is until now guided electrocardiographic analysis. One third of the selected patients, however, does not respond to the therapy. Aiming improving the response rate, recent studies showed the importance of left bundle branch block (LBBB) configurations. Therefore, in order to detect motion patterns that relate to LBBB, this paper presents a novel method for three-dimensional quantification of regional LV mechanical dyssynchrony. LV wall-motion analysis is performed on magnetic resonance imaging (MRI) cines segmented by commercial software. Mutual delays between endocardial wall motion different LV regions are estimated by cross correlation followed by phase difference analysis in frequency domain, achieving unlimited time resolution. Rather than focusing on the systolic phase, the full cardiac cycle is used to estimate the contraction timing. The method was successfully validated against MRI tagging in five dogs before after LBBB induction. Preliminary validation in humans with 10 LBBB patients and 7 healthy subjects showed the method feasibility and reproducibility, with sensitivity and specificity in LBBB detection equal to 95.1% and 99.4% respectively.

Houthuizen P

Transseptal left ventricular endocardial pacing: preliminary experience from a femoral approach with subclavian pull-through

Gelder BM van*, Houthuizen P*, Bracke FA*

Europace. 2011 Oct;13(10):1454-8. Epub 2011 May 11

Voor abstract zie: *Cardiologie - Gelder BM van*

Impactfactor:

1.839

Koolen J

Evaluation of the second generation of a bioresorbable everolimus-eluting vascular scaffold for the treatment of novo coronary artery stenosis 12-month clinical and imaging outcomes

Serruys PW, Onuma Y, Dudek D, Smits PC, Koolen J*, Chevalier B, de Bruyne B, Thuesen L, McClean D, Geuns RJ van, Windecker S, Whitbourn R, Meredith I, Dorange C, Veldhof S, Hebert KM, Sudhir K, Garcia-Garcia HM, Ormiston JA.

J Am Coll Cardiol. 2011 Oct 4;58(15):1578-88

OBJECTIVES: The aim of this study was to demonstrate that the prevention of early scaffold area shrinkage of ABSORB BVS (Rev.1.1, Abbott Vascular, Santa Clara, California) was sustained and not simply delayed by a few months.

BACKGROUND: With improved scaffold design and modified manufacturing process of its polymer, the second iteration of ABSORB (BVS 1.1) has improved performance to prevent a scaffold area reduction at 6 months.

METHODS: Fifty-six patients were enrolled and received 57 ABSORB scaffolds. Quantitative coronary angiography, intravascular ultrasound (IVUS), analysis of radiofrequency backscattering, echogenicity and optical coherence tomography (OCT) were performed at baseline and at 12-month follow-up.

RESULTS: Overall the scaffold area remained unchanged with IVUS as well as with OCT, whereas the radiofrequency backscattering and the echogenicity of the struts decreased by 16.8% ($p < 0.001$) and 20% ($p < 0.001$), respectively; more specifically, the strut core area on OCT decreased by 11.4% ($p = 0.003$). Despite the absence of scaffold loss, pharmacological vasomotion was restored. On an intention-to-treat basis, the angiographic late lumen loss amounted to 0.27 ± 0.32 mm with an IVUS relative decrease in minimal lumen area of 1.94% ($p = 0.12$), without significant changes in mean lumen area. The OCT at follow-up showed that 96.69% of the struts were covered malapposition, initially observed in 18 scaffolds was only detected at follow-up in 4 scaffolds. Two patients experienced peri-procedural and iatrogenic myocardial infarction, respectively, whereas 2 underwent repeat intervention, resulting the major adverse cardiac event rate of 7.1% (4 of 56).

CONCLUSIONS: The 12-month performance of the second-generation ABSORB bioresorbable everolimus-eluting scaffold justifies the conduct of a randomized trial against current best standards. (A Clinical Evaluation of the Bioabsorbable Everolimus Eluting Coronary Stent System [BVS EECSS] in the Treatment of Patients With de Novo Native Coronary Artery Lesions; NCT00856856).

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14.292

Impactfactor:
5.862

Koolen JJ

Serial analysis of the malapposed and uncovered struts of the new generation of everolimus-eluting bioresorbable scaffold with optical coherence tomography

Gomez-Lara J, Radu M, Brugaletta S, Farooq V, Diletti R, Onuma Y, Windecker S, Thuesen L, McClean D, Koolen JJ*, Whitbourn R, Dudek D, Smits PC, Regar E, Veldhof S, Rapoza R, Ormiston JA, Garcia-Garcia HM, Serruys PW

JACC Cardiovasc Interv. 2011 Sep;4(9):992-1001

OBJECTIVES: The aim of this study is to assess the serial changes in strut apposition and coverage of the bioresorbable vascular scaffolds (BVS) and to relate this with the presence of intraluminal masses at 6 months optical coherence tomography (OCT). **BACKGROUND:** Incomplete strut/scaffold apposition (ISA) and uncovered struts are related to a higher risk of scaffold thrombosis. Bioresorbable vascular scaffolds can potentially avoid the risk of scaffold thrombosis because of its complete resorption. However, during the resorption period, the risk of scaffold thrombosis is unknown. **METHODS:** OCT was performed in 25 patients at baseline and 6 months. Struts were classified according to apposition, coverage, and presence of intraluminal masses. Persistent ISA was defined as malapposed struts present at baseline and follow-up, and late acquired ISA as ISA developing at follow-up, and scaffold pattern irregularities the strut distribution suggested scaffold fracture. **RESULTS:** At baseline, 3,686 struts were analyzed: 128 (4%) were ISA, and 53 (1%) were located over side-branches (SB). At 6 months, 3,905 struts were analyzed: 32 (1%) ISA, and 35 (1%) at the SB. Persistent ISA was observed frequently than late acquired-ISA (81% vs. 16%, respectively; 3% were unmatched). Late acquired ISA was associated with scaffold pattern irregularities, which were related to overstretching of the scaffold. Uncovered struts (2%) were more frequently observed in ISA and SB struts, compared with apposed struts (29% vs. 1%; p Intraluminal masses (14 cross-sections, 3%; in 6 patients, 24%) were more frequently located at the site of ISA uncovered struts (39% vs. 2% and 13% vs. 2%, respectively; p < 0.01). **CONCLUSIONS:** The lack of strut apposition at baseline is related to the presence of uncovered struts and intraluminal masses at 6 month. An appropriate balloon/artery ratio respecting the actual vessel size and avoiding the overstretching of the scaffold can potentially decrease the risk of scaffold thrombosis. (ABSORB Clinical Investigation, Cohort B [ABSORB B]; NCT00856856).

Impactfactor:
5.862

Koolen JJ

Serial In vivo intravascular ultrasound-based echogenicity changes of everolimus-eluting bioresorbable vascular scaffold during the first 12 months after implantation insights from the ABSORB B Trial

Brugaletta S, Gomez-Lara J, Serruys PW, Farooq V, Geuns RJ van, Thuesen L, Dudek D, Koolen JJ*, Chevalier McClean D, Windecker S, Smits PC, Bruyne B de, Whitbourn R, Meredith I, Domburg RT van, Sihan K, Winter Veldhof S de, Miquel-Hebert K, Rapoza R, Garcia-Garcia HM, Ormiston JA, Bruining N

JACC Cardiovasc Interv. 2011 Dec;4(12):1281-9

Because the bioresorption of the ABSORB bioresorbable vascular scaffold

(Abbott Vascular, Santa Clara, California) characterized by a diminishing gray-level intensity of the struts over time, the evaluation of quantitative changes hyperechogenicity can be useful to follow the in vivo degradation of the scaffold. Whereas the first ABSORB generation showed at 6 months a 50% reduction in hyperechogenicity, the second ABSORB generation (1.1), designed to the duration of luminal scaffolding, showed a 15% and 20% reduction in hyperechogenicity at 6 and 12 months, respectively, compared with post-implantation. These findings confirm the value of the manufacturing changes and suggest a slower degradation rate of the scaffold. OBJECTIVES: This study sought to investigate quantitative and homogeneity differential echogenicity changes ABSORB scaffold (1.1) during the first year after implantation. BACKGROUND: The imaging of the ABSORB bioresorbable vascular scaffold degradation by intravascular ultrasound (IVUS) has previously demonstrated diminishing gray-level intensity of the struts over time that can be evaluated IVUS-based differential echogenicity. The first generation of ABSORB (1.0) showed a 50% reduction in hyperechogenicity at 6 months and restoration of the pre-ABSORB implantation values at 2 years. The second generation of ABSORB (1.1), investigated in the ABSORB B trial, was modified to prolong the duration of luminal scaffolding. METHODS: A total of 63 patients were examined by IVUS immediately post-implantation and at 6-month (Cohort = 28) or 12-month (Cohort B2, n = 35) follow-up. IVUS-based tissue composition analysis software was used to quantify changes in hyperechogenicity over time in the scaffolded regions. Relative changes in hyperechogenicity calculated as: $100 \times (\% \text{ hyperechogenicity at follow-up} - \% \text{ hyperechogenicity at baseline}) / \% \text{ hyperechogenicity baseline}$. RESULTS: At 6- and 12-month follow-up, there was a 15% (from $22.58 \pm 9.77\%$ to $17.42 \pm 6.69\%$, $p = 0.001$) and (from $23.51 \pm 8.57\%$ to $18.25 \pm 7.19\%$, $p < 0.001$) reduction in hyperechogenicity, respectively, compared with postimplantation values. No difference in hyperechogenicity changes were observed between the proximal, medial, part of the scaffolded segment. CONCLUSIONS: Quantitative differential echogenicity changes of the ABSORB scaffold (1.1) during the first 12 months after implantation are lower compared with those previously observed with its first generation (1.0), confirming the value of the manufacturing changes and suggesting a slower degradation rate of the scaffold.

Koolen JJ

1-year outcome of TRIAS HR (TRI-Stent Adjudication Study-High Risk of Restenosis) a multicenter, randomized comparing genous endothelial progenitor cell capturing stents with drug-eluting stents

Klomp M, Beijk MA, Varma C, Koolen JJ*, Teiger E, Richardt G, Bea F, van Geloven N, Verouden NJ, Chan YK, Woudstra P, Damman P, Tijssen JG, Winter RJ de

JACC Cardiovasc Interv. 2011 Aug;4(8):896-904

OBJECTIVES: This study sought to demonstrate the noninferiority of endothelial progenitor cell capturing stents relative to drug-eluting stents (DES) regarding target lesion failure (TLF) and the composite of cardiac death, myocardial infarction, and target lesion repeat revascularization within 1 year. BACKGROUND: A "pro-healing" approach for prevention of in-stent restenosis is theoretically favorable over the cytotoxic/cytostatic drugs released from

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DES to treat coronary artery disease. Promoting accelerated endothelialization of the stent, ECS have shown promising results in studies with patients carrying noncomplex lesions. METHODS: We undertook an international, clinical trial in 26 centers planning to randomize 1,300 patients with coronary artery disease and with a high risk of restenosis between treatment, with either ECS or DES. After a routine review with 50% of the patients enrolled, early cessation of the trial was recommended by the data and safety monitoring board when TLF in the ECS population was higher and treatment of new patients with an ECS would unreasonable. RESULTS: At 1 year evaluating 304 patients receiving ECS and 318 receiving DES, TLF occurred in 17.4% of the ECS-treated patients and in 7.0% of the DES-treated patients ($p = 0.98$ for noninferiority). CONCLUSIONS: Within 1 year, inhibition of intimal hyperplasia by the ECS is not sufficiently strong to compete DES in terms of restenosis prevention in patients/lesions with a high risk of restenosis. Furthermore, long-term followup is pivotal to fully appreciate the clinical value of ECS, including the effect on late intimal hyperplasia regression.

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Koolen JJ

Paclitaxel-coated balloon in combination with bare metal stent for treatment of de novo coronary lesions: an optical coherence tomography first-in-human randomised trial, balloon first vs. stent first

Gutiérrez-Chico JL, Geuns RJ van, Koch KT, Koolen JJ*, Duckers H, Regar E, Serruys PW

EuroIntervention. 2011 Oct 30;7(6):711-22

Aims: To test the efficacy of sequential application of drug-coated balloon (DCB) and bare metal stent (BMS) for treatment of de novo coronary lesions, comparing the sequence of application (DCB first vs. BMS first). Methods results: In a multicentre pilot trial, 26 patients with de novo coronary lesions were randomised to receive a paclitaxelcoated balloon application followed by BMS implantation (DCB first) or vice versa (BMS first). Quantitative coronary angiography (QCA) and optical coherence tomography (OCT) were performed post-procedure and at six months, OCT % neointimal volume obstruction as primary endpoint. Longitudinal geographical miss was only observed in first (23.1 vs. 0.0%, $p=0.220$). Implantation of BMS first resulted in fewer malapposed struts ($p=0.013$) but similar coverage at six months. No significant difference was found regarding the primary endpoint (25.5 vs. 24.9%, p =mean thickness of coverage (261 vs. 225 μm , $p=0.763$), late loss (0.53 vs. 0.45 mm, $p=0.833$), binary restenosis vs. 16.7% in-segment, $p=0.640$) or clinical endpoints. Conclusions: Sequential application of DCB and not pre-mounted BMS for treatment of de novo coronary lesions results in efficient inhibition of neointimal hyperplasia. The sequence application (DCB first vs. BMS first) does not seem to influence the outcome, except for better apposition in BMS

Krasznai K

NEbivolol inhibition of coronary artery smooth muscle cell proliferation after percutaneous coronary artery intervention. Results of the NESCIO Study, a randomized, double blind trial

Michels R*, Krasznai K*, Mäkel W

Eur Rev Med Pharmacol Sci. 2011 Nov;15(11):1264-9

Voor abstract zie: Cardiologie – Michels R

Impactfactor:

0.922

Krasznai K

Rapid detection of myocardial infarction with a sensitive troponin test

Scharnhorst V*, Krasznai K*, Veer M van't *, Michels R*

Am J Clin Pathol. 2011 ;135(3):424-8

Voor abstract zie: Algemeen Klinisch Laboratorium - Scharnhorst V

Impactfactor:

2.504

Meijer A

Safety, efficacy, and performance of new discrimination algorithms to reduce inappropriate and unnecessary shocks: the PainFree SST clinical study design

Auricchio A, Meijer A*, Kurita T, Schloss E, Brinkman K, Claessens-van Ooijen M, Sterns L.

Europace. 2011 Oct;13(10):1484-93

Impactfactor:

1.839

Introduction Implantable cardioverter defibrillator (ICD) shock therapy improves survival of patients at risk for sudden cardiac death. The high sensitivity of ICDs to detect tachycardia events is accompanied by reduced specificity resulting in inappropriate and unnecessary shocks. Up to 30% of ICD patients may experience inappropriate shocks, which most commonly caused by lead noise, oversensing of T-waves, and supraventricular tachycardias. The new Protecta ICD and cardiac resynchronization therapy devices have been designed to minimize inappropriate and unnecessary shocks through novel SmartShock(TM) technology algorithms targeting these causes. Methods The PainFree SST study is a prospective, multicentre clinical trial, which will be conducted in two consecutive phases. Phase I will safety and any delay that may arise in ventricular fibrillation (VF) arrhythmia detection time using new algorithms. Phase II will evaluate reduction of inappropriate and unnecessary shocks at 1 year of follow-up. Additional objectives will include Quality of Life, healthcare utilization, safety of extending the ventricular tachyarrhythmia/VF interval detection duration (18 out of 24 vs. 30 out of 40 intervals), and reasons for inappropriate shock. Up to 2000 subjects 150 centres worldwide will be enrolled with a follow-up of at least 1 year. Subjects enrolled in Phase I will continue Phase II of the study and data from all enrolled subjects will contribute to the analysis of Phase II objectives. Conclusion Inappropriate and unnecessary shock delivery remains a significant clinical issue for patients receiving device therapies, which has considerable consequences for patients and the healthcare system. The PainFree study will investigate the ability of new algorithms to reduce inappropriate shocks. Results from this study are expected in mid-2013.

Impactfactor:
1.109

Meijs LP

The relationship between serial postinfarction T wave changes and infarct size and ventricular function as determined by cardiac magnetic resonance imaging

Meijs LP*, Gorgels AP, Bekkers SC, Maynard CC, Lemmert ME, Wagner GS
J Electrocardiol. 2011 Sep-Oct;44(5):555-60

BACKGROUND: The value of sequential T wave changes on the electrocardiogram (ECG) has less well been described than ST-segment changes in the follow-up of patients with myocardial infarction (MI). We investigated whether the amplitude of T wave positivity correlates with infarct size (IS) and left ventricular ejection fraction (LVEF) measured using cardiac magnetic resonance imaging 3 months after reperfusion therapy. **MATERIALS AND METHODS:** Fifty-five patients with a first acute MI referred for primary percutaneous coronary intervention were included. Electrocardiograms were analyzed within 4 hours after reperfusion and at 3 months, measuring T wave amplitudes in 2 contiguous infarct-related leads, summed up as one value called T wave amplitude. Cardiac magnetic resonance imaging was performed at 3 months of follow-up. Correlations between T wave amplitude, IS, and LVEF were tested with Pearson r correlation coefficient test. Subanalyses were performed using a 2-sample test. **RESULTS:** A good correlation was found between LVEF and IS ($r = -0.7$, $P < .0001$). Most of the patients had inferior MI location (69%). In this group, there were significant positive correlations between the amount of T wave positivity and both IS ($r = -0.40$, $P = .012$) and LVEF ($r = 0.33$, $P = .043$). Results were similar in patients with and without increase in T wave amplitude during follow-up. **CONCLUSIONS:** In this study of patients with reperfused MI, patients with inferior locations demonstrated a statistically significant relationship between the amount of positivity of T wave amplitude and both IS and LVEF measured at months. Furthermore, these results were independent of whether the T wave positivity was persistent or evolutionary between the immediate postreperfusion and 3-month ECG recordings.

Impactfactor:
0.922

Michels R

NEBivolol inhibition of coronary artery smooth muscle cell proliferation after percutaneous coronary artery intervention. Results of the NESCI Study, a randomized, double blind trial

Michels R*, Krasznai K*, Mäkel W

Eur Rev Med Pharmacol Sci. 2011 Nov;15(11):1264-9

OBJECTIVES: This study compared the efficacy of metoprolol and nebivolol in reducing the frequency of in-stent restenosis (ISR) after a percutaneous coronary intervention (PCI).

BACKGROUND: ISR results from excessive neointimal proliferation. Nebivolol inhibits proliferation of human coronary endothelial and smooth muscle cells in vitro. Its efficacy has not been studied in clinical trials. **MATERIAL AND METHODS:** In a single-centre double-blind study, 79 subjects with de novo lesions were randomly assigned to receive either nebivolol ($n=37$) or metoprolol ($n=42$) 3 to 7 days before elective PCI with bare metal. The study medication was continued for 6 months. Nebivolol was administered at 5 mg/day for 3 weeks, then at day. Metoprolol was administered at 100 mg/day. The endpoints were the difference in fractional flow reserve

(deltaFFR) between values immediately after PCI and those at 6 months and ISR during the 6 months following The study was powered to detect a deltaFFR of 6% with 30 subjects per treatment group. RESULTS: Among subjects who underwent angiography at 6 months, mean deltaFFR was -0.08 for the nebivolol group (n=25) and -0.12 in the metoprolol group (n=26; p = 0.367). ISR occurred in 11 subjects (26.2%) on metoprolol and in 3 (8.1%) on nebivolol during treatment, and in 7 subjects on metoprolol and in 3 on nebivolol at 6 months 0.014) CONCLUSION: There was a non-significant trend toward less decline in deltaFFR at 6 months with nebivolol. Nebivolol should be investigated further in larger trials. Nebivolol significantly reduced the frequency of ISR as compared metoprolol.

Michels R

Rapid detection of myocardial infarction with a sensitive troponin test

Scharnhorst V*, Krasznai K*, Veer M van 't*, Michels R*
Am J Clin Pathol. 2011 ;135(3):424-8

Voor abstract zie: Algemeen Klinisch Laboratorium - Scharnhorst V

Impactfactor:

2.504

Nathoe R

ICD-shocktherapie bij bewustzijn vaak traumatisch : technische analyse en klinische gevolgen

Nathoe R*, Gelder B van*

Cordiaal 2011;32(2):40-44

Impactfactor:

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Pijls NH

Fractional flow reserve in unstable angina and non-ST-segment elevation myocardial infarction experience from the FAME (Fractional flow reserve versus Angiography for Multivessel Evaluation) study

Sels JW*, Tonino PA*, Siebert U, Fearon WF, Veer M van 't*, De Bruyne B, Pijls NH*

JACC Cardiovasc Interv. 2011 Nov;4(11):1183-9

Voor abstract zie: Cardiologie - Sels JW

Impactfactor:

5.862

Pijls NH

Functional SYNTAX score for risk assessment in multivessel coronary artery disease

Nam CW, Mangiacapra F, Entjes R*, Chung IS, Sels JW*, Tonino PA*, Bruyne B de, Pijls NH*, Fearon WF; FAME Study Investigators

J Am Coll Cardiol. 2011 Sep 13;58(12):1211-8

Voor abstract zie: Cardiologie - Entjes R

Impactfactor:

14.292

Pijls NH

In vitro comparison of support capabilities of intra-aortic balloon pump and impella 2.5 left percutaneous

Schampaert S*, Veer M van 't*, Vosse FN van de, Pijls NH*, Mol BA de, Rutten MC

Artif Organs. 2011 Sep;35(9):893-901. Epub 2011 Aug 7

Voor abstract zie: Cardiologie - Schampaert S

Impactfactor:

1.719

Impactfactor: Pijls NH
5.862 **The crux of maximum hyperemia the last remaining barrier for routine use of fractional flow reserve**
Pijls NH*, Tonino PA*
JACC Cardiovasc Interv. 2011 Oct;4(10):1093-5

Impactfactor: Pijls NH
1.906 **Thermal anemometric assessment of coronary flow reserve with a pressure-sensing guide wire: An in vitro evaluation**
Horst A van der, Geven MC, Rutten MC, Pijls NH*, Vosse FN van de
Med Eng Phys. 2011 Jul;33(6):684-91. Epub 2011 Feb 2

Assessment of coronary flow reserve (CFR) with a commercially available pressure-sensor-tipped guide wire using principle of thermal anemometry could provide major clinical benefits both in determining and in distinguishing between epicardial and microvascular coronary artery disease. In constant-temperature thermal anemometry, the electrical power required to maintain an element at a constant temperature is a measure for the local shear rate. Here, the feasibility of applying this thermoconvection method to a pressure-sensing guide wire is investigated using an in model. A theoretical relation between electrical power and steady shear rate based on boundary layer theory was tested in an experimental set-up. In steady flow, a reproducible relation between electrical power and shear rate obtained with an overheat temperature of 20K, which was in good agreement with theory. The relation between rate and flow, however, depends on geometry of the artery and position of the guide wire inside the vessel. Although this means that this thermoconvection method is less useful for absolute flow measurements, CFR could be assessed even for unsteady flow using the steady calibration curve with a mean relative difference of (3±5)% compared to derived from the golden standard using an ultrasonic flow measurement device.

Impactfactor: Rademakers LM
- **Transient midventricular ballooning syndrome. an atypical presentation of takotsubo cardiomyopathy**
Rademakers LM*, Weijers RW*, Wijnbergen IF*
Acta Cardiol. 2011 Dec;66(6):811-3

A 72-year-old woman without cardiovascular history presented with acute substernal chest pain and dyspnoea. electrocardiogram was normal, but the blood test analyses showed an elevated troponin T level. Emergency coronary angiography revealed normal epicardial coronary arteries, but the left ventriculogram demonstrated midventricular dilatation and akinesis with well-preserved contractility of the apex and base. The patient was diagnosed as having atypical presentation of takotsubo cardiomyopathy. She was treated with a beta blocker and an ACE inhibitor and recovered well. A follow-up echocardiogram at 2 months showed normalization of the wall motion abnormality.

Schampaert S

In vitro comparison of support capabilities of intra-aortic balloon pump and impella 2.5 left percutaneous

Schampaert S*, Veer M van 't*, Vosse FN van de, Pijls NH*, Mol BA de, Rutten MC

Artif Organs. 2011 Sep;35(9):893-901. Epub 2011 Aug 7

The Impella 2.5 left percutaneous (LP), a relatively new transvalvular assist device, challenges the position of the balloon pump (IABP), which has a long record in supporting patients after myocardial infarction and cardiac surgery. However, while more costly and more demanding in management, the advantages of the Impella 2.5 LP yet to be established. The aim of this study was to evaluate the benefits of the 40 operating at 47 coronary flow, cardiac stroke work, and arterial blood pressure. Clinical scenarios of cardiogenic preshock and cardiogenic shock (CS), with blood pressure depression, lowered cardiac output, and constant heart rate were modeled in a model-controlled mock circulation, featuring a systemic, pulmonary, and coronary vascular bed. Ventricles, represented by servomotor-operated piston pumps, included the Frank-Starling mechanism. The systemic circulation was modeled with a flexible tube having close-to-human aortic dimensions and compliance properties. Proximally, it featured a branch mimicking the brachiocephalic arteries and a physiological correct coronary flow. The rest of the systemic and pulmonary impedance was modeled by four-element Windkessel models. In this system, the enhancement of coronary flow and blood pressure was tested with both support systems under healthy and pathological conditions. Hemodynamic differences between the IABP and the Impella 2.5 LP were small. In our laboratory model, both systems approximately yielded a 10% cardiac output increase and a 10% coronary flow increase. However, since the Impella 2.5 LP provided significantly better left ventricular unloading, the circulatory support capabilities were slightly in favor of the Impella 2.5 LP. On the other hand, pulsatility was enhanced with IABP and lowered with the Impella 2.5 LP. The support capabilities of both the IABP and the Impella 2.5 LP strongly depended on the simulated hemodynamic conditions. Maximum hemodynamic benefits were achieved when mechanical circulatory support was applied on a simulated scenario of deep CS.

Impactfactor:

1.719

Sels JW

fractional flow reserve in unstable angina and non-ST-segment elevation myocardial infarction experience from the FAME (Fractional flow reserve versus Angiography for Multivessel Evaluation) study

Sels JW*, Tonino PA*, Siebert U, Fearon WF, Veer M van 't*, Bruyne B*, Pijls NH*

JACC Cardiovasc Interv. 2011 Nov;4(11):1183-9

OBJECTIVES: The aim of this study was to study whether there is a difference in benefit of fractional flow reserve (FFR) guidance for percutaneous coronary intervention (PCI) in multivessel coronary disease in patients with unstable angina (UA) or non-ST-segment elevation myocardial infarction (NSTEMI), compared with stable angina (SA). **BACKGROUND:** The use of FFR to guide PCI has been well established for patients with SA. Its use in patients UA or NSTEMI has not been investigated prospectively. **METHODS:** In the FAME (Fractional flow reserve versus Angiography for Multivessel Evaluation) study

Impactfactor:

5.862

1,005 patients with multivessel disease amenable to PCI were included and randomized to either angiography-guided PCI of all lesions e 50% or FFR-guided PCI of lesions with an FFR d 0.80. Patients admitted for UA or NSTEMI with positive troponin but total creatine kinase <1,000 U/l were eligible for inclusion. We determined 2-year major adverse cardiac event rates of these patients and compared it with stable patients. RESULTS: Of 1,005 patients, 328 had UA or NSTEMI. There was no evidence for heterogeneity among the subgroups for any of the outcome variables (all p values >0.05). Using FFR to guide PCI resulted in similar risk reductions major adverse cardiac events and its components in patients with UA or NSTEMI, compared with patients with SA (absolute risk reduction of 5.1% vs. 3.7%, respectively, p = 0.92). In patients with UA or NSTEMI, the number of was reduced without increase in hospital stay or procedure time and with less contrast use, in similarity to stable patients. CONCLUSIONS: The benefit of using FFR to guide PCI in multivessel disease does not differ between patients UA or NSTEMI, compared with patients with SA.

Impactfactor:

14.292

Sels JW

Functional SYNTAX score for risk assessment in multivessel coronary artery disease

Nam CW, Mangiacapra F, Entjes R*, Chung IS, Sels JW*, Tonino PA*, Bruyne B de, Pijls NH*, Fearon WF; FAME Study Investigators
J Am Coll Cardiol. 2011 Sep 13;58(12):1211-8

Voor abstract zie: Cardiologie - Entjes R

Impactfactor:

5.862

Tonino PA

Fractional Flow Reserve in Unstable Angina and Non-ST-Segment Elevation Myocardial Infarction Experience From the FAME (Fractional flow reserve versus Angiography for Multivessel Evaluation) Study

Sels JW*, Tonino PA*, Siebert U, Fearon WF, Veer M van't *, De Bruyne B, Pijls NH.

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Voor abstract zie: Cardiologie - Sels JW

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- Veer M van 't**
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 Artif Organs. 2011 Sep;35(9):893-901.Epub 2011 Aug 7
 Voor abstract zie: *Cardiologie - Schampaert S*
- Impactfactor:*
1.719
- Veer M van 't**
Rapid detection of myocardial infarction with a sensitive troponin test
 Scharnhorst V*, Krasznai K*, Veer M van 't*, Michels R*
 Am J Clin Pathol. 2011 ;135(3):424-8
 Voor abstract zie: *Algemeen Klinisch Laboratorium - Scharnhorst V*
- Impactfactor:*
2.504
- Veer M, van't**
Factional flow reserve in unstable angina and non-ST-segment elevation myocardial infarction experience from the FAME (Fractional flow reserve versus Angiography for Multivessel Evaluation) study
 Sels JW*, Tonino PA*, Siebert U, Fearon WF, Veer M van 't*, Bruyne B de, Pijls NH*
 JACC Cardiovasc Interv. 2011 Nov;4(11):1183-9
 Voor abstract zie: *Cardiologie - Sels JW*
- Impactfactor:*
5.862
- Voort PH van der**
Effect of Cardiac Resynchronization Therapy-Defibrillator Implantation on Health Status in Patients With Mild Versus Moderate Symptoms of Heart Failure
 Versteeg H, Broek KC van den*, Theuns DA, Mommersteeg PM, Alings M, Voort PH van der*, Jordaens L, Pedersen SS
 Am J Cardiol. 2011 Oct 15;108(8):1155-9
 Voor abstract zie: *Onderwijs en Onderzoek - Broek KC van den*
- Impactfactor:*
3.680
- Voort PH van der**
Gender disparities in anxiety and quality of life in patients with an implantable cardioverter-defibrillator
 Habibovic M*, Broek KC van den*, Theuns DA, Jordaens L, Alings M, Voort PH van der*, Pedersen SS
 Europace. 2011 Dec;13(12):1723-30. Epub 2011 Aug 6
 Voor abstract zie: *Cardiologie - Habibovic M*
- Impactfactor:*
1.839
- Weijers RW**
Transient midventricular ballooning syndrome. an atypical presentation of takotsubo cardiomyopathy
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 Acta Cardiol. 2011 Dec;66(6):811-3
 Voor abstract zie: *Cardiologie – Rademakers LM*
- Impactfactor:*
-

Impactfactor: Wijnbergen IF

-

Transient midventricular ballooning syndrome. an atypical presentation of takotsubo cardiomyopathy

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Acta Cardiol. 2011 Dec;66(6):811-3

Voor abstract zie: Cardiologie – Rademakers LM

* = *Werkzaam in het Catharina Ziekenhuis*

Cardiothoracale chirurgie

Impactfactor: **Berreklouw E**
2.293 **Body mass index predicts new-onset atrial fibrillation after cardiac surgery**

Bramer S*, Straten AH van*, Soliman Hamad MA*, Berreklouw E*, Broek KC van den*, Maessen JG

Eur J Cardiothorac Surg. 2011 Nov;40(5):1185-90. Epub 2011 Mar 29

Voor abstract zie: Cardiothoracale chirurgie - Bramer S

Impactfactor: **Berreklouw E**
3.039 **New-onset postoperative atrial fibrillation predicts late mortality after mitral valve surgery**

Bramer S*, Straten AH van*, Soliman Hamad MA*, Broek KC van den*, Maessen JG, Berreklouw E*

Ann Thorac Surg. 2011 Dec;92(6):2091-6. Epub 2011 Oct 5

Voor abstract zie: Cardiothoracale chirurgie -Bramer S

Impactfactor: **Berreklouw E**
1.596 **Predictive value of the additive and logistic EuroSCOREs in patients undergoing aortic valve replacement**

Koene BM*, Straten AH van*, Soliman Hamad MA*, Berreklouw E*, Woorst JF ter*, Tan ME*, van Zundert AA*

J Cardiothorac Vasc Anesth. 2011 Dec;25(6):1071-5. Epub 2011 Jul 2

Voor abstract zie: Cardiothoracale chirurgie - Koene BM

Impactfactor: **Berreklouw E**
3.608 **Sutureless replacement of aortic valves with St Jude Medical mechanical valve prostheses and Nitinol attachment rings: feasibility in long-term (90-day) pig experiments**

Berreklouw E*, Koene B*, Somer F de, Bouchez S, Chiers K, Taeymans Y, Nooten GJ van

J Thorac Cardiovasc Surg. 2011 May;141(5):1231-7.e1. Epub 2010 Aug 21

Methods: The aortic valve was removed and replaced by a device around a St Jude Medical mechanical valve prosthesis surviving pigs. Supravalvular angiography was done at the end of the operation. No coumarin derivatives were given. Results: No or minimal aortic regurgitation was confirmed in all surviving pigs at the end of the operation. Total follow-up 846 days. In 4 pigs, follow-up was shorter than 90 days (28_75 days); the other 6 pigs did reach 90 days' survival more. Repeat angiography in 4 pigs at the end of follow-up confirmed the unchanged position of the device at the annulus, without aortic regurgitation. At autopsy, in all pigs the devices proved to be well grown in at the annulus, covered with endothelium, and sometimes tissue overgrowth related to not using coumarin derivatives. There was case of para-device leakage, migration, or embolization. No damage to surrounding anatomic structures or prosthetic valves was found. Conclusions Nitinol attachment rings can be used to replace the aortic valve suturelessly with St Jude Medical mechanical aortic valve prostheses, without para-device leakage, migration, or damage to the surrounding tissues, in long-term pig experiments during a follow-up of 90

days or more. Refraining from anticoagulation in pigs with mechanical valve prostheses can lead to tissue overgrowth of the valve prosthesis. Further studies are needed to determine long-feasibility of this method in human beings.

Berrekouw E

Which method of estimating renal function is the best predictor of mortality after coronary artery bypass grafting?

Straten AH van *, Soliman Hamad MA*, Koene BM*, Martens EJ*, Tan ME*, Berrekouw E*, Zundert AA van*

Neth Heart J. 2011 Nov;19(11):464-9

Voor abstract zie: Cardiothoracale chirurgie - Straten AH van

Impactfactor:

-

Berrekouw E

Sutureless mitral valve replacement with bioprostheses and Nitinol attachment rings: Feasibility in acute pig experiments

Berrekouw E*, Leontyev S, Ossmann S, Velten C, Vogel B, Dhein S, Mohr FW

J Thorac Cardiovasc Surg. 2011 Aug;142(2):390-5.e1. Epub 2011 Feb 4

OBJECTIVE: There is a need for fast, minimally invasive sutureless replacement of mitral valves. **METHODS:** Unchanged FDA-approved biological valve prostheses were sutured to Nitinol attachment rings (Endosmart, Stutensee, Germany) that were covered with textile (devices). The lower flange of the device was stretched in ice water and maintained in a stretched position with stretching sutures. In 9 acute pig experiments through a limited left thoracotomy, a single suture was placed around the mitral annulus, the device was positioned, annular suture tied, the stretching sutures retracted, and the device activated by warm saline. Position of the device, heart and valve function, coronary arteries, left ventricular outflow tract, and surrounding structures were observed transoesophageal echocardiography, left ventricular and coronary angiograms, and pathologic examination at autopsy. **RESULTS:** The devices could be easily navigated to the mitral valve annulus and actuated within seconds. Three devices were placed with warm blood in the operative field and were tilted or dislocated at autopsy. In the other devices, transoesophageal echocardiography and left ventricular and coronary angiography demonstrated normal prosthetic valve and heart function, without valvular or para-device leakage, and with normal aortic valve and coronary arteries. At autopsy in these 6 cases, the devices were strongly fixed at the anatomic mitral valve annulus, without abnormalities of the device, heart valve prosthesis, left ventricular outflow tract, or aortic valve ostium. **CONCLUSIONS:** Nitinol attachments rings combined with unchanged biological valve prostheses can make fast strong sutureless replacement of the mitral valve feasible in acute pig experiments. Applicators that constrain and release the device mechanically need to be developed.

Impactfactor:

3.608

Bramer S

Body mass index predicts new-onset atrial fibrillation after cardiac surgery

Bramer S*, Straten AH van*, Soliman Hamad MA*, Berrekouw E*, Broek KC van den*, Maessen JG

Eur J Cardiothorac Surg. 2011 Nov;40(5):1185-90. Epub 2011 Mar 29

Impactfactor:
2.293

Objective: New-onset postoperative atrial fibrillation (POAF) after cardiac surgery is associated with increased morbidity and mortality. Since obesity is becoming increasingly prevalent, identifying body mass index (BMI) as factor for POAF could be of importance. The aim of our study is to investigate the effect of BMI on POAF, independent of other risk factors. **Methods:** We analyzed data of 6788 men and 2560 women who underwent coronary artery bypass grafting, valve surgery, or a combination of both, and who had no history of atrial fibrillation. Men and women were analyzed separately because risk factors of POAF were expected to be distributed unequally over both sexes. **Results:** The independent effect of gender was analyzed in a combined model. POAF occurred in 2517/9348 (27%) patients. Multivariate logistic regression analyses showed that BMI (odds ratio (OR) 1.03; 95% confidence interval 1.01-1.04; $p < 0.001$ in men and OR 1.03; 95% CI: 1.02-1.05; $p < 0.001$ in women), age (OR 1.06; 95% CI: 1.05-1.07; $p < 0.001$ in men and OR 1.05; 95% CI: 1.04-1.06; $p < 0.001$ in women), valve surgery compared to coronary surgery g., mitral valve surgery compared to coronary artery bypass grafting: OR 3.4; 95% CI: 2.4-4.6; $p < 0.001$ in men and 2.9; 95% CI: 2.0-4.3; $p < 0.001$ in women) and male gender (OR 1.23; 95% CI: 1.09-1.38; $p = 0.001$) were the only independent risk factors for POAF, whereas chronic obstructive pulmonary disease, hypertension, off-pump coronary artery bypass grafting, extra corporal circulation time, and transfusion of blood products were not. **Conclusion:** Body mass index, age, undergoing valve surgery and male gender, are independent risk factors for POAF.

Impactfactor:
2.293

Bramer S

Long-term outcome of right ventricular outflow tract reconstruction with bicuspidalized homografts

Bramer S*, Mokhles MM, Takkenberg JJ, Bogers AJ

Eur J Cardiothorac Surg. 2011 Dec;40(6):1392-5. Epub 2011 Apr 21

Objective: Given the shortage of small-sized cryopreserved homografts for right ventricle (RV) to pulmonary artery reconstructions, more readily available larger-sized homografts can be used after size reduction by bicuspidalization. The aim of our study was to determine and compare function over time of standard and bicuspidalized homografts infants younger than 12 months, including patients with a Ross or extended Ross procedure. **Methods:** All consecutive infants under the age of 1 year, who underwent a surgical procedure in which a homograft was placed the RV-PA position between January 1994 and April 2009, were included. Prospectively collected data from serial, standardized echocardiography from all patients were extracted from the database, and hospital records were retrospectively reviewed. **Results:** A total of 40 infants had a valved homograft conduit placed in the RV-PA position. 20 of those patients, a bicuspidalized homograft was used. Twelve patients underwent a Ross procedure, of whom seven had an additional Konno-type aortic annulus enlargement. Median follow-up was 146 months (interquartile (IQR), 117-170; total patient years: 178) in the group with standard use of the homograft and 95 months (IQR, 11-total patient years: 78) in the group with bicuspidalized conduits. Freedom from re-intervention (re-operation or percutaneous) was not different in the standard and bicuspidalized groups for all and Ross or Konno-Ross procedures (Tarone-Ware, $p = 0.65$ and $p = 0.47$, respectively). Consecutive echocardiographic

maximum velocities in the right ventricular outflow tract were similar in the standard and bicuspidalized groups. Conclusion: When proper sized cryopreserved homografts for placement in the RV-PA position in Ross, Konno-Ross, and other procedures in infants under the age of 1 year are not readily available, bicuspidalized homografts provide an acceptable alternative

Bramer S

New-onset postoperative atrial fibrillation predicts late mortality after mitral valve surgery

Bramer S*, Straten AH van*, Soliman Hamad MA*, Broek KC van den*, Maessen JG, Berreklouw E*

Ann Thorac Surg. 2011 Dec;92(6):2091-6. Epub 2011 Oct 5

BACKGROUND: New-onset postoperative atrial fibrillation (POAF) is a common rhythm disturbance after mitral surgery. In this study we investigated the independent effect of POAF on early and late mortality after mitral valve surgery. METHODS: Data of patients who consecutively underwent mitral valve surgery with or without concomitant coronary tricuspid valve surgery between January 2003 and June 2010 were prospectively collected. The study included patients with preoperative sinus rhythm, and no history of atrial fibrillation. Logistic regression and Cox proportional hazard analyses were performed to investigate independent predictors of early and late mortality. Propensity score adjustment was performed to reduce the effect of confounders. RESULTS: The median follow-up was 3.1 years (range, 0 to 7.4 years). The POAF was documented in 361 patients (42%). Early mortality did not differ in patients with and without POAF ($p = 0.93$). Postoperative atrial fibrillation identified as predictor for early mortality. Late survival was worse in patients with POAF (log-rank, $p < 0.001$). Multivariate and propensity score adjusted Cox proportional hazard analyses demonstrated that POAF was an independent predictor for late mortality with hazard ratios of 2.09 and 1.61 ($p = 0.001$ and $p = 0.033$, respectively). CONCLUSIONS: Postoperative atrial fibrillation is an independent predictor for late all-cause mortality after mitral surgery but not for early all-cause mortality.

Impactfactor:

3.039

Elenbaas T

An unusual case of left chest stab wound

Zebele C*, Gianoli M*, Elenbaas T*, Brink PR, Zundert AA van*

Asian Cardiovasc Thorac Ann. 2011 Oct;19(5):349-51

Voor abstract zie: Cardiothoracale chirurgie -Zebele C

Impactfactor:

-

Gevel DF van de

Right atrial thrombus migrating to the superior vena cava during surgery

Gevel DF van de*, Soliman Hamad MA*, Schönberger J*, Dantzig JM van*, Straten AH van*

Asian Cardiovasc Thorac Ann. 2011 Oct;19(5):363-6

Free-floating right heart thrombi are extremely mobile structures that carry a very high mortality rate. We describe case of pulmonary embolism with a free-floating right heart thrombus that migrated to the superior vena cava during institution of cardiopulmonary bypass.

Impactfactor:

-

Impactfactor: **Gianoli M**
-
An unusual case of left chest stab wound
Zebele C*, Gianoli M*, Elenbaas T*, Brink PR, Zundert AA van*
Asian Cardiovasc Thorac Ann. 2011 Oct;19(5):349-51
Voor abstract zie: Cardiothoracale chirurgie -Zebele C

Impactfactor: **Kats S**
2.293
Endotoxin release in cardiac surgery with cardiopulmonary bypass: pathophysiology and possible therapeutic strategies. An update
Kats S*, Schönberger JP*, Brands R, Seinen W, Oeveren W van
Eur J Cardiothorac Surg. 2011 Apr;39(4):451-8
Cardiac surgery with cardiopulmonary bypass provokes a systemic inflammatory response syndrome caused by surgical trauma itself, blood contact with the non-physiological surfaces of the extracorporeal circuit, endotoxemia, ischemia. The role of endotoxin in the inflammatory response syndrome has been well investigated. In this report, reviewed recent advances in the understanding of the pathophysiology of the endotoxin release during cardiopulmonary bypass and the possible therapeutic strategies aimed to reduce the endotoxin release or to counteract the inflammatory effects of endotoxin. Although many different strategies to detoxify endotoxins were evaluated, none of them were able to show statistically significant differences in clinical outcome.

Impactfactor: **Koene B**
3.608
Sutureless replacement of aortic valves with St Jude Medical mechanical valve prostheses and Nitinol attachment rings: feasibility in long-term (90-day) pig experiments
Berreklouw E*, Koene B*, Somer F de, Bouchez S, Chiers K, Taeymans Y, Nooten GJ van
J Thorac Cardiovasc Surg. 2011 May;141(5):1231-7.e1. Epub 2010 Aug 21
Voor abstract zie: Cardiothoracale chirurgie - Berreklouw E

Impactfactor: **Koene BM**
1.596
Predictive value of the additive and logistic EuroSCOREs in patients undergoing aortic valve replacement
Koene BM*, Straten AH van*, Soliman Hamad MA,* Berreklouw E*, Woorst JF ter*, Tan ME*, Zundert AA van*
J Cardiothorac Vasc Anesth. 2011 Dec;25(6):1071-5. Epub 2011 Jul 2
OBJECTIVES: The purpose of this study was to evaluate the accuracy of the additive and logistic EuroSCOREs predicting the operative mortality in patients undergoing aortic valve replacement (AVR) with or without coronary bypass graft (CABG) surgery. DESIGN: This was a retrospective analysis of prospectively collected data. SETTING: This was a single-center study performed in an educational hospital. PARTICIPANTS: All patients (n = 1,885) who underwent AVR with (n = 813) or without (n = 1,072) CABG surgery between 1998 and 2007 INTERVENTIONS: AVR with or without CABG surgery. MEASUREMENTS. AND MAIN RESULTS: Variable life-adjusted display curves were constructed to compare the observed operative mortality with the additive and logistic EuroSCOREs. The receiver operating characteristics curve was used to determine the

discriminatory power of the additive and logistic EuroSCOREs. Calibration between the predicted and the observed operative mortality was checked by comparing the predicted probability of the mortality with the additive and logistic EuroSCORE. In the isolated AVR group, the additive EuroSCORE was 5.8% predicted mortality and the logistic EuroSCORE was 7.2%, whereas the observed operative mortality was 3.2%. In the AVR CABG surgery group, the additive EuroSCORE was 7.2% and the logistic EuroSCORE was 8.8%, whereas the observed operative mortality was 5.3%. ROC curve analyses showed a high discriminatory power for both EuroSCOREs in both patient groups. CONCLUSIONS: Although the additive and the logistic EuroSCOREs had good discriminatory power, they were able to predict the actual operative mortality accurately. Both EuroSCOREs overestimated the operative mortality, especially in low-risk patients.

Koene BM

Which method of estimating renal function is the best predictor of mortality after coronary artery bypass grafting?

van Straten AH*, Soliman Hamad MA*, Koene BM*, Martens EJ*, Tan ME*, Berreklouw E*, Zundert AA van*
Neth Heart J. 2011 Nov;19(11):464-9

Voor abstract zie: Cardiothoracale chirurgie - Straten AH van

Impactfactor:

-

Ozdemir HI

Coronary ischemia due to subclavian stenosis after arterial revascularization

Zebele C*, Ozdemir HI*, Soliman Hamad MA*
Asian Cardiovasc Thorac Ann. 2011 Apr;19(2):169-71

Voor abstract zie: Cardiothoracale chirurgie - Zebele C

Impactfactor:

-

Penn OC

Preoperative prediction of early mortality in patients with low ejection fraction undergoing coronary artery bypass grafting

Soliman Hamad MA*, Van Straten AH*, Zundert AA van*, Woorst JF ter*, Martens EJ*, Penn OC*

J Card Surg. 2011 Jan;26(1):9-15. Epub 2010 Nov 14

Voor abstract zie: Cardiothoracale chirurgie - Soliman Hamad MA

Impactfactor:

0.557

Sanders LH

Circumferential disruption of the ventriculo-aortic Junction due to infective endocarditis: surgical repair with custommade, accurately sized, pericardial tube

Sanders LH*, Sanders FB, Heide S van der, Soliman Hamad MA*, Woorst JF ter*

Heart Lung Circ. 2011 Jul;20(7):473-5. Epub 2011 Feb 17

Repair of circumferential ventriculo-aortic annular disruption following infective endocarditis is technically challenging. We present an approach for systematic repair and describe a technique for preparation of an accurately sized pericardial tube graft..

Impactfactor:

1.33

Impactfactor: Schönberger JP
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Gevel DF van de*, Soliman Hamad MA*, Schönberger J*, Dantzig JM van*,
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Asian Cardiovasc Thorac Ann. 2011 Oct;19(5):363-6
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Voor abstract zie: Cardiothoracale chirurgie - Koene BM

Impactfactor: Soliman Hamad MA
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Gevel DF van de*, Soliman Hamad MA*, Schönberger J*, Dantzig JM van*,
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Soliman Hamad MA

Which method of estimating renal function is the best predictor of mortality after coronary artery bypass grafting?

Straten van AH*, Soliman Hamad MA*, Koene BM*, Martens EJ*, Tan ME*, Berreklouw E*, Zundert AA van*

Neth Heart J. 2011 Nov;19(11):464-9

Voor abstract zie: Cardiothoracale chirurgie - Straten AH van

Impactfactor:

-

Soliman Hamad MA

Circumferential disruption of the ventriculo-aortic junction due to infective endocarditis: surgical repair with custommade, accurately sized, pericardial tube

Sanders LH*, Sanders FB, Heide S van der, Soliman Hamad MA*, Woorst JF ter*

Heart Lung Circ. 2011 Jul;20(7):473-5. Epub 2011 Feb 17

Voor abstract zie: Cardiothoracale chirurgie - Sanders LH

Impactfactor:

1.33

Soliman Hamad MA

Effect of duration of red blood cell storage on early and late mortality after coronary artery bypass grafting

Straten AH van*, Soliman Hamad MA*, Zundert AA van*, Martens EJ*, Woorst JF ter*, Wolf AM, Scharnhorst V*

J Thorac Cardiovasc Surg. 2011 Jan;141(1):231-7. Epub 2010 Jul 9

voor abstract zie: Cardiothoracale chirurgie - Straten AH van

Impactfactor:

3.608

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Effect of storage time of transfused plasma on early and late mortality after coronary artery bypass grafting

Straten AH van*, Soliman Hamad MA*, Martens EJ*, Tan ME*, de Wolf AM, Scharnhorst V*, Zundert AA van*

J Thorac Cardiovasc Surg. 2011 Jan;141(1):238-43.e1-2. Epub 2010 Sep 19

Voor abstract zie: Cardiothoracale chirurgie - Straten AH van

Impactfactor:

3.608

Soliman Hamad MA

Preoperative prediction of early mortality in patients with low ejection fraction undergoing coronary artery bypass grafting

Soliman Hamad MA*, Straten AH van*, Zundert AA van*, Woorst JF ter*, Martens EJ, Penn OC*

J Card Surg. 2011 Jan;26(1):9-15. Epub 2010 Nov 14

bypass grafting (CABG) usually have a higher incidence of mortality and morbidity. In this retrospective study, we sought to detect significant preoperative predictors of early mortality in these patients. Methods: Patients with an d 30% who underwent isolated CABG in Catharina Hospital, Eindhoven, the Netherlands, between January 1998 December 2008 (n = 413) were included in this study. All the preoperative patient-related risk factors were entered a logistic regression analysis model to detect the significant predictors of early mortality. Results: Patients with an d 30% represent 4.1% of the whole CABG population. The overall early mortality in this patient group was 9.1%. factors for early mortality as identified by the univariate analysis were age, chronic obstructive pulmonary disease (COPD), prior CABG,

Impactfactor:

0.557

New York Heart association (NYHA) class, emergency operation, preoperative serum creatinine (SeCr), and preoperative hemoglobin (Hb) level. These factors were entered into the multivariate analysis and were identified as independent risk factors for early mortality. Conclusions: This study confirmed the impact of some wellknown preoperative risk factors on early outcome in patients with low EF undergoing CABG. In addition, we have shown the predictive value of preoperative SeCr and hemoglobin level that have not yet been described.

Impactfactor: **Straten AH van**
2.293 **Body mass index predicts new-onset atrial fibrillation after cardiac surgery**

Bramer S*, Straten AH van*, Soliman Hamad MA*, Berreklouw E*, Broek KC van den*, Maessen JG

Eur J Cardiothorac Surg. 2011 Nov;40(5):1185-90. Epub 2011 Mar 29

Voor abstract zie: Cardiothoracale chirurgie - Bramer S

Impactfactor: **Straten AH van**
1.596 **Predictive value of the additive and logistic EuroSCOREs in patients undergoing aortic valve replacement**

Koene BM*, Straten AH van*, Soliman Hamad MA*, Berreklouw E*, Woorst JF ter*, Tan ME*, Zundert AA van*

J Cardiothorac Vasc Anesth. 2011 Dec;25(6):1071-5. Epub 2011 Jul 2

Voor abstract zie: Cardiothoracale chirurgie - Koene BM

Impactfactor: **Straten AH van**
2.872 **Vascular complications of Q-fever infections**

Wegdam-Blans MC*, Vainas T*, Sambeek MR van*, Cuypers PW*, Tjhie HT*, Straten AH van*, Teijink JA*

Eur J Vasc Endovasc Surg. 2011 Sep;42(3):384-92. Epub 2011 May 31

Voor abstract zie: Medische microbiologie - Wegdam-Blans MC

Impactfactor: **Straten AH van**
3.608 **Effect of duration of red blood cell storage on early and late mortality after coronary artery bypass grafting**

Straten AH van*, Soliman Hamad MA*, Zundert AA van*, Martens EJ*, Woorst JF ter*, Wolf AM, Scharnhorst V*

J Thorac Cardiovasc Surg. 2011 Jan;141(1):231-7. Epub 2010 Jul 9

OBJECTIVES: Recently, concern has been expressed about the transfusion of older red blood cells after cardiac surgery. We tested the hypothesis that longer storage of transfused red blood cells increases the risk of early and mortality in patients who undergo coronary artery bypass grafting. METHODS: We retrospectively analyzed data patients who underwent isolated coronary artery bypass grafting between January 1998 and December 2007 in Catharina Hospital, Eindhoven, The Netherlands, and received up to 10 U of red blood cells intraoperatively or during the first 5 postoperative days. The patients were divided into 3groups according to the storage time of the red blood cells, with a cutoff point of 14 days, as follows: "only younger blood" (n = 1422), "only older blood" (n = 1719), and least 1 U of older RBCs ("any older blood"; n = 2175). RESULTS: The mean follow-up time was 1693 +/- 1058 days (range, 0-3708 days). The median follow-up time

was 1629 days. Univariate and multivariate logistic regression analyses revealed that the number of transfused units but not the storage time of blood entered either as a continuous variable or as a dichotomous variable with a cutoff point of 14 days was a risk factor for early mortality. Neither number of transfused units nor the storage time was an independent risk factor for late mortality. Log-rank testing revealed no statistical difference in survival among the groups. CONCLUSIONS: The storage time of transfused blood cells is not a risk factor for early or late mortality in patients who undergo coronary artery bypass grafting.

Straten AH van

Preoperative prediction of early mortality in patients with low ejection fraction undergoing coronary artery bypass grafting

Soliman Hamad MA*, Straten AH van*, Zundert AA van*, Woorst JF ter*, Martens EJ, Penn OC*
J Card Surg. 2011 Jan;26(1):9-15. Epub 2010 Nov 14

Impactfactor:
0.557

Straten AH, van

New-onset postoperative atrial fibrillation predicts late mortality after mitral valve surgery

Bramer S*, Straten AH van*, Soliman Hamad MA*, Broek KC van den*, Maessen JG, Berreklouw E*
Ann Thorac Surg. 2011 Dec;92(6):2091-6. Epub 2011 Oct 5

Voor abstract zie: Cardiothoracale chirurgie -Bramer S

Impactfactor:
3.039

Straten AH van

Right atrial thrombus migrating to the superior vena cava during surgery

Gevel DF van de*, Soliman Hamad MA*, Schönberger J*, Dantzig JM van*, Straten AH van*

Asian Cardiovasc Thorac Ann. 2011 Oct;19(5):363-6

Voor abstract zie: Cardiothoracale chirurgie -Gevel D van de

Impactfactor:
-

Straten AH van

Which method of estimating renal function is the best predictor of mortality after coronary artery bypass grafting?

Straten AH van *, Soliman Hamad MA*, Koene BM*, Martens EJ*, Tan ME*, Berreklouw E*, Zundert AA van *

Neth Heart J. 2011 Nov;19(11):464-9. 2011

Impactfactor:
-

OBJECTIVES: Definitions of renal function in patients undergoing coronary artery bypass graft surgery (CABG) the literature. We sought to investigate which method of estimating renal function is the best predictor of mortality CABG. METHODS: We analysed the preoperative and postoperative renal function data from all patients undergoing isolated CABG from January 1998 through December 2007. Preoperative and postoperative renal function was estimated serum creatinine (SeCr) levels, creatinine clearance (CrCl) determined by the Cockcroft-Gault formula and the glomerular filtration rate (e-GFR) estimated by the Modification of Diet in Renal Disease (MDRD) formula. Receiver operator characteristic (ROC) curves and area under the ROC curves were calculated. RESULTS: In 9987 patients, CrCl had the best discriminatory power to predict early as well as late mortality, followed

by e-GFR and finally SeCr. The odds ratios for preoperative parameters for early mortality were closer to 1 than of the postoperative parameters. CONCLUSIONS: Renal function determined by the Cockcroft-Gault formula is the best predictor of early and late mortality after CABG. The relationship between renal function and mortality is non-linear. Renal function as a variable in risk scoring systems such as the EuroSCORE needs to be reconsidered.

Impactfactor:
3.608

Straten AH van

Effect of storage time of transfused plasma on early and late mortality after coronary artery bypass grafting

Straten AH van*, Soliman Hamad MA*, Martens EJ*, Tan ME*, de Wolf AM, Scharnhorst V*, Zundert AA van*

J Thorac Cardiovasc Surg. 2011 Jan;141(1):238-43.e1-2. Epub 2010 Sep 19

OBJECTIVES: Because some concern has been raised about the storage time of red blood cells and outcomes cardiac surgery, we investigated whether longer storage time of transfused plasma increases the risk for early or mortality among patients who have undergone coronary artery bypass grafting. METHODS: We retrospectively analyzed the data of all 10,626 patients who underwent isolated coronary artery grafting in Catharina Hospital, Eindhoven, The Netherlands, between January 1998 and December 2007. All patients who received at least 1 unit of plasma intraoperatively or during the first 5 postoperative days were studied. They divided into 3 groups (only younger plasma, only older plasma, and any older plasma groups) according to the storage time of the plasma (cutoff point, 323 days).RESULTS: After we had excluded 122 patients who were unavailable for follow-up, we found that 375 of the remaining patients (n = 745) received only younger plasma 370 patients received any older plasma, and 200 patients received only older plasma (mean follow-up, 1565 ± 1137 days; median follow-up, 1629 days). The storage time of plasma, when entered as either a continuous variable or a dichotomous variable, was a risk factor for early but not late mortality. Log-rank testing revealed no statistical difference in long-term survival among the groups. CONCLUSIONS: Longer storage time of plasma is a risk factor for early but not late mortality among patients who undergone coronary artery bypass grafting.

Impactfactor:
1.596

Tan ME

Predictive value of the additive and logistic EuroSCOREs in patients undergoing aortic valve replacement

Koene BM*, Straten AH van*, Soliman Hamad MA*, Berreklouw E*, Woorst JF ter*, Tan ME*, Zundert AA van*

J Cardiothorac Vasc Anesth. 2011 Dec;25(6):1071-5. Epub 2011 Jul 2

Voor abstract zie: Cardiothoracale chirurgie - Koene BM

Impactfactor:
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Neth Heart J. 2011 Nov;19(11):464-9

Tan ME*Impactfactor:*
3.608**Effect of storage time of transfused plasma on early and late mortality after coronary artery bypass grafting**

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*Voor abstract zie: Cardiothoracale chirurgie - Straten AH van***Woorst JF ter***Impactfactor:*
1.33**Circumferential disruption of the ventriculo-aortic junction due to infective endocarditis: surgical repair with custommade, accurately sized, pericardial tube**

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Heart Lung Circ. 2011 Jul;20(7):473-5. Epub 2011 Feb 17

*Voor abstract zie: Cardiothoracale chirurgie - Sanders LH***Woorst JF ter***Impactfactor:*
3.080**Effect of duration of red blood cell storage on early and late mortality after coronary artery bypass grafting**

Straten AH van*, Soliman Hamad MA*, Zundert AA van*, Martens EJ*, Woorst JF ter*, Wolf AM, Scharnhorst V*

J Thorac Cardiovasc Surg. 2011 Jan;141(1):231-7. Epub 2010 Jul 9

*voor abstract zie: Cardiothoracale chirurgie - Straten AH van***Woorst JF ter***Impactfactor:*
0.557**Preoperative prediction of early mortality in patients with low ejection fraction undergoing coronary artery bypass grafting**

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*Voor abstract zie: Cardiothoracale chirurgie - Soliman Hamad MA***Woorst JF ter***Impactfactor:*
1.596**Predictive value of the additive and logistic EuroSCOREs in patients undergoing aortic valve replacement**

Koene BM*, Straten AH van*, Soliman Hamad MA*, Berreklouw E*, Woorst JF ter*, Tan ME*, Zundert AA van*

J Cardiothorac Vasc Anesth. 2011 Dec;25(6):1071-5. Epub 2011 Jul 2

*Voor abstract zie: Cardiothoracale chirurgie - Koene BM***Zebele C***Impactfactor:*
-**An unusual case of left chest stab wound**

Zebele C*, Gianoli M*, Elenbaas T*, Brink PR, Zundert AA van*

Asian Cardiovasc Thorac Ann. 2011 Oct;19(5):349-51

A 72-year-old man was admitted with one blade of a huge pair of shears in his left thorax. His hemodynamics deteriorated due to life-threatening vascular lesions. An urgent thoracotomy revealed several injuries to the intercostals vessels and left apical inferior lung lobe. The blade tip was stuck in the posterior chest wall, 2 cm adjacent to the descending aorta. The blade was.

removed, the lung was sutured, and the patient made a good recovery

Impactfactor:

Zebele C

-

Coronary ischemia due to subclavian stenosis after arterial revascularization

Zebele C*, Ozdemir HI*, Soliman Hamad MA*

Asian Cardiovasc Thorac Ann. 2011 Apr;19(2):169-71

We describe a case of coronary-subclavian steal in a 60-year-old man who presented with progressive ischemia years after coronary artery bypass with in-situ bilateral internal thoracic artery grafts. Angiography revealed completely patent arterial grafts, but subtotal stenosis of the left subclavian artery. On reoperation, a vein graft was used to connect the aorta to the left internal thoracic artery which was proximally disrupted. No coronary ischemia was found postoperatively.

* = *Werkzaam in het Catharina Ziekenhuis*

Chirurgie

Impactfactor:
3.851

Buth J

Annual rupture risk of abdominal aortic aneurysm enlargement without detectable endoleak after endovascular abdominal aortic repair

Koole D, Moll FL, Buth J*, Hobo R*, Zandvoort HJ, Bots ML, Pasterkamp G, Herwaarden JA van

J Vasc Surg. 2011 Dec;54(6):1614-22. Epub 2011 Sep 13

OBJECTIVES: Whether abdominal aortic aneurysm (AAA) enlargement after endovascular aneurysm repair (EVAR), without an identifiable endoleak, is a risk factor for AAA rupture remains controversial. To our knowledge, studies including large patient numbers investigating this topic have not been done. Therefore, a considerable number of conversions to open AAA repair have been performed in this patient group. This study evaluated AAA rupture risk patients without detectable endoleaks but with AAA enlargement after EVAR treatment. **METHODS:** Baseline characteristics and follow-up data were collected prospectively by case record forms. Follow-visits were scheduled at 1, 3, 6, 12, 18, and 24 months, and annually thereafter. The follow-up assessment included clinical examination and imaging studies. Patients were divided into three groups according to the degree of shrinkage or enlargement of the aneurysm. Group A included patients with >8 mm aneurysm shrinkage, group B consisted patients with d 8 mm shrinkage to d 8 mm enlargement, and group C patients had an aneurysm enlargement of **RESULTS:** The basis for this analysis was 6337 patients who were enrolled prospectively in the European Collaborators on Stent-Graft Techniques for Aortic Aneurysm Repair (EUROSTAR) database between 1996 and Group A included 691 patients; group B, 5307 patients; and group C, 339 patients. Ruptures occurred in 3 patients group A, in 14 patients in group B, and in 9 patients in group C. The annual rate of rupture in group C was <1% first 4 years but accelerated to 7.5% up to 13.6% in the years thereafter. The mortality rate of elective conversion open AAA repair was 6.0%. **CONCLUSIONS:** The risk of rupture in patients with an AAA enlargement of 8 mm after EVAR, without detectable endoleaks, is <1% in the first 4 years. No ruptures were seen in patients with AAA enlargement without detectable endoleaks who were not treated with Vanguard stent grafts (Boston Scientific Corp, Natick, Mass) and had AAA diameters <70 mm. For this group, conversion to open repair might not be mandatory, and regular follow-up can advised instead. After 4 years of follow-up, this study observed an increased annual rupture risk, which might indicate the need for conversion; however, groups are small, and follow-up bias could play a role.

Impactfactor:

Buth J

Interposition grafting of large extracranial carotid aneurysm

Huyzer M, Reijnen MM, Sybrandy JE, Buth J*, Zeebregts CJ

Tex Heart Inst J. 2011;38(1):52-5

Extracranial carotid aneurysms are a rare entity and carry an inherent risk of thromboembolic complications. Treatment options consist of endovascular and conventional surgical techniques. We describe the cases of 3 patients who treated with an interposition graft for a large extracranial carotid aneurysm. The patients had presented with an extracranial carotid

aneurysm with a diameter of 30 to 43 mm. In all cases, the aneurysm was excluded by means interposition graft, without major perioperative complications. There was 1 case of temporary paresis of the facial and another of temporary paresis of the vocal cord. After a mean follow-up period of 14 months, all patients were and there were no neurologic deficits. A retrospective analysis was performed of patients who had undergone conventional surgical treatment of extracranial carotid aneurysms. The patients' characteristics, symptoms, surgical interventions, complications, and deaths were all documented. Carotid aneurysms can safely be excluded by interposition grafting, and this treatment should still be considered for most patients, although endovascular repair might provide a valid alternative.

Buth J

Reprinted article "Realistic expectations for patients with stent-graft treatment of abdominal aortic aneurysms. Results of a European multicentre registry"

Cuypers P*, Buth J*, Harris PL*, Gevers E*, Lahey R*; EUROSTAR Collaborators

Eur J Vasc Endovasc Surg. 2011 Sep;42 Suppl 1:S63-71

Voor abstract zie: Chirurgie - Cuypers P

Impactfactor:

2.872

Buth J

Validation of the Chronic Venous Insufficiency Quality of Life Questionnaire in Dutch Patients Treated for Varicose Veins

Biemans AA, Velden SK van der*, Buijninckx CM, Buth J*, Nijsten T

Eur J Vasc Endovasc Surg. 2011 Aug;42(2):246-53. Epub 2011 Apr 30

Voor abstract zie: Chirurgie - Velden SK van der

Impactfactor:

2.872

Cuypers PW

Final results of the prospective European trial of the endurant stent graft for endovascular abdominal aortic aneurysm repair.

Rouwet EV, Torsello G, Vries JP de, Cuypers P*, Herwaarden JA van, Eckstein HH, Beuk RJ, Florek HJ, Jentjens Verhagen HJ

Eur J Vasc Endovasc Surg. 2011 Oct;42(4):489-97

Impactfactor:

2.872

Cuypers PW

Reprinted article "Realistic expectations for patients with stent-graft treatment of abdominal aortic aneurysms. Results of a European multicentre registry"

Cuypers P*, Buth J*, Harris PL*, Gevers E*, Lahey R*; EUROSTAR Collaborators

Eur J Vasc Endovasc Surg. 2011 Sep;42 Suppl 1:S63-71

OBJECTIVE: The outcomes for patients after endovascular treatment of abdominal aortic aneurysm (AAA) are determined primarily by the endpoints of death and endoleaks, the latter representing continued risk of rupture. Data from a multicentre registry were analysed with regard to the early outcome of stent-graft procedures for AAA complications associated with this treatment. In addition, the results during follow-up were analysed by determining mortality and endoleak development as separate endpoints and

Impactfactor:

2.872

as a combined endpoint defined as endoleak-free survival. SETTING: 38 European institutions of Vascular Surgery collaborating in a multicentre registry project. PATIENTS AND METHODS: 899 patients with AAA underwent between May 1994 and March 1998 elective endovascular repair (818 men and 81 women; mean age 69 years). 80 (8.9%) of the patients had medical conditions that excluded them from open repair. 818 (91%) of patients had a bifurcated device, 63 (7%) had a straight tube and only 18 (2%) had an aorto-uni-iliac device. Clinical examination and contrast-enhanced computed tomography performed at fixed follow-up intervals to assess increase or decrease of the maximum transverse diameter (MTD). Endoleaks observed at follow-up were discriminated into persistent endoleak and temporary endoleak. The latter defined as single time observed endoleaks or with two or more negative imaging studies between observed endoleaks. Life-table analyses were used to calculate the rates of freedom-from-endoleak (no endoleak at any time), freedomfrom- persistent endoleak (no persistent endoleak), patient survival, and persistent-endoleak-free-survival. RESULTS: The median follow-up of this patient series was 6.2 months. The ratio between observed and expected follow-up data was 82% for the overall follow-up period. However, at 18 months of follow-up this rate was only 45%. The number of patients followed during this period was sufficient to allow statistically meaningful assessment. The in patients with temporary endoleaks demonstrated a significant decrease at 6 to 12 months compared to preoperative values (mean 57 and 53 respectively, $p = 0.004$). In patients with persistent endoleaks there was no change between the preoperative and 6-month MTD (mean 57 and 60 mm respectively). At 6 and 18 months freedom-from-endoleak was 83% and 74% and freedom-from-persistent endoleak was 93% and 90%, respectively. The 18-month cumulative patient survival was 88% and the main outcome measure, the persistent endoleak-free-survival was 79%. CONCLUSIONS: The MTD decreases in patients with temporary endoleak, but not in patients with persistent endoleak. Therefore, the use of the rate of freedom-from-persistent endoleak, reflecting absence of persisting endoleaks to estimate the prognosis with regard to the AAA, is justified. Determining persistent endoleak-free survival appears rational approach to provide a realistic outlook for patients with stent-grafted AAA. The observed 18-month endoleakfree survival reflects a satisfactory mid-term result.

Impactfactor: **Cuypers PW**
1.352 **Visceral aneurysms: do we have a consensus about indications and treatment options?**
 Willigendael E*, Teijink JA, Cuypers P, Sambeek MR van
 J Cardiovasc Surg (Torino). 2011 Jun;52(3):307-9

Impactfactor: **Cuypers PW**
 - **Current insights in endovascular repair of ruptured abdominal aortic aneurysms**
 Bosch JA ten, Cuypers PW*, Sambeek MR van*, Teijink JA*
 EuroIntervention. 2011 Nov 15;7(7):852-8

In patients presenting with a ruptured abdominal aortic aneurysms (AAA), a choice can be made whether or not treatment (selective treatment policy). Patients with a realistic expectation of survival after surgery, identified by

available prediction models, can be offered two treatment options: conventional "open" surgical repair and endovascular "minimally invasive" repair. Conventional open repair carries a significant morbidity and mortality, the combined effects of general anaesthesia and surgical exposure. Based on anatomical criteria assessed on CT angiography scan, approximately half of the ruptured AAA are suitable for endovascular aneurysm (EVAR). The majority of comparative studies show a clear trend towards lower perioperative mortality for endovascular repair compared to open surgery. The overall analyses of EVAR compared to open surgery, taking one randomised controlled trial and 23 available observational studies into account, showed a 38% decrease in 30-day or hospital mortality rate (Peto odds ratio 0.62; 95% CI 0.52 to 0.74). However, these mainly observational studies show considerable heterogeneity. Furthermore, potential selection bias, selecting patients for endovascular repair constituting a haemodynamically lower-risk category with a more favourable EVAR suitable anatomic configuration, makes a proper comparison unlikely. Therefore, randomised controlled trials, although difficult to perform in an severe condition like ruptured AAA, are needed to identify possible benefits of EVAR over open surgery in patients a ruptured AAA.

Cuypers PW

Endovascular abdominal aortic aneurysm repair in women

Grootenboer N, Hendriks JM, Cuypers PW*, Sambeek MR van*

Acta Chir Belg. 2011 Jan-Feb;111(1):2-6

The objective of this review is to establish the role of endovascular aortic aneurysm repair (EVAR) in women. A step approach is taken looking at sex and gender differences in epidemiology, pathogenesis and natural history. then proceed to discuss the results from the three randomized controlled trials comparing EVAR to open repair. sex-specific secondary prevention, risk factor management and medication, is discussed. Women seem to have mortality and more complications after EVAR. Risk factors such as diabetes and hypertension are associated with worse outcome in women compared to men. The role of EVAR in women is poorly investigated and its definite role remains to be determined. Aggressive treatment of risk factors and the optimisation of medication in women are indicated and deserve more attention in clinical practice and future research

Impactfactor:

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Cuypers PW

Vascular Complications of Q-fever Infections

Wegdam-Blans MC*, Vainas T*, Sambeek MR van*, Cuypers PW*, Tjhie HT*, Straten AH van*, Teijink JA*

Eur J Vasc Endovasc Surg. 2011 Sep;42(3):384-92. Epub 2011 May 31

Voor abstract zie: *Medische microbiologie – Wegdam-Blans MC*

Impactfactor:

2.872

Dudink R

Secondary healing versus midline closure and modified bascom natal cleft lift for pilonidal sinus disease

Dudink R*, Veldkamp J, Nienhuijs S*, Heemskerk J

Scand J Surg. 2011;100(2):110-3

Background and Aims: Pilonidal sinus disease is a common disease in young

Impactfactor:

1.08

employed male adults. Ongoing discomfort usually indicates an operative intervention. The main drawback is however the complication of wound healing. Numerous techniques for surgical treatment have been proposed, which underlies the lack of a superior technique. Material and Methods: A retrospective study was performed on the medical notes of 62 patients operated for a pilonidal sinus between May 2005 and December 2006. Used techniques were: 'modified Bascom procedure', 'excision and primary closure' and 'excision with secondary wound healing'. Patients' characteristics, operative parameters and data on outcome were included. The primary endpoint was wound healing. Results: Twenty-five patients underwent the modified Bascom procedure, 19 underwent surgical excision with primary midline closure 18 underwent surgical excision with secondary wound healing. There were no demographical differences between groups of patients. The modified Bascom technique showed a significantly reduced wound healing time (29 days) compared to primary closure (52 days, p modified procedure was significantly longer (49, 33 and 24 minutes respectively, p healing remains an important problem in the surgical treatment of pilonidal disease. Significant faster convalescence can be achieved using the modified Bascom procedure. Wide local excision as primary therapy should not be advocated.

Impactfactor: **Gevers E**
2.872 **Reprinted article "Realistic expectations for patients with stent-graft treatment of abdominal aortic aneurysms. Results of a European multicentre registry".**
Cuypers P*, Buth J*, Harris PL*, Gevers E*, Lahey R*; EUROSTAR Collaborators
Eur J Vasc Endovasc Surg. 2011 Sep;42 Suppl 1:S63-71
Voor abstract zie: Chirurgie - Cuypers P

Impactfactor: **Harris PL**
2.872 **Reprinted article "Realistic expectations for patients with stent-graft treatment of abdominal aortic aneurysms. Results of a European multicentre registry"**
Cuypers P*, Buth J*, Harris PL*, Gevers E*, Lahey R*; EUROSTAR Collaborators
Eur J Vasc Endovasc Surg. 2011 Sep;42 Suppl 1:S63-71
Voor abstract zie: Chirurgie - Cuypers P

Impactfactor: **Hingh IH de**
4.444 **Improving outcome for patients with pancreatic cancer through centralization.**
Lemmens VE, Bosscha K, Schelling G van der, Brenninkmeijer S, Coebergh JW, Hingh IH de*
Br J Surg. 2011 Oct;98(10):1455-62. Epub 2011 Jun 29
BACKGROUND: High-volume institutions are associated with improved clinical outcomes for pancreatic cancer. study investigated the impact of centralizing pancreatic cancer surgery in the south of the Netherlands. METHODS: All patients diagnosed in the Eindhoven Cancer Registry area in 1995-2000 (precentralization) and -2008 (implementation of centralization agreements) with primary cancer of

the pancreatic head, extrahepatic bile ducts, ampulla of Vater or duodenum were included. Resection rates, in-hospital mortality, 2-year survival and changes in treatment patterns were analysed. Multivariable regression analyses were used to identify independent risk factors for death. RESULTS: Some 2129 patients were identified. Resection rates increased from 19.0 to 30.0 per cent ($P < 0.001$). number of hospitals performing resections decreased from eight to three, and the annual number of resections hospital increased from two to 16. The in-hospital mortality rate dropped from 24.4 to 3.6 per cent ($P < 0.001$) and zero in 2008. The 2-year survival rate after surgery increased from 38.1 to 49.4 per cent ($P = 0.001$), and the rate irrespective of treatment increased from 10.3 to 16.0 per cent ($P < 0.001$). There was no improvement in 2-year survival in non-operated patients. After adjustment for relevant patient and tumour factors, those undergoing surgery more recently had a lower risk of death (hazard ratio 0.70, 95 per cent confidence interval 0.51 to 0.97). Changes surgical patterns seemed largely to explain the improvements. CONCLUSION: High-quality care can be achieved in regional hospitals through collaboration. Centralization should longer be regarded as a threat by general hospitals but as a chance to improve outcomes in pancreatic cancer.

Hingh IH de

Outcomes of elderly patients undergoing cytoreductive surgery and perioperative intraperitoneal chemotherapy colorectal cancer peritoneal carcinomatosis

Klaver YL*, Chua TC, Hingh IH de*, Morris DL.

J Surg Oncol. 2012 Feb;105(2):113-8. doi: 10.1002/jso.22019. Epub 2011 Jul 20

Voor abstract zie: Chirurgie - Klaver YL

Impactfactor:

2.428

Hingh IH de

The CARTS study: Chemoradiation therapy for rectal cancer in the distal rectum followed by organ-sparing transanal endoscopic microsurgery.

Bokkerink GM, Graaf EJ de, Punt CJ, Nagtegaal ID, Rutten H, Nuyttens JJ, Meerten E van, Doornebosch PG, Tanis PJ, Derksen EJ, Dwarkasing RS, Marijnen CA, Cats A, Tollenaar RA, Hingh IH*, Rutten HJ*, Schelling van der, Tije AJ ten, Leijtens JW, Lammering G, Beets GL, Aufenacker TJ, Pronk A, Manusama ER, Hoff C, Bremers AJ, Verhoef C, Wilt JH de
BMC Surg. 2011 Dec 15;11(1):34

Impactfactor:

1.40

Background The CARTS study is a multicenter feasibility study, investigating the role of rectum saving surgery for distal rectal cancer. Methods/Design Patients with a clinical T1-3 N0 M0 rectal adenocarcinoma below cm from the anal verge will receive neoadjuvant chemoradiation therapy (25 fractions of 2 Gy with concurrent capecitabine). Transanal Endoscopic Microsurgery (TEM) will be performed 8 - 10 weeks after the end of the preoperative treatment depending on the clinical response. Primary objective is to determine the number of patients with a (near) complete pathological response after chemoradiation therapy and TEM. Secondary objectives are local recurrence rate and quality of life after this combined therapeutic modality. A three-step analysis will be performed after 20, 33 and 55 patients to ensure the feasibility of this treatment protocol. DISCUSSION: The CARTS-study of the

first prospective multicentre trials to investigate the role of a rectum saving treatment modality using chemoradiation therapy and local excision. The CARTS study is registered at clinicaltrials.gov (NCT01273051)

Impactfactor:
3.15

Hingh IH de
The strengths and limitations of routine staging before treatment with abdominal CT in colorectal cancer

Grossmann I, Klaase JM, Avenarius JK, Hingh IH de*, Mastboom WJ, Wiggers T

BMC Cancer. 2011 Oct 7;11(1):433

BACKGROUND: Advanced colorectal cancer (CRC), either locally advanced (LA), metastasized (mCRC) or both, present in a relevant proportion of patients. The chances on curation of advanced CRC are continuously improving modern multi-modality treatment options. Less invasive procedures in incurable CRC may improve short term outcomes and the quality of life. Both situations motivate adequate staging before treatment in CRC. This prospective

observational study evaluates the outcomes after the introduction of routine staging with abdominal CT before treatment. METHODS: In a prospective observational study of 612 consecutive patients (2007-2009), the ability of abdominal to find liver metastases (LM), peritoneal carcinomatosis (PC) and T4 stage in colon cancer (LACC) was analyzed. RESULTS: Advanced CRC was present in 58% of patients, mCRC in 31%. The ability to find LM was excellent cT4 stage CC good (86%) and PC poor (33%). In the group of surgical patients with emergency presentations, incidences of both mCRC (51%) and LACC (69%) were higher than in the elective group (20% and 26% respectively). Staging tended to be omitted more often in the emergency group (35% versus 12% in elective surgery). CONCLUSION: The strengths of staging with abdominal CT are to find LM and LACC, however it fails in diagnosing PC. On grounds of the incidence of advanced CRC, staging is warranted as well in patients with emergency presentations.

Impactfactor:
1.332

Hingh IH de
Type B Aortic Dissection Resulting in Acute Esophageal Necrosis

Wal-Visscher E van de*, Nieuwenhuijsen GA*, Sambeek MR van*, Haanschoten M*, Botman KJ*, Hingh IH de*

Ann Vasc Surg. 2011 Aug;25(6):837.e1-3. Epub 2011 May 28

Voor abstract zie: Inwendige geneeskunde - Wal-Visscher E van de

Impactfactor:
2.645

Hingh IH de
C-reactive protein concentration is associated with prognosis in patients suffering from peritoneal carcinomatosis colorectal origin

Poll MC van de*, Klaver YL*, Lemmens VE, Leenders BJ*, Nienhuijs SW*, Hingh IH de*

Int J Colorectal Dis. 2011 Aug;26(8):1067-73. Epub 2011 Apr 8

Voor abstract zie: Chirurgie - Poll MC van de

Hingh IH de *Impactfactor:*
Hyperthermia and intraperitoneal chemotherapy for the treatment of *7.474*
peritoneal carcinomatosis: an experimental study

Klaver YL*, Hendriks T, Lomme RM, Rutten HJ*, Bleichrodt RP, Hingh IH de*

Ann Surg. 2011 Jul;254(1):125-30

Voor abstract zie: Chirurgie - Klaver YL

Hingh IH de. *Impactfactor:*
Predictors and survival of synchronous peritoneal carcinomatosis of *4.926*
colorectal origin: A population-based study

Lemmens VE, Klaver YL*, Verwaal VJ, Rutten HJ*, Coebergh JW, Hingh IH de*

Int J Cancer. 2011 Jun 1;128(11):2717-25

Voor abstract zie:Chirurgie - Klaver YL

Hingh IH de *Impactfactor:*
Population-based survival of patients with peritoneal carcinomatosis *6.452*
from colorectal origin in the era of increasing of palliative
chemotherapy

Klaver YL*, Lemmens VE, Creemers GJ*, Rutten HJ*, Nienhuijs SW*, Hingh IH*

Ann Oncol. 2011 Oct;22(10):2250-6. Epub 2011 Feb 23

Voor abstract zie:Chirurgie - Klaver YL

Hingh IH de *Impactfactor:*
Results of cytoreductive surgery and hyperthermic intraperitoneal *2.428*
chemotherapy after early failure of adjuvant systemic chemotherapy

Klaver YL*, Hingh IH de*, Boot H, Verwaal VJ

J Surg Oncol. 2011 Apr;103(5):431-4. Epub 2010 Dec 29

Voor abstract zie:Chirurgie - Klaver YL

Hobo R *Impactfactor:*
Annual rupture risk of abdominal aortic aneurysm enlargement *3.851*
without detectable endoleak after endovascular abdominal aortic
repair

Koole D, Moll FL, Buth J*, Hobo R*, Zandvoort HJ, Bots ML, Pasterkamp G, Herwaarden JA van

J Vasc Surg. 2011 Dec;54(6):1614-22. Epub 2011 Sep 13

Voor abstract zie: Chirurgie - Buth J

Klaver YL *Impactfactor:*
C-reactive protein concentration is associated with prognosis in *2.645*
patients suffering from peritoneal carcinomatosis colorectal origin

Poll MC van de*, Klaver YL*, Lemmens VE, Leenders BJ*, Nienhuijs SW*, Hingh IH de*

Int J Colorectal Dis. 2011 Aug;26(8):1067-73. Epub 2011 Apr 8

Voor abstract zie: Chirurgie - Poll MC van de

Impactfactor:
7.474

Klaver YL

Hyperthermia and intraperitoneal chemotherapy for the treatment of peritoneal carcinomatosis: an experimental study

Klaver YL*, Hendriks T, Lomme RM, Rutten HJ*, Bleichrodt RP, Hingh IH de*

Ann Surg. 2011 Jul;254(1):125-30

OBJECTIVE: : Hyperthermic intraperitoneal chemotherapy (HIPEC) with mitomycin C can improve survival if used as an adjunct to cytoreductive surgery (CS) for treatment of peritoneal carcinomatosis (PC). It remains unclear if both hyperthermia and chemotherapy are essential for the reported survival benefit. **METHODS:** Eighty WAG/Rij rats were inoculated intraperitoneally with the rat colon carcinoma cell line CC-531. Animals were randomly assigned to 1 of the 4 treatment groups (n = 20): CS only, CS followed by HIPEC (mitomycin 35 mg/m at 41°C), CS followed by intraperitoneal mitomycin perfusion at 37°C, CS followed by intraperitoneal saline perfusion at 41°C. Survival was the primary outcome with a maximum follow up of 126 days. **RESULTS:** : Median survival was 62 days in rats treated with CS only and 57 days in rats treated with CS followed hyperthermic saline perfusion. Rats receiving HIPEC had a median survival of 121 days (P = 0.022 when compared with CS only). In the group treated with chemotherapy at 37°C, 13 of 20 animals were still alive at the end of the experiment so median survival was not reached. (CS vs. IPEC: P = 0.002, hazard ratio 0.36, 95% CI 0.19-0.69) treated with hyperthermic saline perfusion did not have an increased survival as compared with CS only. **CONCLUSIONS:** The effectiveness of intraoperative intraperitoneal perfusion after CS is highly dependent on presence of chemotherapeutic agents in the perfusate but not on hyperthermia. The need to include hyperthermia as the adjuvant intraoperative treatment after CS for PC should be further investigated

Impactfactor:
2.428

Klaver YL

Outcomes of elderly patients undergoing cytoreductive surgery and perioperative intraperitoneal chemotherapy colorectal cancer peritoneal carcinomatosis

Klaver YL*, Chua TC, Hingh IH de*, Morris DL.

J Surg Oncol. 2012 Feb;105(2):113-8. doi: 10.1002/jso.22019. Epub 2011 Jul 20.

BACKGROUND: The combined treatment of cytoreductive surgery (CRS) and perioperative chemotherapy (PIC) colorectal peritoneal carcinomatosis (PC) is a rigorous surgical treatment most suited for fit and young patients. Technical maturity and improved perioperative care, we examined the outcomes of elderly patients undergoing CRS and PIC for colorectal PC. **METHODS:** All consecutive patients treated in two tertiary centers for PC of colorectal cancer who were 70 years of age or older at the time of surgery were included. Data on patient characteristics, concomitant diseases, operation details, perioperative course, and follow-up were retrieved from medical charts. Primary outcomes were perioperative morbidity and mortality. Secondary outcomes were disease-free and overall survival. **RESULTS:** Twenty-four patients (11 male) were included in this study (mean age 73.5 years). In eight patients major complications occurred. In six patients the postoperative course was complicated by minor adverse events. There was no perioperative mortality.

Median overall survival was 35 months with a 6, 12, and 18 months survival rate of 94%, 83%, and 68%, respectively. CONCLUSIONS: CRS and PIC for colorectal PC may be safely performed with acceptable morbidity in selected patients. When considering patients for surgery, performance status, and the disease extent should be used as eligibility criteria rather than age

Klaver YL

Predictors and survival of synchronous peritoneal carcinomatosis of colorectal origin: A population-based study

Lemmens VE, Klaver YL*, Verwaal VJ, Rutten HJ*, Coebergh JW, Hingh IH de*

Int J Cancer. 2011 Jun 1;128(11):2717-25

The aim of this study was to provide population-based data on incidence and prognosis of synchronous peritoneal carcinomatosis, and to evaluate predictors for its development. Diagnosed in 1995-2008, 18 738 cases of primary colorectal cancer were included. Predictors of peritoneal carcinomatosis were analysed by multivariable logistic regression analysis. Median survival in months was calculated by site of metastasis. In the study period, 904 patients were diagnosed with synchronous peritoneal carcinomatosis (4.8% of total, constituting 24% of patients presenting M1 disease). The risk of peritoneal carcinomatosis was increased in case of advanced T-stage (T4 vs. T1,2: odds (OR) 4.7, confidence limits 4.0-5.6), advanced N-stage (N0 vs. N1,2: OR 0.2 (0.1-0.2)), poor differentiation grade 2.1 (1.8-2.5)), younger age (< 60 years vs. 70-79 years: OR 1.4 (1.1-1.7)), mucinous adenocarcinoma (OR 2.0 -2.4)), and right-sided localisation of primary tumour (left vs. right: OR 0.6 (0.5-0.7)). Median survival of patients peritoneum as single site of metastasis remained dismal (1995-2001: 7 (6-9) months; 2002-2008: 8 (6-11) months), contrasting the improvement among patients with liver metastases (1995-2001: 8 (7-9) months; 2002-2008: 12 months). To conclude, synchronous peritoneal metastases from colorectal cancer are more frequent among younger patients, and among patients with advanced T-stage, mucinous adenocarcinoma, right-sided tumours, and tumours which are poorly differentiated. The prognosis of synchronous peritoneal carcinomatosis remains poor with a median survival of 8 months, and even worse if concomitant metastases in other organs are present.

Impactfactor:
4.926

Klaver YL

Population-based survival of patients with peritoneal carcinomatosis from colorectal origin in the era of increasing of palliative chemotherapy

Klaver YL*, Lemmens VE, Creemers GJ*, Rutten HJ*, Nienhuijs SW*, Hingh IH de*

Ann Oncol. 2011 Oct;22(10):2250-6. Epub 2011 Feb 23,

BACKGROUND: Palliative chemotherapy improves survival in patients with metastasised colorectal cancer. However, there is a lack of data regarding the effectiveness of modern chemotherapy in patients with isolated peritoneal carcinomatosis (PC). PATIENTS AND METHODS: All patients with synchronous PC of colorectal origin diagnosed in the Eindhoven Cancer Registry registration area between 1995 and 2008 were included (N = 904). We assessed the use of chemotherapy and overall survival in three time periods related to the

Impactfactor:
6.452

availability of different chemotherapy regimens. RESULTS: Chemotherapy use gradually increased over time. Median survival (MS) for patients with PC without metastases diagnosed in 1995-2000 was 35 weeks [95% confidence interval (CI) 24-43] and 34 weeks (25-54) -2008. MS in patients diagnosed with PC plus other metastases was 21 weeks (15-27) in 1995-2000 and 26 weeks (-33) in 2005-2008. In multivariable regression analysis, use of chemotherapy had a beneficial influence on survival in 2005-2008. In the first two periods chemotherapy treatment did not decrease the risk for death. CONCLUSION: Despite increasing usage of palliative chemotherapy and availability of new agents, population-survival of patients with PC did not improve until very recently. Response to palliative chemotherapy in PC should be evaluated separately from haematogenous metastases.

Impactfactor:
2.428

Klaver YL

Results of cytoreductive surgery and hyperthermic intraperitoneal chemotherapy after early failure of adjuvant systemic chemotherapy

Klaver YL*, Hingh IH de*, Boot H, Verwaal VJ

J Surg Oncol. 2011 Apr;103(5):431-4. Epub 2010 Dec 29

BACKGROUND AND OBJECTIVES: Failure to respond to systemic chemotherapy is considered an exclusion criterion by some institutions for treatment with cytoreductive surgery and hyperthermic intraperitoneal chemotherapy (HIPEC). However, it is unknown if these patients benefit from HIPEC treatment. This study aimed to report on outcomes HIPEC in patients who failed to respond to adjuvant systemic chemotherapy. METHODS: Patients were selected from a prospective database containing data on all patients who underwent using the following criteria: (1) Metachronous peritoneal carcinomatosis (PC) from colorectal origin, (2) adjuvant chemotherapy after primary tumor resection, (3) development of PC or local recurrence within 18 months after start chemotherapy. Treatment and survival data were retrospectively collected. RESULTS: Twenty-one patients (29% male, mean age 57 years) were included. Median time to recurrence of disease was 9 months (range 2-15) after first chemotherapy administration. Median survival was 28 months (range 3-100). One- and 2-year survival were 71% and 43%, respectively. CONCLUSIONS: Patients who initially failed to respond to systemic adjuvant treatment showed a survival after similar to results reported in literature in patients with unknown responsiveness. Failure to respond to previous adjuvant systemic treatment should therefore not be considered an exclusion criterion for HIPEC treatment.

Impactfactor:
2.872

Lahey R

Reprinted article "Realistic expectations for patients with stent-graft treatment of abdominal aortic aneurysms. Results of a European multicentre registry"

Cuypers P*, Buth J*, Harris PL*, Gevers E*, Lahey R*; EUROSTAR Collaborators

Eur J Vasc Endovasc Surg. 2011 Sep;42 Suppl 1:S63-71

Voor abstract zie: Chirurgie - Cuypers P

Leenders BJ

C-reactive protein concentration is associated with prognosis in patients suffering from peritoneal carcinomatosis colorectal origin

Poll MC van de*, Klaver YL*, Lemmens VE, Leenders BJ*, Nienhuijs SW*, Hingh IH de*

Int J Colorectal Dis. 2011 Aug;26(8):1067-73. Epub 2011 Apr 8

Voor abstract zie: *Chirurgie - Poll MC van de*

Impactfactor:

2.645

Luyer MD

Nutritional stimulation of the autonomic nervous system

Luyer MD*, Habes Q, Hak R van, Buurman W

World J Gastroenterol. 2011 Sep 14;17(34):3859-63

Impactfactor:

2.24

Disturbance of the inflammatory response in the gut is important in several clinical diseases ranging from inflammatory bowel disease to postoperative ileus. Several feedback mechanisms exist that control the inflammatory cascade avoid collateral damage. In the gastrointestinal tract, it is of particular importance to control the immune response maintain the balance that allows dietary uptake and utilization of nutrients on one hand, while preventing invasion bacteria and toxins on the other hand. The process of digestion and absorption of nutrients requires a relative hyporesponsiveness of the immune cells in the gut to luminal contents which is not yet fully understood. Recently, autonomic nervous system has been identified as an important pathway to control local and systemic inflammation gut barrier integrity. Activation of the pathway is possible via electrical or via pharmacological interventions, but achieved in a physiological manner by ingestion of dietary lipids Administration of dietary lipids has been shown very effective in reducing the inflammatory cascade and maintaining intestinal barrier integrity in several experimental studies. This beneficial effect of nutrition on the inflammatory response and intestinal barrier integrity opens new therapeutic opportunities for treatment of certain gastrointestinal disorders. Furthermore, this neural feedback mechanism provides more insight in the relative hyporesponsiveness of the immune cells in the gut. Here, we will discuss the regulatory function of the autonomic nervous system on the inflammatory response and gut barrier function and the potential benefit in a clinical setting.

Maaskant-Braat AJ

Sentinel node micrometastases in breast cancer do not affect prognosis: a population-based study

Maaskant-Braat AJ*, van de Poll-Franse LV, Voogd AC, Coebergh JW, Roumen RM, Nolthenius-Puylaert MC, Nieuwenhuijzen GA*

Breast Cancer Res Treat. 2011 May;127(1):195-203 Epub 2010 Aug 3

Sentinel node biopsy (SNB) for axillary staging in breast cancer allows the application of more extensive pathologic examination techniques. Micrometastases are being detected more often, however, coinciding with stage migration. Besides assessing the prognostic relevance of micrometastases and the need for administering adjuvant systemic regional therapies, there still seems to be room for improvement. In a population-based analysis, we compared of patients with sentinel node micrometastases with those with node-negative and node-positive disease in the after

Impactfactor:

4.859

introduction of SNB. Data from the population-based Eindhoven Cancer Registry were used on all (n = 6803) women who underwent SNB for invasive breast cancer in the Southeast Region of The Netherlands in the period -2006. In 451 patients (6.6%) a sentinel node micrometastasis (pN1mi) was detected and in 126 patients (1.9%) isolated tumor cells (pN0(i+)). Micrometastases or isolated tumor cells in the SNB did not convey any significant survival difference compared with node-negative disease. After adjustment for age, pT, and grade, still no survival difference emerged pN1mi: [HR 0.9 (95% CI, 0.6-1.3)] and pN0(i+): [HR 0.4 (95% CI, 0.14-1.3)] and neither was case after additional adjustment for adjuvant systemic therapy. Our practice-based study showed that the presence sentinel node micrometastases in breast cancer patients has hardly any impact on breast cancer overall survival the first years after diagnosis.

Impactfactor: **Nienhuijs SW**
- **Secondary healing versus midline closure and modified bascom natal cleft lift for pilonidal sinus disease**

Dudink R*, Veldkamp J, Nienhuijs S*, Heemskerk J
Scand J Surg. 2011;100(2):110-3
Voor abstract zie: Chirurgie - Dudink R

Impactfactor: **Nienhuijs SW**
2.645 **C-reactive protein concentration is associated with prognosis in patients suffering from peritoneal carcinomatosis colorectal origin**

Poll MC van de*, Klaver YL*, Lemmens VE, Leenders BJ*, Nienhuijs SW*, Hingh IH de*
Int J Colorectal Dis. 2011 Aug;26(8):1067-73. Epub 2011 Apr 8
Voor abstract zie: Chirurgie - Poll MC van de

Impactfactor: **Nienhuijs SW**
3.173 **Esophageal carcinoma after sleeve gastrectomy**

Scheepers AF*, Schoon EJ*, Nienhuijs SW*
Surg Obes Relat Dis. 2011 Jul-Aug;7(4):e11-2. Epub 2010 Oct 30
Geen abstract beschikbaar

Impactfactor: **Nienhuijs SW**
6.452 **Population-based survival of patients with peritoneal carcinomatosis from colorectal origin in the era of increasing of palliative chemotherapy**

Klaver YL*, Lemmens VE, Creemers GJ*, Rutten HJ*, Nienhuijs SW*, Hingh IH de*
Ann Oncol. 2011 Oct;22(10):2250-6. Epub 2011 Feb 23
Voor abstract zie:Chirurgie - Klaver YL

Impactfactor: **Nieuwenhuijzen GA**
4.859 **Are breast conservation and mastectomy equally effective in the treatment of young women with early breast cancer? Long-term results of a population-based cohort of 1,451 patients aged d 40 years**

Sangen MJ van der*, Wiel FM van der, Poortmans PM, Tjan-Heijnen VC, Nieuwenhuijzen GA*, Roumen RM, Ernst Tutein Nolthenius-Puylaert MC, Voogd AC

Breast Cancer Res Treat. 2011 May;127(1):207-15

Voor abstract zie: Radiotherapie - Sangen MJ van der

Nieuwenhuijzen GA

Impact of concentration of oesophageal and gastric cardia cancer surgery on long-term population-based survival

Poll-Franse LV van de, Lemmens VE, Roukema JA, Coebergh JW, Nieuwenhuijzen GA*

Br J Surg. 2011 Jul;98(7):956-63. Epub 2011 Apr 20

BACKGROUND: The objective was to evaluate the impact of concentration of surgery for oesophageal and gastric cardia cancer on long-term survival in the population-based Eindhoven Cancer Registry area. In contrast to most previous studies, this study aimed to evaluate both surgically and non-surgically treated patients, to avoid the confounding effect of selective referral. **METHODS:** This retrospective cohort study included all patients diagnosed with oesophageal or gastric cardia cancer between 1995 and 2006. Results for the period 1995-1998 were compared with those for 1999-2006, after concentration of surgery. **RESULTS:** Between 1995 and 2006, 2212 patients were registered with the diagnosis, of whom 638 underwent resection. Before 1999, 73.4 per cent of surgically treated patients underwent a resection in a low-volume hospital (fewer than 4 resections per year) and 23.2 per cent were referred to an academic hospital. After concentration, per cent of surgically treated patients underwent resection in one of two regional high-volume centres (15-20 resections per year) and 13.8 per cent were referred to an academic hospital. Three-year survival rates increased from 32.45:1 per cent for patients who had surgery ($P = 0.004$), and from 13.1 to 17.9 per cent for all included patients (0.026). These improvements remained after adjustment for case mix or (neo)adjuvant treatments, and were similar patients with squamous cell carcinoma or adenocarcinoma. However, adjustment for annual hospital volume attenuated this association for patients who had surgery. **CONCLUSION:** Concentration of oesophageal and gastric cardia cancer surgery was associated with improvements long-term, population-based overall survival for surgically as well as non-surgically treated patients, apparently mediated by an increase in volume.

Impactfactor:

4.444

Nieuwenhuijzen GA

Sentinel node micrometastases in breast cancer do not affect prognosis: a population-based study

Maaskant-Braat AJ*, van de Poll-Franse LV, Voogd AC, Coebergh JW, Roumen RM, Nolthenius-Puylaert MC, Nieuwenhuijzen GA*

Breast Cancer Res Treat. 2011 May;127(1):195-203

Voor abstract zie: Chirurgie - Maaskant-Braat AJ

Impactfactor:

4.859

Nieuwenhuijzen GA

Type B Aortic Dissection Resulting in Acute Esophageal Necrosis

Wal-Visscher E van de*, Nieuwenhuijzen GA*, Sambeek MR van*, Haanschoten M*, Botman KJ*, Hingh IH de*

Ann Vasc Surg. 2011 Aug;25(6):837.e1-3. Epub 2011 May 28

Voor abstract zie: Inwendige geneeskunde - Wal-Visscher, E van de

Impactfactor:

1.332

Impactfactor:
2.428

Nieuwenhuijzen GA

Presence of symptoms and timing of surgery do not affect the prognosis of patients with primary metastatic breast cancer

Ruiterkamp J, Voogd AC, Bosscha K, Roukema JA, Nieuwenhuijzen GA,* Tjan-Heijnen VC, Ernst MF

Eur J Surg Oncol. 2011 Oct;37(10):883-9 Epub 2011 Aug 16

AIMS: Though most studies on surgical resection of the breast tumor in patients with primary distant metastatic cancer (MBC) indicated that surgery is associated with prolonged overall survival, some state that this effect has confounded by indication and timing of surgery. In this study we analyzed these possible confounders and their to overall survival. METHODS: To determine the impact of potential confounders, individual charts of 279 patients with primary MBC reviewed. RESULTS: The median survival in patients treated with surgery of the breast tumor was 39 months, compared to months for those without surgery ($p < 0.0001$). The median survival of patients with symptomatic metastatic disease = 112) was 19 months, compared to 22 months for those without symptomatic disease ($n = 167$) ($p = 0.15$). Patients who received surgery and whose metastases were detected before surgery of the breast tumor had taken place 40) had a median survival of 38 months, compared to 40 months for patients in whom the metastatic disease was diagnosed after surgery ($n = 43$) ($p = 0.81$). CONCLUSION: Presence of symptomatic metastatic disease was no significant prognostic factor for patients with distant metastasis at diagnosis, neither was the timing of surgery. It is unlikely that the prolonged survival after surgery is explained by these potentials confounders.

Impactfactor:
7.474

Nieuwenhuijzen GA

Fluorodeoxyglucose positron emission tomography for evaluating early response during neoadjuvant chemoradiotherapy in patients with potentially curable esophageal cancer

Heijl M van, Omloo JM, Berge Henegouwen MI van, Hoekstra OS, Boellaard R, Bossuyt PM, Busch OR, Tilanus Hulshof MC, van der Gaast A, Nieuwenhuijzen GA*, Bonenkamp HJ, Plukker JT, Cuesta MA, Kate FJ ten, Pruijm van Dekken H, Bergman JJ, Sloof GW, Lanschot JJ van

Ann Surg. 2011 Jan;253(1):56-63

BACKGROUND: Neoadjuvant chemoradiotherapy before surgery can improve survival in patients with potentially curable esophageal cancer, but not all patients respond. Fluorodeoxyglucose positron emission tomography (FDGPET) has been proposed to identify nonresponders early during neoadjuvant chemoradiotherapy. The aim of the present study was to determine whether FDG-PET could differentiate between responding and nonresponding esophageal tumors early in the course of neoadjuvant chemoradiotherapy. METHODS: This clinical trial comprised serial FDG-PET before and 14 days after start of chemoradiotherapy in patients with potentially curable esophageal carcinoma. Histopathologic responders were defined as patients with less than 10% viable tumor cells (Mandard score on resection specimen). PET response was measured using the standardized uptake value (SUV). Receiver operating characteristic analysis was used to evaluate the ability of distinguishing between histopathologic responders and nonresponders. RESULTS: In 100 included patients, 64 were histopathologic

responders. The median SUV decrease 14 days after start of therapy was 30.9% for histopathologic responders and 1.7% for nonresponders ($P = 0.001$). In receiver operating characteristic analysis, the area under the curve was 0.71 (95% CI = 0.60-0.82). Using a 0% SUV decrease cutoff value, PET correctly identified 58 of 64 responders (sensitivity 91%) and 18 of 36 nonresponders (specificity 50%). The corresponding positive and negative predictive values were 76% and 75%, respectively. CONCLUSIONS: SUV decrease 14 days after the start of chemoradiotherapy was significantly associated with histopathologic tumor response, but its accuracy in detecting nonresponders was too low to justify the clinical use FDG-PET for early discontinuation of neoadjuvant chemoradiotherapy in patients with potentially curable esophageal cancer.

Poll MC van de

C-reactive protein concentration is associated with prognosis in patients suffering from peritoneal carcinomatosis colorectal origin

Poll MC van de*, Klaver YL*, Lemmens VE, Leenders BJ*, Nienhuijs SW*, Hingh IH de*

Int J Colorectal Dis. 2011 Aug;26(8):1067-73. Epub 2011 Apr 8

PURPOSE: Only a limited number of patients with peritoneal carcinomatosis (PC) of colorectal origin benefit from palliative chemotherapy. Identification of prognostic factors may aid in patient selection. The plasma concentration C-reactive protein (CRP) is increasingly recognized as prognostic factor in a variety of malignancies. However, in peritoneal PC of colorectal origin is currently unknown. The aim of the present study was to investigate the association of plasma CRP concentrations with survival in patients suffering from PC of colorectal origin who receive palliative chemotherapy. **METHODS:** Fifty patients with colorectal PC were identified from the Eindhoven Cancer Registry. Relevant data retrieved from their clinical records. The most discriminatory CRP concentration was identified and patients were stratified accordingly, resulting in a group with low and a group with high CRP concentrations. Further comparisons were made between these groups. **RESULTS:** A CRP concentration <35 mg/L was associated with a better prognosis (median survival 22.4 months) a CRP concentration \geq 35 mg/L (7.9 months) (p concentrations which could predict survival at a cut-off value of 35 g/L (median survival 7.2 vs. 12.9 months, 0.01). High CRP concentrations were related to a decreased resectability rate of the primary tumor. **CONCLUSION:** Elevated CRP plasma concentrations are associated with decreased survival in patients with colorectal PC. This reflects the importance of inflammation in cancer survival. Further research is warranted to assess the applicability of the current findings.

Impactfactor:

2.645

Riet Y van

Nurse-led telephone follow-up and an educational group programme after breast cancer treatment: Results of a randomised controlled trial

Kimman ML, Dirksen CD, Voogd AC, Falger P, Gijzen BC, Thuring M, Lenssen A, Ent F van der, Verkeyn J, Haekens C, Hupperets P, Nuytinck JK, Riet Y van*, Brenninkmeijer SJ, Scheijmans LJ, Kessels A, Lambin P, Boersma LJ

Eur J Cancer. 2011 May;47(7):1027-36. Epub 2011 Jan 13

OBJECTIVE: To investigate whether frequent hospital follow-up in the first

Impactfactor:

4.994

year after breast cancer treatment might partly be replaced by nurse-led telephone follow-up without deteriorating health-related quality of life (HRQoL), whether a short educational group programme (EGP) would enhance HRQoL. PATIENTS AND METHODS: A multicentre pragmatic randomised controlled trial (RCT) with a 2x2 factorial design performed among 320 breast cancer patients who were treated with curative intent. Participants were randomised follow-up care as usual (3-monthly outpatient clinic visits), nurse-led telephone follow-up, or the former strategies combined with an educational group programme. The primary outcome for both interventions was HRQoL, measured by EORTC QLQ-C30. Secondary outcomes were role and emotional functioning and feelings of control and anxiety. RESULTS: Data of 299 patients were available for evaluation. There was no significant difference in HRQoL between nurse-led telephone and hospital follow-up at 12 months after treatment ($p=0.42$; 95% confidence interval (CI) for difference: -1.93-4.64) and neither between follow-up with or without EGP ($p=0.86$; 95% CI for difference: -3.59-). Furthermore, no differences between the intervention groups and their corresponding control groups were found and emotional functioning, and feelings of control and anxiety (all p -values >0.05). CONCLUSION: Replacement of most hospital follow-up visits in the first year after breast cancer treatment by nurse-led telephone follow-up does not impede patient outcomes. Hence, nurse-led telephone follow-up seems an appropriate way to reduce clinic visits and represents an accepted alternative strategy. An EGP does not unequivocally affect positive HRQoL outcomes.

Impactfactor: Riet Y van
4.994 Economic evaluation of four follow-up strategies after curative treatment for breast cancer: results of an RCT

Kimman ML, Dirksen CD, Voogd AC, Falger P, Gijsen BC, Thuring M, Lenssen Ent F, Verkeyn J van der, Haekens C, Hupperets P, Nuytinck JK, Riet Y van*, Brenninkmeijer SJ, Scheijmans LJ, Kessels A, Lambin P, Boersma LJ
Eur J Cancer. 2011 May;47(8):1175-85. Epub 2011 Jan 21

BACKGROUND: An economic evaluation was performed alongside a randomised controlled trial (ISRCTN 74071417) investigating the cost-effectiveness of nurse-led telephone follow-up instead of hospital visits, and of a short educational group programme (EGP) in the first year after breast cancer treatment. METHOD: This economic evaluation ($n=299$) compared the one-year costs and the effects of four follow-up strategies: (1) hospital follow-up; (2) nurse-led telephone follow-up; (3) hospital follow-up plus EGP; and (4) nurse-led telephone follow-up plus EGP. Costs were measured using cost diaries and hospital registrations. Quality-adjusted life years (QALYs) were measured using the EQ-5D. Outcomes were expressed in incremental cost-effectiveness ratios (and cost-effectiveness acceptability curves). RESULTS: Hospital follow-up plus EGP yielded most QALYs (0.776), but also incurred the highest mean annual (-4914). The ICER of this strategy versus the next best alternative, nurse-led telephone follow-up plus EGP (0.772 QALYs and -3971), amounted to $-235.750/\text{QALY}$. Hospital and telephone follow-up without EGP both incurred costs and less QALYs than telephone follow-up plus EGP and were judged inferior. Hospital follow-up plus EGP not considered cost-

effective, therefore, telephone follow-up plus EGP was the preferred strategy. The probability telephone follow-up plus EGP being cost-effective ranged from 49% to 62% for different QALY threshold values. Secondary and sensitivity analyses showed that results were robust. CONCLUSION: Nurse-led telephone follow-up plus EGP seems an appropriate and cost-effective alternative to hospital follow-up for breast cancer patients during their first year after treatment.

Rutte PW van

In treatment of popliteal artery cystic adventitial disease, primary bypass graft not always first choice: two reports and a review of the literature

Rutte PW van*, Rouwet EV, Belgers EH, Lim RF, Teijink JA*

Eur J Vasc Endovasc Surg. 2011 Sep;42(3):347-54. Epub 2011 Apr 9

Cystic adventitial disease (CAD) is a rare cause of unilateral intermittent claudication of unknown aetiology, which characterized by the formation of multiple mucin-filled cysts in the adventitial layer of the arterial wall resulting in obstruction to blood flow. The disease predominantly presents in young otherwise healthy males and most commonly affects the popliteal artery. CAD can be diagnosed by magnetic resonance imaging, computed tomographic angiography, or duplex ultrasound. Surgery is the primary mode of treatment, including exarterectomy, or replacement of the affected vascular segment by venous or synthetic interposition graft. Alternatively, the cysts can be drained percutaneous ultrasound-guided needle aspiration. We provide a literature update on the aetiology and treatment this uncommon condition and present two cases supporting patient tailored treatment without primary bypass grafting

Impactfactor:

2.872

Rutten HJ

Hyperthermia and intraperitoneal chemotherapy for the treatment of peritoneal carcinomatosis: an experimental study

Klaver YL*, Hendriks T, Lomme RM, Rutten HJ*, Bleichrodt RP, Hingh IH de*

Ann Surg. 2011 Jul;254(1):125-30

Voor abstract zie: Chirurgie - Klaver YL

Impactfactor:

7.474

Rutten HJ

Improvements in population-based survival of patients presenting with metastatic rectal cancer in the south of the Netherlands, 1992-2008.

Lemmens VE, Haan N de*, Rutten HJ*, Martijn H*, Loosveld OJ, Roumen RM, Creemers GJ*

Clin Exp Metastasis. 2011 Mar;28(3):283-90. Epub 2011 Jan 5

Voor abstract zie: Inwendige geneeskunde - Haan N de

Impactfactor:

4.113

Rutten HJ

Pharmacogenetics of Oxaliplatin as Adjuvant Treatment in Colon Carcinoma: Are Single Nucleotide Polymorphisms GSTP1, ERCC1, and ERCC2 Good Predictive Markers?

Fariña Sarasqueta A, Lijnschoten G van, Lemmens VE, Rutten HJ*, Brule AJ vd

Mol Diagn Ther. 2011 Oct 1;15(5):277-83

Impactfactor:

2.561

PURPOSE: Adjuvant chemotherapy improves survival in stage III colon cancer patients. However, a subgroup of patients still develops recurrent disease at some point in time, partly because of the ineffectiveness of the chemotherapy. Predictive markers of response are therefore crucial. Our aim was to study the predictive value of functional polymorphisms in genes involved in the metabolism of oxaliplatin and in DNA repair in stage III colon patients. MATERIALS AND METHODS: Normal DNA was isolated from 98 patients diagnosed with stage III colon carcinoma. Single nucleotide polymorphisms (SNPs) in three genes (the excision repair cross-complementing genes ERCC1 [19007T>C] and ERCC2 [2251A>C], and the glutathione S-transferase pi 1 gene [GSTP1 313A>G]) were tested PCR followed by digestion with restriction enzymes or by direct sequencing. These genes and SNPs were selected the basis of their reported associations with oxaliplatin response in colorectal cancer. RESULTS: The genotype frequencies were in Hardy-Weinberg equilibrium. GSTP1 and ERCC2 polymorphisms significantly associated with sex. The AA genotype of GSTP1 313A>G was more frequent in men than in women vs 30%, p (24% vs 6%, p influence disease-free survival. The GSTP1 AA genotype had different effects on survival between men and women; homozygous A men had significantly worse cancer-specific survival and overall survival than women with the same genotype (log rank p CONCLUSION: None of the tested polymorphisms is likely to be a reliable marker of response to oxaliplatin therapy. The GSTP1 313A>G homozygous A genotype may have a prognostic value in male patients.

Impactfactor: Rutten HJ

3.175 PIK3CA kinase domain mutation identifies a subgroup of stage III colon cancer patients with poor prognosis.

Fariña Sarasqueta A*, Zeestraten EC, van Wezel T, Lijnschoten G van*, van Eijk R, Dekker JW, Kuppen PJ, Goossens-Beumer IJ, Lemmens VE, Velde CJ van de, Rutten HJ*, Morreau H, Brule AJ van den*
Cell Oncol (Dordr). 2011;34:523_531

BACKGROUND: PIK3CA mutations in the helical domain (in exon 9) and in the kinase domain (exon 20) cause formation by different means. We aimed to determine the effects of each of these mutations on survival of colon carcinoma patients. METHODS: A large cohort of 685 colon carcinoma patients was tested for PIK3CA mutations in exons 9 and 20 single nucleotide primer extension (N RESULTS: PIK3CA mutation rate was 13%. 66 of 83 (79.5%) were in exon 9 and 17 of 83 (20.5%) in exon 20. In survival analysis, PIK3CA mutations in exon 9 and 20 had different effects on patient outcome. The PIK3CA exon mutation conferred a poorer disease free survival compared to patients with wild type alleles and exon 9 mutations (Log rank p respectively) in stage III patients. In stage I and II this CONCLUSIONS: PIK3CA mutation in exon 20 is a negative prognostic factor in stage III colon cancer patients. Moreover, this negative effect is not present in stage I and II patients

Rutten HJ**Predictors and survival of synchronous peritoneal carcinomatosis of colorectal origin: A population-based study**

Lemmens VE, Klaver YL*, Verwaal VJ, Rutten HJ*, Coebergh JW, Hingh IH de*

Int J Cancer. 2011 Jun 1;128(11):2717-25

Voor abstract zie: Chirurgie - Klaver YL

Impactfactor:

4.926

Rutten HJ**The CARTS study: Chemoradiation therapy for rectal cancer in the distal rectum followed by organ-sparing transanal endoscopic microsurgery**

Bokkerink GM, Graaf EJ de, Punt CJ, Nagtegaal ID, Rutten H, Nuyttens JJ, van Meerten E, Doornebosch PG, Tanis PJ, Derksen EJ, Dwarkasing RS, Marijnen CA, Cats A, Tollenaar RA, Hingh IH de*, Rutten HJ*, Schelling GP van der, Tije AJ ten, Leijtens JW, Lammering G, Beets GL, Aufenacker TJ, Pronk A, Manusama ER, Hoff C, Bremers AJ, Verhoef C, Wilt JH de
BMC Surg. 2011 Dec 15;11(1):34

Voor abstract zie: Chirurgie - Hingh IH de

Impactfactor:

1.40

Rutten HJ**The effects of age and comorbidity on treatment patterns for radiotherapy and survival in patients with mobile rectal cancer: a population-based study**

Maas HA, Lemmens VE, Cox S, Martijn, H*, Rutten HJ*, Coebergh JW, Janssen-Heijnen ML

European Geriatric Medicine 2011;2 (5): 73-279

Geen abstract beschikbaar

Impactfactor:

-

Rutten HJ**Preoperative radiotherapy combined with total mesorectal excision for resectable rectal cancer: 12-year follow-up multicentre, randomised controlled TME trial.**

Gijn W van, Marijnen CA, Nagtegaal ID, Kranenbarg EM, Putter H, Wiggers T, Rutten HJ*, Pahlman L, Glimelius de Velde CJ; for the Dutch Colorectal Cancer Group

Lancet Oncol. 2011 Jun;12(6):575-582. Epub 2011 May 17

Geen abstract beschikbaar

Impactfactor:

17.764

Rutten HJ**Impact of preoperative radiotherapy on general and disease-specific health status of rectal cancer survivors: population-based study**

Thong MS, Mols F, Lemmens VE, Rutten HJ*, Roukema JA, Martijn H*, Poll-Franse LV van de

Int J Radiat Oncol Biol Phys. 2011 Nov 1;81(3):e49-58. Epub 2011 Feb 28

PURPOSE: To date, few studies have evaluated the impact of preoperative radiotherapy (pRT) on long-term health status of rectal cancer survivors. Using a population-based sample, we assessed the impact of pRT on general disease-specific health status of rectal cancer survivors up to 10 years postdiagnosis. The health status of older years old at diagnosis) pRT survivors was also compared with that of younger survivors. METHODS AND

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4.503

MATERIALS: Survivors identified from the Eindhoven Cancer Registry treated with surgery only or with pRT between 1998 and 2007 were included. Survivors completed the Short Form-36 (SF-36) health survey questionnaire and the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire- Colorectal 38 (EORTC QLQ-CR38) questionnaire. The SF-36 and EORTC QLQ-CR38 (sexuality subscale) scores the survivors were compared to an age- and sex-matched Dutch normal population. **RESULTS:** A total of 340 survivors (response, 85%; pRT survivors, 71%) were analyzed. Overall, survivors had general health status. Both short-term (<5 years) and long-term (e 5 years) pRT survivors had significantly poorer image and more problems with gastrointestinal function, male sexual dysfunction, and defecation than SU survivors. Survivors had comparable general health status but greater sexual dysfunction than the normal population. Older survivors had general and disease-specific health status comparable to that of younger pRT survivors. **CONCLUSIONS:** For better survivorship care, rectal cancer survivors could benefit from increased clinical and psychological focus on the possible long-term morbidity of treatment and its effects on health status

Impactfactor:
6.452

Rutten HJ

Large variation between hospitals and pathology laboratories in lymph node evaluation in colon cancer and its impact on survival, a nationwide population-based study in The Netherlands

Elferink MA, Siesling S, Visser O, Rutten HJ*, Krieken JH van, Tollenaar RA, Lemmens VE

Ann Oncol. 2011 Jan;22(1):110-7. Epub 2010 Jul 1

BACKGROUND: Adequate lymph node (LN) evaluation is important for planning treatment in patients with colon cancer. Aims of this study were to identify factors associated with adequate nodal examination and to determine relationship with stage distribution and survival. **PATIENTS AND METHODS:** Data from patients with colon carcinoma stages I-III who underwent surgical treatment and diagnosed in the period 2000-2006 were retrieved from the Netherlands Cancer Registry. Multilevel logistic analysis was carried out to examine the influence of relevant factors the number of evaluated LNs. The relationship with survival was analysed using Cox regression analysis. **RESULTS:** The number of examined LN was determined for 30 682 of 33 206 tumours. Median number of evaluated LN was ranging from 4 to 15 between pathology laboratories. Females, younger patients, right-sided pN+ tumours with pT stage and patients diagnosed in an academic centre were less likely to have nine or less LN evaluated. Unexplained variation between hospitals and pathology laboratories remained, leading to differences in stage distribution. With increasing number of evaluated LN, the risk of death decreased. **CONCLUSION:** There was large diversity in nodal examination among patients with colon cancer, leading to differences in stage distribution and associated with survival.

Rutten HJ**Population-based survival of patients with peritoneal carcinomatosis from colorectal origin in the era of increasing of palliative chemotherapy**

Klaver YL*, Lemmens VE, Creemers GJ*, Rutten HJ*, Nienhuijs SW*, Hingh IH de*

Ann Oncol. 2011 Oct;22(10):2250-6. Epub 2011 Feb 23

Voor abstract zie: *Chirurgie - Klaver YL*

Impactfactor:

6.452

Rutten HJ**TS gene polymorphisms are not good markers of response to 5-FU therapy in stage III colon cancer patients**

Fariña-Sarasqueta A, Gosens MJ, Moerland E, Lijnschoten I van, Lemmens VE, Slooter GD, Rutten HJ*, Brule AJ van den*

Cellular Oncology, 2011; 34(4), 327-335

AIM: Although the predictive and prognostic value of thymidylate synthase (TS) expression and gene polymorphism colon cancer has been widely studied, the results are inconclusive probably because of methodological differences. With this study, we aimed to elucidate the role of TS gene polymorphisms genotyping in therapy response in stage colon carcinoma patients treated with 5-FU adjuvant chemotherapy. PATIENTS AND METHODS: 251 patients diagnosed with stage III colon carcinoma treated with surgery followed FU based adjuvant therapy were selected. The variable number of tandem repeats (VNTR) and the single nucleotide polymorphism (SNP) in the 5'untranslated region of the TS gene were genotyped. RESULTS: There was a positive association between tumor T stage and the VNTR genotypes univariate and multivariate survival analysis no effects of the studied polymorphisms on survival were found. However, there was an association between both polymorphisms and age. Among patients younger than 60 years, the patients homozygous for 2R seemed to have a better overall survival, whereas among the patients older than 67 this longer survival was seen by the carriers of other genotypes. CONCLUSION: We conclude that the TS VNTR and SNP do not predict response to 5-FU therapy in patients with stage III colon carcinoma. However, age appears to modify the effects of TS polymorphisms on survival.

Impactfactor:

3.175

Rutten HJ**Variation in lymph node evaluation in rectal cancer: a Dutch nationwide population-based study**

Elferink MA, Siesling S, Lemmens VE, Visser O, Rutten HJ*, Krieken JH van, Tollenaar RA, Langendijk JA

Ann Surg Oncol. 2011 Feb;18(2):386-95. Epub 2010 Aug 24

BACKGROUND: For adequate staging and subsequent accurate estimation of prognosis, a sufficient number of nodes (LNs) has to be evaluated. This study aimed to identify factors associated with adequate nodal evaluation determine its relationship with survival. METHODS: Data from all patients with stage I to III rectal carcinoma who underwent surgical treatment and who diagnosed in the period 2000 to 2006 were retrieved from the Netherlands Cancer Registry. Multilevel logistic analysis was performed to examine the influence of relevant factors on the number of evaluated LNs.

Impactfactor:

4.182

Kaplan-Meier and regression analyses were used to analyze the association with overall survival. RESULTS: The number of evaluated LNs was determined for 10,788 (91%) of 11,818 tumors. Median number of evaluated LNs was 7, ranging from 4 to 11 between pathology laboratories. The proportion of patients with positive increased with increasing number of evaluated LNs. Men, younger patients, tumors with deeper invasion and nodal involvement, patients without preoperative radiotherapy who underwent a low anterior resection, and patients whose LNs were evaluated in an academic pathology laboratory were more likely to have ≥ 12 LNs evaluated. After adding these factors to the model, unexplained variation between pathology laboratories and between hospitals remained. overall survival increased with increasing number of evaluated LNs. CONCLUSIONS: A large variation in LN evaluation among patients with rectal cancer was revealed. Improvement LN evaluation by both hospitals and pathology laboratories could improve staging, leading to more reliable estimation of prognosis

Impactfactor: Sambeek MR van

2.872

The impact of gender on prognosis after non-cardiac vascular surgery

Grootenboer N, Hunink MG, Hoeks S, Hendriks JM, Sambeek MR van*, Poldermans D

Eur J Vasc Endovasc Surg. 2011 Oct;42(4):510-6. 2011

OBJECTIVES: The objective was to evaluate the impact of gender on long-term survival of patients who underwent non-cardiac vascular surgery. DESIGN, MATERIAL AND METHODS: Our prospectively collected data contained information on 560 patients undergoing carotid endarterectomy (CEA), 923 elective abdominal aortic aneurysm repairs (AAA) and 1046 lower limb reconstructions (LLR). Patient characteristics and long-term mortality of women were compared to that of men. Meier (KM) survival curves were constructed for men and women, on which we superimposed age- and sex-matched KM survival curves of the general population. Cox proportional hazards regression was used to identify risk factors mortality. RESULTS: Men in the CEA group had statistically significant higher all-cause mortality, hazard rate ratio (HRR) (95% CI 1.01-1.98) No differences in mortality between the genders were observed in the AAA and LLR groups. Overall, men had more comorbidities but received more disease-specific medication compared to women. Women retained their higher life expectancy after CEA but lost it in the AAA and LLR groups. CONCLUSION: Women retain their higher life expectancy after CEA; however, after AAA repair and LLR, this advantage is lost. Both men and women received too little disease-specific medication, but women were worse .

Impactfactor: Sambeek MR van

10.046

ESC Guidelines on the diagnosis and treatment of peripheral artery diseases: Document covering atherosclerotic disease of extracranial carotid and vertebral, mesenteric, renal, upper and lower extremity arteries:

the Task Force the Diagnosis and Treatment of Peripheral Artery Diseases of the European Society of Cardiology (ESC). European Stroke Organisation; Authors/Task Force Members, Tendera M, Aboyans V, Bartelink ML, Baumgartner Clément D, Collet JP, Cremonesi A, De Carlo

M, Erbel R, Fowkes FG, Heras M, Kownator S, Minar E, Ostergren Poldermans D, Riambau V, Roffi M, Röther J, Sievert H, Sambeek MR van*, Zeller T; ESC Committee for Practice Guidelines, Eur Heart J. 2011 Nov;32(22):2851-906. Epub 2011 Aug 26 *Geen abstract beschikbaar*

Sambeek MR van

Current insights in endovascular repair of ruptured abdominal aortic aneurysms

Impactfactor:

-

Ten Bosch JA, Cuypers PW*, Sambeek MR van*, Tejjink JA*

EuroIntervention. 2011 Nov 15;7(7):852-8

Voor abstract zie: Chirurgie - Cuypers PW

Sambeek MR van

Visceral aneurysms: do we have a consensus about indications and treatment options?

Impactfactor:

1.352

Willigendael E*, Tejjink JA, Cuypers P, Sambeek MR van
J Cardiovasc Surg (Torino). 2011 Jun;52(3):307-9

Geen abstract beschikbaar

Sambeek MR van

Vascular Complications of Q-fever Infections

Impactfactor:

2.872

Wegdam-Blans MC*, Vainas T*, Sambeek MR van*, Cuypers PW*, Tjhie HT*, van Straten AH*, Tejjink JA*

Eur J Vasc Endovasc Surg. 2011 Sep;42(3):384-92. Epub 2011 May 31

Voor abstract zie: Medische microbiologie – Wegdam-Blans MC

Sambeek MR van

Endovascular abdominal aortic aneurysm repair in women

Impactfactor:

-

Grootenboer N, Hendriks JM, Cuypers PW*, Sambeek MR van*

Acta Chir Belg. 2011 Jan-Feb;111(1):2-6

Voor abstract zie: Chirurgie - Cuypers PW

Sambeek MR van

Type B Aortic Dissection Resulting in Acute Esophageal Necrosis

Impactfactor:

1.332

van de Wal-Visscher E*, Nieuwenhuijsen GA*, Sambeek MR van*,
Haanschoten M*, Botman KJ*, Hingh IH de*

Ann Vasc Surg. 2011 Aug;25(6):837.e1-3. Epub 2011 May 28

Voor abstract zie: Inwendige geneeskunde - Wal-Visscher, E van de

Sambeek MR van

EVAR Suitability is not a Predictor for Early and Midterm Mortality after Open Ruptured AAA repair.

Impactfactor:

2.872

Bosch JA ten, Willigendael EM*, Sambeek MR van *, Loos ER de, Prins MH, Tejjink JA*

Eur J Vasc Endovasc Surg. 2011 May;41(5):647-51. Epub 2011 Feb 18

Voor abstract zie: Chirurgie - Willigendael EM

Impactfactor: **Scheepers AF**
3.173 **Esophageal carcinoma after sleeve gastrectomy**
Scheepers AF*, Schoon EJ*, Nienhuijs SW*
Surg Obes Relat Dis. 2011 Jul-Aug;7(4):e11-2. Epub 2010 Oct 30
Geen abstract beschikbaar

Impactfactor: **Teijink JA**
- **Aanbevelingen commissie-Van Dijk te weinig concreet**
Verduin CM, Tjhie HT, Wegdam-Blans MC*, Teijink JA*
Medisch Contact 2011; 4 januari : online only
Met de resultaten van de Q-koortsevaluatie zou idealiter een volgend zoönosedebacle voorkomen moeten kunnen worden. Maar is dat ook zo? Na lezing van het rapport-Van Dijk blijft onduidelijk wat er nu precies gaat veranderen.

Impactfactor: **Teijink JA**
11.680 **Abdominal aortic aneurysm is associated with a variant in low-density lipoprotein receptor-related protein 1**
Bown MJ, Jones GT, Harrison SC, Wright BJ, Bumpstead S, Baas AF, Gretarsdottir S, Badger SA, Bradley DT, Burnand K, Child AH, Clough RE, Cockerill G, Hafez H, Scott DJ, Futers S, Johnson A, Sohrabi S, Smith A, Thompson MM, Bockxmeer FM van, Waltham M, Matthiasson SE, Thorleifsson G, Thorsteinsdottir U, Blankensteijn JD, Teijink JA*, Wijmenga C, de Graaf J, Kiemeny LA, Assimes TL, McPherson R; CARDIoGRAM Consortium; Global BPgen Consortium; DIAGRAM Consortium; VRCNZ Consortium, Folkersen L, Franco-Cereceda A, Palmen J, Smith AJ, Sylvius N, Wild JB, Refstrup M, Edkins S, Gwilliam R, Hunt SE, Potter S, Lindholt JS, Frikke-Schmidt R, Tybjaerg-Hansen A, Hughes AE, Golledge J, Norman PE, Rij A van, Powell JT, Eriksson P, Stefansson K, Thompson JR, Humphries SE, Sayers RD, Deloukas P, Samani NJ
Am J Hum Genet. 2011 Nov 11;89(5):619-27. Epub 2011 Nov 4
Abdominal aortic aneurysm (AAA) is a common cause of morbidity and mortality and has a significant heritability. We carried out a genome-wide association discovery study of 1866 patients with AAA and 5435 controls and replication promising signals (lead SNP with a p value $< 1 \times 10^{-5}$) in 2871 additional cases and 32,687 controls and performed further follow-up in 1491 AAA and 11,060 controls. In the discovery study, nine loci demonstrated association with ($p < 1 \times 10^{-5}$). In the replication sample, the lead SNP at one of these loci, rs1466535, located within intron 1 lipoprotein receptor-related protein 1 (LRP1) demonstrated significant association ($p = 0.0042$). We confirmed the association of rs1466535 and AAA in our follow-up study ($p = 0.035$). In a combined analysis (6228 AAA and controls), rs1466535 had a consistent effect size and direction in all sample sets (combined $p = 4.52 \times 10^{-10}$, ratio 1.15 [1.10-1.21]). No associations were seen for either rs1466535 or the 12q13.3 locus in independent association studies of coronary artery disease, blood pressure, diabetes, or hyperlipidaemia, suggesting that this is specific to AAA. Gene-expression studies demonstrated a trend toward increased LRP1 expression for the rs1466535 CC genotype in arterial tissues; there was a significant ($p = 0.029$) 1.19-fold (1.04-1.36) increase in LRP1 expression in CC homozygotes compared to TT homozygotes in aortic adventitia. Functional studies demonstrated rs1466535 might alter a SREBP-1 binding site and influence enhancer activity at the locus. In conclusion, this study has identified a

biologically plausible genetic variant associated specifically with AAA, and we suggest that this variant has a possible functional role in LRP1 expression

Teijink JA

Additional supervised exercise therapy after a percutaneous vascular intervention for peripheral arterial disease: randomized clinical trial

Kruidenier LM, Nicolai SP, Rouwet EV, Peters RJ, Prins MH, Teijink JA*

J Vasc Interv Radiol. 2011 Jul;22(7):961-8. Epub 2011 May 14

PURPOSE: To determine whether a percutaneous vascular intervention (PVI) combined with supplemental supervised exercise therapy (SET) is more effective than a PVI alone in improving walking ability in patients with symptomatic peripheral arterial disease (PAD). **MATERIALS AND METHODS:** In this prospective randomized trial, patients with PAD treated with a PVI were eligible. Exclusion criteria were major amputation or tissue loss, comorbidity preventing physical activity, insufficient knowledge of the Dutch language, no insurance for SET, and prior participation in a SET program. All patients received a PVI subsequently were randomly assigned to either the PVI alone group (n = 35) or the PVI + SET group (n = 35). The primary outcome parameter was the absolute claudication distance (ACD). This trial was registered at Clinical trials. gov, NCT00497445. **RESULTS:** The study included 70 patients, most of whom were treated for an aortoiliac lesion. The mean difference ACD at 6 months of follow-up was 271.3 m (95% confidence interval [CI] 64.0-478.6, P = .011) in favor of additional SET. In the PVI alone group, 1 (3.7%) patient finished the complete treadmill test compared with 11 (32.4%) patients the PVI + SET group (P = .005). Physical health-related quality-of-life score was 44.1 ± 7.8 in the PVI alone group compared with 41.9 ± 9.5 in the PVI + SET group, which was a nonsignificant difference (P = .34). **CONCLUSIONS:** SET following a PVI is more effective in increasing walking distance compared with a PVI alone. These data indicate that SET is a useful adjunct to a PVI for the treatment of PAD.

Impactfactor:

2.064

Teijink JA

Cost-effectiveness of exercise therapy in patients with intermittent claudication: supervised exercise therapy a 'go home and walk' advice

Asselt AD van, Nicolai SP, Joore MA, Prins MH, Teijink JA*; on behalf of the Exercise Therapy in Peripheral Arterial Disease (EXITPAD) study Group Eur J Vasc Endovasc Surg. 2011 Jan;41(1):97-103. Epub 2010 Dec 14

OBJECTIVES: The Exercise Therapy in Peripheral Arterial Disease (EXITPAD) study has shown supervised exercise therapy (SET) to be more effective regarding walking distance and quality of life than a 'go home and walk' advice for patients with intermittent claudication. The present study aims to assess the cost-effectiveness of SET versus PATIENTS AND METHODS: Data from the EXITPAD study, a 12-month randomised controlled trial in 304 patients with claudication, was used to study the proportion of costs to walking distance and quality of life. Two different incremental cost-effectiveness ratios (ICERs) were calculated for SET versus WA: costs per extra metre on the treadmill test, and costs per quality-adjusted life year (QALY). QALYs were based on utilities derived from the EuroQoL -5 dimensions (EQ-5D). **RESULTS:** Mean total costs were higher for SET than for WA (3407 versus 2304 Euros), mainly caused by the exercise therapy The median walking

Impactfactor:

2.872

distance was 620 m for SET and 400 m for WA. QALYs were 0.71 for SET 0.67 for WA. All differences were statistically significant. The ICER for cost per extra metre on the 12-month treadmill test was – 4.08. For cost per QALY, the ICER was – 28693. CONCLUSION: At a willingness-to-pay threshold of – 40 000 per QALY, SET likely is a cost-effective therapeutic option for patients with claudication.

Impactfactor: **Teijink JA**

- **Current insights in endovascular repair of ruptured abdominal aortic aneurysms**

Ten Bosch JA, Cuypers PW*, Sambeek MR van*, Teijink JA*

EuroIntervention. 2011 Nov 15;7(7):852-8

Voor abstract zie: Chirurgie - Cuypers PW

Impactfactor: **Teijink JA**

- **Gesuperviseerde loophtherapie is effectiever dan een mondeling loopadvies bij patiënten met claudicatio intermittens een gerandomiseerde multicentrische studie**

Nicolai SP, Prins MH, Teijink JA*

Ned Tijdschr Heelk 2011;20(2):64-65 / Ned Tijdschr Geneesk. 2011;155: A2643

Geen abstract beschikbaar

Impactfactor: **Teijink JA**

2.872

In Treatment of Popliteal Artery Cystic Adventitial Disease, Primary Bypass Graft not Always First Choice: Two Reports and a Review of the Literature

Rutte PW van*, Rouwet EV, Belgers EH, Lim RF, Teijink JA*

Eur J Vasc Endovasc Surg. 2011 Sep;42(3):347-54. Epub 2011 Apr 9

Voor abstract zie: Intensive Care - Rutte PW van

Impactfactor: **Teijink JA**

3.851

The durability of endovascular repair of para-anastomotic aneurysms after previous open aortic reconstruction

Bosch JA ten, Waasdorp EJ, de Vries JP, Moll FL, Teijink JA*, Herwaarden JA van

J Vasc Surg. 2011 Dec;54(6):1571-8. Epub 2011 Sep 23

INTRODUCTION: Anastomotic pseudoaneurysms and true para-anastomotic aneurysms after initial open abdominal aortic prosthetic reconstruction often need reintervention because they are at risk for rupture. However, open surgical reinterventions are technically challenging procedures with high mortality and morbidity rates. In the present multicenter study, we describe the long-term clinical course in an expanded number of patients who underwent endovascular repair of para-anastomotic aneurysms after previous open reconstruction. METHODS: The study included all patients who were treated with an endovascular stent graft between July 1999 July 2009 for an aortoiliac anastomotic pseudoaneurysm or a true para-anastomotic aneurysm after previous aortic prosthetic reconstruction for aneurysmal or occlusive disease in one of the four participating centers. Main outcomes were long-term complications, reinterventions and conversion rate, mortality, and hospital length of stay. RESULTS: An endovascular stent graft

was used to treat 58 patients (53 men; mean age, 71 ± 9 years), with 80 or iliac pseudoaneurysms or true para-anastomotic aneurysm, or both. Bifurcated stent grafts were used in 32 patients, endovascular tube grafts in eight, aortouniiliac stent grafts in seven, and iliac extension grafts in 11. Stent graft deployment was successful in 55 patients, for a technical success rate of 95%. Median hospital admission was (range, 1-122 days). The 30-day and in-hospital mortality rates were 3.4% (n = 2) and 6.9% (n = 4), respectively. 30-day clinical success rate was 91% (n = 53). Median follow-up was 41 months (range, 0-106 months). The cumulative and procedural-related mortality during follow-up was 19% (n = 11) and 10% (n = 6), respectively. Follow-computed tomography angiography revealed nine endoleaks (three type I; six type II) in eight patients and endotension in two patients. The overall reintervention and conversion rate during follow-up was 26.9% (n = 15) and 6.9% (n respectively). Life-table analysis showed reduced freedom from reintervention for aortouniiliac and tube stent grafts. Type I endoleaks were observed in 25% of patients with endovascular aortic tube grafts for proximal anastomotic aneurysms. CONCLUSIONS: The present study demonstrates that endovascular repair of para-anastomotic aortic and iliac aneurysms after initial prosthetic aortic surgery is safe and durable in patients with an appropriate anatomy. The follow-up showed fewer complications occurred after procedures with bifurcated stent grafts compared with procedures with tube grafts, aortouniiliac, or iliac extension stent grafts.

Teijink JA

Vascular Complications of Q-fever Infections

Wegdam-Blans MC*, Vainas T*, Sambeek MR van*, Cuypers PW*, Tjhie HT*, Straten AH van*, Teijink JA*
 Eur J Vasc Endovasc Surg. 2011 Sep;42(3):384-92. Epub 2011 May 31
 Voor abstract zie: *Medische microbiologie – Wegdam-Blans MC*

Impactfactor:
2.872

Teijink JA

Visceral aneurysms: do we have a consensus about indications and treatment options?

Willigendael E*, Teijink JA, Cuypers P, Sambeek MR van.
 J Cardiovasc Surg (Torino). 2011 Jun;52(3):307-9
 Geen abstract beschikbaar

Impactfactor:
1.352

Teijink JA

EVAR Suitability is not a Predictor for Early and Midterm Mortality after Open Ruptured AAA repair

Bosch JA ten, Willigendael EM*, Sambeek MR van*, Loos ER de, Prins MH, Teijink JA*
 Eur J Vasc Endovasc Surg. 2011 May;41(5):647-51. Epub 2011 Feb 18
 Voor abstract zie: *Chirurgie - Willigendael EM*

Impactfactor:
2.872

Teijink JA

Supervised exercise therapy is more effective than verbal advice in patients with intermittent claudication: randomised, multicentre study

Nicolaï SP, Prins MH, Teijink JA*
 Ned Tijdschr Geneesk. 2011;155(2):A2643

Impactfactor:
1.842

OBJECTIVE: To investigate whether supervised exercise therapy (SET) with or without daily feedback via an accelerometer is more effective than verbal advice only for improving walking distance and quality of life in patients with intermittent claudication during a 1-year period. **DESIGN:** Randomised multicentre trial (www.clinicaltrials.gov; NCT00279994).

METHOD: Patients with intermittent claudication and eligible for exercise therapy were randomised to one of three groups: verbal advice, SET, or SET with feedback via an accelerometer. SET was provided by a local physiotherapist. The primary outcome measure was the change in maximal walking distance. Secondary outcome measures were change in functional walking distance and results of the Walking Impairment Questionnaire (WIQ) and Short-Form (SF-36) Health Survey. **RESULTS:** In total 102, 109, and 93 patients in 11 Dutch hospitals were included in the verbal advice group, the group, and the SET group with feedback, respectively. Data for 83, 93, and 76 patients, respectively, were available for analysis; data from both SET groups were analysed together. The median (interquartile range) change in walking distance from baseline to 12 months was 110 m (0-300) in the verbal advice group and 350 m (152-810) in the groups ($p < 0.001$). WIQ scores and relevant domains of the SF-36 improved significantly in the SET groups. **CONCLUSION:** SET provided by local physiotherapists was more effective than verbal advice in improving walking distance, WIQ scores, and quality of life for patients with intermittent claudication.

Impactfactor:
4.670

Teijink JA

Magnetic resonance imaging in peripheral arterial disease: reproducibility of the assessment of morphological functional vascular status

Versluis B, Backes WH, Eupen MG van, Jaspers K, Nelemans PJ, Rouwet EV, Teijink JA*, Mali WP, Schurink GW, Wildberger JE, Leiner T
Invest Radiol. 2011 Jan;46(1):11-24

OBJECTIVES: The aim of the current study was to test the reproducibility of different quantitative magnetic resonance imaging (MRI) methods to assess the morphologic and functional peripheral vascular status and vascular adaptations over time in patients with peripheral arterial disease (PAD). **MATERIALS AND METHODS:** Ten patients with proven PAD (intermittent claudication) and arterial collateral formation within the upper leg and 10 healthy volunteers were included. All subjects underwent 2 identical MR examinations of the lower extremities on a clinical 1.5-T MR system, with a time interval of at least 3 days. The MR protocol consisted of 3D contrast-enhanced MR angiography to quantify the number of arteries and artery diameters of the upper leg, cine MR phase contrast angiography flow measurements in the popliteal artery, dynamic contrast-enhanced (DCE) perfusion imaging to determine the influx constant and area under the curve, and dynamic blood oxygen level-dependent (BOLD) imaging in calf muscle to measure maximal relative $T2^*$ changes and time-to-peak. Data were analyzed by 2 independent MRI readers. Intra-scan and inter-reader reproducibility were determined as outcome measures and expressed as the coefficient of variation (CV). **RESULTS:** Quantification of the number of arteries, artery diameter, and blood flow proved highly reproducible in patients (CV = 2.6%, 4.5%, and 15.8% at intra-scan level and 9.0%, 8.2%, and 7.0% at inter-reader level, respectively). Reproducibility of DCE and BOLD MRI was poor in patients with a CV

up to 50.9%. **CONCLUSIONS:** Quantification of the morphologic vascular status by contrast-enhanced MR angiography, as well phase contrast angiography MRI to assess macrovascular blood flow proved highly reproducible in both PAD patients and healthy volunteers and might therefore be helpful in studying the development of collateral arteries in PAD and in unraveling the mechanisms underlying this process. Functional assessment of the microvascular status using DCE and BOLD, MRI did not prove reproducible at 1.5 T and is therefore currently not suitable for (clinical) application in PAD.

Vainas T

Vascular Complications of Q-fever Infections

Wegdam-Blans MC*, Vainas T*, Sambeek MR van*, Cuypers PW*, Tjihie HT*, Straten AH van*, Teijink JA*

Eur J Vasc Endovasc Surg. 2011 Sep;42(3):384-92. Epub 2011 May 31

Voor abstract zie: Medische microbiologie – Wegdam-Blans MC

Impactfactor:

2.872

Verhofstad N

Evaluation of benzo(a)pyrene-induced gene mutations in male germ cells

Verhofstad N*, Oostrom CT van, Zwart E, Maas LM, Benthem J van, Schooten FJ van, Steeg H van, Godschalk RW

Toxicol Sci. 2011 Jan;119(1):218-23. Epub 2010 Oct 20

Polycyclic aromatic hydrocarbons (PAHs) are mutagenic in somatic cells, whereas it remains unclear whether PAHs induce mutations in male germ cells, subsequently increasing health risks in offspring. Although results from the classical specific locus test are negative or inconclusive, recent studies with environmentally exposed animals suggest that PAHs are mutagenic in sperm cells. Therefore, we studied whether benzo(a)pyrene (B[a]P) was able to induce gene mutations in testis and sperm cells of wild-type (Wt) and Xpc(-/-) mice containing the pUR288 lacZ reporter. Mice were exposed to B[a]P (13 mg/kg body weight, three times per

Impactfactor:

5.093

Willigendael E

Visceral aneurysms: do we have a consensus about indications and treatment options?

Willigendael E*, Teijink JA*, Cuypers P*, Sambeek MR van*

J Cardiovasc Surg (Torino). 2011 Jun;52(3):307-9

Geen abstract beschikbaar

Impactfactor:

1.352

Willigendael EM

EVAR suitability is not a predictor for early and midterm mortality after open ruptured AAA repair

Bosch JA ten, Willigendael EM*, Sambeek MR van*, Loos ER de, Prins MH, Teijink JA*

Eur J Vasc Endovasc Surg. 2011 May;41(5):647-51. Epub 2011 Feb 18

OBJECTIVE: The reported mortality reduction of emergency endovascular aneurysm repair (eEVAR) compared open repair in patients with a ruptured abdominal aortic aneurysm (rAAA), as observed in observational studies, be flawed by selection bias based on anatomical suitability for eEVAR. In the present study, we compared mortality EVAR suitable versus non-EVAR-suitable patients

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2.872

with a ruptured AAA who were all treated with conventional open repair. MATERIALS AND METHODS: In all patients presenting with a suspected rAAA, computed tomography angiography (CTA) scanning was performed. All consecutive patients with a confirmed rAAA on preoperative CTA scan and with open repair between April 2002 and April 2008 were included. Anatomical suitability for eEVAR was determined two blinded independent reviewers. Outcomes evaluated were mortality (intra-operative, 30-day, and 6-month), morbidity, complications requiring re-intervention and length of hospital stay. RESULTS: A total of 107 consecutive patients presented with a rAAA and underwent preoperative CTA scanning. patients, eEVAR was performed. In the 82 patients who underwent open repair, CTA showed an EVAR-suitable in 33 patients (41.8%) and a non-EVAR-suitable rAAA in 49 patients. Thirty-day and 6-month mortality rate was (45.5%; 95% confidence interval (CI) 28.1-63.7) and 18/33 (54.5%; 95% CI 36.4-71.9) in the EVAR-suitable group versus 24/49 (49.0%; 95% CI 34.4-63.7) (P=0.75) and 29/49 (59.2%; 95% CI 44.2-73.0) (P=0.68) in the non-EVARsuitable group, respectively. CONCLUSIONS: The present study suggests that anatomical suitability for EVAR is not associated with lower early and midterm mortality in patients treated with open ruptured AAA repair. Therefore, the reported reduction in mortality between eEVAR and open repair is unlikely due to selection bias based on anatomical AAA configuration.

Impactfactor: **Zoete JP de**
1.842 **Darmischemie door acute mesenteriale veneuze trombose [Intestinal ischaemia caused by acute mesenteric vein thrombosis]**
Klompshouwer EG*, Gobardhan PD, Verhees R*, Peters W*, Zoete JP de*
Ned Tijdschr Geneeskd. 2011;155(44):A3598.
Voor abstract zie: Klompshouwer EG

* = *Werkzaam in het Catharina Ziekenhuis*

Dermatologie

Impactfactor:
4.231

Krekels GA

Impact of melanoma on patients' lives among 562 survivors: a Dutch population-based study

Holterhues C, Cornish D, Poll-Franse LV van de, Krekels G*, Koedijk F, Kuijpers D, Coebergh JW, Nijsten T

Arch Dermatol. 2011 Feb;147(2):177-85

OBJECTIVE: To assess the impact of melanoma on the health-related quality of life of patients from the general population up to 10 years after diagnosis and its determinants. **DESIGN:** A cross-sectional Dutch population-based postal survey among patients with melanoma for the years 2008 using the Eindhoven Cancer Registry. **MAIN OUTCOME MEASURES:** The 36-Item Short-Form Health Survey (SF-36), Impact of Cancer (IOC) questionnaire and specific melanoma-related questions. The SF-36 scores of the cases were compared with normative data. linear regression models were used to identify associated factors of SF-36 and IOC scores. **RESULTS:** The response rate was 80%. The mean age of the 562 respondents was 57.3 years; 62% were female, 76% had a melanoma with a Breslow thickness of less than 2 mm. The SF-36 component scores of patients with melanoma were similar to those of the normative population. In a multiple linear regression model, stage at diagnosis, female sex, age, and comorbidity were significantly associated ($P < .05$) with the physical and mental component scores. Women were significantly more likely to report higher levels of both positive and negative IOC. Time since diagnosis, tumor stage, and comorbidity were significant predictors of negative IOC scores. Women seemed to their sun behavior more often (54% vs 67%; $P < .001$) than men and were more worried about the deleterious effects UV radiation (45% vs 66%; $P < .001$). **CONCLUSION:** The impact of melanoma seems to be specific and more substantial in women, suggesting that may need additional care to cope with their melanoma optimally.

Impactfactor:
2.872

Velden SK van der

Validation of the Chronic Venous Insufficiency Quality of Life Questionnaire in Dutch Patients Treated for Varicose Veins

Biemans AA, Velden SK van der*, Bruijninx CM, Buth J*, Nijsten T
Eur J Vasc Endovasc Surg. 2011 Aug;42(2):246-53. Epub 2011 Apr 30

BACKGROUND: The Chronic Venous Insufficiency Quality of Life Questionnaire (CIVIQ) is a disease-specific instrument to measure the impact of chronic venous insufficiency (CVI) on patients' lives. The objective of this study to test the psychometric properties of the CIVIQ, and to validate the use of the questionnaire translated into the language. **METHODS:** A standardised questionnaire, including CIVIQ and Short Form (36) Health Survey (SF-36), was obtained before and 1 month after treatment to all new patients with varicose veins. The feasibility was tested by missing responses and response distribution. CIVIQ scores were compared to the SF-36 scores and between different levels severity of varicose veins. The CIVIQ's reliability was assessed

using Cronbach's alpha and test-retest reliability. structure was studied using factor analysis. The scores before and after therapy were compared to assess responsiveness. RESULTS: There was a response rate of 93.5%. None of 20 items missed <10% of responses, but three showed ceiling effect. The CIVIQ correlated well with the physical and moderately with the mental MCS of the SF-36, suggesting a good construct validity of the CIVIQ. The median CIVIQ scores increased significantly with the severity varicose veins. The CIVIQ showed an excellent internal consistency and an excellent test-retest reliability. The CIVIQ score decreased in 76% of patients after treatment. The results were in accordance with the Norman's rule and a median effect size. CONCLUSION: This study confirms the feasibility, validity, reliability and responsiveness of the CIVIQ in patients varicose veins. The psychometric properties of the Dutch CIVIQ were comparable to the original French version.

ECC / Bloedmanagement

Impactfactor:
1.857

Everts PA

Autologous platelet gel in total knee arthroplasty: a prospective randomized study

Horstmann WG, Slappendel R, Hellemond GG van, Wymenga AW, Jack N, Everts PA*

Knee Surg Sports Traumatol Arthrosc. 2011 Jan;19(1):115-21. Epub 2010 Jul 18

PURPOSE: Total knee arthroplasty (TKA) is often associated with major postoperative blood loss, postoperative and impaired wound healing. The application of autologous platelet gel (APG), prepared from the buffy coat of an autologous blood, has been advocated to improve haemostasis after surgery, to decrease perioperative blood loss, diminish postoperative pain and to enhance the wound healing process. This randomized controlled pilot study developed to assess the effects of APG after total knee arthroplasty on blood loss, wound healing, pain, range of motion, and hospital stay. **METHOD:** A prospective, randomized observer blind controlled trial was performed. Forty patients with only osteoarthritis of the knee were scheduled to have a TKA, and they were randomized into two groups. Patients in treatment group were all treated with the application of autologous platelet gel after the prosthesis was implanted. Patients in the control group were treated with the same protocol but no APG was used. **RESULTS:** Preoperative and postoperative Hb levels showed no significant difference and allogenic blood transfusions were not given in either group. Haematomas were significantly larger in the control group than in the platelet gel ($P = 0.03$). The pain score at rest was higher in the control group on the 3rd day ($P = 0.04$). Wound healing disturbances were seen in four patients in the control group and in no patients in the APG group (n.s.). Range of motion of the knee was similar postoperatively. Hospital stay was 6.2 days in the APG and 7.5 days in the control group (n.s.). **CONCLUSION:** In this prospective randomized pilot study on APG in total knee arthroplasty, differences in favour the use of platelet gel were found, but these were subjective evaluations, marginal in effect, or did not reach statistical significance. The use of drains might have decreased the concentration of delivered platelets and may have diminished the effect. However, in this study, a statistically significant clinically important effect in favour of platelet gel application was not found. Further studies with larger numbers of patients, and without the use of drains, are warranted to investigate the possible benefits of autologous platelet gel in total knee arthroplasty.

* = Werkzaam in het Catharina Ziekenhuis

Gynaecologie

Impactfactor: **Abdulkadir L**

-

Chorioangioom: casusbeschrijving

Abdulkadir L*, Verhaeghe V*, Kuppens SM*
Guneaiika, 2011 : 16(8) ; 263-6

Geen abstract beschikbaar

Impactfactor: **Abdulkadir L**

3.958

Hysteroscopic morcellator system can be used for removal of a uterine septum

Simons M*, Hamerlynck TW*, Abdulkadir L*, Schoot BC*
Fertil Steril. 2011 Aug;96(2):e118-21

Voor abstract zie: Gynaecologie - Simons M

Impactfactor: **Coolen A∞**

2.368

A comparison of long-term outcome between Manchester Fothergill and vaginal hysterectomy as treatment for uterine descent.

Thys SD, Coolen A*, Martens IR, Oosterbaan HP, Roovers J, Mol B, Bongers MY

Int Urogynecol J. 2011 Sep;22(9):1171-8. Epub 2011 Apr 12

INTRODUCTION AND HYPOTHESIS: The objective of this study was to compare the Manchester Fothergill (MF) procedure with vaginal hysterectomy (VH) as surgical treatment of uterine descent. METHODS: Consecutive patients who underwent MF were matched for prolapse grade, age and parity to consecutive patients treated with VH. Evaluated outcomes included functional outcome, morbidity, recurrence of pelvic organ prolapse (POP) and sexual function. Follow-up was performed using validated questionnaires. RESULTS: We included 196 patients (98 patients per group). The response rate after a follow-up of 4-9 years was 80%. We found no differences in functional outcome and recurrence rates of POP between groups. Blood loss was significantly less and operating time was significantly shorter in the MF group. However, incomplete emptying of bladder was more common in the MF group. CONCLUSIONS: The MF procedure is equally effective to the VH and should be considered as a surgical option allows preservation of the uterus.

Impactfactor: **Coolen A∞**

1.842

False-negative tests in breast cancer management

Coolen A∞, Leunen K, Menten J, van Steenbergen W, Neven P
Neth J Med. 2011 Jul-Aug;69(7):324-9

We review the sensitivity of different diagnostic tests for breast cancer management based on recent experience 34-year-old patient. False-negative tests at diagnosis of early disease and of relapse resulted in diagnostic and therapeutic delays. Initial mammography and breast ultrasonography were falsely negative despite a palpable breast lump. Clinical examination and axillary ultrasound missed macroscopically involved lymph nodes. At relapse, metastatic lesions were missed despite symptoms, three years after primary treatment. CA 15-3 was normal; bone and liver metastases were missed by standard and more advanced imaging techniques including liver ultrasonography nuclear bone scan and PET -CT scan. Worsening of clinical

symptoms, lab, results and abnormal tissue biopsies finally led to the diagnosis of extensive metastatic disease. Genetic screening showed an abnormality within the BRCA-1 region of unknown clinical importance. This review highlights 1) that diagnostic tests managing symptomatic breast cancer patients may have a low sensitivity, 2) the importance of clinical findings and other markers for disease, such as lactate dehydrogenase and 3) the need for diagnostic biopsies for clinically suspect symptoms despite normal imaging and biochemistry.

Dietz V

Impactfactor:

Clinical implementation of the hysteroscopic morcellator for removal of intrauterine myomas and polyps. A retrospective descriptive study

-

Hamerlynck TW*, Dietz V*, Schoot BC*

Gynecol Surg. 2011 May;8(2):193-196. Epub 2010 Sep 21

Voor abstract zie: Gynaecologie - Hamerlynck TW

Donk RW van der

Impactfactor:

The relation between umbilical cord characteristics and the outcome of external cephalic version

1.587

Kuppens SM*, Waerenburgh ER*, Kooistra L, Donk RW van der*, Hasaart TH*, Pop VJ

Early Hum Dev. 2011 May;87(5):369-72. Epub 2011 Feb 26

Voor abstract zie: Gynaecologie - Kuppens SM

Dop PA van

Impactfactor:

Copy number variants on the X chromosome in women with primary ovarian insufficiency

3.958

Knauff EA, Blauw HM, Pearson PL, Kok K, Wijmenga C, Veldink JH, Berg LH van den, Bouchard P, Fauser BC, Franke L; Dutch Primary Ovarian Insufficiency Consortium. Collaborators (14) Goverde AJ, Laven JS, Lambalk CB, Kate Booij MJ ten, Hoek A, Beerendonk CC, Kasteren YM van, Helmerhorst FM, Land JA, Franke HR, Linden PJ van der, Dop PA van*, Veen F van der, Cohlen BJ

Fertil Steril. 2011 Apr;95(5):1584-8.e1. Epub 2011 Feb 12

OBJECTIVE: To investigate whether submicroscopic copy number variants (CNVs) on the X chromosome can be identified in women with primary ovarian insufficiency (POI), defined as spontaneous secondary amenorrhea before years of age accompanied by follicle-stimulating hormone levels above 40 IU/L on at least two occasions. DESIGN: Analysis of intensity data of single nucleotide polymorphism (SNP) probes generated by genomewide Illumina 370k CNV BeadChips, followed by the validation of identified loci using a custom designed ultra-high-density comparative genomic hybridization array containing 48,325 probes evenly distributed over the X chromosome. SETTING: Multicenter genetic cohort study in the Netherlands. PATIENT(S): 108 Dutch Caucasian women with POI, 97 of whom passed quality control, who had a normal karyogram and absent fragile X premutation, and 235 healthy Dutch Caucasian women as controls. INTERVENTION(S): None. MAIN OUTCOME MEASURE(S): Amount and locus of X chromosomal microdeletions or duplications. RESULT(S): Intensity differences between SNP probes identify

microdeletions and duplications. The initial analysis identified an overrepresentation of deletions in POI patients. Moreover, CNVs in two genes on the Xq21.3 locus (PCDH11X and TGIF2LX) were statistically significantly associated with the POI phenotype. Mean size of identified CNVs was 262 kb. However, in the validation study the identified putative Xq21.3 deletions samples did not show deviations in intensities in consecutive probes. CONCLUSION(S): X chromosomal submicroscopic CNVs do not play a major role in Caucasian POI patients. We provide guidelines on how submicroscopic cytogenetic POI research should be conducted.

Impactfactor:
4.357

Dop PA van

Risk of borderline and invasive ovarian tumours after ovarian stimulation for in vitro fertilization in a large Dutch cohort

Leeuwen FE van, Klip H, Mooij TM, Swaluw AM van de, Lambalk CB, Kortman M, Laven JS, Jansen CA, Helmerhorst FM, Cohlen BJ, Willemsen WN, Smeenk JM, Simons AH, Veen F van der, Evers JL, Dop PA van*, Macklon NS, Burger CW

Hum Reprod. 2011 Dec;26(12):3456-65. Epub 2011 Oct 26

BACKGROUND Long-term effects of ovarian stimulation for IVF on the risk of ovarian malignancies are unknown. METHODS We identified a nationwide historic cohort of 19 146 women who received IVF treatment in the Netherlands between 1983 and 1995, and a comparison group of 6006 subfertile women not treated with IVF. In 1997-1999, on reproductive risk factors were obtained from 65% of women and data on subfertility (treatment) were obtained from the medical records. The incidence of ovarian malignancies (including borderline ovarian tumours) through 2007 assessed through linkage with disease registries. The risk of ovarian malignancies in the IVF group was compared with risks in the general population and the subfertile comparison group. RESULTS After a median follow-up of 14.7 years, the risk of borderline ovarian tumours was increased in the IVF group compared with the general population [standardized incidence ratio (SIR) = 1.76; 95% confidence interval (CI) = 1.16-2.56]. The overall SIR for invasive ovarian cancer was not significantly elevated, but increased with longer follow-up after first IVF (P = 0.02); the SIR 3.54 (95% CI = 1.62-6.72) after 15 years. The risks of borderline ovarian tumours and of all ovarian malignancies combined in the IVF group were significantly increased compared with risks in the subfertile comparison group (ratios = 4.23; 95% CI = 1.25-14.33 and 2.14; 95% CI = 1.07-4.25, respectively, adjusted for age, parity and subfertility cause). CONCLUSIONS Ovarian stimulation for IVF may increase the risk of ovarian malignancies, especially borderline ovarian tumours. More large cohort studies are needed to confirm these findings and to examine the effect of IVF treatment characteristics.

Impactfactor:

Hamerlynck TW

Clinical implementation of the hysteroscopic morcellator for removal of intrauterine myomas and polyps. A retrospective descriptive study

Hamerlynck TW*, Dietz V*, Schoot BC*

Gynecol Surg. 2011 May;8(2):193-196. Epub 2010 Sep 21

The aim of this study is to report our experience with a novel technique, the hysteroscopic morcellator (HM), for removal of intrauterine myomas and polyps.

We performed a retrospective study on 315 women undergoing operative hysteroscopy with the HM in our university-affiliated teaching hospital. We collected data on installation and operating times, fluid deficit, peri- and postoperative complications. In 37 patients undergoing myomectomy with the HM, mean installation time was 8.7 min, mean operating time, 18.2 min, and median fluid deficit, 440 mL. Three out of 37 HM procedures were converted to resectoscopy, related to a type 2 myoma. In 278 patients, mean installation and operating times for polypectomy with the HM were 7.3 min and 6.6 min, respectively. All procedures were uneventful. Implementation of the HM for removal of type 0 and 1 myomas \leq 3 cm, and removal of polyps appears safe and effective.

Hamerlynck TW

Hysteroscopic morcellator system can be used for removal of a uterine septum

Simons M*, Hamerlynck TW*, Abdulkadir L*, Schoot BC*
Fertil Steril. 2011 Aug;96(2):e118-21. Epub 2011 Jun 30

Voor abstract zie: Gynaecologie - Simons M

Impactfactor:

3.958

Hamont D van†

Een vrouw met een bijzondere cervix. [A woman with a special cervix]

Hamont D van†, Bekkers RL, Struik-van der Zanden PH
Ned Tijdschr Geneeskd. 2011;155(46):A3083

A 40-year-old woman (nulligravida) presented with abnormal cervical cytology. At colposcopy a double external os was discovered with a levonorgestrel intra uterine contraceptive device placed in the opening on the left side. Ultrasound revealed an uterus bicornis bicollis. Despite frequent examinations, the abnormality had not been discovered earlier. Therefore, contraception and cervical cytology sampling had most likely been inadequate.

Impactfactor:

1.842

Hasaart TH

17 -Hydroxyprogesterone caproate for the prevention of adverse neonatal outcome in multiple pregnancies: a randomized controlled trial

Lim AC, Schuit E, Bloemenkamp K, Bernardus RE, Duvekot JJ, Erwich JJ, Eyck J van, Groenwold RH, Hasaart TH*, Hummel P, Kars MM, Kwee A, Oirschot CM van, Pampus MG van, Papatsonis D, Porath MM, Spaanderman ME, Willekes C, Wilpshaar J, Mol BW, Bruinse HW
Obstet Gynecol. 2011 Sep;118(3):513-520

OBJECTIVE: To estimate whether administration of 17 -hydroxyprogesterone caproate can prevent neonatal morbidity in multiple pregnancies by reducing the preterm birth rate. **METHODS:** We conducted a multicenter, double-blind, placebo-controlled randomized trial in 55 obstetric clinics Netherlands. Women with a multiple pregnancy were randomized to weekly injections of either 250 mg 17 - hydroxyprogesterone caproate or placebo, starting between 16 and 20 weeks of gestation and continuing until 36 weeks of gestation. The main outcome measure was adverse neonatal outcome. Secondary outcome measures gestational age at delivery and delivery before 28, 32, and 37 weeks of gestation. **RESULTS:** We randomized 671 women. A

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4.392

composite measure of adverse neonatal outcome was present in 110 children (16%) born to mothers in the 17 -hydroxyprogesterone caproate group, and in 80 children (12%) of mothers the placebo group (relative risk [RR] 1.34; 95% confidence interval [CI] 0.95-1.89). The mean gestational age at delivery was 35.4 weeks for the 17 -hydroxyprogesterone caproate group and 35.7 weeks for the placebo group (P=.32). Treatment with 17 -hydroxyprogesterone caproate did not reduce the delivery rate before 28 weeks (6% 17 -hydroxyprogesterone caproate group compared with 5% in the placebo group, RR 1.04; 95% CI 0.56-1.94), weeks (14% compared with 10%, RR 1.37; 95% CI 0.91-2.05), or 37 weeks of gestation (55% compared with 50%, 1.11; 95% CI 0.97-1.28). CONCLUSION: 17 -hydroxyprogesterone caproate does not prevent neonatal morbidity or preterm birth in multiple pregnancies.

Impactfactor: **Hasaart TH**
2.09 **Maternal thyroid function and the outcome of external cephalic version: a prospective cohort study**
Kuppens SM*, Kooistra L, Hasaart TH*, Donk RW van der, Vader HL, Oei GS, Pop VJ
BMC Pregnancy Childbirth. 2011 Jan 26;11(1):10. [Epub ahead of print]
Voor abstract zie: Gynaecologie - Kuppens SM

Impactfactor: **Hasaart TH**
3.323 **Neonatal thyroid screening results are related to gestational maternal thyroid function**
Kuppens SM*, Kooistra L, Wijnen HA, Vader HL, Hasaart TH*, Oei SG, Vulsma T, Pop VJ
Clin Endocrinol (Oxf). 2011 Sep;75(3):382-7. Epub 2011 Apr 25
OBJECTIVE: To study the relationship between maternal thyroid function at each pregnancy trimester and neonatal screening results.
BACKGROUND: Overt maternal thyroid dysfunction during gestation is associated with poor neonatal thyroid function. However, research on the relationship between suboptimal maternal thyroid function (assessed at three trimesters) neonatal thyroid screening outcome is scarce. DESIGN/PATIENTS: Prospective follow-up study during three trimesters of gestation in 886 Dutch Caucasian healthy pregnant women followed from 12-week gestation until term delivery (>37 weeks) and their neonates.
MEASUREMENTS: The relation between neonatal data from the Congenital Hypothyroidism (CH) screening and maternal thyroid determinants [TSH, FT4 and thyroid peroxidase (TPO)-Ab] assessed at 12-, 24- and 36-week gestation. RESULTS: Boys have lower screening TT4 levels and their mothers have higher TSH levels at 24- and 36-week gestation. Higher maternal TSH levels (>97.5th percentile, as defined in 810 women without TPO-Ab at 12 weeks) one or more times during pregnancy (O.R: 2.26, 95% CI: 1.20-4.29) and lower gestational age (O.R: 1.22, 95% 1.05-1.41) are independently related to lower screening TT4 levels. CONCLUSIONS: Maternal thyroid function during gestation is related to neonatal TT4 at screening. The finding lower neonatal TT4 levels in boys and higher TSH levels in mothers carrying boys is worthy of further investigation, both observations may be meaningfully related.

Hasaart TH

The relation between umbilical cord characteristics and the outcome of external cephalic version

Kuppens SM*, Waerenburgh ER*, Kooistra L, Donk RW van der*, Hasaart TH*, Pop VJ

Early Hum Dev. 2011 May;87(5):369-72. Epub 2011 Feb 26

Voor abstract zie: *Gynaecologie - Kuppens SM*

Impactfactor:

1.587

Hermans RH

Comment on: Recurrence rate in vulvar carcinoma in relation to pathological margin distance

[Groenen SMA, Timmers PJ, Burger CW. Int J Gynecol Cancer. 2010;20:869-873]

Pijnenborg JM, Boll D, Hermans RH*

Int J Gynecol Cancer. 2011 Jul;21(5):794

Impactfactor:

1.558

Hermans RH

The impact of a cancer Survivorship Care Plan on gynecological cancer patient and health care provider reported outcomes (ROGY Care): study protocol for a pragmatic cluster randomized controlled trial

Poll-Franse LV van de, Nicolaije KA, Vos MC, Pijnenborg JM, Boll D*, Husson O, Ezendam NP, Boss EA, Hermans RH*, Engelhart KC, Haartsen JE, Pijlman BM, Feijen HW, Mertens HJ, Nolting WE, Beek JJ van, Roukema JA, Kruitwagen RF.

Trials. 2011 Dec 5;12(1):256

Impactfactor:

2.08

BACKGROUND: There is a need for improvement of information provision and post-treatment care for cancer survivors. A Survivorship Care Plan (SCP) is recommended by the American Institute of Medicine and the Dutch Council, which is a summary of patients' course of treatment as a formal document, and includes recommendations subsequent cancer surveillance, management of late effects, and strategies for health promotion. Until now, evidence on the effects of implementing the SCP in clinical practice is lacking. The rationale and study design of a pragmatic cluster randomized trial, aiming to assess the impact of SCP care in routine clinical practice, is presented. **METHODS:** A web-based patient registration system 'Registratiesytem Oncological GYnecology' (ROGY) is used gynecologists in the South of the Netherlands since 2006. A personalized SCP can automatically be generated ROGY. In this pragmatic cluster randomized controlled trial, 12 hospitals are randomized to either 'usual care' or care'. In patients with 'usual care' the gynecologist provides care as usual. In patients with 'SCP care', information about the tumor stage and treatment is personally discussed with the patient and a document is handed to the patient. Prospectively, all patients diagnosed with endometrial or ovarian cancer in the participating hospitals will be approached for study participation. Patients will complete questionnaires after surgery, and before additional treatment, and after 6, 12, 18 and 24 months. In addition, health care providers will be asked their opinion about implementation of SCP care. Primary outcome is defined as patient satisfaction with information provision and care. Secondary outcomes are illness perception, health-related quality of life, health care use, prevalence, course and referral rate survivors with psychosocial distress, and health care providers' evaluation of SCP care.

DISCUSSION: The ROGY Care trial will help to gain insight into the impact of SCP care on patient reported outcomes, and on the evaluation of cancer survivors and health care providers of the different elements of the SCP. Therefore, results will contribute to efforts to improve quality of care for cancer survivors.

Impactfactor: Kuppens SM

-

Chorioangioom: casusbeschrijving

Abdulkadir L*, Verhaeghe V*, Kuppens SM*

Guneaika, 2011 : 16(8) ; 263-6

Geen abstract beschikbaar

Impactfactor: Kuppens SM

3.323

Neonatal thyroid screening results are related to gestational maternal thyroid function

Kuppens SM*, Kooistra L, Wijnen HA, Vader HL, Hasaart TH*, Oei SG, Vulsma T, Pop VJ

Clin Endocrinol (Oxf). 2011 Sep;75(3):382-7. Epub 2011 Apr 25

OBJECTIVE: To study the relationship between maternal thyroid function at each pregnancy trimester and neonatal screening results. BACKGROUND: Overt maternal thyroid dysfunction during gestation is associated with poor neonatal thyroid function. However, research on the relationship between suboptimal maternal thyroid function (assessed at three trimesters) neonatal thyroid screening outcome is scarce. DESIGN/PATIENTS: Prospective follow-up study during three trimesters of gestation in 886 Dutch Caucasian healthy pregnant women followed from 12-week gestation until term delivery (>37 weeks) and their neonates. MEASUREMENTS: The relation between neonatal data from the Congenital Hypothyroidism (CH) screening and maternal thyroid determinants [TSH, FT4 and thyroid peroxidase (TPO)-Ab] assessed at 12-, 24- and 36-week gestation. RESULTS: Boys have lower screening TT4 levels and their mothers have higher TSH levels at 24- and 36-week gestation. Higher maternal TSH levels (>97.5th percentile, as defined in 810 women without TPO-Ab at 12 weeks) one or more times during pregnancy (O.R: 2.26, 95% CI: 1.20-4.29) and lower gestational age (O.R: 1.22, 95% 1.05-1.41) are independently related to lower screening TT4 levels. CONCLUSIONS: Maternal thyroid function during gestation is related to neonatal TT4 at screening. The finding lower neonatal TT4 levels in boys and higher TSH levels in mothers carrying boys is worthy of further investigation, both observations may be meaningfully related.

Impactfactor: Kuppens SM

1.587

The relation between umbilical cord characteristics and the outcome of external cephalic version

Kuppens SM*, Waerenburgh ER*, Kooistra L, Donk RW van der*, Hasaart TH*, Pop VJ

Early Hum Dev. 2011 May;87(5):369-72. Epub 2011 Feb 26

BACKGROUND: Umbilical cords of fetuses in breech presentation differ in length and coiling from their cephalic counterparts and it might be hypothesised that these cord characteristics may in turn affect ECV outcome. AIM: To investigate the relation between umbilical cord characteristics and the outcome of external

cephalic version (ECV). STUDY DESIGN: Prospective cohort study. SUBJECTS: Women (>35weeks gestation) with a singleton fetus in breech presentation, suitable for external cephalic version. Demographic, lifestyle and obstetrical parameters were assessed at intake. ECV success was based on cephalic presentation on ultrasound post-ECV. Umbilical cord length (UCL) and umbilical coiling index (UCI) were measured after birth. OUTCOME MEASURE: The relation between umbilical cord characteristics (cord length and coiling) and the success of external cephalic version. RESULTS: ECV success rate was overall 79/146 (54%), for multiparas 37/46(80%) and for nulliparas 42/100 (42%). Multiple logistic regression showed that UCL (OR: 1.04, CI: 1.01-1.07), nulliparity (OR: 0.20, CI: 0.08-0.51), frank breech (OR: 0.37, 95% CI: 0.15-0.90), body mass index (OR: 0.85, CI: 0.76-0.95), placenta anterior (OR: 0.27, -0.63) and birth weight (OR: 1.002, CI: 1.001-1.003) were all independently related to ECV success. CONCLUSIONS: Umbilical cord length is independently related to the outcome of ECV, whereas umbilical coiling is not.

Kuppens SM,

Maternal thyroid function and the outcome of external cephalic version: a prospective cohort study

Impactfactor:

2.09

Kuppens SM*, Kooistra L, Hasaart TH*, Donk RW van der *, Vader HL, Oei GS, Pop VJ

BMC Pregnancy Childbirth. 2011 Jan 26;11(1):10

BACKGROUND: To investigate the relation between maternal thyroid function and the outcome of external cephalic version (ECV) in breech presentation. METHODS: Prospective cohort study in 141 women (> 35 weeks gestation) with a singleton fetus in breech. Blood samples for assessing thyroid function were taken prior to ECV. Main outcome measure was the relation between maternal thyroid function and ECV outcome indicated by post ECV ultrasound. RESULTS: ECV success rate was 77/141 (55%), 41/48 (85%) in multipara and 36/93 (39%) in primipara. Women a failed ECV attempt had significantly higher TSH concentrations than women with a successful ECV (p < 0.001). Multiple logistic regression showed that TSH (OR: 0.52, 95% CI: 0.30-0.90), nulliparity (OR: 0.11, 95% CI: 0.03-frank breech (OR: 0.30, 95% CI: 0.10-0.93) and placenta anterior (OR: 0.31, 95% CI: 0.11-0.85) were independently related to ECV success. CONCLUSIONS: Higher TSH levels increase the risk of ECV failure

Lenselink CH‡

Universal human papillomavirus genotyping by the digene HPV Genotyping RH and LQ Tests

Impactfactor:

4.023

Geraets DT, Lenselink CH‡, Bekkers RL, Doorn LJ van, Quint WG, Melchers WJ

J Clin Virol. 2011 Apr;50(4):276-80. Epub 2011 Feb 5

BACKGROUND: High-risk (hr)HPV testing plays an important role in primary cervical cancer screening. Subsequent hrHPV genotyping might contribute to better risk stratification. The majority of hrHPV tests do not include identification of individual hrHPV genotypes. OBJECTIVES: The digene HPV Genotyping RH Test (strip-based) and LQ Test (xMAP-based) allow genotyping GP5+/6+ amplimers, but their probes target a region in the L1 ORF, which is also amplified by other broad-spectrum hrHPV assays, e.g., the Roche Amplicor HPV Test (Amplicor) and

the Roche Linear Array. The goal was to test whether the RH Test and LQ Test can be used as an universal hrHPV genotyping test. STUDY DESIGN: Self-collected cervico-vaginal specimens (n=416) from an epidemiologic study were analyzed Amplicor. The amplimers obtained were also tested with the RH Test and LQ Test for identification of 18 HPV types, including the 13 hrHPVs targeted by Amplicor. RESULTS: 197 specimens were positive by Amplicor, in which the RH Test and LQ Test identified one of the 13 hrHPVs in 94.4% and 98.0%, respectively. In 219 specimens remaining negative by Amplicor, the RH Test and Test, performed on the Amplicor amplification products, still detected one of the 13 hrHPVs in 3.7% and 5.5%, respectively, and include identification of HPV53, 66, and 82. Overall, the RH and LQ Tests demonstrated high concordance with Amplicor for hrHPV detection ($\kappa = 0.908$ and $\kappa = 0.923$, respectively). CONCLUSIONS: The digene HPV Genotyping RH and LQ Tests can be directly used for amplimers generated Amplicor HPV Test.

Impactfactor:
3.349

Lenselink CH†

The role of individually targeted information to reduce anxiety before colposcopy: a randomised controlled trial

Bie RP de, Massuger LF, Lenselink CH†, Derksen YH, Prins JB, Bekkers RL. BJOG. 2011 Jul;118(8):945-50

OBJECTIVE: We investigated whether providing targeted information on an individual level by mail and by phone reduces anxiety in women referred to the colposcopy clinic. DESIGN: Randomised controlled trial. POPULATION: Women referred to the colposcopy clinic. METHODS: Between December 2007 and April 2010, 169 patients with abnormal smear results were randomised two study arms. Group A received individually targeted information about the diagnosis and procedure by mail and phone. Group B received the standard folder about colposcopies alone. Patients were requested to fill out a questionnaire prior to their first colposcopy appointment. MAIN OUTCOME MEASURES: The questionnaire included the hospital anxiety and depression scale (HADS), Spielberger state-trait anxiety inventory (STAI), as well as a short self-administered questionnaire. RESULTS: Twenty women were excluded from further analyses after randomisation, leaving 149 women for evaluation. The median STAI state anxiety score was high (50.0), but there was no significant difference in median STAI state anxiety and HADS anxiety scores between both groups. However, knowledge about human papillomavirus and the colposcopy procedure did significantly increase in group A ($P = 0.004$). CONCLUSIONS: Anxiety levels before primary colposcopy are surprisingly high, and are not reduced following individually targeted information given before colposcopy.

Impactfactor:
3.760

Pijnenborg JM

Paraganglioma of the uterus A case report and review of literature

Leeuwen J van, Putten HW van der*, Demeyere TB*, Creemers GJ*, Pijnenborg JM*

Gynecol Oncol. 2011;121(2):418-9

Geen abstract beschikbaar

Putten HW van der

Paraganglioma of the uterus A case report and review of literature

Leeuwen J van, Putten HW van der*, Demeyere TB*, Creemers GJ*, Pijnenborg JM*

Gynecol Oncol. 2011;121(2):418-9. Epub 2011 Feb 2

Geen abstract beschikbaar

Impactfactor:

3.760

Schoot BC

Clinical implementation of the hysteroscopic morcellator for removal of intrauterine myomas and polyps. A retrospective descriptive study

Hamerlynck TW*, Dietz V*, Schoot BC*.

Gynecol Surg. 2011 May;8(2):193-196. Epub 2010 Sep 21

Voor abstract zie: Gynaecologie - Hamerlynck TW

Impactfactor:

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Schoot BC

Hysteroscopic morcellator system can be used for removal of a uterine septum

Simons M*, Hamerlynck TW*, Abdulkadir L*, Schoot BC*

Fertil Steril. 2011 Aug;96(2):e118-21

Voor abstract zie: Gynaecologie - Simons M

Impactfactor:

3.958

Schoot BC

Is aspirin effective in women undergoing in vitro fertilization (IVF)? Results from an individual patient data metaanalysis (IPD MA)

Groeneveld E, Broeze KA, Lambers MJ, Haapsamo M, Dirckx K, Schoot BC*, Salle B, Duvan CI, Schats R, Mol Hompes PG; for the IPD MARIA study group

Hum Reprod Update. 2011 July-August;17(4):501-509. Epub 2011 Mar 21

BACKGROUND Aspirin is believed to improve the outcome of IVF, but previous conventional meta-analyses on subject are conflicting. Therefore, we performed a meta-analysis with individual patient data (IPD MA) of randomized clinical trials (RCTs) on the subject. METHODS A systematic literature search was conducted to identify RCTs assessing the effectiveness of aspirin in IVF. Authors were asked to share their original data. In a one step metaanalytic approach, the treatment effect of aspirin was estimated with odds ratios (ORs) and 95% confidence intervals (CIs) using logistic regression, based on the intention to treat principle. RESULTS Ten studies fulfilled the inclusion criteria. Authors of six studies provided IPD, including 1119 patients (562 placebo and 557 aspirin). There were clinical pregnancies in the aspirin (28.8%) and 179 (31.9%) in the placebo group [OR 0.86, 95% CI (0.69-1.1)]. were 129 ongoing pregnancies in the aspirin (23.6%) and 147 in the placebo group (26.7%) [OR 0.85, 95% CI (-1.1)]. Whereas the conventional meta-analysis limited to studies that could provide IPD showed an OR of 0.89 CI 0.69-1.2), the conventional meta-analysis limited to the eight studies of which method of randomization could confirmed showed an OR of 0.94 (95% CI 0.76-1.17) and the conventional meta-analysis including all 10 eligible identified with our search changed the OR to 1.07 (95% CI 0.81-1.41). This difference in direction of effect, derived from the studies not able to share IPD of which quality of randomization could not be confirmed. CONCLUSIONS Aspirin does not improve pregnancy rates after IVF.

Impactfactor:

8.755

Impactfactor:
3.958

Simons M

Hysteroscopic morcellator system can be used for removal of a uterine septum

Simons M*, Hamerlynck TW*, Abdulkadir L*, Schoot BC*
Fertil Steril. 2011 Aug;96(2):e118-21. Epub 2011 Jun 30

OBJECTIVE: To evaluate whether the hysteroscopic morcellator (HM) can be used as an alternative for uterine removal. **DESIGN:** Case report. **SETTING:** Outpatient clinic of a university-affiliated teaching hospital (Catharina Hospital, Eindhoven, the Netherlands). **PATIENT(S):** A 34-year-old Asian woman with recurrent miscarriages and a large uterine septum and bicornuate uterus. **INTERVENTION(S):** Septum removal using the HM. **MAIN OUTCOME MEASURE(S):** Successful removal of a uterine septum. **RESULT(S):** Considering obstetric complications, septum removal was carried out. Currently, septum transection the resectoscope is the gold standard. Instead of transection we achieved nearly complete removal of a septum, the HM. **CONCLUSION(S):** The HM is a safe, effective, and easily manageable alternative for uterine septum removal compared with classic resectoscopy.

Impactfactor:
2.47

Smink M‡

Effect of childbirth on the course of Crohn's disease; results from a retrospective cohort study in the Netherlands

Smink M‡, Lotgering FK, Albers L, de Jong DJ
BMC Gastroenterol. 2011 Jan 26;11:6.

BACKGROUND: Pregnant women with Crohn's disease needs proper counselling about the effect of pregnancy childbirth on their disease. However, Literature about the effect of childbirth on Crohn's disease is limited. This study examined the effect of childbirth on the course of Crohn's disease and especially perianal Crohn's disease. **METHODS:** This is a retrospective cohort study which was performed in a tertiary level referral hospital in the Netherlands. From the IBD database, female patients aged 18-80 years in 2004 were selected. Data analysis took place in the years 2005 and 2006. Eventually, 114 women with at least one pregnancy after the diagnosis of Crohn's disease were eligible for the study. Differences between groups were analyzed using Wilcoxon Mann Whitney tests and Chi-square analysis with 2×2 or 2×3 contingency tables. Two-tailed values were used and p values < 0.05 considered statistically significant. **RESULTS:** 21/114 women (18%) had active luminal disease prior to pregnancy, with significantly more pregnancy related complications compared to women with inactive luminal disease (Odds ratio 2.8; 95% CI 1.0 - 7.4). Caesarean section rate was relatively high (37/114, 32%), especially in patients with perianal disease prior to pregnancy compared to women without perianal disease (Odds ratio 4.6; 95% CI 1.8 - 11.4). Disease progression after childbirth was frequent in patients with active luminal disease prior to pregnancy compared to inactive luminal disease (Odds ratio 9.7; 95% CI 2.1 - 44.3). Progression of perianal disease seems less frequent after vaginal delivery compared with caesarean section, in both women with prior perianal disease (18% vs. 31%, NS) and without prior perianal disease (5% vs 14%, NS). There were no more fistula-related complications after childbirth in women with an episiotomy second degree tear. **CONCLUSION:** A relatively high rate of caesarean sections was observed in women with Crohn's disease, especially in women with perianal

disease prior to pregnancy. A protective effect of caesarean section on progression of perianal disease was not observed. However, this must be interpreted carefully due to confounder effect by indication for caesarean section.

Vandenput I#

Evolution in endometrial cancer: evidence from an immunohistochemical study

Impactfactor:
1.558

Vandenput I#, Trovik J, Leunen K, Wik E, Stefansson I, Akslen L, Moerman P, Vergote I, Salvesen H, Amant F

Int J Gynecol Cancer. 2011 Feb;21(2):316-22

BACKGROUND: It is poorly described how endometrial cancer biology changes during tumor evolution. We hypothesize that characterization of molecular targets in recurrent lesions is more relevant for targeting treatment. **METHODS:** Paired biopsies from primary and recurrent endometrial cancer tumors (n = 85) were stained immunohistochemically for the following proteins: estrogen receptor (ER), progesterone receptor (PR), stathmin (correlating with phosphatidylinositol 3-kinase activity), HER-2/neu, WT1 (Wilms tumor gene 1), phospho-mammalian target of rapamycin (p-mTOR), and p53. Each tumor was scored, using a semiquantitative and subjective grading system. Discordance, a change in expression between primary and recurrent tumor, was defined as a 2 step change; concordance was a 1 step change. The frequency of change was correlated with established prognostic markers endometrial cancer. **RESULTS:** Fifty-six patients (67%) were diagnosed with endometrioid carcinoma, 23 (27%) with serous/clear cell carcinoma. A change in expression between primary and recurrent tumor was noted in 7% to 31% of patients for PR, stathmin, HER-2/neu, WT1, p-mTOR, and p53. Concordant-positive cases for PR were significantly correlated stage, tumor grade, and histological subtype. Expression of ER, p53, and p-mTOR in cytoplasm in the recurrent correlated significantly with survival. **CONCLUSIONS:** Endometrial cancer biology changes over time. The decision on targeted treatment should preferably be based on recurrent tumor characteristics

Vandenput I#

Expression of ERCC1, p53, and class III -tubulin do not reveal chemoresistance in endometrial cancer: results an immunohistochemical study

Impactfactor:
1.558

Vandenput I#, Capoen A, Coenegrachts L, Verbist G, Moerman P, Vergote I, Amant F

Int J Gynecol Cancer. 2011 Aug;21(6):1071-7

BACKGROUND: In non-small cell lung cancer, expression of excision repair cross-complementation group 1 (ERCC1) and p53 correlates with platinum resistance and class III -tubulin with resistance to taxanes. The potential to personalize treatment in endometrial cancer remains uninvestigated. **METHODS:** Patients received platinum-based chemotherapy, with or without paclitaxel. Patients were divided into groups: group A (n = 33) consisted of patients with early-stage endometrial cancer treated with adjuvant chemotherapy. Group B (n = 116) included cases with primary advanced or recurrent disease. Immunohistochemistry was performed to analyze the expression of ERCC1 and

p53, for all cases, and class III - tubulin for cases treated with paclitaxel. findings were correlated with response according to Response Criteria in Solid Tumors; recurrence-free,diseasespecific survival; and established prognostic markers. RESULTS: The mean age of 149 patients was 64 years (range, 31-84 years). Distribution of histopathologic subtypes was as follows: 44 endometrioid (30%), 92 serous/clear cell (62%), and 13 carcinosarcomas (8%).In group A, 11 and 19 patients (58%) showed expression for ERCC1 and p53, respectively. Seven (78%) of nine patients receiving paclitaxel were positive for class III -tubulin. There was no correlation between expression of ERCC1, p53, or class -tubulin and recurrence or survival. In group B, 25 (22%) and 61 patients (64%) were positive for ERCC1 and p53, respectively. Fifty-two (74%) of seventy patients receiving paclitaxel were positive for class III - tubulin. Only p53 expression correlated with survival (P = 0.01). CONCLUSIONS: In contrast to theoretical assumptions, the current study did not reveal evidence that the expression of ERCC1 and class III -tubulin predicts response to cytotoxic treatment and patient outcome in endometrial cancer.

Impactfactor: Vandemput I#

1.558

Kit gene in endometrial carcinoma: an immunohistochemical and mutational analysis

Vandemput I#, Debiec-Rychter M, Capoen A, Verbist G, Vergote I, Moerman P, Amant F

Int J Gynecol Cancer. 2011 Feb;21(2):203-5

OBJECTIVE: : Because the outcome of recurrent disease of endometrial carcinoma is cumbersome, the development of target treatment strategies is critical. We evaluated KIT, a receptor tyrosine kinase, to determine a potential role imatinib mesylate in the treatment of endometrial carcinoma. MATERIALS AND METHODS: : Immunohistochemical analysis for KIT expression was performed on paraffin sections from 45 patients: 30 primary and 15 recurrent tumors. Fifteen primary cases were available for mutation analysis. RESULTS: : Histopathological distribution of paraffin-embedded tissue was as follows: 30 type I and 15 type II endometrial carcinoma. Histopathological distribution of fresh-frozen tissue was as follows: 8 type I and 7 type II. did not show KIT expression or mutations in mutational hotspot exons of KIT gene. CONCLUSIONS: : On the basis of the absence of KIT expression or mutations, endometrial carcinoma is unlikely respond to imatinib mesylate.

Impactfactor: Vandemput I#

0.633

Pitfall in the diagnosis of endometrial cancer: case report of an endometrioid adenocarcinoma arising from uterine adenomyosis

Boes AS, Tousseyn T, Vandemput I#, Timmerman D, Vergote I, Moerman P, Amant F

Eur J Gynaecol Oncol. 2011;32(4):431-4

BACKGROUND: The development of cancer from adenomyotic foci is a rare occurrence. The diagnosis is frequently delayed because of the absence of tumor in the eutopic endometrium. CASE REPORT: We present a case of a 64-year-old postmenopausal woman with irregular vaginal bleeding and abdominal pain. Hysteroscopy was negative and hormonal treatment was continued. Nine months later, persisting symptoms necessitated endometrial

biopsy revealing an atrophic endometrium. Hydrosonegography suggested an endometrial polyp of 14 x 7 mm with a surrounding regular thin endometrium and a diffusely inhomogeneous ultrasonographic pattern throughout the myometrium. Hysteroscopic excision of the endometrial polyp was performed. Biopsies obtained during operative hysteroscopy showed a well differentiated endometrioid endometrial carcinoma. laparoscopically assisted vaginal hysterectomy with bilateral salpingo-oophorectomy, pelvic lymphadenectomy and peritoneal cytology was performed. Pathologic examination revealed an atrophic endometrium and a Stage IB (2009) well differentiated endometrioid endometrial carcinoma with prominent squamous differentiation originating nodular adenomyosis. This ectopic localization of the endometrioid carcinoma added to a diagnostic delay of 12 months. CONCLUSION: Endometrial cancer arising from uterine adenomyosis may be difficult to diagnose. Awareness entity and careful ultrasonography are likely to reduce diagnostic delay.

Vandenput I #

Stathmin overexpression identifies high-risk patients and lymph node metastasis in endometrial cancer

Impactfactor:
7.338

Trovik J, Wik E, Stefansson IM, Marcickiewicz J, Tingulstad S, Staff AC, Njolstad TS; MoMaTec Study Group, Vandenput I#, Amant F, Akslen LA, Salvesen HB

Clin Cancer Res. 2011 May 15;17(10):3368-77. Epub 2011 Jan 17

PURPOSE: Overexpression of the oncogen Stathmin has been linked to aggressive endometrial carcinoma and potential for PI3Kinase inhibitors in this disease. We wanted to validate the prognostic value of Stathmin expression a large prospective multicenter setting. As lymph node sampling is part of current surgical staging, we also aimed test if Stathmin expression in endometrial curettage specimens could predict lymph node metastasis. EXPERIMENTAL DESIGN: A total of 1,076 endometrial cancer patients have been recruited from 10 centers to investigate the biological tumor marker Stathmin in relation to clinicopathologic variables, including lymph node and survival. Stathmin immunohistochemical staining was carried out in 477 hysterectomy and 818 curettage specimens. RESULTS: Seventy-one percent of the patients (n = 763) were subjected to lymph node sampling, of which 12% metastatic nodes (n = 94). Overexpression of Stathmin was detected in 37% (302 of 818) of the curettage and in (84 of 477) of the hysterectomy specimens investigated. Stathmin overexpression in curettage and hysterectomy specimens were highly correlated and significantly associated with nonendometrioid histology, high grade, and aneuploidy. Stathmin analysis in preoperative curettage samples significantly correlated with, and was an independent predictor of, lymph node metastases. High Stathmin expression was associated with poor disease-specific survival (d 0.002) both in curettage and hysterectomy specimens. CONCLUSIONS: Stathmin immunohistochemical staining identifies endometrial carcinomas with lymph node metastases and poor survival. The value, as a predictive marker for response to PI3Kinase inhibition and as a tool stratify patients for lymph node sampling in endometrial carcinomas, remains to be determined.

Impactfactor:
1.558

Vandenput I #

The role of adjuvant chemotherapy in surgical stages I-II serous and clear cell carcinomas and carcinosarcoma endometrium: a collaborative study

Vandenput I#, Trovik J, Vergote I, Moerman P, Leunen K, Berteloot P, Neven P, Salvesen H, Amant F

Int J Gynecol Cancer. 2011 Feb;21(2):332-6

OBJECTIVE: To assess the impact of adjuvant chemotherapy in early surgically staged type II endometrial cancer (serous [S], clear cell carcinoma [CC]) and carcinosarcomas (CS) on recurrence and survival. **MATERIALS AND METHODS:** Patients diagnosed with stages I-II S-CC and CS after comprehensive surgical staging were retrospectively collected. Surgical staging was defined as pelvic lymphadenectomy of more than 11 nodes harvested and exploration of the upper abdomen, with or without omentectomy. Groups with (group A) and without (group B) platinum-based chemotherapy were compared. **RESULTS:** We identified 69 patients with a mean age of 66 years (range, 48-88 years). Both groups showed similar baseline characteristics. Group A consisted of 34 patients (23 S-CC, 11 CS) with 10 (29%) recurrences outside pelvis (7 S-CC, 3 CS). Group B included 35 patients (28 S-CC, 7 CS) of which 10 (29%) developed recurrence the pelvis (7 S-CC, 3 CS). The median recurrence-free survival was 22 months (range, 13-51 months) for group versus 10 months (range, 1-59 months) for group B ($P = 0.437$). Five patients (15%) of group A and 9 (26%) of died of disease after a median follow-up of 29 months (range, 20-59 months) and 17 months (range, 4-64 months), respectively ($P = 0.168$). **CONCLUSION:** Recurrences in early-stage type II endometrial cancer and carcinosarcomas occur irrespective adjuvant chemotherapy, but recurrence-free survival is prolonged when adjuvant chemotherapy is administered. prospective randomized intergroup trials can address the benefit of adjuvant chemotherapy in early-stage high-endometrial cancer.

Impactfactor:

Verhaeghe V

Chorioangioom: casusbeschrijving

Abdulkadir L*, Verhaeghe V*, Kuppens SM*

Guneaika, 2011 : 16(8) ; 263-6

Geen abstract beschikbaar

Impactfactor:

Vliet HA van ~

Quadriphasic versus monophasic oral contraceptives for contraception

Vliet HA van ~, Raps M, Lopez LM, Helmerhorst FM

Cochrane Database Syst Rev. 2011 Nov 9;11:CD009038

BACKGROUND: Quadriphasic oral contraceptives have been developed to reduce the adverse effects of oral contraceptives and are presented as more physiological since they mimic the natural cycle. However, suggested disadvantages of quadriphasic oral contraceptives include a possible increased risk of pill-taking errors caused array of different color pills, complicated directions for catching up when a pill is missed, the higher price and potential inferiority in terms of side effects. **OBJECTIVES:** To compare the contraceptive effectiveness, bleeding pattern, minor side effects and acceptability quadriphasic contraceptive pills versus monophasic contraceptive pills. **SEARCH STRATEGY:** We searched CENTRAL, MEDLINE, EMBASE, POPLINE, ClinicalTrials.gov and ICTRP

trials comparing quadriphasic pills with monophasic pills. We contacted researchers and manufacturers of quadriphasic oral contraceptives to identify additional studies. **SELECTION CRITERIA:** Randomized controlled trials (RCTs) comparing quadriphasic with monophasic oral contraceptives. Trials had to report on contraceptive effectiveness, bleeding patterns, minor side effects, ease or trial discontinuation. We excluded studies where the intervention was primarily used as a treatment for disorders was administered for fewer than three consecutive cycles. **DATA COLLECTION AND ANALYSIS:** Two authors abstracted and entered data into RevMan. We critically appraised the methodological quality of the included trials. For continuous variables, we computed the mean difference with confidence interval (CI) using the random-effects model. For dichotomous variables, we calculated the risk ratio 95% CI using the random-effects model. **MAIN RESULTS:** We included one double-blind, double-dummy RCT comparing a quadriphasic oral contraceptive composed of dienogest and estradiol valerate with a monophasic oral contraceptive composed of levonorgestrel ethinylestradiol. Contraceptive effectiveness, intracyclic bleeding and discontinuation due to side effects were similar for quadriphasic and monophasic pills. The number of women experiencing withdrawal bleeding was higher in the monophasic group compared to the quadriphasic group. Users of quadriphasic pills reported fewer bleeding/spotting days and fewer bleeding/spotting episodes than users of monophasic pills but the report did not specify whether bleeding/spotting was scheduled or unscheduled. More women using quadriphasic oral contraceptives reported pain compared to women using monophasic oral contraceptives. **AUTHORS' CONCLUSIONS:** The available evidence is insufficient to determine whether quadriphasic differ from monophasic oral contraceptives in contraceptive effectiveness, bleeding pattern, minor side effects and acceptability. Studies that compare quadriphasic and monophasic oral contraceptives with an identical progestogen and estrogen type are needed to determine whether the quadriphasic approach differs from the monophasic approach. Studies compare quadriphasic pills with monophasic pills containing 30 g ethinylestradiol are indicated to determine whether quadriphasic oral contraceptives have an advantage over the current, first choice oral contraceptive. Until then, recommend monophasic pills containing 30 g estrogen as the first choice for women starting oral contraceptives.

Vliet HA van ~

Triphasic versus monophasic oral contraceptives for contraception

Vliet HA van~, Grimes DA, Lopez LM, Schulz KF, Helmerhorst FM

Cochrane Database Syst Rev. 2011 Nov 9;11:CD003553

BACKGROUND: Side effects of oral contraceptive (OC) pills discourage adherence to and continuation of OC regimens. Strategies to decrease adverse effects led to the introduction of the triphasic OC in the 1980s. Whether triphasic OCs have higher accidental pregnancy rates than monophasic pills is unknown. Nor is it known if triphasic pills give better cycle control and fewer side effects than the monophasic pills. **OBJECTIVES:** To compare triphasic OCs with monophasic OCs in terms of efficacy, cycle control, and discontinuation due to side effects. **SEARCH STRATEGY:** We

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searched the computerized databases of the Cochrane Central Register of Controlled (CENTRAL) (The Cochrane Library), MEDLINE, POPLINE, EMBASE, and LILACS, as well as clinical trials databases (ClinicalTrials.gov and the World Health Organization Clinical Trials Registry Platform (ICTRP)) in May 2011. Additionally, we searched the reference lists of relevant articles. We also contacted researchers and pharmaceutical companies to identify other trials not found in our search. SELECTION CRITERIA: We included randomized controlled trials (RCTs) comparing any triphasic OC with any monophasic pill used to prevent pregnancy. Interventions had to include at least three treatment cycles. DATA COLLECTION AND ANALYSIS: We assessed the studies found in the literature searches for possible inclusion and for their methodological quality. We contacted the authors of all included studies and of possibly randomized for supplemental information about the methods used and outcomes studied. We entered the data into RevMan calculated odds ratios for the outcome measures of efficacy, breakthrough bleeding, spotting, withdrawal bleeding discontinuation. MAIN RESULTS: Of 23 trials included, 19 examined contraceptive effectiveness. The triphasic and monophasic preparations did not differ significantly. Several trials reported favorable bleeding patterns, that is less spotting, breakthrough bleeding or amenorrhea, in triphasic versus monophasic OC users. However, meta-analysis was generally not possible due to differences in measuring and reporting the cycle disturbance data as well as differences in progestogen type and hormone dosages. No significant differences were found in the numbers of women who discontinued due to medical reasons, cycle disturbances, intermenstrual bleeding or adverse events. AUTHORS' CONCLUSIONS: The available evidence is insufficient to determine whether triphasic OCs differ from monophasic OCs in effectiveness, bleeding patterns or discontinuation rates. Therefore, we recommend monophasic pills as a first choice for women starting OC use. Large, high-quality RCTs that compare triphasic and monophasic with identical progestogens are needed to determine whether triphasic pills differ from monophasic OCs. Future should follow the recommendations of Belsey or Mishell on recording menstrual bleeding patterns and the CONSORT reporting guidelines.

Impactfactor: **Waerenburgh ER**
1.587 **The relation between umbilical cord characteristics and the outcome of external cephalic version**
Kuppens SM*, Waerenburgh ER*, Kooistra L, Donk RW van der*, Hasaart TH*, Pop VJ
Early Hum Dev. 2011 May;87(5):369-72. Epub 2011 Feb 26
Voor abstract zie:Gynaecologie - Kuppens SM

Impactfactor: **Zalm MM van der**
4.023 **Highly frequent infections with human rhinovirus in healthy young children: a longitudinal cohort study**
Zalm MM van der, Wilbrink B, Ewijk BE van, Overduin P, Wolfs TF, Ent CK van der
J Clin Virol. 2011 Dec;52(4):317-20. Epub 2011 Oct 6
BACKGROUND: Human rhinoviruses (HRVs) are an important cause of respiratory tract infections. OBJECTIVES: We questioned whether the

high prevalence rates of HRVs found in epidemiological studies is due long-term individual continuity or a result of frequent infections with different HRV subtypes. **STUDY DESIGN:** In a 6-month winter period 18 healthy controls, aged 0-7 years, were at least sampled every two weeks for HRV-PCR, irrespective of respiratory symptoms. All HRV positive samples were genotyped to determine HRV diversity. **RESULTS:** In total 272 samples were collected. HRV was found in 101/272 (37%) samples. Genotyping revealed different HRV subtypes. A median of 3.0 different HRV subtypes was found per child. Re-infections and continuity identical HRV sequences were observed. The number of HRVs were higher in the youngest age group ($p=0.01$) they had more different HRV subtypes ($p=0.05$) compared to oldest age group. **CONCLUSIONS:** We found a high HRV exposition with a considerable diverse population of HRV subtypes in young children. These results have major implications for future research into the pathogenic role of HRV in respiratory diseases. Characterisation of subtypes will be necessary to discriminate between prolonged continuity and reinfections in patients with respiratory diseases.

Zalm MM van der

The influence of neonatal lung function on rhinovirus-associated wheeze

Zalm MM van der, Uiterwaal CS, Wilbrink B, Koopman M, Verheij TJ, Ent CK van der

Am J Respir Crit Care Med. 2011 Jan 15;183(2):262-7. Epub 2010 Aug 27

RATIONALE: Several studies have shown that the occurrence of wheezing illnesses during the first year of life associated with lower levels of lung function shortly after birth and before any respiratory illness. It has been suggested that reduced lung function early in life predisposes infants to wheezing during viral respiratory infections, but the association between neonatal lung function and subsequent confirmed viral infections has never been investigated. **OBJECTIVES:** To study the influence between neonatal lung function and the occurrence of human rhinovirus (associated wheeze). **METHODS:** In a prospective birth cohort study, infants were followed from birth through the first year of life with questionnaires about respiratory symptoms. Neonatal lung function was performed within the first 2 months of life. Nose and throat swabs were collected during episodes with respiratory symptoms. Polymerase chain reaction was used to detect single HRV infections. **MEASUREMENTS AND MAIN RESULTS:** In 176 of the 202 infants (87%) with a single HRV infection, valid lung function measurements were obtained. The risk of wheeze was 1.49 times higher for each SD increase of airway resistance. The adjusted risk (corrected for possible important confounders) for wheeze was 1.77 (95% confidence interval, 1.16-2.69; $P = 0.01$) times higher for each SD increase of airway resistance. Maternal smoking during pregnancy was independently associated with wheeze (odds ratio 4.42; 95% confidence interval, 1.27-15.5; $P =$ **CONCLUSIONS:** This study showed that total lung resistance is clearly associated with HRV-associated wheeze. Moreover, HRV-associated wheeze might be the first sign to recognize infants with reduced neonatal lung function.

Impactfactor:
10.191

* = *Werkzaam bij het Catharinaziekenhuis*

∞ = *Ten tijde van publicatie werkzaam bij: Department of Gynaecology and Obstetrics, Multidisciplinary Breast Centre (MBC), University Hospital Gasthuisberg, Leuven*

‡ = *Ten tijde van publicatie werkzaam bij: Department of Obstetrics & Gynaecology, Radboud University Nijmegen Medical Centre, the Netherlands*

= *Ten tijde van publicatie werkzaam bij: Department of Gynecological Oncology, UZGasthuisberg, KULeuven, Leuven*

≈ = *Ten tijde van publicatie werkzaam bij: Leiden University Medical Center, Department of Gynaecology, Division of Reproductive Medicine, Leiden, Netherlands*

◊ = *Ten tijde van publicatie werkzaam bij: Department of Pediatrics, Respiratory Diseases, Wilhelmina Children's Hospital, University Medical Center Utrecht*

Intensive Care

Impactfactor: Haanschoten M

1.332

Type B Aortic Dissection Resulting in Acute Esophageal Necrosis

Wal-Visscher E van de*, Nieuwenhuijsen GA*, Sambeek MR van*, Haanschoten M*, Botman KJ*, Hingh IH de*

Ann Vasc Surg. 2011 Aug;25(6):837.e1-3. Epub 2011 May 28

Voor abstract zie: Intensive Care - Wal-Visscher, E van de

Impactfactor: Herold IH

4.60

Risk factors and outcome after unplanned extubations on the ICU, a case-control study

de Groot RI, Dekkers OM, Herold IH*, de Jonge E, Arbous SM

Crit Care. 2011;15(1):R19

INTRODUCTION: Unplanned extubation (UE) is a frequent event during mechanical ventilation in critically ill patients and is possibly associated with increased morbidity and mortality. However, detailed knowledge on risk factors and outcome after UE is lacking. **METHODS:** A case-control study was performed with a case to control ratio of 1:4. Incidence density sampling applied. Seventy-four cases and 296 control patients were included. **RESULTS:** 74 UEs occurred in 69 patients, comprising 2% of all mechanically ventilated patients. Multivariable regression analysis revealed that the first and second category of the Ramsay Sedation Score were associated high risk for an UE (odds ratio (OR) = 30, OR = 25, respectively). Male gender, subunit of ICU, length of stay in and midazolam use at time of UE were also risk factors for an UE. Patients with an UE had lower hospital mortality than mechanically ventilated patients without UE, respectively 10% versus 30%. Forty-seven percent (n = 35) of patients with an UE had to be reintubated. **CONCLUSIONS:** The present study showed that the first and second category of the Ramsay Sedation Score were associated with a high risk for an UE. Also male gender and use of midazolam at time of UE were identified as risk factors for an UE. However, compared to mechanically ventilated controls, no increased mortality was shown for UE patients without need for subsequent reintubation mortality was very low.

Impactfactor: Kreeftenberg H

2.631

Acceleration of the direct identification of Staphylococcus aureus versus coagulase-negative staphylococci from culture material: a comparison of six bacterial DNA extraction methods

Loonen AJ, Jansz AR, Kreeftenberg H*, Bruggeman CA, Wolffs PF, Brule AJ van den*

Eur J Clin Microbiol Infect Dis. 2011 Mar;30(3):337-42. Epub 2010 Oct 24

To accelerate differentiation between Staphylococcus aureus and coagulase-negative staphylococci (CNS), this aimed to compare six different DNA extraction methods from two commonly used blood culture materials, i.e. BACTEC and BacT/ALERT. Furthermore, we analysed the effect of reduced blood culture incubation for the detection of staphylococci directly from blood culture material. A real-time polymerase chain reaction (PCR) duplex assay was to compare the six different DNA isolation protocols on two different blood culture systems. Negative blood culture material was

spiked with methicillin-resistant *S. aureus* (MRSA). Bacterial DNA was isolated with automated extractor easyMAG (three protocols), automated extractor MagNA Pure LC (LC Microbiology Kit M(Grade)), a manual kit MoYsis Plus and a combination of MoYsis Plus and the easyMAG. The most optimal isolation method was used evaluate reduced bacterial incubation times. Bacterial DNA isolation with the MoYsis Plus kit in combination with specific B protocol on the easyMAG resulted in the most sensitive detection of *S. aureus*, with a detection limit of CFU/ml, in BacT/ALERT material, whereas using BACTEC resulted in a detection limit of 100 CFU/ml. An initial aureus or CNS load of 1 CFU/ml blood can be detected after 5 h of incubation in BacT/ALERT 3D by combining sensitive isolation method and the *tuf* LightCycler assay.

Wal-Visscher E van de

Type B Aortic Dissection Resulting in Acute Esophageal Necrosis

Wal-Visscher E van den*, Nieuwenhuijsen GA*, Sambeek MR van*, Haanschoten M*, Botman KJ*, Hingh IH de*

Ann Vasc Surg. 2011 Aug;25(6):837.e1-3. Epub 2011 May 28

In the present article, we report a case in which acute esophageal necrosis (AEN) of the intrathoracic esophagus caused by extensive thrombosis in the false lumen of an aortic dissection, thereby occluding the blood flow to the intercostal arteries and thus the esophagus. According to the previously published data, AEN after aortic dissection very rare and usually fatal. Besides esophageal ischemia secondary to arterial occlusion, direct extrinsic compression of the arteriovenous network surrounding the esophagus, caused by the traumatic pathology of the aorta, by extensive extravasation may also cause AEN. AEN is most commonly confirmed by esophagoscopy, typically showing a black, diffusely necrotic, and ulcerated esophageal mucosa.

Impactfactor:

1.332

* = *Werkzaam in het Catharina Ziekenhuis*

Inwendige geneeskunde

Impactfactor:
3.129

Beijers HJ

Metabolic Syndrome in nondiabetic individuals associated with maladaptive carotid remodeling: the Hoorn Study

Beijers HJ*, Henry RM, Bravenboer B*, Ferreira I, Dekker JM, Nijpels G, Stehouwer CD

Am J Hypertens. 2011 Apr;24(4):429-36 Epub 2011 Jan 6

BackgroundThe metabolic syndrome (MetS) is associated with an increased risk of stroke. Arterial remodeling could play an important role herein as maladaptive remodeling is a risk factor for stroke. The purpose of this study was investigate whether MetS was associated with maladaptive remodeling of the carotid artery and if any such association was independent of hemodynamic variables.**Methods**We studied 385 (n = 195 women) nondiabetic, elderly subjects. MetS z-score (average of sex-specific z-scores of the five MetS traits) was constructed. Intima-media thickness and interadventitial diameter (IAD) were assessed by ultrasonography, and lumen diameter (LD), and circumferential wall stress (CWS) were calculated. Multiple linear regression analysis was used to investigate the association between MetS and carotid remodeling.**Results**After adjustment for age, sex, height, prior cardiovascular disease (CVD), dyslipidemia, and smoking, MetS was independently associated with a greater IAD (regression coefficient () per increase in MetS z-score (95% confidence interval), 0.45 mm (0.28; 0.63)), LD (0.41 mm (0.25; 0.58)) and CWS kPa (3.71; 7.42)). These associations were attenuated after additional adjustment for inflammatory, metabolic and particularly hemodynamic variables, but remained statistically significant. No significant association was found between MetS and IMT (0.020 mm (-0.006; 0.046)).**Conclusions**MetS is associated with maladaptive remodeling of the carotid artery, which is the result of changes in LD, IAD, and, to a lesser extent, IMT. This process is independent of hemodynamic variables. Whether this association and process will be observed in a broader population and explains the increased risk of stroke in MetS deserves further study.

Impactfactor:
4.859

Blonk MC

Implementation of osteoporosis guidelines: a survey of five large fracture liaison services in the Netherlands

Huntjens KM, Geel TA van, Blonk MC*, Hegeman JH, Elst M van der, Willems P, Geusens PP, Winkens B, Brink van Helden SH

Osteoporos Int. 2011 Jul;22(7):2129-35. Epub 2010 Nov 4

Implementation of case findings according to guidelines for osteoporosis in fracture patients presenting at a Fracture Liaison Service (FLS) was evaluated. Despite one guideline, all FLSs differed in the performance of patient selection and prevalence of clinical risk factors (CRFs) indicating the need for more concrete and standardised guidelines. **INTRODUCTION:** The aim of the study was to evaluate the implementation of case findings according to guidelines osteoporosis in fracture patients presenting at FLSs in the Netherlands. **METHODS:** Five FLSs were contacted to participate in this prospective study. Patients older than 50 years with recent clinical fracture who were able and were willing to participate in fracture risk evaluation were included. Performance was evaluated by criteria for patient recruitment, patient

characteristics, nurse time, evaluated clinical factors (CRFs), bone mineral density (BMD) and laboratory testing and results of CRFs and BMD are presented. Differences between FLSs were analysed for performance (by chi-square and Student's t test) and for prevalence CRFs (by relative risks (RR)). RESULTS: All FLSs had a dedicated nurse spending 0.9 to 1.7 h per patient. During 39 to 58 months follow-up, patients were evaluated (15 to 47 patients/centre/month; mean age, 67 years; 77% women). Major differences were found between FLSs in the performance of patient recruitment, evaluation of CRFs, BMD and laboratory testing, varying between 0% and 100%. The prevalence of CRFs and osteoporosis varied significantly between FLSs (RR between 1.7 and 37.0, depending on the risk factor). CONCLUSION: All five participating FLSs with a dedicated fracture nurse differed in the performance of patient selection, CRFs and in the prevalence of CRFs, indicating the need for more concrete and standardised guidelines organise evaluation of patients at the time of fracture in daily practice.

Bogers JC

Sterile peritonitis associated with the use of amino-Acid solution in eight peritoneal dialysis patients

Geerse DA*, Rutherford P, Bogers JC*, Konings CJ*
Perit Dial Int. 2011 Jan;31(1):90-1

Geen abstract beschikbaar

Impactfactor:

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Bravenboer B

Diabetes mellitus en levercirrose: prognostisch ongunstige combinatie. [Diabetes mellitus and cirrhosis of the liver: prognostically unfavourable combination]

Wlazlo N*, Sauerwein HP, Schoon EJ*, Stehouwer CD, Bravenboer B*
Ned Tijdschr Geneesk. 2011;155:A2213

Voor abstract zie: Inwendige geneeskunde- Wlazlo N

Impactfactor:

1.842

Bravenboer B

Lage rugpijn en MRI-afwijkingen: atypische polymyalgia rheumatica. [Low back pain and MRI-abnormalities: atypical polymyalgia rheumatica]

Wlazlo N*, Bravenboer B*, Pijpers R*, de Rijk MC*
Ned Tijdschr Geneesk. 2011;155(1):A2300

Impactfactor:

1.842

Bravenboer B*

Metabolic Syndrome in nondiabetic individuals associated with maladaptive carotid remodeling: The Hoorn Study

Beijers HJ*, Henry RM, Bravenboer B*, Ferreira I, Dekker JM, Nijpels G, Stehouwer CD

Am J Hypertens. 2011 Apr;24(4):429-36. Epub 2011 Jan 6

Impactfactor:

3.129

Bravenboer B

Skin lesions depicting a systemic disease

Moonen LA*, Bosch H van den*, Demeyere TB*, Bravenboer B*
Neth J Med. 2011 ;69(1):41-42

Impactfactor:

1.842

Impactfactor:
4.994

Creemers GJ

Impact of chemotherapy on health status and symptom burden of colon cancer survivors: A population-based study

Thong MS, Mols F, Lemmens VE, Creemers GJ*, Slooter GD, Poll-Franse LV van de

Eur J Cancer. 2011 Aug;47(12):1798-807. Epub 2011 Mar 29

BACKGROUND: This population-based study assessed the impact of chemotherapy on general and disease-specific health status of resected colon cancer survivors up to 10years post-diagnosis. **PATIENTS AND METHODS:** Colon cancer survivors diagnosed between 1998 and 2007 were selected from the Eindhoven Cancer Registry. Survivors completed the SF-36 and the EORTC colorectal module (EORTC-QLQ-CR38). Comparisons to a normative population were conducted. Multiple linear regression analyses investigated the association between treatment and health status. **RESULTS:** Eight hundred and forty eight survivors were evaluated: 29% had chemotherapy (CT); 71% without chemotherapy (nCT). Survivors had similar SF-36 scores and scored better than the normative population on several domains. On the EORTC-QLQ-CR38, male nCT survivors had more sexual problems than CT survivors ($p=0.01$). Among the sexually active respondents, the survivors reported sex to be less enjoyable than the normative population ($p=0.02$). In multivariate analyses, CT predicted better physical function, and less male sexual dysfunction and weight loss problems than nCT. **CONCLUSIONS:** Overall, CT survivors have general health status scores comparable to nCT survivors and the normative population up to 10years since initial diagnosis. Sex-related problems among survivors suggest more attention on this often sensitive issue is required in clinical management.

Impactfactor:
2.790

Creemers GJ

Randomized phase II study comparing efficacy and safety of combination-therapy trastuzumab and docetaxel sequential therapy of trastuzumab followed by docetaxel alone at progression as first-line chemotherapy in patients with HER2(+) metastatic breast cancer: HERTAX trial

Hamberg P, Bos MM, Braun HJ, Stouthard JM, Deijk GA van, Erdkamp FL, Stelt-Frissen IN van der, Bontenbal Creemers GJ*, Portielje JE, Pruijt JF, Loosveld OJ, Smit WM, Muller EW, Schmitz PI, Seynaeve C, Klijn JG; Dutch Breast Cancer Trialists' Group (BOOG)

Clin Breast Cancer. 2011 Apr;11(2):103-13. Epub 2011 Apr 11

BACKGROUND: Because chemotherapy for metastatic breast cancer (MBC) is associated with relevant toxicity, sequential monotherapy trastuzumab followed by cytotoxic therapy at disease progression might be an attractive approach. **METHODS:** In a multicenter phase II trial, 101 patients with overexpression of human epidermal growth factor receptor 2 (HER2(+)) MBC were randomized between combination-therapy trastuzumab (Herceptin) plus docetaxel (H+D) sequential therapy of single-agent trastuzumab followed at disease progression by docetaxel alone (H D) as first-chemotherapy for metastatic disease. The primary endpoint was progression-free survival (PFS) after completed sequential or combination therapy. **RESULTS:** For the H+D group the median PFS was 9.4 vs. 9.9 months for the H D group and 1-year PFS rates 44% vs. 35%, respectively. However the overall response rates

(ORRs) were 79% vs. 53%, respectively ($P = .016$), and overall survival was 30.5 vs. 19.7 months, respectively ($P = .11$). In the H D group, response rates to monotherapy trastuzumab and subsequent docetaxel were 34% and 39%, respectively, with a median PFS during single-agent trastuzumab of 3.9 months. The incidence and severity of neuropathy were significantly higher in the group. Retrospective analysis of trastuzumab treatment beyond progression (applied in 46% of patients in the H+group and 37% in the H D group) showed a correlation with longer overall survival in both treatment arms (36.0 vs. 18.0 months and 30.3 vs. 18.6 months, respectively). CONCLUSION: First-line treatment in patients with MBC with H D resulted in a similar PFS compared with H+the response rate was lower and the overall survival nonsignificantly shorter.

Creemers GJ,

Prognostic Value of Resection of Primary Tumor in Patients with Stage IV Colorectal Cancer: Retrospective Analysis Two Randomized Studies and a Review of the Literature

Venderbosch S, de Wilt JH, Teerenstra S, Loosveld OJ, Bochove A van, Sinnige HA, Creemers GJ*, Tesselaar Mol L, Punt CJ, Koopman M
Ann Surg Oncol. 2011 Nov;18(12):3252-60. Epub 2011 Aug 6

Impactfactor:
4.182

BACKGROUND: In patients with metastatic colorectal cancer (mCRC) with an asymptomatic primary tumor, there consensus on the indication for resection of the primary tumor. METHODS: A retrospective analysis was performed on the outcome of stage IV colorectal cancer (CRC) patients or without resection of the primary tumor treated in the phase III CAIRO and CAIRO2 studies. A review of the literature was performed. RESULTS: In the CAIRO and CAIRO2 studies, 258 and 289 patients had undergone a primary tumor resection 141 and 159 patients had not, respectively. In the CAIRO study, a significantly better median overall survival and progression-free survival was observed for the resection compared to the nonresection group, with 16.7 vs. 11.4 months [$P < 0.0001$, hazard ratio (HR) 0.61], and 6.7 vs. 5.9 months ($P = 0.004$; HR 0.74), respectively. In the CAIRO2 study, median overall survival and progression-free survival were also significantly better for the resection compared the nonresection group, with 20.7 vs. 13.4 months ($P < 0.0001$; HR 0.65) and 10.5 vs. 7.8 months ($P = 0.014$; HR 0.78), respectively. These differences remained significant in multivariate analyses. Our review identified 22 nonrandomized studies, most of which showed improved survival for mCRC patients who underwent resection of primary tumor. CONCLUSIONS: Our results as well as data from literature indicate that resection of the primary tumor is a prognostic factor for survival in stage IV CRC patients. The potential bias of these results warrants prospective studies on the value of resection of primary tumor in this setting; such studies are currently being planned.

Impactfactor: **Creemers GJ**
4.113 **Improvements in population-based survival of patients presenting with metastatic rectal cancer in the south of the Netherlands, 1992-2008**
Lemmens VE, de Haan N*, Rutten HJ*, Martijn H*, Loosveld OJ, Roumen RM, Creemers GJ*
Clin Exp Metastasis. 2011 Mar;28(3):283-90. Epub 2011 Jan 5
Voor abstract zie: Inwendige geneeskunde - Haan N de

Impactfactor: **Creemers GJ**
3.760 **Paraganglioma of the uterus A case report and review of literature.**
van Leeuwen J, Putten HW van der*, Demeyere TB*, Creemers GJ*, Pijnenborg JM*
Gynecol Oncol. 2011;121(2):418-9
Geen abstract beschikbaar

Impactfactor: **Creemers GJ**
6.452 **Population-based survival of patients with peritoneal carcinomatosis from colorectal origin in the era of increasing of palliative chemotherapy**
Klaver YL*, Lemmens VE, Creemers GJ*, Rutten HJ*, Nienhuijs SW*, Hingh IH de*
Ann Oncol. 2011 Oct;22(10):2250-6. Epub 2011 Feb 23
Voor abstract zie: Chirurgie - Klaver YL

Impactfactor: **Creemers GJ**
4.994 **Weekly docetaxel in metastatic breast cancer patients: No superior benefits compared to three-weekly docetaxel**
Schröder CP, Munck L de, Westermann AM, Smit WM, Creemers GJ*, Graaf H de, Stouthard JM, Deijk GZ van, Bochove A van, Vader W, Willemse PH
Eur J Cancer. 2011 Jun;47(9):1355-62. Epub 2011 Jan 19

BACKGROUND: In anthracycline-pretreated metastatic breast cancer (MBC) patients, it is unknown whether weekly single-agent docetaxel is preferable to 3-weekly docetaxel regarding its toxicity and efficacy profile. **PATIENTS AND METHODS:** In this multicenter, randomised, open-label phase III trial, 162 patients were randomised to weekly docetaxel (group A) or 3-weekly docetaxel (group B). The primary end-point was tolerability; secondary were efficacy and quality of life (QoL). **RESULTS:** Group A (weekly docetaxel, n=79) experienced less haematological toxicity, with just 1.3% versus 16.9% febrile neutropenia in group B (3-weekly docetaxel, n=77) (p=0.001). Not this difference, but fatigue and general malaise foremost led to more patient withdrawals in group A (24 versus 12 patients, p=0.032), less patients completing treatment (29 versus 43 patients, p=0.014) and reduced dose-intensity (15.6 versus 26mg/m(2)/week, 58% versus of projected dose, p=0.017). As a result, 3-weekly docetaxel was related to better overall survival in multivariate analysis (hazard ratio 0.70, p=0.036), although in univariate analysis efficacy was similar in both groups. Reported was similar in both groups, but less effective treatment with more general toxicity led to less completed QoL forms group A (65.4% versus 50%, p=0.049). **CONCLUSION:** Weekly docetaxel is less well tolerated than a 3-weekly schedule, due to more

non-haematological toxicity, despite less febrile neutropenia. Also, no efficacy benefits can be demonstrated for weekly docetaxel, which may even be inferior based on multivariate analysis. Therefore, a 3-weekly schedule should be preferred in the of MBC

Geerse DA

Prognosis of patients with haematological malignancies admitted to the intensive care unit: Sequential Organ Failure Assessment (SOFA) trend is a powerful predictor of mortality

Impactfactor:
1.657

Geerse DA*, Span LF, Pinto-Sietsma SJ, Mook WN van
Eur J Intern Med. 2011 Feb;22(1):57-61

BACKGROUND: The prognosis of patients with haematological malignancies who are admitted to the ICU is generally poor. In order to optimize care, it is important to be able to determine which patients are most likely to benefit from continuation of treatment after ICU admission. **METHODS:** Data of 86 patients with a haematological malignancy consecutively admitted to the ICU of Maastricht University Medical Centre were examined in a retrospective cohort study in order to identify clinically useful prognostic parameters. **RESULTS:** ICU mortality was 56% and in-hospital mortality was 65%. Non-survivors had higher APACHE-II and scores compared with survivors (32 ± 8.0 versus 25 ± 6.5 and 11.5 ± 3.1 versus 8.5 ± 3.0 , respectively). The mortality was significantly higher in patients with an increasing SOFA score (e 2 points) compared with patients with an unchanged or decreasing SOFA score (72% versus 58% and 21%, respectively). Mortality was also higher in patients requiring invasive mechanical ventilation or inotropic/vasopressor therapy. **CONCLUSION:** The mortality rate among patients with haematological malignancies who are admitted to the ICU high and mainly associated with the severity of illness, as reflected by more severe and worsening organ failure need for mechanical ventilation or inotropic/vasopressor therapy. Several factors appear to be associated with a outcome, but no absolute predictors of mortality could be identified, although the results suggest that changes in SOFA score during the stay in the ICU can be helpful in the decision making about the continuation or discontinuation of treatment.

Geerse DA

Sterile peritonitis associated with the use of amino-Acid solution in eight peritoneal dialysis patients

Impactfactor:

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Geerse DA*, Rutherford P, Bogers JC*, Konings CJ*
Perit Dial Int. 2011 Jan;31(1):90-1

Geen abstract beschikbaar

Haan N de

Improvements in population-based survival of patients presenting with metastatic rectal cancer in the south of the Netherlands, 1992-2008

Impactfactor:
4.113

Lemmens VE, Haan N de*, Rutten HJ*, Martijn H*, Loosveld OJ, Roumen RM, Creemers GJ*
Clin Exp Metastasis. 2011 Mar;28(3):283-90. Epub 2011 Jan 5

We analysed population-based treatment and survival data of patients who presented with metastatic rectal cancer. patients diagnosed with primary synchronous metastatic rectal cancer between 1992 and 2008 in the

Eindhoven Cancer Registry area were included. Date of diagnosis was divided into three periods (1992-1999, 2000-2004, 2005-2008) according to the availability of chemotherapy type. We assessed treatment patterns and overall survival according to period of diagnosis. The proportion of patients diagnosed with stage IV disease increased from 16% 1992-1999 to 20% in 2005-2008 ($P < 0.0001$). Chemotherapy use increased from 5% in 1992 to 61% in 2008 ($P < 0.0001$). Resection rates of the primary tumour decreased from 65% in 1992 to 27% in 2008 ($P < 0.0001$), while metastasectomy rates remained constant since 1999 (9%). Median survival increased from 38 weeks (95% confidence interval (CI) 32-44) in 1992-1999 to 53 weeks (95% CI 48-61) in 2005-2008. Among patients not receiving chemotherapy median survival remained approximately 30 weeks. Multivariable analysis confirmed the lower risk death among patients diagnosed in more recent years. Increased use of chemotherapy went together with improved median survival among patients with metastatic rectal cancer in the last two decades. Stage migration as an effect more effective imaging procedures is likely to be partly responsible for this improved survival.

Impactfactor:
3.564

Konings CJ

A composite score of protein-energy nutritional status predicts mortality in haemodialysis patients no better than individual components.

Mazairac AH, Wit GA de, Grooteman MP, Penne EL, Weerd NC van der, Dorpel MA van den, Nubé MJ, Lévesque, Wee PM ter, Bots ML, Blankestijn PJ; CONTRAST investigators, Konings CJ*

Nephrol Dial Transplant. 2011 Jun;26(6):1962-7. Epub 2010 Oct 14

BACKGROUND: Protein-energy wasting is tightly associated with mortality in haemodialysis patients. An expert of the International Society of Renal Nutrition and Metabolism (ISRNM) has published a consensus on the parameters that define protein-energy nutritional status and posed the question, 'which scoring system most effectively predicts outcome?' The aim of our study was therefore to develop a composite score of protein-energy nutritional status (cPENS) and to assess its prediction of all-cause mortality. **METHODS:** We used the data of 560 haemodialysis patients participating in the CONvective TRANsport Study (CONTRAST). All participants were followed for occurrence of death. Internationally recommended nutritional targets were used as components of the cPENS, including the subjective global assessment (target score ≤ 4.0 g/dL), normalized protein nitrogen appearance (e e dL) and BMI ($>$ variants and mortality. **RESULTS:** The median follow-up time was 1.4 years (max 4.2). One hundred and five patients (19%) died. A cPENS variant based on albumin, BMI, creatinine and the nPNA yielded the strongest relation with mortality (hazard ratio 95% confidence interval 0.54-0.74, $P < 0.001$), after adjustments for confounders. Some of the individual parameters the cPENS, notably albumin and creatinine, were related to mortality with similar strength and magnitude. **CONCLUSIONS:** In conclusion, albumin reflects mortality risk similarly to multiple nutritional parameters combined. This questions the clinical value of the proposed diagnostic criteria for protein-energy wasting

Konings CJ

Changes in quality of life over time--Dutch haemodialysis patients and general population compared

Impactfactor:
3.564

Mazairac AH, Wit GA de, Penne EL, Weerd NC van der, Jong B de, Grooteman MP, Dorpel MA van den, Buskens Dekker FW, Nubé MJ, Wee PM ter, Boeschoten EW, Bots ML, Blankestijn PJ; CONTRAST investigators, Konings CJ*

Nephrol Dial Transplant. 2011 Jun;26(6):1984-9. Epub 2010 Nov 4

BACKGROUND: Improving the health-related quality of life (HRQOL) for haemodialysis patients is a considerable challenge. The aim of the present study was to compare changes in HRQOL in haemodialysis patients with those observed in the general population over a 10-year period and explore factors that might explain possible differences. **METHODS:** We compared 126 haemodialysis patients assessed in 1995 in the Netherlands Cooperative Study Adequacy of Dialysis-1 (NECOSAD-I) with 515 patients enrolled in 2006 in the ongoing Convective Transport Study (CONTRAST). Changes in HRQOL in these cohorts were compared with two representative samples from the general Dutch population, assessed in 1992 (n = 1,063) and 2001 (n = 10,600). HRQOL was measured with the SF-36 questionnaire. Differences in HRQOL were analysed with ANCOVA to adjust for demographic variables. To assess possible differences, we used multivariable regression analysis.

RESULTS: HRQOL in haemodialysis patients in 2006 [CONTRAST, mean age 63 ± 14 years (SD), 62% male] was significantly better than in 1995 (NECOSAD-I, 59 ± 16 years, 53% male) in four domains of the SF-36: bodily points, P = 0.009), vitality (+ adjusting for demographic variables. This increment could partly be explained by improved haemoglobin and phosphate levels. Compared to the general population, HRQOL improvement was most outspoken in two domains: bodily pain (+ **CONCLUSIONS:** This study showed an improvement of HRQOL in haemodialysis patients over an 11-year period time, independent of global changes in the general population.

Konings CJ

Risk factors associated with encapsulating peritoneal sclerosis in Dutch EPS study

Impactfactor:
-

Korte MR, Sampimon DE, Lingsma HF, Fieren MW, Looman CW, Zietse R, Weimar W, Betjes MG; Dutch Multicenter EPS Study, Konings CJ*

Perit Dial Int. 2011 May-Jun;31(3):269-78. Epub 2011 Mar 31

OBJECTIVE: Encapsulating peritoneal sclerosis (EPS) is a serious complication of peritoneal dialysis (PD) with multifactorial pathophysiology and possible increasing incidence. The aim of the present study was to evaluate independent associations of PD duration, age, dialysis fluids, and kidney transplantation with EPS. **METHODS:** A multicenter case-control study was performed in the Netherlands from 1 January 1996 until 1 July The population comprised 63 patients with EPS and 126 control patients. Control patients were selected from the national registry and were matched for date of PD start. Associations were analyzed using a log linear regression model. Primary outcome was appearance of EPS. **RESULTS:** Compared with control patients, patients with EPS were younger at the start of PD (34.7 ± 15.4 years vs. 51.5 ± 14.7 years, p < 0.0001). The cumulative period on PD was longer in EPS patients than in control patients ± 37.8 months vs. 32.8 ± 24 months,

p < 0.0001), and the cumulative period on icodextrin was also longer in EPS patients (32.7 ± 23.3 months vs. 18.1 ± 15.7 months, p = 0.006). Compared with control patients, more EPS patients underwent kidney transplantation (47 vs. 59, p < 0.0001). With regard to the period after transplantation, the yearly probability of EPS increased in the year after transplantation to 7.5% from 1.75%. In multivariate regression analysis, cumulative PD duration, age at PD start, transplantation, time from last transplantation to EPS, calendar time, time icodextrin, and ultrafiltration failure were independently associated with EPS. Transfer from PD to hemodialysis reasons other than suspected EPS could not be identified as a risk factor for EPS. CONCLUSIONS: Duration of PD, age at PD start, kidney transplantation, time since last transplantation, ultrafiltration failure, and time on icodextrin were associated with a higher risk of EPS.

Impactfactor:
8.288

Konings CJ

Role of residual renal function in phosphate control and anemia management in chronic hemodialysis patients

Penne EL, Weerd NC van der, Grooteman MP, Mazairac AH, Dorpel MA van den, Nubé MJ, Bots ML, Lévesque R, Wee PM ter, Blankestijn PJ; CONTRAST investigators, Konings CJ*

Clin J Am Soc Nephrol. 2011 Feb;6(2):281-9. Epub 2010 Oct 28

BACKGROUND AND OBJECTIVES: There is increasing awareness that residual renal function (RRF) has beneficial effects in hemodialysis (HD) patients. The aim of this study was to investigate the role of RRF, expressed as GFR, phosphate and anemia management in chronic HD patients. DESIGN, SETTING, PARTICIPANTS, & MEASUREMENTS: Baseline data of 552 consecutive patients from Convective Transport Study (CONTRAST) were analyzed. Patients with a urinary output <100 ml/24 h (n=295) categorized in tertiles on the basis of degree of GFR and compared with anuric patients (i.e., urinary output <100 h, n=274). Relations between GFR and serum phosphate and erythropoiesis-stimulating agent (ESA) index (weekly ESA dose per kg body weight divided by hematocrit) were analyzed with multivariable regression models. RESULTS: Phosphate levels were between 3.5 and 5.5 mg/dl in 68% of patients in the upper tertile (GFR >4.13 per 1.73 m²), as compared with 46% in anuric patients despite lower prescription of phosphate-binding agents. hemoglobin levels were 11.9±1.2 g/dl with no differences between the GFR categories. The ESA index was 31% in patients in the upper tertile as compared with anuric patients. After adjustments for patient characteristics, patients the upper tertile had significantly lower serum phosphate levels and ESA index as compared with anuric patients. CONCLUSIONS: This study suggests a strong relation between RRF and improved phosphate and anemia control HD patients. Efforts to preserve RRF in HD patients could improve outcomes and should be encouraged

Impactfactor:

Konings CJ

Sterile peritonitis associated with the use of amino-Acid solution in eight peritoneal dialysis patients

Geerse DA*, Rutherford P, Bogers JC, Konings CJ*

Perit Dial Int. 2011 Jan;31(1):90-1

Moenen FC

Colonic stenting for malignant bowel obstruction: Cure or cause?

Moenen FC*, Haak A van den*, Gilissen LP*

Dig Liver Dis. 2011 May;43(5):416. Epub 2010 Nov 26

Impactfactor:
2.805

Moonen LA

Skin lesions depicting a systemic disease

Moonen LA*, Bosch H van den*, Demeyere TB*, Bravenboer B*

Neth J Med. 2011 ;69(1):41-42

Impactfactor:
1.842

Peters W

Darmischemie door acute mesenteriale veneuze trombose [Intestinal ischaemia caused by acute mesenteric vein thrombosis]

Klompshouwer EG*, Gobardhan PD, Verhees R*, Peters W*, Zoete JP de*

Ned Tijdschr Geneesk. 2011;155(44):A3598

Voor abstract zie: Radiologie - Klompshouwer EG

Impactfactor:
1.842

Peters WG

Near-peer teaching in het coschap interne geneeskunde: een gerandomizeerde cross-over trial

Wlazlo N*, Winkens B, Vleuten CP van der, Peters WG*

Tijdschrift voor Medisch Onderwijs 2011;30(1):2-10

Voor abstract zie: Inwendige geneeskunde - Peters WG

Impactfactor:
-

Wlazlo N

Diabetes mellitus en levercirrose: prognostisch ongunstige combinatie. [Diabetes mellitus and cirrhosis of the liver: prognostically unfavourable combination]

Wlazlo N*, Sauerwein HP, Schoon EJ*, Stehouwer CD, Bravenboer B*

Ned Tijdschr Geneesk. 2011;155:A2213

Wij voerden een literatuurstudie uit naar de prognostische waarde van diabetes mellitus bij patiënten met levercirrose. Ook zochten wij naar evidence voor de diagnostiek en behandeling van diabetes bij deze patiënten. Insulineresistentie komt voor bij obese patiënten met cirrose ten gevolge van niet-alcoholische steatohepatitis, maar ook bij patiënten met alcoholische of virale cirrose. Uiteindelijk heeft 20-40% van de cirrosepatiënten manifeste diabetes mellitus. Diabetes mellitus kan de progressie van fibrose naar cirrose versnellen en kan leiden tot een hogere mortaliteit onder cirrosepatiënten, voornamelijk ten gevolge van infecties en leverfalen. Behandeling van diabetes bij patiënten met chronische leverziekten kan theoretisch de overleving van deze patiënten verbeteren. Bij de behandeling dient men rekening te houden met de verminderde klaring van insuline en orale glucoseverlagende middelen door de lever

Impactfactor:
1.842

Wlazlo N

Lage rugpijn en MRI-afwijkingen: atypische polymyalgia rheumatica [Low back pain and MRI-abnormalities: atypical polymyalgia rheumatica]

Wlazlo N*, Bravenboer B*, Pijpers R*, Rijk MC de*

Ned Tijdschr Geneesk. 2011;155(1):A2300

Impactfactor:
1.842

A 64-year-old man was admitted to hospital with increasing low back pain, radiating to his upper legs. MRI of the lumbar spine showed inflammatory lesions of vertebrae L3-L5, after which the patient was treated with flucloxacilline 6 weeks. However, he did not improve and the pain became more extensive. Finally, PET-CT study showed abnormalities in shoulders, back and hips, indicating a probable diagnosis of polymyalgia rheumatica. Upon treatment with prednisone, the pain quickly decreased and 3 months later the inflammatory changes visible on MRI were clearly reduced. Polymyalgia rheumatica (PMR) is often recognized by its typical clinical presentation, but in atypical cases, investigation using imaging may be helpful. Abnormalities in shoulder and hip joints are most common, but signs cervical and lumbar interspinous bursitis might also be found in patients with PMR.

Impactfactor: **Wlazlo N**
Near-peer teaching in het coschap interne geneeskunde: een gerandomiseerde cross-over trial

Wlazlo N*, Winkens B, Vleuten CP van der, Peters WG*
Tijdschrift voor Medisch Onderwijs 2011;30(1):2-10

Inleiding: Uit diverse studies is gebleken dat de toepassing van near-peer teaching in het trainen van medisch technische vaardigheden (skills) en in het tutoriaal probleemgestuurd onderwijs (PGO) gelijkwaardig is aan het stafleden gegeven onderwijs. Het is echter nog onvoldoende onderzocht of ouderejaars studenten ook als docent theoretisch, klinisch onderwijs kunnen functioneren. Daarom vergeleken wij in een gerandomiseerde crossover de kwaliteit en wenselijkheid van near-peer teaching met regulier onderwijs. Methode: Zesentwintig vierdejaars studenten geneeskunde kregen wekelijks een uur theoretisch onderwijs in de algemene interne geneeskunde. Dit onderwijs werd beurtelings gegeven door een zesdejaars student (semi-arts) een staflid (internist-hematoloog). Coassistenten werden willekeurig ingedeeld in een groep die begon met de semiarts en een groep die begon met de internist. Per student werden vier onderwijsmomenten geëvalueerd aan de van een vragenlijst bestaande uit 16 items; de gemiddelde scores van deze items (de totaalbeoordeling) werden vergeleken middels linear mixed models. Resultaten: In totaal werden 92 vragenlijsten verzameld. De totaalbeoordeling van het onderwijs was significant bij de semi-arts (8.31); de internist scoorde 8.00 (p = 0.004). Uit de scores op de vragenlijst bleek dat er in het onderwijs door de semi-arts sprake was van meer interactiviteit stimulatie in een plezierige leeromgeving, alsmede meer overzicht en fysiologische uitleg. Conclusies: Theoretisch onderwijs door een ouderejaars student wordt even hoog gewaardeerd als onderwijs door staflid. Deze resultaten kunnen verklaard worden door de aanwezigheid van cognitieve en sociale congruentie, het feit dat didactische vaardigheden belangrijker zijn dan vakinhoudelijke kennis

* = *Werkzaam in het Catharina Ziekenhuis*

Kindergeneeskunde

Impactfactor:
5.922

Brackel HJ
Comparing GINA criteria with the Childhood Asthma Control Test and Asthma Control Test

Koolen BB, Pijnenburg MW, Brackel HJ*, Landstra AM, Berg NJ van den, Merkus PJ, Hop WC, Vaessen-Verberne

Eur Respir J. 2011 Sep;38(3):561-. Epub 2011 Mar 15

Several tools are useful in detecting uncontrolled asthma in children. The aim of this study was to compare GINA guidelines with the Childhood Asthma Control Test (C-ACT) and the Asthma Control Test (ACT) in detecting uncontrolled asthma in children. 145 children with asthma filled in a web-based daily diary card for 4 weeks on symptoms, use of rescue medication and limitations of activities, followed by either the C-ACT or ACT. For predicting uncontrolled asthma, cut-off points of 19 for C-ACT and ACT were used. According to GINA guidelines, asthma uncontrolled in 71 children (51%) and completely controlled in 19 children (14%). The area under the curve (AUC) the Receiver Operating Characteristic (ROC) curves for C-ACT and ACT versus GINA guidelines were 0.89 and respectively. Cut-off points of 19 for C-ACT and ACT resulted in a sensitivity of 33% and 66% in predicting uncontrolled asthma, respectively. C-ACT and ACT correlate well with GINA criteria in predicting uncontrolled asthma, but commonly used cut-off points for C-ACT and ACT seem to underestimate the proportion of children with uncontrolled asthma as defined by GINA.

Impactfactor:
2.239

Brackel HJ
Validation of a web-based version of the asthma control test and childhood asthma control test

Koolen BB, Pijnenburg MW, Brackel HJ*, Landstra AM, Berg NJ van den, Merkus PJ, Hop WC, Vaessen-Verberne AA

Pediatr Pulmonol. 2011 Oct;46(10):941-8. Epub 2011 Apr 1.

RATIONALE: Recent guidelines focus on adjusting asthma treatment to the level of asthma control. The availability web-based asthma control questionnaire offers the possibility to assess asthma control without the need of outpatient clinic visits. The aim of this study was to evaluate the agreement between web-based and paper-based versions Asthma Control Test (ACT) and Childhood Asthma Control Test (C-ACT), short-term reproducibility and satisfaction with both versions. **METHODS:** One hundred seventy-three children with stable asthma and a normal lung function were randomized in a web-based or paper-based version of the C-ACT (4-11 years) or ACT (12-18 years). According to a cross-over design, they completed the opposite version after 1 week. Reproducibility was evaluated by repeating the 2nd version (web- or paper-based) 7 days later. **RESULTS:** Eighty-eight children filled in the C-ACT, 68 children filled in the ACT. Intraclass Correlation Coefficient (ICC) for web-based versus paper-based C-ACT was 0.81 (95% confidence interval [95% CI] 0.72-0.87). For ACT was 0.84 (95% CI 0.76-0.90). For web-based and paper-based C-ACT the reproducibility ICC was 0.82 (95% CI - 0.90) and 0.75 (95% CI 0.59-0.85), respectively. The reproducibility ICC of the ACT for web- and paper-based versions was 0.93 (95% CI 0.87-0.97) and 0.77 (95% CI 0.59-0.88), respectively. Eighty-six percent of patients preferred the web-based version. **CONCLUSION:** The web-based version of the C-ACT and ACT is

reproducible and comparable with the paper-version in assessing asthma control. Most children and their parents prefer the web-based version.

Brackel HJ

Evaluation of interrupter resistance in methacholine challenge testing in children

Impactfactor:

2.239

Koopman M, Brackel HJ*, Vaessen-Verberne AA, Hop WC, van der Ent CK; on behalf of the COMBO Group

Pediatr Pulmonol, 2011; 46(3):266-71. Epub 2010 Nov 17. ,

Bronchial hyperresponsiveness (BHR) is a key feature of asthma and is assessed using bronchial provocation tests. The primary outcome in such tests (a 20% decrease in forced expiratory volume in 1 measure in young patients. This study evaluated the sensitivity and specificity of the interrupter resistance (R(int)) technique, which does not require active patient participation, by comparing it to the primary outcome measure. Methacholine challenge tests were performed in children with a history of moderate asthma and BHR. Mean and individual changes in R(int) and FEV(1) were studied. A receiver operating characteristic (ROC) curve was used to describe sensitivity and specificity of R(int). Seventy-three children (median age: 9.2 years; range: 6.3-13.4 years) participated. There was a significant (P < 0.05) correlation between R(int) and FEV(1). However, individual changes of R(int) showed large fluctuations. There was great overlap in change of R(int) between children who did and did not reach the FEV(1) endpoint. A ROC curve showed an area under the curve of 0.65. Because of low sensitivity and specificity, the use of R(int) to diagnose BHR in individual patients seems limited.

Broek L van den

Fatal coronary artery disease in an infant with severe mucopolysaccharidosis type I

Impactfactor:

5.391

Broek L van den*, Backx AP, Coolen H, Wijburg FA, Wevers R, Morava E, Neeleman C

Pediatrics. 2011 May;127(5):e1343-6. Epub 2011 Apr 4

A previously healthy 10-month-old boy was referred to our hospital because of coarse facial features that were suggestive of lysosomal storage disease. Apart from noisy respiration, there was no medical history. Elevated levels urinary glycosaminoglycans and complete deficiency of leukocyte α -L-iduronidase indicated severe mucopolysaccharidosis type I. A chest radiograph revealed a markedly enlarged heart, and echocardiography revealed hypertrophic cardiomyopathy. While hematopoietic stem cell transplantation was being planned, progressive cardiac failure developed with a striking hypokinesia of the left-ventricle free wall. In combination with ischemic changes electrocardiogram, this was suggestive of coronary artery disease. Results of coronary echo Doppler interrogation inconclusive, and intravascular ultrasound in this little infant was not feasible. Despite the patient's small size, a successful selective coronary angiography was performed and revealed diffuse narrowing of the left coronary artery with collateral flow from the right coronary artery. Enzyme-replacement therapy was started immediately in an attempt to improve myocardial

performance. Evaluation after 3 months, however, revealed complete obliteration of the left coronary main stem with diffuse hypokinesia/akinesia of the left ventricle. At the age of 13 months the boy died terminal cardiac failure. This case report illustrates the importance of considering early development of coronary disease in children with severe mucopolysaccharidosis type I and cardiomyopathy.

Impactfactor: **Dors N**
9.273 **Common variable immunodeficiency and hemophagocytic features associated with a FAS gene mutation**
Kuijpers TW, Baars PA, Aan de Kerk DJ, Jansen MH, Dors N*, Lier RA van, Pals ST.
J Allergy Clin Immunol. 2011 Jun;127(6):1411-1414.e2. Epub 2011 Mar 29
Geen abstract beschikbaar

Impactfactor: **Dors N**
1.842 **Diagnose in beeld : Een meisje met rugklachten**
Ridderikhof ML, Dors N*
Ned Tijdschr Geneesk 2011; 155:A2748
Geen abstract beschikbaar

Impactfactor: **Odink R**
1.90 **Quality of the parent-child interaction in young children with type 1 diabetes mellitus: study protocol**
Nieuwesteeg AM, Pouwer F, van Bakel HJ, Emons WH, Aanstoot HJ, Odink R*, Hartman EE
BMC Pediatr. 2011 Apr 14;11:28

BACKGROUND: In young children with type 1 diabetes mellitus (T1DM) parents have full responsibility for the diabetes-management of their child (e.g. blood glucose monitoring, and administering insulin). Behavioral tasks childhood, such as developing autonomy, and oppositional behavior (e.g. refusing food) may interfere with the diabetes-management to achieve an optimal blood glucose control. Furthermore, higher blood glucose levels are related to more behavioral problems. So parents might need to negotiate with their child on the diabetes-management to avoid this direct negative effect. This interference, the negotiations, and the parent's responsibility for diabetes negatively affect the quality of parent-child interaction. Nevertheless, there is little knowledge about the quality of interaction between parents and young children with T1DM, and the possible impact this may have on glycemic and psychosocial functioning of the child. While widely used global parent-child interaction observational methods available, there is a need for an observational tool specifically tailored to the interaction patterns of parents and children with T1DM. The main aim of this study is to construct a disease-specific observational method to assess diabetes-specific parent-child interaction. Additional aim is to explore whether the quality of parent-child interactions associated with the glycemic control, and psychosocial functioning (resilience, behavioral problems, and quality **METHODS/DESIGN:** First, we will examine which situations are most suitable for observing diabetes-specific interactions. Then,

these situations will be video-taped in a pilot study (N = 15). Observed behaviors are described rating scales, with each scale describing characteristics of parent-child interactional behaviors. Next, we apply the observational tool on a larger scale for further evaluation of the instrument (N = 120). The parents are asked twice two years in between) to fill out questionnaires about psychosocial functioning of their child with T1DM. Furthermore, glycemic control (HbA1c) will be obtained from their medical records. DISCUSSION: A disease-specific observational tool will enable the detailed assessment of the quality of diabetes-specific parent-child interactions. The availability of such a tool will facilitate future (intervention) studies that will more knowledge about impact of parent-child interactions on psychosocial functioning, and glycemic control of children with T1DM.

Odink RJ

Can one question be a useful indicator of psychosocial problems in adolescents with diabetes mellitus?

Maas-van Schaaijk NM*, Odink RJ, * Ultee K, van Baar AL.
Acta Paediatr. 2011 May;100(5):708-11. Epub 2011 Jan 18

Voor abstract zie: Kindergeneeskunde - Odink RJ

Impactfactor:

1.955

Putten ME van der

Een pasgeborene met een afwijkend perineum. [A neonate with an abnormal perineum]

Wieringa NM, van der Putten ME*

Ned Tijdschr Geneesk. 2011;155(36):A2096

A term newborn girl was examined directly post partum. Between the vulval fourchette (frenulum labiorum pudendi) the anterior side of the anus a perineal defect was noticed, known as a perineal groove. This is a congenital wet sulcus, lined with mucous membrane. Surgical correction is not necessary, but it may be an option for cosmetic reasons.

Impactfactor:

1.842

* = *Werkzaam in het Catharina Ziekenhuis*

Longziekten

Impactfactor: Borne BE van den
7.056 **Osteoporosis in COPD outpatients based on bone mineral density and vertebral fractures**

Graat-Verboom L*, Borne BE van den*, Smeenk FW*, Spruit MA, Wouters EF

J Bone Miner Res. 2011 Mar;26(3):561-8. Epub 2010 sep 27

Voor abstract zie: Longziekten - Graat-Verboom L

Impactfactor: Borne BE van den
18.97 **Randomized, placebo-controlled phase III study of docetaxel plus carboplatin with celecoxib and cyclooxygenase-expression as a biomarker for patients with advanced non-small-cell lung cancer: the NVALT-4 study**

Groen HJ, Sietsma H, Vincent A, Hochstenbag MM, Putten JW van, Berg A van den, Dalesio O, Biesma B, Smit Termeer A, Hiltermann TJ, Borne BE van den*, Schramel FM

J Clin Oncol. 2011 Nov 10;29(32):4320-6. Epub 2011 Oct 11

PURPOSE Cyclooxygenase-2 (COX-2) protein expression in patients with non-small-cell lung cancer (NSCLC) may not only a prognostic marker but also predictive for COX-2 inhibition. We hypothesized that COX-2 expression is associated with shorter survival and that celecoxib, being a potent COX-2 inhibitor, increases tumor response and survival. PATIENTS AND METHODS A phase III study was performed in patients with stage IIIB/IV NSCLC who pathologic confirmation, no prior chemotherapy, Eastern Cooperative Oncology Group performance status of 0 and adequate organ function. Treatment consisted of docetaxel and carboplatin every 3 weeks for five cycles. Patients were randomly assigned to receive celecoxib 400 mg or placebo twice daily. COX-2 expression on tumor cells was detected by immunohistochemistry. Primary end point was overall survival (OS). Results From July 2003 to December 2007, 561 patients were randomly assigned. Toxicity was mild, and no increase in cardiovascular events was observed. Tumor response was 38% in the celecoxib arm and 30% in the placebo arm (P = .08). Median progression-free survival was 4.5 months (95% CI, 4.0 to 4.8) for the celecoxib arm and 4.0 months (95% CI, 3.6 to 4.9) for placebo arm (hazard ratio [HR], 0.8; 95% CI, 0.6 to 1.1; P = .25). Median OS was 8.2 months (95% CI, 7.5 to 8.8) both treatment arms (HR, 0.9; 95% CI, 0.6 to 1.2; P = .32). COX-2 expression did not independently predict survival.

Benefit from celecoxib, restricted to patients with low COX-2 expression, was not significant when adjusted for prognostic factors. CONCLUSION In advanced NSCLC, celecoxib does not improve survival. In this study, COX-expression was not a prognostic biomarker and had no predictive value when celecoxib was added to chemotherapy.

Graat-Verboom L

Osteoporosis in COPD outpatients based on bone mineral density and vertebral fractures

Impactfactor:
7.056

Graat-Verboom L*, Borne BE van den*, Smeenk FW*, Spruit MA, Wouters EF

J Bone Miner Res. 2011 Mar;26(3):561-8. Epub 2010 sep 27

One of the extrapulmonary effects of chronic obstructive pulmonary disease (COPD) is osteoporosis. Osteoporosis characterized by a low bone mineral density (BMD) and microarchitectural deterioration. Most studies in COPD use dual energy absorptiometry (DXA) scan only to determine osteoporosis, therefore microarchitectural changes without a low BMD are missed. Aim of the current study was to determine the prevalence and correlates of osteoporosis in COPD patients based on DXA-scan, X-ray of the spine (X-spine) and the combination thereof. DXA-scan, X-spine, pulmonary function testing, body composition, 6-minutes walking distance, medical history and medication use assessed in 255 clinically stable COPD outpatients of a large teaching hospital in the Netherlands. Half of all patients had radiological evidence for osteoporosis. Combining the results of DXA-scans with X-spine augmented the proportion of COPD patients with osteoporosis compared to both methods separately. The prevalence of osteoporosis was not significantly different after stratification for GOLD-stage. Most patients with osteoporosis did not receive pharmacological treatment. Age, body mass index (BMI) and parathormone (PTH) were significant independent correlates for osteoporosis. Chest physicians should be aware of the high prevalence of osteoporosis in COPD even case of a low GOLD score. Especially in elder COPD patients with a low BMI and/or an increased PTH.

Smeenk FW

Osteoporosis in COPD outpatients based on bone mineral density and vertebral fractures

Impactfactor:
7.056

Graat-Verboom L*, Borne BE van den*, Smeenk FW*, Spruit MA, Wouters EF

J Bone Miner Res. 2011 Mar;26(3):561-8. Epub 2010 sep 27

Voor abstract zie: Longziekten - Graat-Verboom L

* = *Werkzaam in het Catharina Ziekenhuis*

Maag-, Darm-, Leverziekten

Impactfactor: **Friederich P ∞**
2.645 **Effects of intervention with sulindac and inulin/VSL#3 on mucosal and luminal factors in the pouch of patients with familial adenomatous polyposis**

Friederich P∞, Verschuur J, Heumen BW van, Roelofs HM, Berkhout M, Nagtegaal ID, Oijen MG van, Krieken JH van, Peters WH, Nagengast FM
Int J Colorectal Dis. 2011 May;26(5):575-82. Epub 2011 Jan 18

BACKGROUND/AIM: In order to define future chemoprevention strategies for adenomas or carcinomas in the pouch patients with familial adenomatous polyposis (FAP), a 4-weeks intervention with (1) sulindac, (2) inulin/VSL#3, and sulindac/inulin/VSL#3 was performed on 17 patients with FAP in a single center intervention study. Primary endpoints were the risk parameters cell proliferation and glutathione S-transferase (GST) detoxification capacity in the pouch mucosa; secondary endpoints were the short chain fatty acid (SCFA) contents, pH, and cytotoxicity of fecal water. METHODS: Before the start and at the end of each 4-week intervention period, six biopsies of the pouch were taken and feces was collected during 24 h. Cell proliferation and GST enzyme activity was assessed in the biopsies and SCFA contents, and cytotoxicity were assessed in the fecal water fraction. The three interventions (sulindac, inulin/VSL#3, sulindac/inulin/VSL#3) were compared with the Mann-Whitney U test. RESULTS: Cell proliferation was lower after sulindac or VSL#3/inulin, the combination treatment with sulindac/inulin/ VSL#3 showed the opposite. GST enzyme activity was increased after sulindac or VSL#3/inulin, the combination treatment showed the opposite effect. However, no significance was reached in all these measures. Cytotoxicity, and SCFA content of fecal water showed no differences at all among the three treatment groups. CONCLUSION: Our study revealed non-significant decreased cell proliferation and increased detoxification capacity after treatment with sulindac or VSL#3/inulin; however, combining both regimens did not show an additional effect.

Impactfactor: **Gilissen LP**
2.805 **Colonic stenting for malignant bowel obstruction: Cure or cause?**
Moenen FC*, Haak A van den*, Gilissen LP*
Dig Liver Dis. 2011 May;43(5):416

Impactfactor: **Gilissen LP**
1.842 **Een man met buikpijn en koorts. [A man with abdominal pain and fever]**
Kleijn MC de*, Gilissen LP*
Ned Tijdschr Geneeskd. 2011;155(42):A2797
Voor abstract zie: *Maag-Darm-Leverziekten - Kleijn MC de*

Impactfactor: **Kindt S ~**
6.882 **Longitudinal and cross-sectional factors associated with long-term clinical course in functional dyspepsia: a 5-year follow-up study**
Kindt S, Oudenhove L van, Mispelon L, Caenepeel P, Arts J, Tack J
Am J Gastroenterol. 2011 Feb;106(2):340-8. Epub 2010 Oct 26
OBJECTIVES: Functional dyspepsia (FD) is a heterogeneous disorder with different pathophysiological mechanisms underlying the symptom

pattern, but little is known about its clinical course. The aims of this study were to study long-term evolution of symptoms in a clinical FD population and to identify factors associated with outcome. METHODS: FD patients who previously underwent gastric function testing and filled out a dyspepsia symptom score (DSS) were contacted. At follow-up, patients indicated whether symptoms had worsened, remained unchanged, improved, or disappeared. Anxiety and depression, DSS, chronic fatigue symptoms, irritable bowel syndrome (IBS) comorbidity, and FD-specific quality of life (QoL) were assessed using mailed questionnaires. Bivariate associations between different patient characteristics and DSS and QoL at follow-up were tested; multiple linear regression was used to identify factors associated with the outcomes, both longitudinally and cross-sectionally. RESULTS: Data were obtained from 253 patients (84.9% of the eligible and consenting population (n=298) and of the original population (n=476)). The mean duration of follow-up was 68±2 months. Disappeared, improved, unchanged, and worsened symptoms were reported by 17.4, 38.3, 30.8, and 13.4% of the patients, respectively. Correlations between dyspepsia symptoms at initial visit and follow-up were small to moderate in magnitude. DSS initial visit and trait anxiety were longitudinally associated with DSS at follow-up, with a trend found for weight loss; depression, chronic fatigue, and IBS at follow-up were cross-sectionally associated with DSS. Trait anxiety, weight loss, and DSS at initial visit were independently associated with QoL at follow-up; depression as well as DSS and chronic fatigue at follow-up were cross-sectionally associated. CONCLUSIONS: About half of FD patients reported disappeared or improved symptoms after a mean follow-up years. Although stability of symptom levels is low to moderate, DSS at initial visit, trait anxiety, and initial weight are more strongly associated with outcome than gastric sensorimotor function.

Kindt S ~

Impactfactor:

Prevalence of and impact of pantoprazole on nocturnal heartburn and associated sleep complaints in patients with erosive esophagitis

1.536

Kindt S, Imschoot J, Tack J

Dis Esophagus. 2011 Nov;24(8):531-7. Epub 2011 Mar 18

Studies in the United States have revealed that gastroesophageal reflux disease (GERD) patients often suffer from nocturnal symptoms, sleep disturbance, and impaired quality of life. In a large subset of patients, these symptoms persist in spite of acid suppressive therapy. The aim of the present study was to assess the prevalence of heartburn and associated sleep complaints and the response to standard medical therapy with pantoprazole in primary and secondary care esophagitis patients in Belgium. Questionnaires were provided to consecutive patients presenting primary and secondary care physicians with esophagitis. The questionnaire evaluated the presence of typical reflux symptoms, alarm symptoms, risk factors, and sleep quality impairment as a result of reflux episodes. Results are shown as mean ± standard deviation and compared by Student's t-test or chi-square test. A total of 4061 primary 5261 secondary care patients (50% female, mean age 53 ±0.2 years, body mass index of 25.7 recruited. Eighty-four percent of

patients reported sleep disturbance attributable to nighttime reflux, including typical nighttime supine reflux symptoms (72%), difficulties to fall asleep (39%), waking up during the night (45%), morning fatigue (35%), and reflux symptoms when waking up in the morning (47%). Mild, moderate, or severe nighttime heartburn were reported by, respectively, 30, 35, and 12%, and these numbers were 26, 28, and 6% for nighttime regurgitation. Alcohol (19%), smoking (22%), higher esophagitis grades (grades 2, 3, and 4 in, respectively, 31, 7%), alarm symptoms (27%), and more severe heartburn and regurgitation during daytime were all significantly associated with all dimensions of sleep disturbance ($P < 0.0001$). Obesity was only related to symptoms in supine position and when waking up ($P < 0.0001$). After 1.4 ± 0.0 months of treatment with pantoprazole, any sleep disturbance had improved in more than 75% of patients, with resolution of nighttime heartburn and regurgitation respectively, 75 and 83%. The majority of patients presenting with reflux symptoms and esophagitis in primary or secondary care experience nighttime heartburn and regurgitation, and sleep disturbance by nighttime symptoms present in 84%. Smoking, alcohol use, higher grades of esophagitis, more severe typical reflux symptoms during daytime, and the presence of alarm symptoms are risk factors for GERD-related sleep disturbance. On standard therapy with pantoprazole, nighttime symptoms improved in more than 75%. These observations support a direct relationship between GERD and sleep disturbance.

Impactfactor: Kleijn MC de
1.842 **Een man met buikpijn en koorts. [A man with abdominal pain and fever]**
Kleijn MC de*, Gilissen LP*
Ned Tijdschr Geneesk. 2011;155(42):A2797

A 78-year-old man presented with obstipation, abdominal pain and fever. An abdominal CT-scan demonstrated collection of gas in the mesorectal fascia. A sigmoidoscopy showed a linear defect in the mucous membrane and haematoma. The patient stated he had rectally applied a thermometer as well as several enemas. The symptoms caused by a traumatic perforation.

Impactfactor: Schoon EJ
1.842 **Diabetes mellitus en levercirrose: prognostisch ongunstige combinatie. [Diabetes mellitus and cirrhosis of the liver: prognostically unfavourable combination]**

Wlazlo N*, Sauerwein HP, Schoon EJ*, Stehouwer CD, Bravenboer B*
Ned Tijdschr Geneesk. 2011;155:A2213
Voor abstract zie: Inwendige geneeskunde - Wlazlo N

Impactfactor: Schoon EJ
6.713 **Endoscopic trimodal imaging versus standard video endoscopy for detection of early Barrett's neoplasia: a multicenter, randomized, crossover study in general practice.**
Curvers WL, Vilsteren FG van, Baak LC, Böhmer C, Mallant-Hent RC, Naber AH, Oijen A van, Ponsioen CY, Scholten P, Schenk E, Schoon E*, Seldenrijk CA, Meijer GA, Kate FJ ten, Bergman JJ
Gastrointest Endosc. 2011 Feb;73(2):195-203. Epub 2010 Dec 18

BACKGROUND: Endoscopic trimodal imaging (ETMI) may improve detection of early neoplasia in Barrett's esophagus (BE). Studies with ETMI so far have been performed in tertiary referral settings only. **OBJECTIVE:** To compare ETMI with standard video endoscopy (SVE) for the detection of neoplasia in BE patients an intermediate-risk profile. **DESIGN:** Multicenter, randomized, crossover study. **SETTING:** Community practice. **PATIENTS AND METHODS:** BE patients with confirmed low-grade intraepithelial neoplasia (LGIN) underwent both ETMI and SVE in random order (interval 6-16 weeks). During ETMI, BE was inspected with high-resolution endoscopy followed by autofluorescence imaging (AFI). All visible lesions were then inspected with narrow-band imaging. During ETMI and SVE, visible lesions were sampled followed by 4-quadrant random biopsies every 2 cm. **MAIN OUTCOME MEASUREMENTS:** Overall histological yield of ETMI and SVE and targeted histological yield ETMI and SVE. **RESULTS:** A total of 99 patients (79 men, 63±10 years) underwent both procedures. ETMI had a significantly higher targeted histological yield because of additional detection of 22 lesions with LGIN/high-grade intraepithelial neoplasia (HGIN)/carcinoma (Ca) by AFI. There was no significant difference in the overall histological yield (targeted+random) between ETMI and SVE. HGIN/Ca was diagnosed only by random biopsies in 6 of 24 patients and 7 of 24 patients, with ETMI and SVE, respectively. **LIMITATIONS:** Inspection, with high-resolution endoscopy and AFI, was performed sequentially. **CONCLUSION:** ETMI performed in a community-based setting did not improve the overall detection of dysplasia compared with SVE. The diagnosis of dysplasia is still being made in a significant number of patients by random biopsies. Patients with a confirmed diagnosis of LGIN have a significant risk of HGIN/Ca. (Clinical trial registration number: ISRCTN91816824; NTR867.).

Schoon EJ

Esophageal carcinoma after sleeve gastrectomy

Scheepers AF*, Schoon EJ*, Nienhuijs SW*.

Surg Obes Relat Dis. 2011 Jul-Aug;7(4):e11-2. Epub 2010 Oct 30

Geen abstract beschikbaar

Impactfactor:

3.173

Schoon EJ

Randomized trial on endoscopic resection-cap versus multiband mucosectomy for piecemeal endoscopic resection early Barrett's neoplasia

Pouw RE, Vilsteren FG van, Peters FP, Herrero LA, Kate FJ ten, Visser M, Schenk BE, Schoon EJ*, Peters FT, Houben M, Bisschops R, Weusten BL, Bergman JJ

Gastrointest Endosc. 2011 Jul;74(1):35-43

BACKGROUND: Endoscopic resection (ER) is an important treatment for high-grade intraepithelial neoplasia and cancer in Barrett's esophagus. ER-cap requires submucosal lifting and positioning of a snare in the cap, making technically demanding and laborious. Multiband mucosectomy (MBM) uses a modified variceal band ligator and requires no submucosal lifting or positioning of a snare. **OBJECTIVE:** To compare ER-cap and MBM for piecemeal ER of early Barrett's neoplasia. **DESIGN:** Randomized, controlled trial. **SETTING:** Tertiary-care and community-care centers. **PATIENTS:** This study involved 84 patients (64 men; median age 70 years) undergoing piecemeal ER of Barrett's neoplasia. **INTERVENTION:** Piecemeal ER was

Impactfactor:

6.713

performed by using ER-cap (n = 42) or MBM (n = 42). MAIN OUTCOME MEASUREMENTS: Safety, efficacy, procedure time, costs. RESULTS: Procedure time (34 vs 50 minutes; P = .02) and costs (-240 vs -322; P < .01) were significantly less MBM compared with ER-cap. MBM resulted in smaller resection specimens than ER-cap (18 × 13 mm vs 20 × 15 P < .01). Maximum thicknesses of specimens and resected submucosa were not significantly different. There were clinically relevant bleeding episodes. Four perforations occurred, 3 with ER-cap, 1 with MBM (P = not significant). LIMITATIONS: Potential bias because of different levels of experience among participating endoscopists. CONCLUSION: Piecemeal ER with MBM is faster and cheaper than with ER-cap. Despite the lack of submucosal lifting, MBM appears not to be associated with more perforations. Although MBM results in slightly smaller specimens, the clinical relevance of this may be limited because depth of resections does not differ between both techniques. may thus be preferred for piecemeal ER of early Barrett's neoplasia. (Clinical trial registration number: NTR1435.).

Impactfactor: Stronkhorst A

10.614 High detection rate of adenomas in familial colorectal cancer

Meulen-de Jong AE van der, Morreau H, Becx MC, Crobach LF, Haastert M van, Hove WR ten, Kleibeuker JH, Meijssen MA, Nagengast FM, Rijk MC, Salemans JM, Stronkhorst A*, Tuynman HA, Vecht J, Verhulst ML, Vos tot Nederveen Cappel WH de, Walinga H, Weinhardt OK, Westerveld BD, Witte AM, Wolters HJ, Vasen HF, Collaborative group FACTS study Gut. 2011 Jan;60(1):73-6. Epub 2010 Sep 9

BACKGROUND AND AIMS: Subjects with one first-degree relative (FDR) with colorectal cancer (CRC) <50 years or two FDRs with CRC have an increased risk for CRC (RR 4-6). Current guidelines recommend colonoscopic surveillance of such families. However, information about the yield of surveillance is limited. The aim of the present study was to evaluate the outcome of surveillance and to identify risk factors for the development of adenomas. PATIENTS AND METHODS: Subjects were included if they fulfilled the following criteria: asymptomatic subjects between 45 and 65 years, with one FDR with CRC <50 years old (group A) or two FDRs with CRC diagnosed at age (group B). Subjects with a personal history of inflammatory bowel disease or colorectal surgery were excluded. RESULTS: A total of 551 subjects (242 male) met the selection criteria. Ninety-five subjects with a previous colonoscopy were excluded. Two of 456 remaining subjects (0.4%) were found to have a colorectal tumour (one and one carcinoid). Adenomas were detected in 85 (18.6%) and adenomas with advanced pathology in 37 subjects (8.1%). 30 subjects (6.6%) had multiple (>1) adenomas. Men were more often found to have an adenoma than (24% vs 14.3%; p=0.01). Adenomas were more frequent in group B compared with group A (22.0% vs 15.6%; p=CONCLUSION: The yield of colonoscopic surveillance in familial CRC is substantially higher than the yield of screening reported for the general population.

* = Werkzaam in het Catharinaziekenhuis

∞ = Ten tijde van publicatie werkzaam bij: Department of Gastroenterology, Radboud University Nijmegen Medical Centre

~ = Ten tijde van publicatie werkzaam bij: Department of Gastroenterology, University Hospitals Leuven

Medische microbiologie

Impactfactor: Jansz AR
16.144

Selective digestive tract decontamination and selective oropharyngeal decontamination and antibiotic resistance patients in intensive-care units: an open-label, clustered group-randomised, crossover study

Smet AM de, Kluytmans JA, Blok HE, Mascini EM, Benus RF, Bernardts AT, Kuijper EJ, Leverstein-van Hall MA, Jansz AR*, Jongh BM de, Asselt GJ van, Frenay IH, Thijsen SF, Conijn SN, Kaan JA, Arends JP, Sturm PD, Bootsma Bonten MJ

Lancet Infect Dis. 2011 May;11(5):372-80. Epub 2011 Mar 21

BACKGROUND: Previously, we assessed selective digestive tract decontamination (SDD) and selective oropharyngeal decontamination (SOD) on survival and prevention of bacteraemia in patients in intensive-care units. In this analysis, we aimed to assess effectiveness of these interventions for prevention of respiratory tract colonisation and bacteraemia with highly resistant microorganisms acquired in intensive-care units. **METHODS:** We did an open-label, clustered group-randomised, crossover study in 13 intensive-care units in the Netherlands between May, 2004, and July, 2006. Participants admitted to intensive-care units with an expected duration of mechanical ventilation of more than 48 h or an expected stay of more than 72 h received SOD (topical tobramycin, colistin, and amphotericin B in the oropharynx), SDD (SOD antibiotics in the oropharynx and stomach 4 days' intravenous cefotaxime), or standard care. The computer-randomised order of study regimens was applied an independent clinical pharmacist who was masked to intensive-care-unit identity. We calculated crude odds ratios (95% CI) for rates of bacteraemia or respiratory tract colonisation with highly resistant microorganisms in patients stayed in intensive-care units for more than 3 days (ie, acquired infection). This trial is registered at <http://isrctn.number> ISRCTN35176830. **FINDINGS:** Data were available for 5927 (>99%) of 5939 patients, of whom 5463 (92%) were in intensive-care more than 3 days. 239 (13%) of 1837 patients in standard care acquired bacteraemia after 3 days, compared with (9%) of 1758 in SOD (odds ratio 0.66, 95% CI 0.53-0.82), and 124 (7%) of 1868 in SDD (0.48, 0.38-0.60). Eight patients acquired bacteraemia with highly resistant microorganisms during SDD, compared with 18 patients (with episodes) during standard care (0.41, 0.18-0.94; rate reduction [RR] 59%, absolute risk reduction [ARR] 0.6%) during SOD (0.37, 0.16-0.85; RR 63%, ARR 0.7%). Of the patients staying in intensive-care units for more than we obtained endotracheal aspirate cultures for 881 (49%) patients receiving standard care, 886 (50%) receiving and 828 (44%) receiving SDD. 128 (15%) patients acquired respiratory tract colonisation with highly resistant microorganisms during standard care, compared with 74 (8%) during SDD (0.58, 0.43-0.78; RR 38%, ARR 5.5%) 88 (10%) during SOD (0.65, 0.49-0.87; RR 32%, ARR 4.6%). Acquired respiratory tract colonisation with Gramnegative bacteria or cefotaxime-resistant and colistin-resistant pathogens was lowest during SDD. **INTERPRETATION:** Widespread use of SDD and SOD in intensive-care units with low levels of antibiotic resistance justified.

Jansz AR

Acceleration of the direct identification of Staphylococcus aureus versus coagulase-negative staphylococci from culture material: a comparison of six bacterial DNA extraction methods

Loonen AJ, Jansz AR*, Kreeftenberg H*, Bruggeman CA, Wolffs PF, Brule AJ van den

Eur J Clin Microbiol Infect Dis. 2011 Mar;30(3):337-42. Epub 2010 Oct 24

To accelerate differentiation between Staphylococcus aureus and coagulase-negative staphylococci (CNS), this aimed to compare six different DNA extraction methods from two commonly used blood culture materials, i.e. BACTEC and BacT/ALERT. Furthermore, we analysed the effect of reduced blood culture incubation for the detection of staphylococci directly from blood culture material. A real-time polymerase chain reaction (PCR) duplex assay was to compare the six different DNA isolation protocols on two different blood culture systems. Negative blood culture material was spiked with methicillin-resistant S. aureus (MRSA). Bacterial DNA was isolated with automated extractor easyMAG (three protocols), automated extractor MagNA Pure LC (LC Microbiology Kit M(Grade)), a manual kit MolYsis Plus and a combination of MolYsis Plus and the easyMAG. The most optimal isolation method was used evaluate reduced bacterial incubation times. Bacterial DNA isolation with the MolYsis Plus kit in combination with specific B protocol on the easyMAG resulted in the most sensitive detection of S. aureus, with a detection limit of CFU/ml, in BacT/ALERT material, whereas using BACTEC resulted in a detection limit of 100 CFU/ml. An initial aureus or CNS load of 1 CFU/ml blood can be detected after 5 h of incubation in BacT/ALERT 3D by combining sensitive isolation method and the tuf LightCycler assay.

Impactfactor:

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Wegdam-Blans MC

Aanbevelingen commissie-Van Dijk te weinig concreet

Verduin CM, Tjhie HT, Wegdam-Blans MC*, Teijink JA*

Medisch Contact 2011; 4 januari : online only

Impactfactor:

-

Wegdam-Blans MC

Vascular Complications of Q-fever Infections

Wegdam-Blans MC*, Vainas T*, Sambeek MR van*, Cuypers PW*, Tjhie HT, Straten AH van*, Teijink JA*

Eur J Vasc Endovasc Surg. 2011 Sep;42(3):384-92. Epub 2011 May 31

INTRODUCTION: Coxiella burnetii is a strict intracellular pathogen causing Q fever, a worldwide zoonosis with extensive animal reservoir. Chronic Q fever infections are frequently associated with cardiovascular complications, mainly endocarditis, and also aortic aneurysms and vascular-graft infection. We present four cases of chronic Q infections and associated vascular complications, and review the literature to identify major symptoms and assess prevalence, treatment and outcome in these challenging patients. MATERIALS AND METHODS: The demographic and clinical data of four patients presenting at our unit were analysed. PubMed was searched to identify articles describing patients with chronic Q-fever-associated vascular complications. RESULTS: Combining our own with the published experience, 58 cases (49 male) of chronic Q-fever

Impactfactor:

2.872

associated vascular complications were identified. The average age of the patients was 64 years (range: 30-83 years). As many 26 patients had vascular graft infections (25 Dacron/polytetrafluoroethylene (PTFE), one homograft) and 32 had infected aneurysms. The majority of these patients presented with fever (n = 40) and/or pain (n = 43). Weight loss fatigue were seen in 25 and 14 patients, respectively. Aneurysm rupture, aorto-enteric fistulae and lower-limb embolisation were seen in nine, four and four patients, respectively. Concurrent endocarditis was seen in two patients, whereas, for 15 cases, this information was not available. Patients were treated with antibiotics for an average of months (range 1-54 months). Treatment of infected vascular segments was described in 50 patients. Ten patients treated conservatively whilst 40 underwent resection of the infected vessel and reconstruction with a graft. Major surgical complications (graft infection, n = 3; aorto-enteric fistula, n = 2; bleeding, n = 1; anastomotic leakage, n aortic dissection, n = 1; vertebral osteomyelitis, n = 3; graft thrombosis, n = 1; renal failure, n = 2; and pneumonia, 1) were reported in 11 cases (21%) and were not specified in 13. The overall mortality was 24% (14/58). Seven surgically treated patients died. Six of them died within 6 months of surgery and one patient at 3 years' follow-up. Seven out of 10 of the conservatively treated patients died within 3 years of diagnosis. CONCLUSION: Aneurysms associated with Q-fever infections tend to be complicated, requiring challenging surgical corrections, and long-term antibiotic treatment. Major complications and mortality rates are significant, especially conservatively treated patients.

* = *Werkzaam in het Catharina Ziekenhuis*

Medische Psychologie

Impactfactor:
1.955

Maas-van Schaaijk NM

Can one question be a useful indicator of psychosocial problems in adolescents with diabetes mellitus?

Maas-van Schaaijk NM*, Odink RJ*, Ultee K, Baar AL van

Acta Paediatr. 2011 May;100(5):708-11. Epub 2011 Jan 18

Aim: whether one question using a Visual Analogue Scale that indicates a rating from the worst (0) to the best possible (10) is related to standardized indices of psychosocial functioning and well-being in adolescents with diabetes mellitus type 1 (T1DM). Method: 18 symptoms were measured with the Youth Self-Report (YSR) and the Children's Depression Inventory (CDI). Results: Adolescents with T1DM rated their life less positive in comparison with their healthy peers ($F(1,269) 0.000$). Adolescents with T1DM who rated their life with a 6 or lower reported more depressive symptoms and behaviour problems ($F(2,131)$). One question the 'rate your life scale' identified most of the adolescents at risk of internalizing behaviour problems, especially depression. The results of this first step in exploring the validity of this question as a screening tool for psychological functioning are promising.

* = Werkzaam in het Catharina Ziekenhuis

Mondziekten, kaak- en aangezichtschirurgie

Impactfactor: Pijpe J∞
- **[Cosmetic facial surgery. The application of botulinum neurotoxin type A]**

Jaspers GW, Pijpe J∞, Schepers RH, Jansma J
Ned Tijdschr Tandheelkd. 2011 Oct;118(10):488-94

During the past decade, cosmetic facial treatments have become a standard element of the work of both dentists oral and maxillofacial surgeons. A shift has taken place from invasive surgical treatments in the direction of minimally invasive treatments. One of the most frequently carried out minimally invasive treatments is the treatment with botulinum neurotoxin type A. Since botulism was first described in the 18th century, this neurotoxin has undergone slow development to botox which is now manufactured. Botox attaches itself to the nerve endings and is subsequently taken up in the vesicles which contain acetylcholine. Botox blocks, there, the protein which is responsible for the production of acetylcholine. Botox reduces wrinkles in the skin at the muscles of facial expression and is therefore employed in areas with dynamic wrinkles. Appropriate areas include frown lines in the glabella, lines in the forehead, lateral periorbital lines, hyperactivity in the muscles of the upper lip, hypertrophy of the musculus masseter.

Impactfactor: Pijpe J∞
1.302 The use of botulinum toxin type A in cosmetic facial procedures

Jaspers GW, Pijpe J∞, Jansma J
Int J Oral Maxillofac Surg. 2011 Feb;40(2):127-33. Epub 2010 Oct 20

Over the past decade, facial cosmetic procedures have become more commonplace in dentistry and oral and maxillofacial surgery. An increasing number of patients seek minimal invasive procedures. One of the most requested procedures is treatment with botulinum toxin type A (BoNTA). Treatment of dynamic rhytids and lines with BoNTA effective and produces high rates of improvement with rapid onset and long duration of action (longer than 4 months some patients) compared with placebo. This paper considers the history and pharmacology of this neurotoxin, and focusses on the literature concerning the treatment of different facial areas with BoNTA. It also presents clinical guidelines on the treatment of glabellar lines, the frontalis muscle, peri-orbital lines, gummy smile and masseter hypertrophy. Knowledge about the mechanisms of action and the ability to use BoNTA as an adjunctive treatment mandatory for those working in the field of cosmetic facial surgery.

Impactfactor: Pijpe J∞
3.85 Treatment of mucosa-associated lymphoid tissue lymphoma in Sjogren's syndrome: a retrospective clinical study.

Pollard RP, Pijpe J∞, Bootsma H, Spijkervet FK, Kluin PM, Roodenburg JL, Kallenberg CG, Vissink A, Imhoff GW van
J Rheumatol. 2011 Oct;38(10):2198-208. Epub 2011 Aug 15

OBJECTIVE: To retrospectively analyze the clinical course of patients with mucosa-associated lymphoid tissue (MALT)-type lymphoma of the parotid gland and associated Sjögren's syndrome (SS). METHODS: All consecutive

patients with SS and MALT lymphoma (MALT-SS) diagnosed in the University Medical Center Groningen between January 1997 and January 2009 were analyzed. Clinical course and treatment outcome SS and MALT lymphoma were evaluated. RESULTS: From a total of 329 patients with SS, 35 MALT-SS patients were identified, with a median followup of months (range 16-153 mo). MALT lymphoma was localized in the parotid gland in all cases. Treatment consisted "watchful waiting" (n = 10), surgery (n = 3), radiotherapy (n = 1), surgery combined with radiotherapy (n = 2), rituximab only (n = 13), or rituximab combined with chemotherapy (n = 6). Complete response was observed in 14 patients, partial response in 1 patient, and stable disease in 20 patients. In 6 of 7 patients with initially high SS disease activity (M-protein, cryoglobulins, IgM rheumatoid factor > 100 KIU/l, severe extraglandular manifestations), MALT lymphoma progressed and/or SS disease activity increased after a median followup of 39 months (range 4-98 mo), necessitating retreatment. Only 1 patient with MALT who had low SS disease activity showed progression of lymphoma when untreated. CONCLUSION: An initially high SS disease activity likely constitutes an adverse prognostic factor for progression lymphoma and/or SS. Such patients may require treatment for both MALT lymphoma and SS. In SS patients with localized asymptomatic MALT lymphoma and low SS disease activity, a "watchful waiting" strategy seems justified.

Zecha PJ

Applicability of equine hydroxyapatite collagen (eHAC) bone blocks for lateral augmentation of the alveolar crest. histological and histomorphometric analysis in rats.

Impactfactor:
1.302

Zecha PJ*, Schortinghuis J, Wal JE van der, Nagursky H, Broek KC van den*, Sauerbier S, Vissink A, Raghoobar

Int J Oral Maxillofac Surg. 2011 May;40(5):533-42. Epub 2011 Feb 23

This study assessed the mechanical characteristics, biocompatibility and osteoconductive properties of an equine hydroxyapatite collagen (eHAC) bone block when applied as a bone substitute for lateral augmentation of rat mandible. 96 rats underwent lateral augmentation of the mandible, using two substitute bone blocks (eHAC or Bio-Oss® spongiosa) or autologous bone grafts. Signs of inflammation, amount of bone formation and ingrowth of bone into bone blocks were assessed at 1 and 3 months. eHAC blocks were mechanically rigid and could be fixed firmly and easily. Bio-Oss® spongiosa blocks were brittle and fixation was difficult. eHAC and Bio-Oss® spongiosa blocks were biocompatible and induced few or no signs of inflammation. Inflammation prevalence between the groups statistically different. Bone formation and bone growth into the blocks was significantly higher in eHAC than Bio-spongiosa blocks, but lower than in autologous bone grafts (after 1 and 3 months). Regression analysis showed the autologous bone graft predicted new bone formation at both time points. The eHAC block was only a predictor month; a trend was found at 3 months. The application of biodegradable membranes was not related to more bone ingrowth

* = *Werkzaam in het Catharina Ziekenhuis.*

∞ = *Ten tijde van publicatie werkzaam bij: Department of Oral and Maxillofacial Surgery, University Medical Center Groningen, Groningen*

Neurologie

Impactfactor:
2.80

Gons RA

Causes and consequences of cerebral small vessel disease. The RUN DMC study: a prospective cohort study. rationale and protocol

Norden AG van, Laat KF de, Gons RA*, Uden IW van, Dijk EJ van, Oudheusden LJ van, Esselink RA, Bloem BR, Engelen BG, Zwarts MJ, Tendolkar I, Olde-Rikkert MG, Vlugt MJ van der, Zwiers MP, Norris DG, Leeuw FE de

BMC Neurol. 2011 Feb 28;11:29

BACKGROUND: Cerebral small vessel disease (SVD) is a frequent finding on CT and MRI scans of elderly people is related to vascular risk factors and cognitive and motor impairment, ultimately leading to dementia or parkinsonism some. In general, the relations are weak, and not all subjects with SVD become demented or get parkinsonism. might be explained by the diversity of underlying pathology of both white matter lesions (WML) and the normal appearing white matter (NAWM). Both cannot be properly appreciated with conventional MRI. Diffusion tensor imaging (DTI) provides alternative information on microstructural white matter integrity. The association between SVD, its microstructural integrity, and incident dementia and parkinsonism has never been investigated.

METHODS/DESIGN: The RUN DMC study is a prospective cohort study on the risk factors and cognitive and motor consequences of brain changes among 503 non-demented elderly, aged between 50-85 years, with cerebral SVD. First follow up is being prepared for July 2011. Participants alive will be included and invited to the research centre undergo a structured questionnaire on demographics and vascular risk factors, and a cognitive, and motor, assessment, followed by a MRI protocol including conventional MRI, DTI and resting state fMRI. **DISCUSSION:** The follow up of the RUN DMC study has the potential to further unravel the causes and possibly predict the consequences of changes in white matter integrity in elderly with SVD by using relatively new imaging

techniques. When proven, these changes might function as a surrogate endpoint for cognitive and motor function future therapeutic trials. Our data could furthermore provide a better understanding of the pathophysiology of cognitive and motor disturbances in elderly with SVD. The execution and completion of the follow up of our study might ultimately unravel the role of SVD on the microstructural integrity of the white matter in the transition from "normal" aging to cognitive and motor decline and impairment and eventually to incident dementia and parkinsonism.

Impactfactor:
9.230

Gons RA

Cigarette smoking is associated with reduced microstructural integrity of cerebral white matter

Gons RA*, Norden AG van, Laat KF de, Oudheusden LJ van, Uden IW van, Zwiers MP, Norris DG, Leeuw FE de

Brain. 2011 Jul;134(Pt 7):2116-24

Cigarette smoking doubles the risk of dementia and Alzheimer's disease.

Various pathophysiological pathways been proposed to cause such a cognitive

decline, but the exact mechanisms remain unclear. Smoking may affect microstructural integrity of cerebral white matter. Diffusion tensor imaging is known to be sensitive for microstructural changes in cerebral white matter. We therefore cross-sectionally studied the relation between smoking behaviour (never, former, current) and diffusion tensor imaging parameters in both normal-appearing white matter and white matter lesions as well as the relation between smoking behaviour and cognitive performance. A structured questionnaire was used to ascertain the amount and duration of smoking in 503 subjects with small-vessel disease, aged between 50 and 85 years. Cognitive function was assessed with a neuropsychological test battery. All subjects underwent 1.5 Tesla magnetic resonance imaging. Using diffusion tensor imaging, fractional anisotropy and mean diffusivity were calculated in both normal-appearing white matter and white matter lesions. A history of smoking associated with significant higher values of mean diffusivity in normal-appearing white matter and white matter lesions (P -trend for smoking status = 0.02) and with poorer cognitive functioning compared with those who never smoked. Associations with smoking and loss of structural integrity appeared to be strongest in normal-appearing white matter. Furthermore, the duration of smoking cessation was positively related to lower values of mean diffusivity and higher values of fractional anisotropy in normal-appearing white matter [β = -0.004 (95% confidence interval -0.007 to 0.000; P = 0.03) and β = 0.019 (95% confidence interval 0.001-0.038; P = 0.04)]. Fractional anisotropy and mean diffusivity values in normal-appearing white matter of subjects who had quit smoking for >20 years were comparable with subjects who had never smoked. These data suggest that smoking affects the microstructural integrity of cerebral matter and support previous data that smoking is associated with impaired cognition. Importantly, they suggest quitting smoking may reverse the impaired structural integrity.

Gons RA

Diffusion tensor imaging and gait in elderly persons with cerebral small vessel disease

Impactfactor:
5.756

Laat KF de, Norden AG van, Gons RA*, Oudheusden LJ van, Uden IW van, Norris DG, Zwiers MP, Leeuw FE de

Stroke. 2011 Feb;42(2):373-9. Epub 2010 Dec 30

BACKGROUND AND PURPOSE: Although cerebral small vessel disease, including white matter lesions (WML) lacunar infarcts, is associated with gait disturbances, not all individuals with small vessel disease have these disturbances. Identical-appearing WML on MRI could reflect different degrees of microstructural integrity. Moreover, conventional MRI does not assess the integrity of normal-appearing white matter (NAWM). We therefore investigated the relation between white matter integrity assessed by diffusion tensor imaging in WML, NAWM, several regions interest, and gait. **METHODS:** A total of 484 nondemented elderly persons between 50 and 85 years old with cerebral small vessel disease were included in this analysis and underwent MRI and diffusion tensor imaging scanning. Mean diffusivity fractional anisotropy within WML, NAWM, and regions of interest were related to quantitative and semiquantitative parameters. **RESULTS:** Mean diffusivity.in the WML was inversely related with gait (velocity =-0.15;

P=0.002). For the fractional anisotropy, this relation was less evident. The same was found in the NAWM (velocity = -0.21; P < 0.001) and for parameters also after additional adjustment for WML and lacunar infarcts. CONCLUSIONS: This study indicates that integrity of both WML and NAWM, beyond the detection limit of conventional MRI, is associated with gait disturbances.

Impactfactor:
5.756

Gons RA

Frontal and temporal microbleeds are related to cognitive function: the Radboud University Nijmegen Diffusion Tensor and Magnetic Resonance Cohort (RUN DMC) Study

Norden AG van, Berg HA van den, Laat KF de, Gons RA*, Dijk EJ van, Leeuw FE de

Stroke. 2011 Dec;42(12):3382-6. Epub 2011 Sep 22

BACKGROUND AND PURPOSE: Cerebral small vessel disease, including white matter lesions and lacunar infarcts, related to cognitive impairment. Cerebral microbleeds (MBs) are increasingly being recognized as another manifestation of small vessel disease and are also related to cognitive function. However, it remains unclear whether this relation is independent of white matter lesions and lacunar infarcts and if location of MB plays a role. We investigated the relation between the presence, number, and location of MB and cognitive performance adjusted white matter lesions and lacunar infarcts. METHODS: Presence, number, and location of MB were rated on a gradient echo T2*-weighted MRI in 500 nondemented elderly patients with small vessel disease. Cognitive performance was assessed in different domains. Analyses were adjusted for age, sex, education, depressive symptoms, total brain volume, white matter lesion volume, and lacunar and territorial infarcts. RESULTS: Mean age was 65.6 years (SD 8.8) and 57% were male. MBs were present in 10.4% of the participants. Subjects with MBs were significantly older, had a higher white matter lesion volume, and more lacunar infarcts (P < 0.001). Presence and number of MBs were related to global cognitive function (-0.10, P = 0.008; -0.20, P = psychomotor speed (-0.10, P = 0.012; -0.19, P = 0.006), and attention (-0.10, P = 0.02; -0.205, P = 0.001). The relations with cognitive performance were mainly driven by frontal, temporal, and strictly deep located MB. CONCLUSIONS: Frontal and temporal located MBs correlate with cognitive performance in nondemented elderly patients independent of coexisting other small vessel disease-related lesions. MBs are clinically not silent and may help to understand the role of vascular disease in cognitive decline.

Impactfactor:
5.756

Gons RA

Microbleeds are independently related to gait disturbances in elderly individuals with cerebral small vessel disease

Laat KF de, Berg HA van den, Norden AG van, Gons RA*, Olde Rikkert MG, Leeuw FE de

Stroke. 2011 Feb;42(2):494-7. Epub 2010 Dec 16

BACKGROUND AND PURPOSE: Cerebral small vessel disease (SVD), including white matter lesions and lacunar infarcts, is related to gait disturbances. Microbleeds (MB) are another manifestation of SVD, but their clinical impact remains unclear. We therefore investigated the relation between the number

and location of MB and gait, independently of white matter lesions and lacunar infarcts. METHODS: MRI scanning was performed in 485 nondemented elderly individuals with cerebral SVD. The number location of MB were rated. Gait was assessed with a GAITRite system and the Tinetti and Timed-Up-and-Go tests. were related to gait parameters by age, height, total brain volume, white matter lesions, and number of lacunar linear regression. RESULTS: A higher number of MB was independently related to a shorter stride length and poorer performance Tinetti and Timed-Up-and-Go tests. These relations seemed to be explained by MB in the temporal and frontal lobe and basal ganglia, including the thalamus. CONCLUSIONS: This study offers the first indication that MB may be associated with gait disturbances, independently of other coexisting markers of SVD.

Hengstman G

Sudden cardiac death in multiple sclerosis caused by active demyelination of the medulla oblongata

Hengstman G*, Kuesters B

Mult Scler. 2011 Sep;17(9):1146-8. Epub 2011 May 17

Cardiovascular autonomic dysfunction is not uncommon in multiple sclerosis (MS) and is related to the involvement the vegetative areas of cardiac innervations in the medulla oblongata. It has been suggested that this may contribute the occurrence of sudden death in MS. In this case report, we present a patient with active relapsing-remitting MS died unexpectedly due to the sudden onset of cardiac arrhythmias. Post-mortem examination showed the presence active demyelinating lesions in the medulla oblongata. As far as we know, this is the first case report clearly linking sudden cardiac death to active MS on the histopathological level.

Impactfactor:
4.230

Rijk MC de

De diagnostische waarde van het teken van Tincl

Rijk MC de*

Tijdschr Neurol Neurochir 2011;112(6):297-9

Geen abstract beschikbaar

Impactfactor:
-

Rijk MC de

Upper and extra-motoneuron involvement in early motoneuron disease: a diffusion tensor imaging study

Graaff MM van der, Sage CA, Caan MW, Akkerman EM, Lavini C, Majoie CB, Nederveen AJ, Zwinderman AH, Brugman F, Berg LH van den, Rijk MC de*, Doorn PA van, Hecke W van, Peeters RR, Robberecht W, Sunaert Visser M.

Brain. 2011 Apr;134(Pt 4):1211-28. Epub 2011 Feb 28

Motoneuron disease is a term encompassing three phenotypes defined largely by the balance of upper versus lower motoneuron involvement, namely amyotrophic lateral sclerosis, primary lateral sclerosis and progressive muscular atrophy. However, neuroradiological and pathological findings in these phenotypes suggest that degeneration may exceed the neuronal system upon which clinical diagnosis is based. To further delineate the phenotypes

Impactfactor:
9.230

within motoneuron disease spectrum, this controlled study assessed the upper- and extra-motoneuron white matter involvement in cohorts of patients with motoneuron disease phenotypes shortly after diagnosis by comparing diffusion tensor imaging data of the different cohorts to those of healthy controls and directly between the motoneuron disease phenotypes (in anisotropy changes over time). Combined use of diffusion tensor tractography of the corticospinal tract and whole-voxel-based analysis allowed for comparison of the sensitivity of these techniques to detect white matter involvement motoneuron disease. The voxel-based analysis demonstrated varying extents of white matter involvement in different phenotypes of motoneuron disease, albeit in quite similar anatomical locations. In general, fractional anisotropy reductions were modest in progressive muscular atrophy and most extensive in primary lateral sclerosis. The most extensive patterns of fractional anisotropy reduction were observed over time in the voxel-based analysis, indicating progressive extra-motor white matter degeneration in limb- and bulbar onset amyotrophic lateral sclerosis and in progressive muscular atrophy. The observation of both upper motor and extra-motoneuron involvement in all phenotypes of motoneuron disease shortly after diagnosis suggests that these are all part of a single spectrum multisystem neurodegenerative disease. Voxel-based analysis was more sensitive to detect longitudinal changes diffusion tensor tractography of the corticospinal tract. Voxel-based analyses may be particularly valuable in the evaluation of motor and extra-motor white matter involvement in the early symptomatic stages of motoneuron disease, and for monitoring the spread of pathology over time

Impactfactor:
1.842

Rijk, MC de
Lage rugpijn en MRI-afwijkingen: atypische polymyalgia rheumatica.
[Low back pain and MRI-abnormalities: atypical polymyalgia
rheumatica]

Wlazlo N*, Bravenboer B*, Pijpers R*, de Rijk MC*

Ned Tijdschr Geneeskd. 2011;155:A2300

Voor abstract zie: *Inwendige geneeskunde - Wlazlo N*

* = *Werkzaam in het Catharina Ziekenhuis*

Nucleaire geneeskunde

Impactfactor: Edelbroek MA

6.495

Modified-release recombinant human TSH (MRrhTSH) augments the effect of ¹³¹I therapy in benign multinodular goiter: results from a multicenter international, randomized, placebo-controlled study

Graf H, Fast S, Pacini F, Pinchera A, Leung A, Vaisman M, Reiners C, Wemeau JL, Huysmans D*, Harper W*, Driedger A, Noemberg de Souza H, Castagna MG, Antonangeli L, Braverman L, Corbo R, Düren C, Proust-Lemoine E, Edelbroek MA*, Marriott C, Rachinsky I, Grupe P, Watt T, Magner J, Hegedus L.

J Clin Endocrinol Metab. 2011 May;96(5):1368-76. Epub 2011 Feb 23

Voor abstract zie: *Nucleaire geneeskunde – Huysmans DA*

Impactfactor: Huysmans D

6.495

Modified-release recombinant human TSH (MRrhTSH) augments the effect of ¹³¹I therapy in benign multinodular goiter: results from a multicenter international, randomized, placebo-controlled study

Graf H, Fast S, Pacini F, Pinchera A, Leung A, Vaisman M, Reiners C, Wemeau JL, Huysmans D*, Harper W, Driedger A, Noemberg de Souza H, Castagna MG, Antonangeli L, Braverman L, Corbo R, Düren C, Proust-Lemoine E, Edelbroek MA*, Marriott C, Rachinsky I, Grupe P, Watt T, Magner J, Hegedus L.

J Clin Endocrinol Metab. 2011 May;96(5):1368-76. Epub 2011 Feb 23

Background: Recombinant human TSH (rhTSH) can be used to enhance (¹³¹I) therapy for shrinkage of multinodular goiter (MG). Objective, Design, and Setting: The objective of the study was to compare the efficacy and safety of and 0.03 mg modified-release (MR) rhTSH as an adjuvant to (¹³¹I) therapy, vs. (¹³¹I) alone, in a randomized, placebo-controlled, international, multicenter study. Patients and Intervention: Ninety-five patients (57.2 ± 9.6 yr 85% females, 83% Caucasians) with MG (median size 96.0, range 31.9-242.2 ml) were randomized to receive placebo (group A, n = 32), MRrhTSH 0.01 mg (group B, n = 30), or MRrhTSH 0.03 mg (group C, n = 33) 24 h before a calculated activity of (¹³¹I). Main Outcome Measures: The primary end point was a change in thyroid volume (by computerized tomography scan, at 6 months). Secondary end points were the smallest cross-sectional area of the trachea; thyroid function tests; Thyroid Quality of Life Questionnaire; electrocardiogram; and hyperthyroid symptom scale. Results: Thyroid volume decreased significantly in all groups. The reduction was comparable in groups A (23.1 ± 8.8 and 23.3 ± 16.5%, respectively; P = 0.95). In group C, the reduction (32.9 ± 20.7%) was more pronounced than in groups A (P = 0.03) and B. The smallest cross-sectional area of the trachea increased in all groups: 3.8 in A, 4.8 ± 3.3% in B, and 10.2 ± 33.2% in C, with no significant difference among the groups. Goiter-related symptoms were effectively reduced and there were no major safety concerns. Conclusion: In this dose-selection study, 0.03 MRrhTSH was the most efficacious dose as an adjuvant to (¹³¹I) therapy of MG. It was well tolerated and significantly augmented the effect of (¹³¹I)

therapy in the short term. Larger studies with long-term follow-up are warranted.

Pijpers R

Lage rugpijn en MRI-afwijkingen: atypische polymyalgia rheumatica. [Low back pain and MRI-abnormalities: atypical polymyalgia rheumatica]

Impactfactor:
1.842

Wlazlo N*, Bravenboer B*, Pijpers R*, de Rijk MC*

Ned Tijdschr Geneesk. 2011;155:A2300

Voor abstract zie: Inwendige geneeskunde - Wlazlo N

Roef M.∞

Oncocytoma of the parotid gland causing false-positive result on I-131 whole-body scintigraphy

Impactfactor:
3.766

Broekhuizen-de Gast H, van Isselt H, Roef M, Lam M

Clin Nucl Med. 2011 Aug;36(8):701-3

A 50-year-old patient underwent near-total thyroidectomy in 1997 because of a right lobe of the thyroid gland, followed by I-131 ablation (3700 MBq).

Follow-up of I-131 whole-body scintigraphy 9 years showed pathologic uptake at the left side of the neck. Histopathologic analyses of the resected specimen suggested a cystic metastasis within the parotid gland, probably originating from thyroid carcinoma. However, the patient had been disease-free for over 9 years and thyroglobulin was undetectable in plasma. Revision of the specimen with complementary immunohistochemical staining revealed histopathologic aspects more typical of oncocytoma.

Roef M∞

Suppression of 18F-FDG myocardial uptake using a fat-Allowed, carbohydrate-restricted diet

Impactfactor

Balink H, Hut E, Pol T, Flokstra FJ, Roef M∞

J Nucl Med Technol. 2011 Sep;39(3):185-9. Epub 2011 Jul 27

Patients prepared by the generally used fasting protocol show variable myocardial (18)F-FDG uptake, which may in difficult interpretation of mediastinal (18)F-FDG uptake. This retrospective study described the effect of a 1-d carbohydrate-restricted diet on myocardial (18)F-FDG uptake.

METHODS: The study included 100 patients on a carbohydrate-restricted diet from the Medical Center Leeuwarden and 100 patients on an unrestricted diet from the University Medical Center of Utrecht. A visual uptake scale was with category 0 indicating myocardial uptake less than liver uptake, category 1 indicating myocardial uptake comparable to liver uptake, and category 2 indicating myocardial uptake considerably higher than liver uptake. **RESULTS:** After a carbohydrate-restricted diet, 68% of patients had a homogeneously low myocardial uptake of (category 0), 14% had moderate myocardial uptake (category 1), and 18% had homogeneously intense myocardial uptake (category 2). Without a carbohydrate-restricted diet, 69% of patients showed a homogeneously intense myocardial uptake (category 2), 16% a moderate myocardial uptake (category 1), and 15% a homogeneously low myocardial uptake (category 0). **CONCLUSION:** A fat-allowed, carbohydrate-restricted diet

starting the day before (18)F-FDG administration suppresses myocardial (18)F-FDG uptake satisfactorily.

* = *Werkzaam in het Catharina Ziekenhuis*

∞ = *Ten tijde van publicatie werkzaam bij: Department of Nuclear Medicine and Radiology, University Medical Centre of Utrecht, Utrecht, Netherland*

Onderwijs en Onderzoek

Impactfactor: **Broek KC van den**
2.293 **Body mass index predicts new-onset atrial fibrillation after cardiac surgery**

Bramer S*, Straten AH van*, Soliman Hamad MA*, Berreklouw E*, Broek KC van den*, Maessen JG

Eur J Cardiothorac Surg. 2011 Nov;40(5):1185-90. Epub 2011 Mar 29

Voor abstract zie: Cardiothoracale chirurgie - Bramer S

Impactfactor: **Broek KC van den**
r: 3.680 **Effect of cardiac resynchronization therapy-defibrillator implantation on health status in patients with mild versus moderate symptoms of heart failure**

Versteeg H, Broek KC van den*, Theuns DA, Mommersteeg PM, Alings M, Voort PH van der*, Jordaens L, Pedersen SS

Am J Cardiol. 2011 Oct 15;108(8):1155-9. Epub 2011 Aug 6

Indications for cardiac resynchronization therapy (CRT) have expanded to include patients with mild congestive failure (CHF) symptoms (New York Heart Association [NYHA] functional class II) because of a demonstrated morbidity reduction in this subset of patients. However, little is known about postimplantation changes in their self-reported status compared to patients with more severe CHF. The aim of this study was to examine the influence of baseline NYHA functional class on health status changes in the first 12 months after implantation of a CRT with defibrillator (CRT-D). Patients with first-time CRT-D (n = 169, 75% men, mean age 62.1 ± 10.7 years) were recruited from 3 hospitals. All patients completed the SF-36 Health Survey at the time of implantation and at 12 months after implantation. Mildly (NYHA functional class II; n = 54) and moderately (NYHA functional class III; n = 115) symptomatic CHF patients showed improved health status in several SF-36 domains at 12 months after CRT-D. When adjusting baseline health status, the groups did not differ with respect to their health status improvement over time, but after adjustment for demographic and clinical factors, the mildly symptomatic patients reported relatively more improvement in general health (B = 10.15, SE = 3.31, p = 0.003) and social functioning (B = 10.64, SE = 3.74, p = 0.005). In conclusion, NYHA functional class II patients reported equal, and in some domains even more, improvement in status compared to NYHA functional class III patients at 12 months after CRT-D. Hence, CRT not only prevents adverse events in patients with mild CHF symptoms but also improves health status.

Impactfactor: **Broek KC van den**
1.839 **Gender disparities in anxiety and quality of life in patients with an implantable cardioverter-defibrillator**

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

Europace. 2011 Dec;13(12):1723-30. Epub 2011 Aug 6

Voor abstract zie: Cardiologie - Habibovic M

Broek KC van den

Applicability of equine hydroxyapatite collagen (eHAC) bone blocks for lateral augmentation of the alveolar crest. histological and histomorphometric analysis in rats

Impactfactor:
1.302

Zecha PJ*, Schortinghuis J, Wal JE van der, Nagursky H, Broek KC van den*, Sauerbier S, Vissink A, Raghoobar

Int J Oral Maxillofac Surg. 2011 May;40(5):533-42. Epub 2011 Feb 23

Voor abstract zie: Mondziekten en kaakchirurgie - Zecha P

Broek KC van den

New-onset postoperative atrial fibrillation predicts late mortality after mitral valve surgery

Impactfactor:
3.039

Bramer S*, Straten AH van*, Soliman Hamad MA*, Broek KC van den*, Maessen JG, Berreklouw E*

Ann Thorac Surg. 2011 Dec;92(6):2091-6. Epub 2011 Oct 5

Voor abstract zie: Cardiothoracale chirurgie -Bramer S

Broek, KC van den

The distressed (Type D) personality in both patients and partners enhances the risk of emotional distress in patients with an implantable cardioverter defibrillator

Impactfactor:
3.740

van den Broek KC*, Versteeg H., Erdman RA., Pedersen SS

Journal of Affective Disorders, 2011:130 ; 447- 453

BACKGROUND: A subgroup of patients with an implantable cardioverter defibrillator (ICD) experiences emotional distress. This may be related to partner factors. We examined the impact of the personality of the partner (i.e., the distressed (Type D) personality) in combination with that of the patient on anxiety and depression levels in ICD patients. **METHODS:** Consecutively implanted ICD patients (N=281; 80.1% men; mean age=58.3±11.0) and their partners (N=281; 20.6% men; mean age=56.5±11.7) completed the Type D Scale at baseline; patients also completed the Hospital Anxiety and Depression Scale at baseline and 6 months post-implantation. **RESULTS:** ANOVA for repeated measures, using the Type D main effects and the interaction effect, showed that interaction time by Type D patient by Type D partner was significant ($F(1,277)=7.0, p=.009$) for depression as outcome, but not for anxiety ($F(1,277)=3.1, p=.08$). Post-hoc comparisons revealed that Type D patients with a D partner ($n=23/281, 8.2\%$) experienced the highest depression levels compared to other personality combinations ($p<.05$). **LIMITATIONS:** The group of Type D patients with a Type D partner was rather small. **CONCLUSIONS:** ICD patients with a Type D personality report more depressive symptoms, but not anxiety, if the partner also has a Type D personality. This may be due to poor communication and lack of emotional support in relationship. These results emphasize the importance of taking into account the psychological profile of the partner the management and care of the ICD patient, and to direct behavioural support not only at the ICD patient but also the partner.

Impactfactor: **Dierick-van Daele AT**
1.228 **Is it optimally viable to employ the nurse practitioner in general practice?**

Dierick-van Daele AT*, Steuten LM, Romeijn A, Vrijhoef HJ
Journal of Clinical Nursing, 2011 ; 20 (3-4): 518-29

AIMS: This article provides insight into the potential economic viability of nurse practitioner employment in Dutch general practices. BACKGROUND: General practitioners face the challenging task of finding the most efficient and effective mix of professionals in general practice to accommodate future care demands within scarce health care budgets. To enable informed decision-making about skill mix issues, economic information is needed. DESIGN: Discursive paper. METHOD: A descriptive and explorative design was chosen to study the economic viability of nurse practitioner employment in general practice. The conditions under which the nurse practitioner is able to earn back his/her own cost of employment were identified. Preferences and expectations of general practitioners and health insurers about nurse practitioner reimbursement were made transparent. RESULTS: Although general practitioners and health insurers acknowledge the importance of the nurse practitioner accommodating primary care demands, they have polarised views about reimbursement. The employment of nurse practitioners is seldom economically viable in current practices. It requires a reallocation of (80% of) the general practitioner's freed up time towards practice growth (12% number of patients). CONCLUSION: The economic viability of the nurse practitioner has proven difficult to achieve in every day health practice. This study provided insight into the complex interaction of the (cost) parameters that result in economic viability and feeds a further discussion about the content of the nurse practitioner role in general practice based optimal quality of care vs. efficiency. RELEVANCE TO CLINICAL PRACTICE: Effective and efficient health care can only be provided if the actual care needs of a population provide the basis for deciding which mix of professionals is best equipped to deal with the changing and increasing demand of care. A macro-level intervention is needed to help a broad-scale introduction nurse practitioner in general practice.

Impactfactor: **Martens EJ**
- **Which method of estimating renal function is the best predictor of mortality after coronary artery bypass grafting?**

Straten AH van*, Soliman Hamad MA*, Koene BM*, Martens EJ*, Tan ME*, Berreklouw E*, Zundert AA van*
Neth Heart J. 2011 Nov;19(11):464-9

Voor abstract zie: Cardiothoracale chirurgie - Straten AH van

Impactfactor: **Martens EJ**
3.608 **Effect of duration of red blood cell storage on early and late mortality after coronary artery bypass grafting**

Straten AH van*, Soliman Hamad MA*, Zundert AA van*, Martens EJ*, Woorst JF ter*, Wolf AM, Scharnhorst V*
J Thorac Cardiovasc Surg. 2011 Jan;141(1):231-7 Epub 2010 Jul 9

voor abstract zie: Cardiothoracale chirurgie - Straten AH van

* = Werkzaam in het Catharina Ziekenhuis

Orthopedie

Impactfactor: Meermans G

1.857

Long-term outcome after meniscal repair

Tengrootenhuysen M, Meermans G*, Pittoors K*, Riet R van, Victor J
Knee Surg Sports Traumatol Arthrosc. 2011 Feb;19(2):236-41. Epub 2010 Oct 15

PURPOSE: The purpose of this study was to analyse the clinical and radiological results of meniscal repairs and identify factors that correlate with the success of this procedure. **METHODS:** A retrospective review of 119 meniscal repairs was completed. The average follow-up was 70 months. Successful meniscal repairs were observed critically in terms of radiographic changes and clinical outcomes and compared with failed meniscal repairs. **RESULTS:** The overall success rate of meniscal repairs was 74%. Meniscal repairs that were performed within weeks of injury had better results (83%) than late repairs (52%). The best results were obtained with the inside-technique using #0 PDS suture (80%) compared to all-inside Biofix arrows (70%) and combined repairs (63%). with associated ACL injury had a better chance of a successful outcome, but this was only significant when the was reconstructed at the time of repair ($P < 0.05$). Those patients who had failed meniscal repair had increased radiographic osteoarthritic changes (81%) on long-term follow-up compared to patients with successful repair (14%). **CONCLUSION:** This retrospective study shows the clinical and radiological importance of meniscal repair. Successful results in this study were associated with younger age and earlier repair using inside-out technique. Furthermore, increased success was seen in meniscal repairs performed in association with ACL reconstruction.

Impactfactor: Pittoors K

1.857

Long-term outcome after meniscal repair

Tengrootenhuysen M, Meermans G*, Pittoors K*, Riet R van, Victor J
Knee Surg Sports Traumatol Arthrosc. 2011 Feb;19(2):236-41. Epub 2010 Oct 15

Voor abstract zie: Orthopedie – Meermans G

* = Werkzaam in het Catharina Ziekenhuis

Plastische chirurgie

Impactfactor: Hoogbergen MM
- **Ervaringen met de getunnelde supraclaviculaire eilandlap: klinische les uit 5 casus**
Haren EL van, Smit JM*, Rappard JH van*, Hoogbergen MM*
Nederlands tijdschrift voor plastische chirurgie 2011; 2(4):144-7
Geen abstract beschikbaar

Impactfactor: Hoogbergen MM
- **Reply: Malrotation of the McGhan Style 510 Prosthesis**
Schots J, Fechner MR, Hoogbergen MM*, Tits HW van
Plast Reconstr Surg. 2011 Dec;128(6):782e
Geen abstract beschikbaar

Impactfactor: Rappard JH van
- **Ervaringen met de getunnelde supraclaviculaire eilandlap: klinische les uit 5 casus**
Haren EL van, Smit JM*, Rappard JH van*, Hoogbergen MM*
Nederlands tijdschrift voor plastische chirurgie 2011; 2(4):144-7

Impactfactor: Smit JM
0.83 **A clinical review of 9 years of free perforator flap breast reconstructions: an analysis of 675 flaps and the influence new techniques on clinical practice**
Acosta R, Smit JM*, Audolfsson T, Darcy CM, Enajat M, Kildal M, Liss AG
J Reconstr Microsurg. 2011 Feb;27(2):91-8. Epub 2010 Nov 2

The aim of this study is to review our 9-year experience with deep inferior epigastric perforator (DIEP) breast reconstructions to help others more easily overcome the pitfalls we experienced. A chart review was conducted 543 patients who had 622 DIEP breast reconstructions in our clinic between January 2000 and January 2009. In time, there were an additional 28 superior gluteal artery perforator and 25 superficial inferior epigastric artery reconstructions, bringing the total free flap reconstructions to 675. In the early years, the success rate was 90.7%, average operative time was 7 hours and 18 minutes, and the complication rate was 33.3%; these have improved 98.2%, 4 hours and 8 minutes, and 19.3%, respectively. We describe our selection criteria, preoperative vascular mapping, surgical techniques, and postoperative monitoring as they relate to these improvements in outcome, operative time, and complications. The DIEP flap is a safe and reliable option in breast reconstructions. By acquiring experience with the flap and introducing new and improving existing techniques we have improved the ease of the procedure and the success rate and have shortened the operative time.

Impactfactor: Smit JM
- **Ervaringen met de getunnelde supraclaviculaire eilandlap: klinische les uit 5 casus**
Haren EL van, Smit JM*, Rappard JH van*, Hoogbergen MM*
Nederlands tijdschrift voor plastische chirurgie 2011; 2(4):144-7

Smit JM

Impactfactor:

Surgical technique: The intercostal space approach to the internal mammary vessels in 463 microvascular breast reconstructions

1.660

Darcy CM, Smit JM*, Audolfsson T, Acosta R

J Plast Reconstr Aesthet Surg. 2011 Jan;64(1):58-62

The internal mammary vessels are one of the most frequently used recipient sites for microsurgical free-flap breast reconstruction, and an accepted technique to expose these vessels involves removal of a segment of costal cartilage of the rib. However, in some patients, cartilage removal may result in a visible medial chest-wall depression that requires corrective procedures. We, therefore, use an intercostal space approach to the internal mammary vessels, there is minimal disturbance of the costal cartilage with this technique. We have developed and performed our technique over an 8-year period in 463 microvascular breast reconstructions, and present it here as it contains modifications not previously described that may be of interest to other surgeons. There was no serious morbidity associated with the intercostal space approach, the internal mammary vessels were reliably and safely exposed these cases and the flap success rate was 95.8%.

Smit JM

Impactfactor:

The deep inferior epigastric artery perforator flap for autologous reconstruction of large partial mastectomy defects

-

Enajat M, Rozen WM, Whitaker IS, Smit JM*, Hulst RR van der, Acosta R

Microsurgery. 2011 Jan;31(1):12-7. Epub 2010 Dec 6

BACKGROUND: Breast conservation surgery in the treatment of early stage breast cancer has become increasingly utilized as a means to avoiding mastectomy. While partial mastectomy defects (PMDs) may often be cosmetically acceptable, some cases warrant consideration of reconstructive options, and while several reconstructive options been described in this role, a series of deep inferior epigastric perforator (DIEP) flaps has not been reported to date. **METHODS:** A cohort of 18 patients undergoing PMD reconstruction with a DIEP flap were included. Patient-specific data, operation details, cosmetic results, and complication rates were assessed. Oncologic outcomes, in particular recurrence rates, were also evaluated. **RESULTS:** In our series there were no cases of partial or total flap necrosis, and overall complications were low. were two cases of wound infection (both had undergone radiotherapy), managed conservatively, and one case reoperation due to hematoma. There were no cancer recurrences or effect on oncologic management. Cosmetic outcome was rated as high by both patients and surgeon. The results were thus comparable with other reconstructive options. **CONCLUSION:** Although autologous reconstruction has an established complication rate our results suggest that DIEP flap may be of considerable value for delayed reconstruction of selected larger partial mastectomy defects.

* = *Werkzaam in het Catharina Ziekenhuis*

Radiologie

- Impactfactor:** 1.842 **Bosch H van den**
Skin lesions depicting a systemic disease
Moonen LA*, Bosch H van den*, Demeyere TB*, Bravenboer B*
Neth J Med. 2011 ;69(1):41-42
Geen abstract beschikbaar
- Impactfactor:** - **Bosch H van den**
Three-dimensional quantification of regional left-ventricular dyssynchrony by magnetic resonance imaging
Mischi M, Kaklidou F, Houthuizen P*, Aben JP, Prinzen FW, Bracke F*, Bosch H van den*, Korsten HH*
Conf Proc IEEE Eng Med Biol Soc. 2011 Aug;2011:2646-9
Voor abstract zie: Cardiologie - Houthuizen P
- Impactfactor:** 6.066 **Duijm LE**
Detection of bilateral breast cancer at biennial screening mammography in the Netherlands: a population-based study
Setz-Pels W*, Duijm LE*, Groenewoud JH, Voogd AC, Jansen FH*, Hooijen MJ, Louwman MW
Radiology. 2011 Aug;260(2):357-63. Epub 2011 Apr 7
Voor abstract zie: Radiologie - Setz-Pels W
- Impactfactor:** 4.859 **Duijm LE**
Patient and tumor characteristics of bilateral breast cancer at screening mammography in the Netherlands, a population-based study
Setz-Pels W*, Duijm LE*, Groenewoud JH, Louwman MW, Jansen FH*, Beek M van, Plaisier ML, Voogd AC
Breast Cancer Res Treat. 2011 Oct;129(3):955-61. Epub 2011 May 7
Voor abstract zie: Radiologie - Setz-Pels W
- Impactfactor:** 4.859 **Duijm LE**
Socioeconomic inequalities in attending the mass screening for breast cancer in the south of the Netherlands associations with stage at diagnosis and survival
Aarts MJ, Voogd AC, Duijm LE*, Coebergh JW, Louwman WJ
Breast Cancer Res Treat. 2011 Jul;128(2):517-25. Epub 2011 Feb 3
The associations of socioeconomic status (SES) and participation in the breast cancer screening program, as well consequences for stage of disease and prognosis were studied in the Netherlands, where no financial barriers for participating or health care use exist. From 1998 to 2005, 1,067,952 invitations for biennial mammography were women aged 50-75 in the region covered by the Eindhoven Cancer Registry. Screening attendance rates according SES were calculated. Tumor stage and survival were studied according to SES group for patients diagnosed with breast cancer between 1998 and 2006, whether screen-detected, interval carcinoma or not attended screening Attendance rates were rather high: 79, 85 and 87% in women with

low, intermediate and high SES ($p < 0.001$), respectively. Compared to the low SES group, odds ratios for attendance were 1.5 (95%CI:1.5-1.6) for the intermediate SES group and 1.8 (95%CI:1.7-1.8) for the high SES group. Moreover, women with low SES had an unfavourable tumor-node-metastasisstage compared to those with high SES. This was seen in non-attendees, among women interval cancers and with screen-detected cancers. Among non-attendees and interval cancers, the socioeconomic survival disparities were largely explained by stage distribution (48 and 35%) and to a lesser degree by therapy 16%). Comorbidity explained most survival inequalities among screen-detected patients (23%). Despite the absence financial barriers for participation in the Dutch mass-screening program, socioeconomic inequalities in attendance exist, and women with low SES had a significantly worse tumor stage and lower survival rate.

Haak A van den

Colonic stenting for malignant bowel obstruction: Cure or cause?

Moenen FC*, Haak A van den*, Gilissen LP*

Dig Liver Dis. 2011 May;43(5):416. Epub 2010 Nov 26

Geen abstract beschikbaar

Impactfactor:
2.805

Haak A van den

Een man met een zwelling van het scrotum [A man with a swollen scrotum]

Graaf GW de*, Haak A van den*

Ned Tijdschr Geneeskd. 2011;155(35):A2191

Voor abstract zie: Urologie - Graaf GW de

Impactfactor:
1.842

Jansen FH

Detection of bilateral breast cancer at biennial screening mammography in the Netherlands: a population-based study

Setz-Pels W*, Duijm LE*, Groenewoud JH, Voogd AC, Jansen FH*, Hooijen MJ, Louwman MW

Radiology. 2011 Aug;260(2):357-63. Epub 2011 Apr 7

Voor abstract zie: Radiologie - Setz-Pels W

Impactfactor:
6.066

Jansen FH

Patient and tumor characteristics of bilateral breast cancer at screening mammography in the Netherlands, a population-based study

Setz-Pels W*, Duijm LE*, Groenewoud JH, Louwman MW, Jansen FH*, Beek M van, Plaisier ML, Voogd AC

Breast Cancer Res Treat. 2011 Oct;129(3):955-61. Epub 2011 May 7

Voor abstract zie: Radiologie - Setz-Pels W

Impactfactor:
4.859

Impactfactor:
1.842

Klompenuwer EG

Darmischemie door acute mesenteriale veneuze trombose [Intestinal ischaemia caused by acute mesenteric vein thrombosis]

Klompenuwer EG*, Gobardhan PD, Verhees R*, Peters W*, Zoete JP de*

Ned Tijdschr Geneeskd. 2011;155(44):A3598

Acute mesenteric vein thrombosis is an uncommon cause of intestinal ischaemia, with a considerable morbidity mortality rate. There is a delay in diagnosis owing to the fact that patients present with non-specific abdominal symptoms; there is often a low level of suspicion by the clinician. We discuss the case histories of a 23 year-old and a 49 year-old woman with intestinalischaemia caused by acute mesenteric vein thrombosis. These patients presented at two different hospital emergency departments. In patients with acute, progressive abdominal complaints, mesenteric vein thrombosis must be included in the differential diagnosis, especially if there are thromboembolic factors. In such patients, CT angiography (CTA) must be performed during the arterial and portal-venous phase evaluate the mesenteric circulation.

Impactfactor:
6.066

Setz-Pels W

Detection of bilateral breast cancer at biennial screening mammography in the Netherlands: a population-based study

Setz-Pels W*, Duijm LE*, Groenewoud JH, Voogd AC, Jansen FH*, Hooijen MJ, Louwman MW

Radiology. 2011 Aug;260(2):357-63. Epub 2011 Apr 7

PURPOSE: To determine the incidence of bilateral breast cancer at biennial screening mammography and to assess the sensitivity of screening in the detection of bilateral breast cancer. **MATERIALS AND METHODS:** All women gave written informed consent, and the requirement to obtain review approval was waived. The authors included all 302,196 screening mammograms obtained in 80,466 women aged >75 years in a southern breast screening region of the Netherlands between May 1998 and July 2008. During 2-follow-up, the authors collected clinical data, breast imaging reports, biopsy results, and breast surgery reports patients with screening-detected and interval cancers. Two screening radiologists reviewed the screening and clinical mammograms of all bilateral screening-detected and interval cancers for mammographic abnormalities. The radiologists were initially blinded to each other's referral opinion, and discrepant assessments were followed by consensus reading. **RESULTS:** Of all women with screening-detected cancer (n = 1555) or interval cancer (n = 585), 52 (2.4%) had bilateral breast cancer. The sensitivity of screening mammography in the detection of bilateral breast cancer was (10 of 52 women; 95% confidence interval: 8.5%, 29.9%). At blinded review, 18 of the 53 tumors not detected at screening (34%) were considered to be missed, 11 (21%) showed nonspecific minimal signs, and 24 (45%) had mammographically occult at screening. Five women referred for further analysis experienced a 6-17-month delay diagnosis of the second breast cancer; in four of those women, the delay resulted from an incorrect Breast Imaging Reporting and Data System classification at clinical mammography. **CONCLUSION:** The sensitivity of screening mammography in

the detection of bilateral breast cancer is disappointingly low. Both screening radiologists and clinical radiologists should pay vigorous attention to the contralateral breast detect bilateral malignancies without diagnostic delay.

Setz-Pels W

Patient and tumor characteristics of bilateral breast cancer at screening mammography in the Netherlands, a population-based study

Setz-Pels W*, Duijm LE*, Groenewoud JH, Louwman MW, Jansen FH*, Beek M van, Plaisier ML, Voogd AC

Breast Cancer Res Treat. 2011 Oct;129(3):955-61. Epub 2011 May 7
Few data are available on bilateral breast cancer in the screening population. The aim of this study was to determine patient and tumor characteristics of women with bilateral breast cancer at screening mammography. We included 350,637 screening mammography examinations of women participating in a biennial screening program in a southern screening region of the Netherlands between May 1998 and January 2010. For referred women, all breast imaging reports, biopsy results, and surgery reports during one year after referral were collected. We compared patient and tumor characteristics of referred women with a diagnosis of bilateral breast cancer or unilateral breast cancer at workup. Bilateral or unilateral breast cancer had been diagnosed in respectively 40 (2.2%) and 1766 (97.8%) of referred women. Women with bilateral or unilateral breast cancer did not differ significantly in mean age, mammographic breast density, family history of breast cancer, or use of hormone replacement therapy. Compared index cancers, contralateral cancers comprised significantly more lobular cancers ($P = 0.02$). Tumor size, mitotic activity, and estrogen receptor status were comparable for both groups, but contralateral cancers had a significantly lower risk of lymph node metastases ($P = 0.03$). Compared to unilateral breast cancer, contralateral malignancies women with bilateral breast cancer comprised significantly more lobular cancers ($P = 0.004$) and lymph node negative cancers ($P = 0.01$). Contralateral breast cancers detected at screening comprise more lobular cancers and show nodal involvement than index cancers or unilateral cancers. No differences are observed with respect to other patient and tumor characteristics.

Impactfactor:
4.859

Verhees R

Darmischemie door acute mesenteriale veneuze trombose [Intestinal ischaemia caused by acute mesenteric vein thrombosis]

Klompshouwer EG*, Gobardhan PD, Verhees R*, Peters W*, Zoete JP de*

Ned Tijdschr Geneesk. 2011;155(44):A3598

Voor abstract zie: Radiologie - Klompshouwer EG

Impactfactor:
1.842

* = Werkzaam in het Catharina Ziekenhuis

Radiotherapie

Impactfactor: De Jaeger K
4.337 **Dose painting by contours versus dose painting by numbers for stage II/III lung cancer: Practical implications of broad or sharp brush.**
Meijer G*, Steenhuisen J*, Bal M, Jaeger K de*, Schuring D*, Theuws J*.
Radiother Oncol. 2011 Sep 26. 2011 Sep;100(3):396-401
Voor abstract zie: Radiotherapie - Meijer G

Impactfactor: Heumen MJ van
4.503 **Quality Assurance of 4D-CT Scan Techniques in Multicenter Phase III Trial of Surgery Versus Stereotactic Radiotherapy (Radiosurgery Or Surgery for operable Early stage (Stage 1A) non-small-cell Lung cancer [ROSEL] Study)**
Hurkmans CW*, Lieshout M van *, Schuring D*, Heumen MJ van*, Cuijpers JP, Lagerwaard FJ, Widder J, Heide UA van der, Senan S
Int J Radiat Oncol Biol Phys. 2011 Jul 1;80(3):918-27. Epub 2010 Oct 13
Voor abstract zie: Radiotherapie - Hurkmans CW

Impactfactor: Hurkmans C
4.537 **Dosimetric impact of post-operative seroma reduction during radiotherapy after breast-conserving surgery**
Alderliesten T, Hollander S den, Yang TI, Elkhuzen PH, Mourik AM van, Hurkmans C*, Remeijer P, Vliet- Vroegindeweij C van
Radiother Oncol. 2011 Aug;100(2):265-70. Epub 2011 Apr 16
PURPOSE: Three boost radiotherapy (RT) techniques were compared to evaluate the dosimetric effect of seroma reduction during RT after breast-conserving surgery (BCS). MATERIALS AND METHODS: Twenty-one patients who developed seroma after BCS were included. Each patient underwent three CT scans: one week before RT (CT(-1)), in the third (CT(3)) and fifth (CT(5)) week of RT. For each patient, three plans were generated. (1) SEQ: whole breast irradiation planned on CT(-1), sequential boost planned CT(5), (2) SIB: simultaneous integrated boost planned on CT(-1), (3) SIB adaptive radiation therapy (SIB-ART): planned on CT(-1) and re-planned on CT(3). Irradiated volumes, mean lung (MLD) and maximum heart dose (HD (max)) were projected and compared on CT(5). RESULTS: On average 62% seroma reduction during RT was observed. Volumes receiving e 107% of prescribed whole breast dose were significantly smaller with SIB-ART compared to SEQ and SIB. The undesired volume receiving e 95% of prescribed total dose was also significantly smaller with SIB-ART. For SEQ, SIB-ART and SIB, respectively, small but significant differences were found in MLD (4.2 vs. 4.6 vs. 4.7 Gy) and in HD(max) for patients with left-breast cancer (39.9 vs. 35.8 vs. 36.9 Gy). CONCLUSIONS: This study demonstrates a dosimetric advantage for patients with seroma when simultaneous integrated boost is used with re-planning halfway through treatment.

Hurkmans CW

Consideration of Dose Limits for Organs at Risk of Thoracic Radiotherapy: Atlas for Lung, Proximal Bronchial Tree, Esophagus, Spinal Cord, Ribs, and Brachial Plexus

Kong FM, Ritter T, Quint DJ, Senan S, Gaspar LE, Komaki RU, Hurkmans CW*, Timmerman R, Bezjak A, Bradley Movsas B, Marsh L, Okunieff P, Choy H, Curran WJ Jr

Int J Radiat Oncol Biol Phys. 2011 Dec 1;81(5):1442-57. Epub 2010 Oct 8

PURPOSE: To review the dose limits and standardize the three-dimensional (3D) radiographic definition for the organs at risk (OARs) for thoracic radiotherapy (RT), including the lung, proximal bronchial tree, esophagus, spinal cord, and brachial plexus. **METHODS AND MATERIALS:** The present study was performed by representatives from the Radiation Therapy Oncology Group, European Organization for Research and Treatment of Cancer, and Southwestern Oncology Group lung cancer committees. The dosimetric constraints of major multicenter trials of 3D-conformal RT and stereotactic body RT were reviewed and the challenges of 3D delineation of these OARs described. Using knowledge of the anatomy and 3D radiographic correlation, draft atlases were generated by a radiation oncologist, medical physicist,

dosimetrist, and radiologist from the United States and reviewed by a radiation oncologist and medical physicist Europe. The atlases were then critically reviewed, discussed, and edited by another 10 radiation oncologists.

RESULTS: Three-dimensional descriptions of the lung, proximal bronchial tree, esophagus, spinal cord, ribs, and brachial plexus are presented. Two computed tomography atlases were developed: one for the middle and lower thoracic OARs (except for the heart) and one focusing on the brachial plexus for a patient positioned supine with arms up for thoracic RT. The dosimetric limits of the key OARs are discussed. **CONCLUSIONS:** We believe these atlases will allow us to define OARs with less variation and generate dosimetric data in a more consistent manner. This could help us study the effect of radiation on these OARs and guide high-quality clinical trials and individualized practice in 3D-conformal RT and stereotactic body RT.

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Hurkmans CW

Quality assurance for prospective EORTC radiation oncology trials: The challenges of advanced technology in a multicenter international setting

Weber DC, Poortmans PM, Hurkmans CW*, Aird E, Gulyban A, Fairchild A
Radiother Oncol. 2011 Jul;100(1):150-6

The European Organization for the Research and Treatment of Cancer (EORTC) is a pan-European structure charged with improving cancer treatment through the testing of new therapeutic strategies in phases I-III clinical studies. Properly conducted trials in radiation oncology are required to demonstrate superiority of a new treatment over current standard. The Radiation Oncology Group (ROG) has initiated a complex quality assurance (QA) program ensure safe and effective treatment delivery. Most modern trials are multicenter and multidisciplinary, further increasing the importance of early, strict and consistent QA in radiotherapy (RT). QART measures confirm whether a site possesses minimum staff and equipment for

Impactfactor:

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participation. Dummy runs, reviews of patient treatment plans and complex dosimetry checks verify the ability of an institution to comply with the protocol. Data required for evaluation increasingly exchanged digitally, allowing detailed plan reconstruction, evaluation of target volume delineation and recalculation of dose-volume parameters for comparison against predefined standards. The five tiers of QA implemented in EORTC trials are reviewed, along with past, current and future QART initiatives. As substantial and financial resources are increasingly invested in QART, the importance of cost-benefit analysis of QA and its on clinical outcome cannot be overstated.

Impactfactor:
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Hurkmans CW

Quality Assurance of 4D-CT Scan Techniques in Multicenter Phase III Trial of Surgery Versus Stereotactic Radiotherapy (Radiosurgery Or Surgery for operable Early stage (Stage 1A) non-small-cell Lung cancer [ROSEL] Study)

Hurkmans CW*, Lieshout M van*, Schuring D*, Heumen MJ van*, Cuijpers JP, Lagerwaard FJ, Widder J, Heide UA van der, Senan S

Int J Radiat Oncol Biol Phys. 2011 Jul 1;80(3):918-27. Epub 2010 Oct 13

PURPOSE: To determine the accuracy of four-dimensional computed tomography (4D-CT) scanning techniques institutions participating in a Phase III trial of surgery vs. stereotactic radiotherapy (SBRT) for lung cancer. **METHODS AND MATERIALS:** All 9 centers performed a 4D-CT scan of a motion phantom (Quasar, Modus Medical Devices) in accordance with their in-house imaging protocol for SBRT. A cylindrical cedar wood insert with plastic spheres of 15 mm (\varnothing 15) and 30 mm (\varnothing 30) diameter was moved in a cosine-based pattern, with an extended period the exhale position to mimic the actual breathing motion. A range of motion of R = 15 and R = 25 mm and breathing period of T = 3 and T = 6 s were used. Positional and volumetric imaging accuracy was analyzed using Pinnacle version 8.1x at various breathing phases, including the mid-ventilation phase and maximal intensity projections spheres. **RESULTS:** Imaging using eight CT scanners (Philips, Siemens, GE) and one positron emission tomography-CT scanner (Institution 3, Siemens) was investigated. The imaging protocols varied widely among the institutions. No strong correlation was found between the specific scan protocol parameters and the observed results. Deviations maximal intensity projection volumes averaged 1.9% (starting phase of the breathing cycle [\varnothing 15, R = 15), 12.3% R = 25), and -0.9% (\varnothing 30, R = 15). The end-expiration volume deviations (13.4%, \varnothing 15 and 2.5%, \varnothing 30), were, on average, smaller than the end-inspiration deviations (20.7%, \varnothing 15 and 4.5%, \varnothing 30), which, in turn, were smaller than mid-ventilation deviations (32.6%, \varnothing 15 and 8.0%, \varnothing 30). A slightly larger variation in the mid-ventilation origin position was observed (mean, -0.2 mm; range, -3.6-4.2) than in the maximal intensity projection origin position (mean, -0.1 range, -2.5-2.5). The range of motion was generally underestimated (mean, -1.5 mm; range, -5.5-1). **CONCLUSIONS:** Notable differences were seen in the 4D-CT imaging protocols for SBRT among centers. However, the observed deviations in target volumes were generally small. They were slightly larger for the mid-ventilation and smallest for the end-expiration phases. Steps to optimize and standardize the 4D-CT scanning protocols for SBRT are desirable

Lieshout M van

Quality Assurance of 4D-CT Scan Techniques in Multicenter Phase III Trial of Surgery Versus Stereotactic Radiotherapy (Radiosurgery Or Surgery for operable Early stage (Stage 1A) non-small-cell Lung cancer [ROSEL] Study).

Hurkmans CW*, Lieshout M van *, Schuring D*, Heumen MJ van*, Cuijpers JP, Lagerwaard FJ, Widder J, Heide UA van der, Senan S
Int J Radiat Oncol Biol Phys. 2011 Jul 1;80(3):918-27. Epub 2010 Oct 13

Voor abstract zie: Radiotherapie - Hurkmans CW

Impactfactor:

4.503

Lybeert L.M.

An increased utilisation rate and better compliance to guidelines for primary radiotherapy for breast cancer from till 2008: A population-based study in The Netherlands

Struikmans H, Aarts MJ, Jobsen JJ, Koning CC, Merkus JW, Lybeert ML*, Immerzeel J, Poortmans PM, Veerbeek Louwman MW, Coebergh JW
Radiother Oncol. 2011 Aug;100(2):320-5. Epub 2011 Jun 2,

Only scarce data are available on the utilisation rate of primary radiotherapy (RT) for patients with breast cancer. In our study, we compared the use of primary RT for patients with stages I-III breast cancer in 4 of the 9 Dutch Comprehensive Cancer Centres, focussing specifically on time trends as well as age effects. From the populationbased cancer registries, we selected all females diagnosed with breast cancer between 1997 and 2008 (N=65,966, about 50% of all Dutch breast cancer patients in this period). We observed an overall increase in the use of primary for breast cancer patients ranging from 55-61% in 1997 to 58-68% in 2008. This can be explained by a higher rate breast-conserving surgery (BCS), which was followed by RT in 87-99% of cases, and a reduced rate of total mastectomy (TM) which was followed by RT in 26-47% of cases. Increasing age was associated with a reduced RT, especially for those above 75. Finally, we observed a decrease in time of observed regional variances in the RT after BCS as well as after TM (for stage III disease). These findings can be attributed to the development and implementation of the Dutch nationwide guidelines for treatment of breast cancer.

Impactfactor:

4.337

Lybeert ML

Adherence to national guidelines for treatment and outcome of endometrial cancer stage I in relation to co-morbidity southern Netherlands 1995-2008

Boll D*, Verhoeven RH, Aa MA van der, Lybeert ML*, Coebergh JW, Janssen-Heijnen ML

Eur J Cancer. 2011 Jul;47(10):1504-10. Epub 2011 Apr 27,

BACKGROUND: Endometrial cancer (EC) occurs more frequently amongst women over 60years old, who often suffer from co-morbidity. Since treatment guidelines are derived from clinical trials that usually exclude such patients, nevertheless these guidelines are also applied for older EC patients. We assessed the independent influence of and co-morbidity on treatment modalities and survival of patients with stage I EC in everyday clinical practice, thereby also examining the implementation of Dutch guidelines on treatment, since 2000. METHODS: All 2099 stage I EC patients diagnosed between 1995 and 2008 in the southern Netherlands were registered in the ECR(Eindhoven

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Cancer Registry) were included for analysis of the influence of age and co-morbidity on treatment and survival. For co-morbidity we used a modified version of Charlson's list, uniquely recorded in the since 1993. A subgroup analysis was performed of patients who should have received adjuvant radiotherapy based the risk factors advised in the Dutch guidelines of 2000. We considered five periods (1995-97; 1989-2000; 2001-2004-06; 2007-08). RESULTS: Having two or more co-morbid conditions resulted in a significant reduction of receiving adjuvant radiotherapy (Odds Ratio: 0.6, 95% Confidence Interval (95% CI): 0.3-1.0)) but receiving adjuvant radiotherapy appear to improve survival. After adjustment for age, tumour stage, tumour grade, period of diagnosis and treatment, co-morbidity increased the risk of death, especially diabetes (Hazard Ratio (HR) for mortality: 2.9,95% CI: 2.2-4.0), previous cancer (HR: 2.6, 95%CI: 1.9-3.7) and cardiovascular disease (HR: 2.3, 95%CI: 1.7-3.2). The combination two or more co-morbid conditions resulted in a HR of 3.0 (95%CI: 2.2-3.9). CONCLUSION: Co-morbidity decreased the likelihood of receiving adjuvant radiotherapy in patients with stage qualifying to undergo this according to the Dutch guidelines of 2000. Whereas adjuvant radiotherapy did not seem affect survival in those patients, co-morbidity significantly did.

Impactfactor:
4.503

Lybeert ML

Fifteen-Year Radiotherapy Outcomes of the Randomized PORTEC-1 Trial for Endometrial Carcinoma

Creutzberg CL, Nout RA, Lybeert ML*, Wárlám-Rodenhuis CC, Jobsen JJ, Mens JW, Lutgens LC, Pras E, Franse LV van, Putten WL van; PORTEC study group

Int J Radiat Oncol Biol Phys. 2011 Nov 15;81(4):e631-8. Epub 2011 Jun 2

To evaluate the very long-term results of the randomized Post Operative Radiation Therapy in Endometrial Carcinoma (PORTEC)-1 trial for patients with Stage I endometrial carcinoma (EC), focusing on the role of prognostic factors treatment selection and the long-term risk of second cancers. PATIENTS AND METHODS: The PORTEC trial (1990-1997) included 714 patients with Stage IC Grade 1-2 or IB Grade 2-3 EC. After surgery, patients were randomly allocated to external-beam pelvic radiotherapy (EBRT) additional treatment (NAT). Analysis was by intention to treat.

RESULTS: 426 patients were alive at the date of analysis. The median follow-up time was 13.3 years. The 15-year actuarial locoregional recurrence (LRR) rates were 6% for EBRT vs. 15.5% for NAT ($p < 0.0001$). The 15-year overall survival was 52% vs. 60% ($p = 0.14$), and the failure-free survival was 50% vs. 54% ($p = 0.94$). For patients with risk criteria, the 15-year overall survival was 41% vs. 48% ($p = 0.51$), and the 15-year EC-related death was 14% vs. 13%. Most LRR in the NAT group were vaginal recurrences (11.0% of 15.5%). The 15-year rates of distant metastases were 9% vs. 7% ($p = 0.25$). Second primary cancers had been diagnosed over 15 years in 19% all patients, 22% vs. 16% for EBRT vs. NAT ($p = 0.10$), with observed vs. expected ratios of 1.6 (EBRT) and 1.2 compared with a matched population ($p = \text{NS}$). Multivariate analysis confirmed the prognostic significance of Grade for LRR (hazard ratio [HR] 3.4, $p = 0.0003$) and for EC death (HR 7.3, $p < 0.0001$), of age >60 (HR 3.9, $p = 0.002$) LRR and 2.7, $p = 0.01$ for EC death) and myometrial invasion $>50\%$ (HR 1.9, $p =$

0.03 and HR 1.9, $p = 0.02$). CONCLUSIONS: The 15-year outcomes of PORTEC-1 confirm the relevance of HIR criteria for treatment selection, and a trend for long-term risk of second cancers. EBRT should be avoided in patients with low- and intermediate-EC.

Lybeert ML

Long-term outcome and quality of life of patients with endometrial carcinoma treated with or without pelvic radiotherapy in the post operative radiation therapy in endometrial carcinoma 1 (PORTEC-1) trial

Nout RA, Poll-Franse LV van de, Lybeert ML*, Wárlám-Rodenhuis CC, Jobsen JJ, Mens JW, Lutgens LC, Pras B, Putten WL, Creutzberg CL.

J Clin Oncol. 2011 May 1;29(13):1692-700. Epub 2011 Mar 28

PURPOSE: To determine the long-term outcome and health-related quality of life (HRQL) of patients with endometrial carcinoma (EC) treated with or without pelvic radiotherapy in the Post Operative Radiation Therapy in Endometrial Carcinoma 1 (PORTEC-1) trial. PATIENTS AND METHODS: Between 1990 and 1997, 714 patients with stage IC grade 1 to 2 or IB grade 2 to were randomly allocated to pelvic external-beam radiotherapy (EBRT) or no additional treatment (NAT). HRQL evaluated with the Short Form 36-Item (SF-36) questionnaire; subscales from the European Organisation for Research and Treatment of Cancer (EORTC) PR25 module for bowel and bladder symptoms and the OV28 and CX24 modules for sexual symptoms; and demographic questions. Analysis was by intention-to-treat. RESULTS: Median follow-up was 13.3 years. The 15-year actuarial locoregional recurrence rates were 5.8% for versus 15.5% for NAT ($P < .001$), and 15-year overall survival was 52% versus 60% ($P = .14$). Of the 351 patients confirmed to be alive with correct address, 246 (70%) returned the questionnaire. Patients treated with EBRT reported

significant ($P < .01$) and clinically relevant higher rates of urinary incontinence, diarrhea, and fecal leakage leading more limitations in daily activities. Increased symptoms were reflected by the frequent use of incontinence materials after EBRT (day and night use, 42.9% v 15.2% for NAT; $P < .001$). Patients treated with EBRT reported lower scores on the SF-36 scales "physical functioning" ($P = .004$) and "role-physical" ($P = .003$). CONCLUSION: EBRT for endometrial cancer is associated with long-term urinary and bowel symptoms and lower physical and role-physical functioning, even 15 years after treatment. Despite its efficacy in reducing locoregional recurrence, EBRT should be avoided in patients with low- and intermediate-risk EC

Impactfactor:
18.97

Lybeert ML

Outcome of Endometrial Cancer Stage IIIA with Adnexa or Serosal Involvement Only

Jobsen JJ, Naudin Ten Cate L, Lybeert ML*, Scholten A, Steen-Banasik EM van der, Palen J van der, Stenfert MC, Slot A, Schutter EM, Siesling S

Obstet Gynecol Int. 2011;2011:962518. published online: 2011 May 4

Objective. The aim of this study is to look at possible differences in outcome between serosa and adnexal involvement stage IIIA endometrial carcinoma. Methods. 67 patients with stage IIIA endometrial carcinoma were included, 46 adnexal involvement and 21 with serosa. A central histopathological review was performed. Results. The 7-year locoregional failure rate was (LRFR) 2.2%

Impactfactor:
4.392

for adnexal involvement and 16.0% for involvement of the serosa ($P = .0522$). The 7-year distant metastasis-free survival was 72.7% for adnexal involvement and 58.7% for serosa ($P = .3994$). The 7-year disease-specific survival (DSS) was 71.8% for patients with adnexal involvement and 75.4% for patients with serosa. Conclusion. Endometrial carcinoma stage IIIA with involvement of the adnexa or serosa showed to have a comparable disease-specific survival. Locoregional control was worse for serosa involvement compared adnexa.

Impactfactor: Lybeert ML

2.688

The impact of treatment, socio-demographic and clinical characteristics on health-related quality of life among Hodgkin's and non-Hodgkin's lymphoma survivors: a systematic review

Oerlemans S, Mols F, Nijziel MR, Lybeert ML*, Poll-Franse LV van de Ann Hematol. 2011 Sep;90(9):993-1004. Epub 2011 Jun 14

Cancer survivors are at risk of experiencing adverse physical and psychosocial effects of their cancer and its treatment. Both Hodgkin's lymphoma (HL) and non-Hodgkin's lymphoma (NHL) survivors face problems that can affect their health-related quality of life (HRQoL). The authors systematically reviewed the literature on HRQoL among HL and NHL survivors. A PubMed and PsychINFO literature search for original articles published until May 2011 was performed. Twenty-four articles, which met the predefined inclusion criteria, were subjected to a quality checklist. survivors showed the most problems in (role) physical, social and cognitive functioning, general health, fatigue and financial problems. In addition, HL survivors treated with a combination of therapies, with older age and female reported worse HRQoL. NHL survivors showed the most problems in physical functioning, appetite loss, vitality financial problems. Having had chemotherapy was negatively associated with HRQoL, but no differences in chemotherapy regimens were found. Furthermore, in NHL survivors not meeting public exercise guidelines, HRQoL low but can be improved with more exercise. More research on the longitudinal comparison between HL and NHL survivors and healthy controls should be performed in order to better understand the long-term (side) effects of treatment on HRQoL and possibilities to alleviate these.

Impactfactor: Lybeert ML

4.337

A population-based study on the utilisation rate of primary radiotherapy for prostate cancer in 4 regions in the Netherlands, 1997-2008

Poortmans PM, Aarts MJ, Jobsen JJ, Koning CC, Lybeert ML*, Struikmans H, Vulto JC, Louwman WJ, Coebergh Koldewijn EL* Radiother Oncol. 2011 May;99(2):207-13. Epub 2011 May 26

AIM: The purpose was to study variations in utilisation rates of external beam radiotherapy (EBRT) and brachytherapy (BT) for prostate cancer patients. MATERIALS AND METHODS: We calculated the proportion and number of EBRT and BT given or planned within 6 months of diagnosis in 4 Dutch regions, according to stage and age in a population-based setting including 47,259 prostate cancer patients diagnosed from 1997 until 2008. RESULTS: During this study period, the overall utilisation rate of EBRT remained stable at around 25%, while the of BT for non-metastasized patients increased from 1% (95% CI:0-1%) to 12% (11-13%) in 2006 and slightly decreased towards 10%

(9-11%) in 2008. From 2001 on, the overall utilisation rate of EBRT decreased significantly one region ($p < 0.05$). In this region, a sharp rise in the utilisation rate of BT for non-metastatic patients was noted 17% (14-20%) in 2008 after a peak of 24% (21-27%) in 2006. For localised disease, BT was used more often at expense of EBRT while for locally advanced disease the utilisation rate of EBRT increased. In the multivariate analysis, regional differences in the utilisation rate of EBRT persisted with odds ratios ranging from 0.7 to 0.9 compared to reference region. Moreover, low rates of EBRT were associated with high BT rates. The regional differences could be explained by differences in risk profiles. CONCLUSIONS: The utilisation rate of EBRT remained stable with limited variation between regions while BT was used increasingly with clear regional differences. To cope with this and in view of the increasing incidence of prostate cancer, adequate resources have to be planned for the optimal care of these patients.

Martijn H

Improvements in population-based survival of patients presenting with metastatic rectal cancer in the south of the Netherlands, 1992-2008

Lemmens VE, Haan N de *, Rutten HJ*, Martijn H*, Loosveld OJ, Roumen RM, Creemers GJ*

Clin Exp Metastasis. 2011 Mar;28(3):283-90. Epub 2011 Jan 5

Voor abstract zie: Inwendige geneeskunde - Haan N de

Impactfactor:

4.113

Martijn H

The effects of age and comorbidity on treatment patterns for radiotherapy and survival in patients with mobile rectal cancer: A population-based study

Maas HA, Lemmens VE, Cox S, Martijn, H*, Rutten HJ*, Coebergh JW, Janssen-Heijnen ML

European Geriatric Medicine 2011;2 (5): 73-279

Impactfactor:

-

Martijn H

Impact of Preoperative Radiotherapy on General and Disease-Specific Health Status of Rectal Cancer Survivors: Population-Based Study

Thong MS, Mols F, Lemmens VE, Rutten HJ*, Roukema JA, Martijn H*, Poll-Franse LV van de

Int J Radiat Oncol Biol Phys. 2011 Nov 1;81(3):e49-58. Epub 2011 Feb 28

Voor abstract zie: Chirurgie - Rutten HJ

Impactfactor:

4.503

Meijer G

Dose painting by contours versus dose painting by numbers for stage II/III lung cancer: Practical implications of broad or sharp brush

Meijer G*, Steenhuijsen J*, Bal M, Jaeger K de*, Schuring D*, Theuvs J*

Radiother Oncol. 2011 2011 Sep;100(3):396-401. Epub 2011 Sep 28

Impactfactor:

4.337

PURPOSE: Local recurrence rates are high in patients with locally advanced NSCLC treated with 60 to 66Gy in fractions. It is hypothesised that boosting volumes with high SUV on the pre-treatment FDG-PET scan potentially increases local control while maintaining acceptable toxicity levels. We compared two approaches: threshold-based dose painting by contours (DPBC) with voxel-based dose painting by numbers (DPBN). **MATERIALS AND METHODS:** Two dose painted plans were generated for 10 stage II/III NSCLC patients with 66Gy 2-Gy fractions to the entire PTV and a boost dose to the high SUV areas within the primary GTV. DPBC aims for uniform boost dose at the volume encompassing the SUV 50%-region (GTV(boost)). DPBN aims for a linear relationship between the boost dose to a voxel and the underlying SUV. For both approaches the boost dose was escalated up to 130Gy (in 33 fractions) or until the dose limiting constraint of an organ at risk was met. **RESULTS:** For three patients (with relatively small peripheral tumours) the dose within the GTV could be boosted 130Gy using both strategies. For the remaining patients the boost dose was confined by a critical structure (mediastinal structures in six patients, lungs in one patient). In general the amount of large brush DPBC boosting is limited whenever the GTV(boost) is close to any serial risk organ. In contrast, small brush DPBN inherently boosts at a voxel basis allowing significant higher dose values to high SUV voxels more distant from the organs at risk. We found that the biological SUV gradients are reasonably congruent with the dose gradients that standard linear accelerators can deliver. **CONCLUSIONS:** Both large brush DPBC and sharp brush DPBN techniques can be used to considerably boost dose to the FDG avid regions. However, significantly higher boost levels can be obtained using sharp brush DPBN although sometimes at the cost of a less increased dose to the low SUV regions.

Impactfactor:
4.337

Peulen H ∞

Toxicity after reirradiation of pulmonary tumours with stereotactic body radiotherapy

Peulen H∞, Karlsson K, Lindberg K, Tullgren O, Baumann P, Lax I, Lewensohn R, Wersäll P

Radiother Oncol. 2011 Nov;101(2):260-6. Epub 2011 Nov 5

PURPOSE: To assess toxicity and feasibility of reirradiation with stereotactic body radiotherapy (SBRT) after prior SBRT for primary lung cancer or lung metastases. **PATIENTS AND MATERIALS:** Twenty-nine patients reirradiated with SBRT on 32 lung lesions (11 central, 21 peripheral) were retrospectively reviewed. Median follow-up time was 12 months (range 1-97). The primary endpoint was toxicity, secondary endpoints were local control and overall survival time. Toxicity was scored according to NCI-CTCAE version 3. **RESULTS:** Grade 3-4 toxicity was scored 14 times in eight patients. Three patients died because of massive bleeding (grade 5). Larger clinical target volumes (CTV) and central tumour localization were associated with more severe toxicity. There was no correlation between mean lung dose (MLD) and lung toxicity. Local control at 5 months after reirradiation was 52%, as assessed by CT-scan (n=12) or X-thorax (n=3). A larger CTV was associated with poorer local control. Kaplan-Meier estimated 1- and 2-year survival rates were 59% and 43%, respectively. **CONCLUSIONS:** Reirradiation with SBRT is feasible although increased risk of toxicity was reported in centrally located tumours. Further

research is warranted for more accurate selection of patients suitable for reirradiation SBRT

Sangen MJ van der

Are breast conservation and mastectomy equally effective in the treatment of young women with early breast cancer? Long-term results of a population-based cohort of 1,451 patients aged \geq 40 years

Sangen MJ van der*, Wiel FM van de, Poortmans PM, Tjan-Heijnen VC, Nieuwenhuijzen GA*, Roumen RM, Ernst Tutein Nolthenius-Puylaert MC, Voogd AC

Breast Cancer Res Treat. 2011 May;127(1):207-15

To compare the effectiveness of breast-conserving therapy (BCT) and mastectomy, all women aged \geq 40 years, treated for early-stage breast cancer in the southern part of the Netherlands between 1988 and 2005, were identified. total of 562 patients underwent mastectomy and 889 patients received BCT. During follow-up, 23 patients treated mastectomy and 135 patients treated with BCT developed a local relapse without previous or simultaneous evidence distant disease. The local relapse risk for patients treated with mastectomy was 4.4% (95% confidence interval -6.4) at 5 years and reached a plateau after 6 years at 6.0% (95% CI 3.5-8.5). After BCT, the 5-, 10- and 15-year were 8.3% (95% CI 6.3-10.5), 18.4% (95% CI 15.0-21.8) and 28.2% (95% CI 23.0-33.4), respectively ($P < 0.0001$). Adjuvant systemic therapy following BCT reduced the 15-year local relapse risk from 32.9% (95% CI 26.7-39.1) 16.1% (95% CI 9.1-23.1), ($P = 0.0007$). In conclusion, local tumor control in young patients with early-stage breast cancer is worse after BCT than after mastectomy. Adjuvant systemic therapy significantly improves local control following BCT and also for that reason it should be considered for most patients \geq 40 years. Long-term follow-up highly recommended for young patients after BCT, because even with systemic treatment an annual risk of local relapse of 1% remains up to 15 years after treatment.

Impactfactor:
4.859

Sangen MJ van der

Influence of histology on the effectiveness of adjuvant chemotherapy in patients with hormone receptor positive invasive breast cancer

Truin W, Voogd AC, Vreugdenhil G, Sangen MJ van der*, Beek MW van, Roumen RM

Breast. 2011 Dec;20(6):505-9. Epub 2011 Jun 12

INTRODUCTION: To investigate the effect of adjuvant chemotherapy on long term survival in addition to hormonal therapy in the systemic treatment of hormonal receptor positive breast cancer patients. **METHODS:** All patients with primary non-metastatic hormonal receptor positive invasive lobular (mixed) (=ILC) invasive ductal (=IDC) breast cancer operated on between 1986 and 2007 were identified from a population based cohort. Four hundred ninety-eight patients with lobular (mixed) and sixteen hundred seventeen with ductal cancer eligible. Both groups were divided in patients receiving adjuvant hormonal treatment With or without systemic chemotherapy. **RESULTS:** Overall survival wasnot statistically different in patients with ILC treated with adjuvant hormonal and chemotherapy compared to hormonal treatment alone (5-year survival 85.2% vs 82.8%, $P = .68$). In contrast, patients with IDC receiving adjuvant hormonal and chemotherapy had a significantly

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2.089

better overall survival compared to hormonal therapy alone (5-year survival rate 87.6% vs 80.8%, $P < .001$). In the multivariate analysis however, this significance disappeared suggesting that the data are possibly too small, too unbalanced, or influenced by other confounding factors to come to definitive conclusions. CONCLUSIONS: There are good reasons to consider ductal and lobular breast cancers as different entities in future studies. Patients with hormone receptor positive ILC seem to benefit differently from additional adjuvant chemotherapy to hormonal therapy as compared with patients with IDC.

Impactfactor: Schuring D
4.337 **Dose painting by contours versus dose painting by numbers for stage II/III lung cancer: practical implications of broad or sharp brush**
Meijer G*, Steenhuijsen J*, Bal M, Jaeger K de*, Schuring D*, Theuws J*
Radiother Oncol. 2011 Sep 26. 2011 Sep;100(3):396-401
Voor abstract zie: Radiotherapie - Meijer G

Impactfactor: Schuring D
4.503 **Quality Assurance of 4D-CT Scan Techniques in Multicenter Phase III Trial of Surgery Versus Stereotactic Radiotherapy (Radiosurgery Or Surgery for operable Early stage (Stage 1A) non-small-cell Lung cancer [ROSEL] Study)**
Hurkmans CW*, Lieshout M van*, Schuring D*, Heumen MJ van*, Cuijpers JP, Lagerwaard FJ, Widder J, Heide UA van der, Senan S
Int J Radiat Oncol Biol Phys. 2011 Jul 1;80(3):918-27. Epub 2010 Oct 13
Voor abstract zie: Radiotherapie - Hurkmans CW

Impactfactor: Steenhuijsen J
4.337 **Dose painting by contours versus dose painting by numbers for stage II/III lung cancer: Practical implications of broad or sharp brush**
Meijer G*, Steenhuijsen J*, Bal M, Jaeger K de*, Schuring D*, Theuws J*
Radiother Oncol. 2011 Sep 26. 2011 Sep;100(3):396-401

Impactfactor: Theuws J
4.337 **Dose painting by contours versus dose painting by numbers for stage II/III lung cancer: Practical implications of broad or sharp brush**
Meijer G*, Steenhuijsen J*, Bal M, Jaeger K de*, Schuring D*, Theuws J*
Radiother Oncol. 2011 Sep 26. 2011 Sep;100(3):396-401

* = Werkzaam in het Catharina Ziekenhuis

∞ = Ten tijde van publicatie werkzaam bij: Department of Radiation Oncology, MAASTRO Clinic, Maastricht, The Netherlands

Urologie

Impactfactor: **Broos HJ**
3.436 **The effect of distractions in the operating room during endourological procedures**
Persoon MC*, Broos HJ*, Witjes JA, Hendriks AJ*, Scherpbier AJ
Surg Endosc. 2011 Feb;25(2):437-43. Epub 2010 Aug 24
Voor abstract zie: Urologie - Persoon MC

Impactfactor: **Graaf GW de**
1.842 **Een man met een zwelling van het scrotum [A man with a swollen scrotum]**
Graaf GW de*, Haak A van den*
Ned Tijdschr Geneesk. 2011;155(35):A2191
A 32-year-old man was referred to our hospital with a painless left-sided scrotal mass present since infancy. Physical examination showed 2 small ovoid masses in the left hemiscrotum and 1 testis on the right side. Ultrasound showed supernumerary testis with fusion of epididymis. The diagnosis was: polyorchidism.

Impactfactor: **Hendriks AJ**
3.436 **The effect of distractions in the operating room during endourological procedures**
Persoon MC*, Broos HJ*, Witjes JA, Hendriks AJ*, Scherpbier AJ
Surg Endosc. 2011 Feb;25(2):437-43. Epub 2010 Aug 24
Voor abstract zie: Urologie - Persoon MC

Impactfactor: **Hendriks AJ**
3.19 **Effect of distraction on the performance of endourological tasks: a randomized controlled trial**
Persoon MC*, Putten K van*, Muijtjens AM, Witjes JA, Hendriks AJ*, Scherpbier AJ
BJU Int. 2011 May;107(10):1653-7. Epub 2010 Sep 3
Voor abstract zie: Urologie - Persoon MC

Impactfactor: **Koldewijn E**
8.843 **Reply from authors re: Giuseppe Morgia. Does the use of silodosin to treat benign prostatic hyperplasia really something New?**
Chapple CR, Montorsi F, Tammela TL, Wirth M, Koldewijn E*, Fernández EF; on behalf of the European Silodosin Study Group
Eur Urol 2011;59:353-5 . Epub 2010 Dec 28
Geen abstract beschikbaar

Impactfactor: **Koldewijn EL**
4.337 **A population-based study on the utilisation rate of primary radiotherapy for prostate cancer in 4 regions in the Netherlands, 1997-2008**
Poortmans PM, Aarts MJ, Jobsen JJ, Koning CC, Lybeert ML*, Struikmans H, Vullo JC, Louwman WJ, Coebergh Koldewijn EL*
Radiother Oncol. 2011 May;99(2):207-13. Epub 2011 May 26

Koldewijn EL

Better survival in patients with metastasised kidney cancer after nephrectomy: a population-based study in the Netherlands

Aben KK, Heskamp S, Janssen-Heijnen ML, Koldewijn EL*, Herpen CM van, Kiemeny LA, Oosterwijk E, Spronsen DJ van

Eur J Cancer. 2011 Sep;47(13):2023-32. Epub 2011 Apr 1

Impactfactor:
4.994

AIM: Cytoreductive nephrectomy is considered beneficial in patients with metastasised kidney cancer but only a minority of these patients undergo cytoreductive surgery. Factors associated with nephrectomy and the independent effect of nephrectomy on survival were evaluated in this study. METHODS: Patients were selected from the population-based cancer registry and detailed data were retrieved clinical files. Factors associated with nephrectomy were evaluated by logistic regression analyses. Cox proportional hazard regression analysis was performed to evaluate factors associated with survival; a propensity score reflecting probability of being treated surgically was included in order to adjust for confounding by indication. RESULTS: 37.5% of 328 patients diagnosed with metastatic kidney cancer between 1999 and 2005 underwent nephrectomy. Patients with a low performance score, high age, BMI, weight loss, elevated lactate dehydrogenase, elevated alkaline phosphatase, female gender and liver or bone metastases were less likely to be treated surgically. Three year survival was 25% and 4% for patients with and nephrectomy, respectively ($p < 0.001$). After adjustment for other prognostic factors including the propensity score, nephrectomy remained significantly associated with better survival (Hazard ratio: 0.52, 95% Confidence interval: -0.73). CONCLUSIONS: Even after accounting for prognostic profile, patients still benefit from a nephrectomy; an approximately 50% reduction in mortality was observed. It is, therefore, recommended that patients with metastasised disease receive cytoreductive surgery when there is no contraindication. Trial results on cytoreductive surgery combined with targeted molecular therapeutics are awaited for.

Koldewijn EL

Quality of life in complete spinal cord injury patients with a brindley bladder stimulator compared to a matched control group

Martens FM, den Hollander PP, Snoek GJ, Koldewijn EL*, van Kerrebroeck PE, Heesakkers JP

Neurourol Urodyn. 2011 Apr;30(4):551-5. Epub 2011 Feb 15

Impactfactor:
2.903

Aims: To determine the effects on Quality of Life (QoL) of a Brindley procedure, which combines a sacral dorsal rhizotomy to treat neurogenic detrusor overactivity with sacral anterior root stimulation to enable micturition, defecation, and penile erections in complete spinal cord injury (SCI) patients compared to a matched Control Group. Methods: Cross-sectional study. The Qualiveen questionnaire, SF-36 questionnaire, and multiple choice questions about continence and urinary tract infections were sent to 93 patients who had a Brindley stimulator implanted in the Netherlands and a matched Control Group of 70 complete SCI patients with neurogenic detrusor overactivity. Primary study outcomes were Specific Impact of Urinary Problems score and general QoL index of the Qualiveen.

Results: Response rates were 78% and 40% for patients with a Brindley stimulator and controls, respectively. Stimulators still used for micturition in 46 (63%). These patients had a significant better Specific Impact of Urinary Problems general QoL index (Qualiveen), and continence rate, and less urinary tract infections compared to the Control Group. Patients also benefited of the rhizotomy with regard to QoL and continence rate if the stimulator was not used anymore. The subscales of the SF-36 had better scores for the patients who used their stimulator as compared those who did not use the stimulator and compared to the Control Group. Conclusions: The Brindley stimulator complete spinal cord injury patients improves Quality of Life, continence, and urinary tract infection rate compared matched Control Group.

Impactfactor:
3.19

Persoon MC
Effect of distraction on the performance of endourological tasks: a randomized controlled trial

Persoon MC*, Putten K van*, Muijtjens AM, Witjes JA, Hendriks AJ*, Scherpbier AJ

BJU Int. 2011 May;107(10):1653-7. Epub 2010 Sep 3

Study Type - Therapy (case series) Level of Evidence performance of cystoscopy and basic endourological tasks by using a virtual reality (VR) simulator. SUBJECTS METHODS " performing the tasks on a VR simulator, were randomly assigned to an intervention or control group. performed three endourological tasks on the VR simulator. Participants in the intervention group were distracted into the third task. The distraction consisted of being asked to answer questions about a medical case that had presented to all the participants before the hands-on session. After two adequate verbal responses the conversation was terminated. " measured by the VR simulator. RESULTS were significantly higher in the intervention than in the control group with effect sizes (using Cohen's categorization) 0.48, 0.41 and 0.50 respectively. "feeling burdened by the distraction. CONCLUSIONS results in significantly poorer performance by medical students on all the variables measured in a controlled learning environment. " determine the impact of distraction on more experienced participants and on patient safety.

Impactfactor:
3.436

Persoon MC
The effect of distractions in the operating room during endourological procedures

Persoon MC*, Broos HJ*, Witjes JA, Hendriks AJ*, Scherpbier AJ

Surg Endosc. 2011 Feb;25(2):437-43. Epub 2010 Aug 24

BACKGROUND: Professionals working in the operating room (OR) are subject to various distractions that can be detrimental to their task performance and the quality of their work. This study aimed to quantify the frequency, nature, and effect on performance of (potentially) distracting events occurring during endourological procedures and additionally explored urologists' and residents' perspectives on experienced ill effects due to distracting factors. METHODS: First, observational data were collected prospectively during endourological procedures in one OR teaching hospital. A seven-point ordinal scale was used to measure the level of observed interference with the main task of the surgical team. Second, semistructured interviews were conducted with eight urologists and seven urology residents in two hospitals to obtain

their perspectives on the impact of distracting factors. RESULTS: Seventy-eight procedures were observed. A median of 20 distracting events occurred per procedure, corresponds to an overall rate of one distracting event every 1.8 min. Equipment problems and procedure-related medically irrelevant communication were the most frequently observed causes of interruptions and identified as most distracting factors in the interviews. Occurrence of distracting factors in difficult situations requiring high levels concentration was perceived by all interviewees as disturbing and negatively impacting performance. The majority interviewees (13/15) thought distracting factors impacted more strongly on residents' compared to urologists' performance due to their different levels of experience. CONCLUSION: Distracting events occur frequently in the OR. Equipment problems and communication, the latter procedure-related and medically irrelevant, have the largest impact on the sterile team and regularly interrupt procedures. Distracting stimuli can influence performance negatively and should therefore be minimized. Further research is required to determine the direct effect of distraction on patient safety.

Putten K van

Effect of distraction on the performance of endourological tasks: a randomized controlled trial

Persoon MC*, Putten K van*, Muijtjens AM, Witjes JA, Hendrikx AJ*, Scherpbier AJ

BJU Int. 2011 May;107(10):1653-7. Epub 2010 Sep 3

Voor abstract zie: Urologie - Persoon MC

Impactfactor:

3.19

Roermund JG van

Prostate Brachytherapy and Second Primary Cancer Risk: A Competitive Risk Analysis

Hinnen KA, Schaapveld M, Vulpen M van, Battermann JJ, Poel H van der, Oort IM van, Roermund JG van*, Monninkhof EM

J Clin Oncol. 2011 Dec 1;29(34):4510-5. Epub 2011 Oct 24

PURPOSE To assess the risk of second primary cancer (SPC) after [(125)I]iodine prostate cancer brachytherapy compared with prostatectomy and the general population. PATIENTS AND METHODS In a cohort consisting of patients with prostate cancer who received monotherapy with brachytherapy (n = 1,187; 63%) or prostatectomy 701; 37%), SPC incidences were retrieved by linkage with the Dutch Cancer Registry. Standardized incidence rates (SIRs) and absolute excess risks (AERs) were calculated for comparison. Results A total of 223 patients were diagnosed with SPC, 136 (11%) after brachytherapy and 87 (12%) after prostatectomy, with a median follow-up years. The SIR for all malignancies, bladder cancer, and rectal cancer were 0.94 (95% CI, 0.78 to 1.12), 1.69 (95% 0.98 to 2.70), and 0.90 (95% CI, 0.41 to 1.72) for brachytherapy and 1.04 (95% CI, 0.83 to 2.28), 1.82 (95% CI, 3.35), and 1.50 (95% CI, 0.68 to 2.85) for prostatectomy, respectively. Bladder SPC risk was significantly increased after brachytherapy for patients age 60 years or younger (SIR, 5.84; 95% CI, 2.14 to 12.71; AER, 24.03) and in 4 years of follow-up (SIR, 2.14; 95% CI, 1.03 to 3.94; AER, 12.24). Adjusted for age the hazard ratio (brachytherapy prostatectomy) for all SPCs combined was, 0.87 (95% CI, 0.64 to 1.18). CONCLUSION Overall, we found no difference in SPC incidence

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18.97

between patients with prostate cancer treated with prostatectomy or brachytherapy. Furthermore, increased tumor incidence was found compared with the general population. We observed a higher than expected incidence of bladder SPC after brachytherapy in the first 4 years of follow-up, probably resulting from lead time screening bias. Because of power limitations, a small increased SPC risk cannot be formally excluded.

* = *Werkzaam in het Catharina Ziekenhuis*

Boeken

Anesthesiologie

Buise MP*, Moonen L*

Antistolling rond cardiochirurgische ingrepen. - p. 35-41

In: Intensive Care Capita Selecta 2011 / Red. Boogaard MH van den, Gommers D., Kingma WP, Lange B de, Voort PH van der
Utrecht : Venticare, 2011
ISBN: 9789072651280

Scheepers-Hoeks AM*, Grouls RJ*, Neef C, Ackerman EW*, **Korsten EH***.- p. 31-44

Success factors and barriers for implementation of advanced clinical decision support systems.

In: Efficient decision support systems : practice and challenges in biomedical related domain /
Ed. Jao CS
Rijeka : CroatiaInTech, 2011
ISBN: 978953307258-6

Apotheek

Lammers HW*, **Grouls RJ***, Bindels AJ*, Roos AN*

Toxicologie behandelinformatie Aceton

In: Toxicologie behandelinformatie : monografieën (ebook)
<http://www.toxicologie.org/index.asp2011>

Scheepers-Hoeks AM*, **Grouls RJ***, Neef C, **Ackerman EW***, Korsten EH*. - p.31-44

Chapter 3: Success factors and barriers for implementation of advanced clinical decision support systems

In: Efficient decision support systems : practice and challenges in biomedical related domain / editor Jao CS
Rijeka, Croatia : InTech, 2011
9789533072586

Cardiologie

Woorst J ter*, **Dekker L***

3.2.3. Reflectie vanuit artsenperspectief. - p.170-173

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1.1 De geschiedenis van het hartcentrum. – p. 17-59

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1.2 Ontwikkelingen in de cardiologie : the sky is the limit. – 60-66

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2.4 Fit for life. Revalidatie en leefstijlbegeleiding na een harfinfarct. – 136-142

In: Hightech en hartelijkheid : hartcentrum in beweging : behandeling - begeleiding - ervaring - beschouwingen / Jordens K*, Woorst J ter*, Heffen L van*, Laar E van de* Antwerpen ; Apeldoorn : Garant, 2011
9789044128383

Cardiothoracale chirurgie

Jordens K*, **Woorst J ter ***, **Heffen L van***, Laar E van de * (red.)

Hightech en hartelijkheid : hartcentrum in beweging : behandeling - begeleiding - ervaring - beschouwingen

Antwerpen ; Apeldoorn : Garant, 2011
9789044128383

Abrahamse C*

3.2.1. Reflectie vanuit managementperspectief. - p. 164-167

Brugmans S*, Os I*.

3.2.2. Reflectie vanuit verpleegkundig perspectief. - p. 167-170

Heffen L van*, Poel F van de*

3.3. "Spiegelkje spiegelkje..." : het spiegelgesprek als kwaliteitsinstrument. - p. 180-185

Lambooy M*

2.1. Hightech en high touch : over rollen en beroepshouding van de cardiochirurgisch verpleegkundige. - 85-95

Ozdemir HI*, Yücel M*

4.3. De plicht om over het hart te waken. - p.220-223

Soliman Hamad MA*

4.4. Hart voor Egypte : geschiedenis en toekomst van een internationaal project. - p.186-194

Straten AH van*

1.3. De beste behandeling voor iedere patiënt : ontwikkelingen in de hartchirurgie. - p. 67-73.

Woorst J ter *, Jordens K*

1.4. Van A (acute pijn op de borst) tot Z (ziekenhuisontslag) : beeld van een zorgtraject en van betrokken medewerkers. - p.74-82

Woorst J ter*, Dekker L*

3.2.3. Reflectie vanuit artsenperspectief. - p. 170-173

In: Hightech en hartelijkheid : hartcentrum in beweging : behandeling - begeleiding - ervaring - beschouwingen

Antwerpen ; Apeldoorn : Garant, 2011
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Centrale sterilisatie afdeling

Ozdemir HI*, *Yücel M**

4.3. De plicht om over het hart te waken. - p. 220-223

In: Hightech en hartelijkheid : hartcentrum in beweging : behandeling - begeleiding - ervaring - beschouwingen / Jordens K*, Woorst J ter*, Heffen L van*, Laar E van de*

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Chirurgie

*Buth J**, *Tielbeek AV**

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**Wetenschapsavonden
Catharina Ziekenhuis**

Presentaties

Anesthesiologie

Herold IH

Blood volume measurements by contrast enhanced ultrasound and thermodilution: an in vitro comparison

Herold IH*, Russo G*, Saidov T, Bindels AJ, Mischi M, Korsten HH*

Wetenschapsavond 22-11-2011

Introduction: In clinical practice, blood volume (BV) is typically measured by thermodilution.

Recently, Contrast Enhanced Ultrasound (CEUS) has been proposed as an alternative for BV assessment. BV assessment by CEUS involves measurement of flow and analysis of Ultrasound Contrast Agent (UCA) Indicator Dilution Curves (IDCs) for the estimation of UCA Mean Transit Time (MTT). In this work we compare mean transit times by thermodilution and in vitro. Methods The model (Fig.1.) consisted of a centrifugal pump and a variable network with an inflow and outflow cannula. SonoVue® UCA (1 mg in 20 ml saline at 4°C) was injected right after the pump. The cold UCA passage through inflow and outflow tubes was measured simultaneously by an ultrasound transducer and two thermistors (RADI at the same spot, in the inflow and outflow cannula, producing two UCA and thermodilution IDCs, respectively. After estimation of the UCA and thermic μ of the IDC_s of the inflow and outflow cannula, the MTt between the inflow outflow cannula by CEUS and thermodilution can be calculated. These MTt_s were compared with each other, giving an estimate of volume when the cardiac output is known. Results The correlation between de thermodilution and echo estimated MTt_s r^2 0,9188 . The Pearson r 0,9586 with a 95% confidence interval of 0,9150 to 0,9800. The correlation is significant with P (two-tailed) < 0,0001. The analysis according to Bland- Altman showed a agreement between the MTt_s measured by CEUS and thermodilution of sec. Conclusion CEUS is a very good non-invasive alternative for mean transit time estimation. Temperature estimated mean transit time leads to a few seconds overestimation due to indicator loss at high volumes and low flows. CEUS can be a alternative for measuring volumes in the patient knowing the cardiac output.

Apotheek

Harmsze AM

Combined Influence of Proton Pump Inhibitors, Calcium Channel Blockers and CYP2C19* on Treatment Platelet Reactivity and on the Occurrence of Atherothrombotic Events Patients undergoing Coronary Stent Implantation

Harmsze AM* Werkum JW van, Souverein PC., Breet NJ, Bouman HJ., Hackeng CM, Ruven HJ, Berg JM ten, Klungel OH, Boer A de, Deneer VH

Wetenschapsavond 19-4-2011

Background: Carriage of CYP2C19*2 and the use of proton pump inhibitors (PPIs) and calcium channel blockers (CCBs) has associated with diminished efficacy of clopidogrel. However, previous studies only assessed the isolated impact these risk factors for clopidogrel poor-response. Aim: To investigate the impact of combined presence of three pharmacokinetic risk factors for clopidogrel poor-response, i.e. the use of CCBs, PPIs and carriage of CYP2C19*2, on on-treatment platelet reactivity and the occurrence of atherothrombotic events in 725 patients on dual antiplatelet therapy undergoing elective

coronary stenting. Methods: In a prospective follow up study, on-treatment platelet reactivity was quantified using ADP-induced light transmittance aggregometry and the VerifyNow P2Y12 assay. The clinical study endpoint was the composite all-cause mortality, myocardial infarction, stent thrombosis and stroke at one year after stenting. Results: Patients with either one or more than one risk factor exhibited increased platelet reactivity (mean relative increase risk factor: 11% and >1 risk factor: 28%, respectively). Sixty-four events occurred during follow-up (8.8% of the population). Patients with one risk factor for clopidogrel poor-response did not have an increased risk of the composite endpoint. However, patients using both CCBs and PPIs and carriers of CYP2C19*2 who used CCBs had a statistically significant increased risk of the composite endpoint (HRadj 2.1 95% CI, 1.0-4.4, p=0.037 and HRadj 3.3 95% CI, -9.5, p=0.029, respectively). Conclusions: The presence of more than one of the three investigated pharmacokinetic risk factors for clopidogrel poor-response is associated with an increased risk of adverse cardiovascular events within one year after elective coronary stenting.

Chirurgie

Dalen HC van

A Distressed Personality in Patients with Intermittent Claudication: 1-Year Walking and Health Status Outcomes Following Supervised Exercise Therapy versus Walking Advice. A Future Role for the Vascular Nurse?

Dalen HC van*, Nicolai SP, Lauret GJ*, Smolderen KG, Vriens P, Tejjink JA*

Wetenschapsavond 19-4-2011

Introduction: Intermittent claudication (IC) occurs as a result of chronic atherosclerotic disease. The initial treatment addresses cardiovascular risk factors and supervised exercise therapy (SET) to improve patients' quality of life and walking distance. Whether psychological distress is a barrier in maximizing treatment results following SET, is unknown. compared (S)ET results in patients with IC and a distressed (Type-D) personality versus patients who did not have such personality. Methods: Patients from one vascular centre completed the DS-14 questionnaire to assess Type-D personality. The primary outcome measure was 1-year change in absolute claudication distance (ACD); secondary outcomes were 1-year change in functional claudication distance and health status changes (SF-36). All outcome measures were compared by the presence of having a Type-D personality. Results: In total, 120 patients were included in the WA (n=40) and SET group (n=80). Type-D personality was present in both study groups. After 1 year follow-up, no significant increase was found in ACD in patients with Type-D personality and WA. A significant increase was seen only in the SF-36 domains (Physical Functioning, Bodily Pain and Social Functioning) of the SET group without type-D. Type-D patients as well as patients with a WA showed no increase their 1-year health status scores. Conclusion: Type-D personality was associated with compromised 1-year walking and health status outcomes following SET. Future research is needed to identify why these patients fail to obtain the same treatment benefit as their nondistressed counterparts. Furthermore, the role of vascular nurses in coaching Type-D personalities should be expanded, in order to further prioritize care towards this burdened group of patients.

Klaver YL

Peri-operative chemotherapy after cytoreduction for peritoneal carcinomatosis

Klaver YL*, Hendriks T, Lomme RM, Rutten HJ*, Bleichrodt RP, Hingh IH de*

Wetenschapsavond 19-4-2011

Background and aim: Perioperative intraperitoneal chemotherapy is used as an adjunct to cytoreductive surgery (CS) for peritoneal carcinomatosis (PC) in order to prolong survival.

Worldwide, Hyperthermic intraperitoneal chemotherapy (HIPEC), Early Postoperative Intraperitoneal Chemotherapy (EPIC) and combinations of both are used. It remains unclear which regimen is most beneficial. Methods The rat colon carcinoma cell line CC-531 was injected into the peritoneal cavity of eighty WAG/Rij rats to simulate animals. Animals were randomized into four treatment groups (n=20): CS only, CS followed by HIPEC (mitomycin 35 mg/41°C), CS followed by EPIC during 5 days (i.p. injection of mitomycin on day 1 and 5-fluorouracil on day 2-5), CS followed by HIPEC plus EPIC. Primary outcome was survival. Results: In rats treated with CS only, median survival was 53 days (95% confidence interval (CI) 49-57). In rats treated with CS followed by HIPEC, survival was significantly increased. (median survival 94 days, 95% CI 54-133) (p = 0.005). In the group treated with EPIC after CS, 15 out of 20 rats were still alive at the end of the experiment (p<0.0001 as compared to CS only). In the group of rats receiving both treatments, all rats died of toxicity. Conclusion: Both EPIC and HIPEC were effective in prolonging survival when applied as adjuvant treatment after CS. The beneficial effect of EPIC on survival seemed to be more pronounced than that of HIPEC. Further research is required to evaluate and compare the possible beneficial and adverse effects associated with both treatments.

Stokmans RA

Chronische Q-koorts in patiënten met aneurysmata en vaatprotheses: 18 nieuwe casussen in een endemische regio

Stokmans RA*, Wegdam-Blans M*, Cuijpers Ph*, Sambeek MR van*, Bos-van Rossum W, Stultiëns G, Linden F van der, Wolf-de Jonge I, Oomen A, Teijink JA*

Wetenschapsavond 19-4-2011

Tijdens de laatste epidemie zijn in Zuid-Oost Brabant 500 patiënten met acute Q-koorts gediagnosticeerd. Circa 60% van deze *Coxiella burnetii* infecties verloopt asymptomatisch, de werkelijke omvang van de epidemie is daarom groter. Circa 2-5% ontwikkelt tot een chronische vorm. Patiënten met aneurysmata, vaat- en/of hartklepprotheses zijn at risk. Franse cohorten beschrijven 80% endocarditiden en 10% vasculitiden bij chronische Q-koorts. Sinds mei 2009 presenteren zich 14 casus met ernstige vasculaire complicaties door chronische Q-koorts. In september 2010 zijn wij gestart met een systematisch, gefaseerd screeningsprogramma voor patiënten met aortale aneurysmata of vaatprotheses. Screening van de eerste 322 vaatpatiënten resulteerde in nog eens 4 maal de diagnose chronische Q-koorts. Kenmerken van de 18 vasculaire casus werden met elkaar vergeleken. Het cohort, met evenveel mannen als vrouwen had een gemiddelde leeftijd van 67,7±9,8 jaar. Het betrof 13 geïnfecteerde aortaprotheses en 5 geïnfecteerde aneurysmata. De diagnose werd gesteld op basis van serologie (78%) en/of PCR van serum of weefsel (72%). Griepachtige symptomen waren aanwezig bij 11/18 patiënten, waarbij koorts en vermoeidheid de voornaamste symptomen waren. Doxycycline/hydroxychloroquine werd gestart bij 15 patiënten. Chirurgie werd bij 6 patiënten noodzakelijk en mogelijk geacht. Mortaliteit was 22%. Chronische Q-koorts is een vaatchirurgisch probleem waarbij op dit moment slechts de tip van de ijsberg zichtbaar is gemaakt. Tijdige interventie met antibiotica al dan niet in combinatie met chirurgie kan ernstige complicaties helpen voorkomen. Vandaar ons screeningsprogramma dat leidt tot eerdere detectie van de ziekte, en een vergroot inzicht in het beloop en de bestrijding van chronische Q-koorts bij vaatpatiënten.

Stokmans RA

Mid-term results from the ENGAGE Registry: Real world performance of the Endurant endograft for the treatment AAA in 1200 patients

Stokmans RA*, Teijink JA*, Forbes TL, Böckler D, Peeters PJ, Riambau V, Hayes PD, Sambeek MR van*

Wetenschapsavond 22-11-2011

Objective: Endovascular abdominal aortic aneurysm (AAA) repair is an ever changing endeavor. Results change new devices become available and surgeons become more proficient. The ENGAGE registry was undertaken to examine the real world outcome after endovascular AAA repair (EVAR) with the Endurant Stent Graft in a large, contemporary, global series of patients. Methods: From March 2009 to November 2010, 1200 AAA patients were enrolled from 79 sites in 30 countries and treated with the Endurant. Results are described following the reporting standards for EVAR. Follow-up data was tabulated for all 1200 patients at 30-day and for the first 350 patients at one-year follow-up. Results: This study included 1200 patients (89.8% men, mean age 73.3±8.1 years). The mean AAA diameter was ±12mm. The AAA was symptomatic in 15.4%, 52.8% of patients were classified as class III or IV, and 16.8% of series had hostile anatomic criteria. Intraoperative technical success rate was 99.1. Within 30 days, one or more adverse events were reported in 4.1% of patients, including a 1.3% mortality rate. One-year Kaplan-Meier estimates overall survival was 91.0% (SE .016), whereas aneurysm related survival was 98.2% (SE .007). One-year reintervention rate was 4.9. At one year, aneurysm size increased e 5 mm in 3.0% of cases, was stable in 55.8% cases, and decreased e 5 mm in 41.1% of cases. Conclusion: The short- and mid-term clinical outcome after endovascular AAA repair with the Endurant stent graft real world, global experience is excellent across different geographies and standards of practice.

Dermatologie

Martens J

Imiquimod 5% cream as pre-treatment of Mohs Micrographic Surgery for nodular basal cell carcinoma in the face, prospective randomized controlled study

Martens J*, Geer S van der*, Roij J van*, Brandt E*, Ostertag JU*, Verhaegh M*, Neumann HA, Krekels GA*

Wetenschapsavond 22-11-2011

Background: Imiquimod 5% cream is an immune response modifier which can reduce or clear superficial and small nodular basal cell carcinoma (BCC). It could be used as a pre-treatment of Mohs micrographic surgery (MMS) to decrease defect size. Objective: To study if a pre-treatment with imiquimod 5% cream decreases defect size after Mohs micrographic surgery. In addition the effect on the number of Mohs stages and reconstruction time was studied. Methods and Materials: 65 patients >18 years with a primary nodular BCC in the face, 1-5 cm in diameter were included. The imiquimod group used imiquimod 5% cream once daily, 5 days a week during 4 weeks, followed by MMS. The control group was treated with MMS only. Tumour sizes and defect sizes were measured. In addition we noted number of Mohs-stages, reconstruction time side-effects. Results: There was a significant difference between both groups according to the median percentage increase in from tumour size at baseline to the post-MMS defect. For the imiquimod group was the increase was 37%, for the control group this was 147% (p=.000). A tendency towards less Mohs stages in the imiquimod group was observed compared to the control group. Reconstruction time was significantly shorter in the imiquimod group (0.010). Erythema and crusts were the most often reported side-effects; in 78% resp. 69% of the patients after 4 weeks. Conclusion: Imiquimod 5% cream as pre-treatment before Mohs micrographic surgery significantly reduced tumour in primary nodular BCC and reduced the surgical defect size.

Inwendige geneeskunde

Schotborgh CA

High incidence of a second primary esophageal squamous cell carcinoma in patients with previous head-and-neck cancer: a nationwide population-based study

Schotborgh CA*, Liu L., Lemmens VE, Soerjomataram I., Bergman JJ, Schoon EJ*

Wetenschapsavond 19-4-2011

Background: Esophageal cancer is among the ten most common malignancies in the world. The prognosis is often quite poor, 5-year survival of 10-15%, often due to the advanced state of disease at time of diagnosis. Previous studies have found that patients diagnosed with a cancer of the head-and-neck and lung, are at a higher for esophageal squamous cell carcinoma (ESCC). However, population-based data on the magnitude of this risk scarce. Aim: To assess the risk of developing a second primary ESCC among head-and-neck and lung cancer survivors in the Netherlands in order to determine the usefulness of a ESCC screening program in these patients. Methods: The population-based Netherlands Cancer Registry (NCR) provides unique incidence data on all malignant tumors diagnosed in the Netherlands. Through an annual linkage with the Dutch Municipality Register, complete information on vital status of each patient in the registry is ensured. All Dutch patients who developed a first primary cancer between 1989 and 2008 were included in our analysis (1,391,490). We subsequently studied how many of these patients developed a second primary esophageal cancer. We calculated the Standardized Incidence Ratio (SIR) and the 95% CI, which was computed under Poisson regression. Results: In total, 5,619,927 person years at risk were obtained from the cohort. During a median of 3 years, ~ 10% of our of first cancer patients (n: 135,725/1,391,490) developed a second primary cancer. Of them, 2,214 (1.6%) had a second esophageal cancer. Cancer patients had a 70% higher risk of developing any esophageal cancer (SIR: (95% CI: 1.6-1.7)) and a twofold higher risk of developing ESCC (SIR: 2.2 (95% CI: 2.1-2.4)) as compared to the general population. The relative risk (SIR) of a second ESCC among lung cancer patients was 3.70 (95% CI: 3.0-4.4) a remarkably high relative risk of developing a second ESCC was observed among patients with a first head-and-neck cancer with a SIR of 19.3 (95% CI: 16.9-22.0) and 36.9 (95% CI: 29.8-45.4) for males and females respectively. 9,584 female patients with a first head-and-neck cancer 92 developed a second ESCC with a Number Needed Screen of 96. Conclusions: This first nationwide, population-based study in the Western world on the incidence of ESCC in head-and-neck survivors shows that these patients have a 22 times higher risk of developing ESCC. This observation is even more pronounced in female patients. These data suggest that head-and-neck cancer survivors may benefit from periodical screening for ESCC.

Klinisch fysische dienst

Braakman N

Risicoanalyse voor stralingstoepassingen radiologie: een pilotstudie ter validatie van het NVKF-model hiervoor

Braakman N*

Wetenschapsavond 19-4-2011

Achtergrond: Om het risico van blootstelling aan ioniserende straling voor werknemers te beperken dient voor handelingen met ioniserende straling een risicoanalyse te worden uitgevoerd. Deze risicoanalyse ligt ten grondslag aan de categorieïndeling van werknemers, en vormt de basis van het stralingshygiënisch zorgsysteem. Een leidraad hiervoor is in opdracht van SZW opgesteld door het RIVM (11/2010). In het CZE is sindsdien een risicoanalyse uitgevoerd, gebaseerd op deze RIVM-richtlijn en op een conceptmodel van de NVKF-werkgroep RI&E

Radiologie (11/2009). Doelstelling Evaluatie van de RIVM-richtlijn en validatie van het NVKF conceptmodel voor risicoanalyse van röntgentoepassingen, door metingen en berekeningen aan een doorlichtkamer. Methode De pilotstudie is uitgevoerd in de doorlichtkamer met de hoogste jaarproductie (röntgenkamer 2). Op strategische locaties in de doorlichtkamer is het stralingsniveau gemeten. Met het NVKF-model is de dosis verstrooide straling op verschillende afstanden van de bron berekend. Als input voor dit rekenmodel zijn een aantal parameters (kV, mA, doorlichtingsduur, dosis, veldgrootte) van het röntgentoestel (Siemens AXIOM Luminos dRF) geregistreerd. Het model is gevalideerd door de berekende waarden te vergelijken met metingen en dosiswaarden getoond op het röntgensysteem. Na validatie is het model gebruikt om de jaardosis te voorspellen voor medewerkers in de doorlichtkamer. Ook onderzocht wat de mogelijke gevolgen zijn van bedoelde en onbedoelde blootstelling van medewerkers. Resultaten Gemeten stralingsniveau_s zijn consistent met berekende waarden. De berekende jaardosis blijft beneden de normen: < 11 mSv (1 meter), indien een loodschort gedragen wordt, en < 3 µSv in de bedieningsruimte. Conclusie: De RIVM-richtlijn structureert het risicoanalyseproces. Het NVKF-model is bruikbaar en zal ziekenhuisbreed worden ingezet bij risicoanalyses. Uit berekeningen volgt dat de onderzochte doorlichtkamer geen aanvullende maatregelen vergt ter bescherming van werknemers.

Longziekten

Romme EA

Plasma 25-hydroxyvitamin D concentration is associated with bone mineral density and muscle strength in patients with COPD admitted for pulmonary rehabilitation

Romme EA*, Rutten EP, Smeenk FW*, Spruit MA, Menheere PP, Wouters EF

Wetenschapsavond 19-4-2011

Background: Chronic Obstructive Pulmonary Disease (COPD) is characterized by progressive airflow limitation not fully reversible. Besides pulmonary effects, COPD is also characterized by extrapulmonary effects including osteoporosis and reduced muscle strength. Recently, vitamin D is suggested to interfere with these extrapulmonary effects 1. Aim: To examine the prevalence of vitamin D deficiency and its relation with bone mineral density (lowest T-score) muscle strength in patients with COPD admitted for pulmonary rehabilitation. Methods: In a cross-sectional study 151 patients with moderate to very severe COPD consecutively admitted for pulmonary rehabilitation were included. Data on lung function, body mass index (BMI), fat free mass index (FFMI), mass index (FMI), bone mineral density, isometric quadriceps maximum voluntary contraction strength (QMVC) plasma 25-hydroxyvitamin D (25(OH)D) concentration were collected. Vitamin D deficiency was defined as plasma (OH)D concentration below 50 nmol/L (20 ng/mL). Results: Fifty-eight percent of patients had vitamin D deficiency. Plasma 25(OH)D concentrations were inversely associated with severity of COPD ($p < 0.001$) and in males inversely associated with FMI ($p = 0.014$). In addition, correction for confounding variables plasma 25(OH)D concentrations were positively associated with T-score ($p =$ and QMVC ($p = 0.047$). Conclusions: Vitamin D deficiency was common in patients with COPD admitted for pulmonary rehabilitation. Plasma 25(OH)D concentrations were positively associated with bone mineral density and muscle strength. Intervention are necessary to determine whether vitamin D supplementation is of benefit in the prevention and/ or treatment osteoporosis and reduced muscle strength in patients with COPD.

Utens CM

Early assisted discharge and community nursing for Chronic Obstructive Pulmonary Disease (COPD) exacerbations: results of a randomised controlled trial

Utens CM*, Goossens LM, Schayck CP van, Rutten-van Mólken MP, Smeenk FW*

Wetenschapsavond 22-11-2011

Background: COPD exacerbations are responsible for many hospitalisations each year. It is possible to substitute of the admission by home treatment. Schemes that reduce length of stay, are early assisted discharge schemes. England most schemes involve hospital-based, respiratory nurses for supervision at home. Whether this is the most effective form of supervision is still controversial. Objective: To determine the effectiveness of early assisted discharge with supervision at home by generic community nurses. Methods: Prospective, randomised controlled, multi-centre trial with 3 months follow-up. Main outcome measurement for effectiveness was change in health status, measured by the Clinical COPD Questionnaire (CCQ), secondary outcomes were readmissions, mortality and changes in generic quality of life. Results: 1371 patients were screened. 508 met the entry criteria, 222 participated. On day 3 of admission, 69 patients were randomised to usual hospital care and 70 to early discharge care. There was no difference in change in CCQ score between randomisation and the end of the treatment (day 7) between the groups (mean difference in change -0.21 95% CI -0.37 to 0.43) nor between randomisation and the end of the follow up (0.03, -0.54 to 0.13). One in each group died during follow up. 17 patients in each group had one or more readmission. Generic quality of significantly better in hospital patient at the end of the treatment but there was no significant difference at the end follow up. Conclusions: Early assisted discharge with supervision by generic community nurses is feasible and a safe alternative to usual hospital care.

Plastische Chirurgie

Beets MR

De vele voordelen van langwerkende locale anesthetica bij borstverkleining

Beets MR*, Smit J*, Broek K van de*, Rappard J van*

Wetenschapsavond 22-11-2011

Achtergrond: Iedere plastisch chirurg verricht borstverkleinende ingrepen. Het is een van de meest voorkomende plastisch chirurgische operaties. Er wordt steeds vaker plaatselijke verdoving toegediend als adjuvans op de intraveneuze pijnmedicatie. Het toedienen van plaatselijke verdoving lijkt te leiden tot een vermindering in postoperatief opioïd gebruik en de daarmee gepaarde gaande onwenselijke bijwerkingen zoals misselijkheid. Doelstelling: Het objectiveren van de daling van postoperatief opioïd gebruik en de daling van de incidentie van postoperatieve misselijkheid als gevolg van het toedienen van ropivacaïne als plaatselijke verdoving. Methode: In deze retrospectieve studie zijn alle patiënten die een mammareductie hebben ondergaan in de periode 2005-2009 geïnccludeerd. 522 statussen werden onderzocht. 328 patiënten kregen geen plaatselijke verdoving toegediend ten tijde van de ingreep en 193 patiënten kregen ropivacaïne toegediend via subcutane infiltratie en/of via de geplaatste drains. Risico factoren, pijn scores, operatieve kenmerken, postoperatieve misselijkheid en braken, medicatie gebruik en complicatie ratio's werden genoteerd. De uitkomsten werden met behulp van SPSS geanalyseerd. Er was sprake van significantie bij een p waarde van < 0,05. Resultaten: Patiënten die ropivacaïne kregen gebruikten postoperatief significant ($p=0,00$) minder dipidolor ten opzichte van patiënten die geen plaatselijke verdoving kregen toegediend, mediaan 3 mg (0-9) en mediaan 10mg (0-20), resp. was geen significant ($p=0,02$) verschil in postoperatieve pijnscore tussen de twee groepen, mediaan 2 (0-4) en resp. Het meest opvallende, significante ($p=0,00$), verschil is dat 46% van de patiënten in de groep zonder locale verdoving postoperatieve

misselijkheid vertoonde en dat slechts 28% van de patiënten die ropivacaïne kregen misselijk waren. Conclusie: Het gebruik van ropivacaïne als lokale verdoving leidt waarschijnlijk tot een vermindering van opiaatgebruik met gewenst neveneffect het verminderen van postoperatieve misselijkheid bij patiënten die een mammareductie ondergaan. Wij zijn op dit moment bezig om deze observatie te toetsen met een prospectieve studie.

Urologie

Broos H

Uitkomstresultaten brachytherapie voor high risk prostaatcarcinoom en het gebruik van de Memokath prostaatstent de behandeling van postbrachy urineretentie

1: Combination treatment with hormones, permanent interstitial brachytherapy and supplemental external radiation for high risk localized prostate cancer: Outcome results of the combined modality

2: The Memokath prostate stent as a temporary device to relieve bladder outflow obstruction after prostate brachytherapy: experience in 21 patients

Broos H*, Vrijhof E*, Moorselaar J van

Wetenschapsavond 19-4-2011

1: Purpose: To study the effect of a triple modality protocol with neoadjuvant and concurrent hormonal therapy (HT), permanent brachytherapy (BT) and adjuvant three-dimensional conformal external beam radiation therapy (EBRT) the treatment of high risk prostate cancer using biochemical outcomes. Methods and Materials: From 2004 to 2008, a total of 72 patients with high risk prostate cancer underwent triple combination treatment with HT, BT and adjuvant EBRT. Patients were defined as high risk if they possessed one following high-risk criteria: Gleason score 8-10, initial prostate-specific antigen (PSA) serum level >20 ng/mL or stage e T3, or if they had two or more of the following intermediate-risk features: Gleason score 7, PSA serum level >10-20 ng/mL or clinical stage T2c. Patients were followed for a median of 50 months (range 28 to 79 months). Results: The 5-year freedom from PSA failure (FFPF) rate was 84%. None of disease-related variables significantly impact PSA failure rate. Initial PSA serum levels show a trend toward significance with 5-year FFPF rates of 100% (PSA < 10 ng/ml), 92% (PSA 10-20 ng/ml) and 65% (PSA >20 ng/ml) (p=0.06). The FFPF rate at 5 years was 85% patients without extracapsular invasion (clinical stage d T2c) versus 82% for those with extracapsular disease (clinical stage e T3) (p=0.69). At last clinical visit 87% of the patients had PSA serum levels <0.5 ng/ml. Conclusion: Triple modality approach with 9 months of HT, permanent BT (107 Gy) and supplemental EBRT (45 resulted in excellent biochemical control rates in men with high risk locally advanced prostate cancer.

2: Purpose: To assess the Memokath" prostate stent (MPS), as a temporary device, to decrease severe bladder obstruction (BOO) and treat acute urinary retention (AUR) in patients treated with permanent prostate brachytherapy (BT). Material and methods: From May 2007 till February 2010 twenty-one patients with unusually severe BOO and with or more episodes of AUR after Iodine-125 prostate BT were selected for MPS placement. The mean time after seed implant was 5.0 months (range 2-40). The stent, a nickel-titanium alloy with thermal shape-memory, was placed spinal or general anaesthesia without complications. Stent positioning was evaluated at clinical visits and urinary symptoms were measured by using International Prostate Symptom Score (I-PSS). Mean follow-up after urethral placement has been 24.5 months (range 6-41).

Posters

Algemeen klinisch laboratorium

Berkel M van

Troponin I as a cardiac biomarker for cardiovascular mortality in patients on haemodialysis

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

Wetenschapsavond 19-4-11

Background: The high prevalence of cardiovascular mortality in patients on chronic haemodialysis is well established. Cardiac biomarkers like B-type natriuretic peptide and cardiac troponin T are correlated with cardiovascular mortality, but this relationship is much less clear for cardiac troponin I (cTnI). Objective: The relation between cTnI and cardiovascular mortality in asymptomatic chronic haemodialysis patients investigated, using a second generation, sensitive troponin assay. Furthermore, the cardiovascular mortality in patients with only minimally, but persistently elevated cTnI levels was evaluated. Methods: This study was a prospective, observational, single centre study with 206 chronic haemodialysis patients (months). The mean age was 65 ± 14.1 yrs. Patients were stratified in 4 subgroups according to mean cTnI. cTnI determined every 3 months for 24 months using a cTnI-ultra assay (Advia Centaur analyzer, Siemens Diagnostics). Cardiovascular morbidity and mortality was assessed over a period of 30 months. Results: In the study period, 49 of 206 patients (23.8%) died, 31 (15.1%) of which died due to cardiovascular disease. Higher cTnI levels were significantly correlated to mortality. Compared to patients with non-elevated cTnI levels, patients with cTnI levels of 0.01-0.05, 0.05_0.10 and > 0.10 have increasingly higher incidence of cardiovascular events, mortality ($p=0.005$) and particularly higher cardiovascular mortality. Conclusion: cTnI can be used as prognostic biomarker for (cardiovascular) mortality in chronic haemodialysis patients. High cTnI levels predict higher risk of cardiovascular events and mortality. Interestingly, this is already true for patients with only minimally elevated cTnI levels.

Boonen KJ

Urine flowcytometrie als primaire screening voor het uitsluiten van urineweginfecties

Boonen KJ*, Koldewijn EL*, Scharnhorst V*

Wetenschapsavond 19-4-11

Achtergrond en doelstelling: Het kweken van pathogene organismen uit urine- monsters is een tijdrovende en kostbare aangelegenheid. Bovendien is 70-80% van de kweken negatief en is een deel slechts bedoeld ter uitsluiting van urineweg- infecties voorafgaand invasieve ingrepen. Met behulp van een urine flowcytometer kunnen bacteriën in urine betrouwbaar worden geteld. Doel van deze studie was het bepalen van een afkapgrens voor het aantal bacteriën met behulp van urine flowcytometrie ten behoeve van het uitsluiten van urineweginfecties. Methode: Gedurende een periode van 3 maanden werden urines van patiënten van de polikliniek urologie voor wie een kweek werd aangevraagd, geïncubeerd in de studie. Na de screening werd het monster gemeten op de urine flowcytometer (UF500i) om het aantal bacteriën te bepalen. Achteraf werden de resultaten van de bacteriekweek (aantal colony forming units, CFU/mL) vergeleken met de uitslag van de UF500i en werd een afkapgrens bepaald waarbij geen kweken met meer dan 104 CFU/mL (mogelijke urineweginfecties, afhankelijk van het geïdentificeerde organisme) zouden worden gemist. Resultaten: Tot nu toe zijn 307 urines geanalyseerd op de UF500i en vergeleken met de uitslag van de bacteriekweek. Bij een afkapwaarde van 60 bacteriën/microliter urine voor het wel of niet kweken van de urine zou geen enkele kweek een uitslag groter dan 104 CFU/mL zijn gemist. Bovendien zouden op deze manier 148 negatieve kweken zijn bespaard. Conclusie: Urine flowcytometrie is een aantrekkelijke screeningsmethode voor het uitsluiten van urineweginfecties. Met een relatief lage afkapgrens van 60 bacteriën/microliter urine voor het

uitsluiten van urineweginfecties zou het aantal kweken bijna gehalveerd kunnen worden en zouden er geen kweken met een uitslag groter dan 104 CFU/mL worden gemist.

Curvers J

Measurement of direct thrombin inhibitors: which assay to use?

Curvers J*, Kerkhof D van de*, Scharnhorst V*

Wetenschapsavond 19-4-11

Direct thrombin inhibitors (DTI) should require less monitoring, since their half life is very short. Still, when bleeding problems occur assays to determine the level of direct thrombin inhibitor remain necessary. Although being considered superior to aPTT, dedicated tests as the ecarin clotting time (ECT) are still poorly standardized. In this study we tested the effect of DTI_s argatroban, lepirudin and bivalirudin in different concentrations with a maximum of 5mg/mL on the APTT (kaolin, Roche Stago), prothrombin time (PT, Neoplastin Plus, Roche Stago), (Stago) and Hemoclot (Hyphen Biomed) on a Roche STA-R evolution. Influence of DTI_s on APTT was dose dependent (linear >1mg/L) and the gradual increase of the APTT was not significantly different between DTI_s. The PT was dose dependent and showed a linear increase with increasing concentrations of DTI_s. The largest increase was shown for argatroban, an intermediate increase was seen for Bivalirudin and a mild increase was observed for lepirudin. The ECT showed similar results as the PT, however increased sensitivity for all DTI_s. Even lepirudin showed an increase up to a 5-fold of the baseline value. The Hemoclot assay showed the highest dose dependent increase for all DTI_s, without apparent differences in increase between DTI_s. Concluding, the two dedicated DTI-monitoring assays ECT and Hemoclot show a dose-dependent linear increase increasing DTI-concentration. Only the Hemoclot assay shows the same kinetic response to the different DTI_s. Therefore, full standardisation can only be achieved for the Hemoclot assay, irrespective of the DTI used. Vernieuwende elementen: Nieuwe antistollingsmiddelen zijn beschikbaar (anti-Xa remmers zoals pradaxa en anti-trombine remmers zoals bivalirudine). In voorkomende gevallen is het wenselijk om bij patienten het nivo van antistolling te monitoren, hiervoor zijn testen nodig die op een juiste manier onderscheid kunnen maken tussen verschillende soorten en concentraties antistolling.

Apotheek

Harmsze AM

CYP2C19*2 and CYP2C9*3 alleles are associated with stent thrombosis - A case-control study

Harmsze AM*, Werkum JW van, Berg JM ten, Zwart B, Bouman HJ, Breet NJ, Hof AW van 't, Ruven HJ, Hackeng ChM, Klungel OH, Boer A de, Deneer VH

Wetenschapsavond 19-4-11

Aims: Despite treatment with clopidogrel on top of aspirin, stent thrombosis (ST) still occurs being the most serious complication after percutaneous coronary interventions (PCI). In this study we aimed to determine the effect of variations in genes involved in the absorption (ABCB1 C1236T, G2677T/A, C3435T), metabolism (CYP2C19*2 and *3, CYP2C9*2 and *3, CYP3A4*1B and CYP3A5*3) and pharmacodynamics (P2Y1 A1622G) of clopidogrel on the occurrence of ST. Methods and Results The selected genetic variants were assessed in 176 subjects who developed ST while on dual antiplatelet therapy with aspirin and clopidogrel and in 420 control subjects who did not develop adverse cardiovascular events, including ST, within one year after stenting. The timing of the definite ST was acute in 66, subacute in 87 and late in 23 cases. The presence of the CYP2C19*2 and CYP2C9*3 variant alleles was significantly associated with ST (OR_{adj} 1.7 95% CI, 1.0-2.6, p=0.018 and OR_{adj} 2.4 95% CI, 1.0-5.5, p=0.043, respectively). The influence of CYP2C19*2 (OR_{adj} 2.5 95% CI, 1.1-5.5, p=0.026) and CYP2C9*3 (OR_{adj} 3.3 95% CI, 1.1-9.9,

p=0.031), was most strongly associated with subacute ST. No significant associations of the other genetic variations and the occurrence of ST were found. Conclusion: Carriage of the loss-of-function alleles CYP2C19*2 and CYP2C9*3 increases the risk on ST after PCI.

Harmsze AM

The influence of CYP2C19*2 and *17 on on-treatment platelet reactivity and bleeding events in patients undergoing elective coronary stenting

Harmsze AM*, Werkum JW van, Hackeng ChM, Ruven HJ, Kelder JC, Bouman HJ, Breet NJ, Berg JM ten, Klungel OH, Boer A de, Deneer VH

Wetenschapsavond 22-11-11

Objectives: To investigate the impact of genotypes based on the loss-of-function variant CYP2C19*2 and the gain-of-function variant CYP2C19*17 on on-treatment platelet reactivity and on the occurrence of TIMI major bleedings in 820 clopidogrel-treated patients who underwent elective coronary stenting. Methods: On-treatment platelet reactivity was quantified using ADP-induced light transmittance aggregometry (LTA) and the VerifyNow P2Y12 assay. Postdischarge TIMI major bleedings within one year after enrollment were recorded. Results: In total, 25 major bleedings (3.0% of the study population) were observed. Patients with the CYP2C19*1/*17 and *17/*17 genotypes exhibited a lower magnitude of platelet reactivity as compared to patients with the CYP2C19*1/*1 genotype (for the LTA adjusted mean difference: -5.8% 95% CI -9.6 to -2.1, p=0.002). Patients with the *1/*17 and *17/*17 genotype had a 2.7-fold increased risk on the occurrence of major bleedings (HRadj: 2.7 95% CI 1.1 to 7.0, p=0.039). The genotypes *2/*17, *1/*2 and *2/*2 exhibited higher on-treatment platelet reactivity as compared to wildtype (p<0.0001). However, this was not translated into an altered risk on major bleedings as compared to wildtype (HR: 1.3 (0.45 to 4.0), p=0.60). Conclusions Patients with the CYP2C19*1/*17 and *17/*17 genotype have a lower magnitude of on-treatment platelet reactivity and are at a 2.7-fold increased risk on postdischarge TIMI major bleedings events after coronary stenting than patients with the CYP2C19*1/*1 genotype. The genotypes *2/*17, *1/*2 and *2/*2 are associated with increased on-treatment platelet reactivity, however, this is not translated into a lower risk on bleeding events.

Scheepers-Hoeks, A

Effective clinical decision support through pharmacy intervention: addition of gastro-protection to high-risk patients

Scheepers-Hoeks AM*, Grouls RJ*, Neef C, Korsten HM*

Wetenschapsavond 19-4-2011,

Non-steroidal anti-inflammatory drugs (NSAID) carry a substantial risk of gastrointestinal events, varying from mild symptoms to gastroduodenal ulcers and related serious complications. Several risk factors have been identified increase the risk of upper gastrointestinal complications, including dose, advanced age, a history of gastrointestinal ulcer, co-morbidities and concomitant treatment with corticosteroids, aspirin or anticoagulants. According to national and regional guidelines, the risk on complications can be minimized when a proton pump inhibitor (PPI) is added patients with NSAID. When at least one severe or two moderate gastrointestinal risk factors are present, a PPI indicated. Previous research has shown that in 40% of patients a PPI is omitted, although it was indicated according to current guidelines. Clinical decision support systems (CDSS) which are linked to the electronic health record (EHR) are detect these patients. When a PPI is indicated but omitted, this system can generate alerts with the advice to start PPI. Therefore these systems can contribute to a safer healthcare environment by generating alerts when guidelines are not followed. The hospital pharmacy can be an important factor to maximize the effect of these systems. Aim: To determine the effect of implementation of a CDSS on gastro-protection in patients using NSAID, applied through pharmacy intervention in the Catharina

Hospital, Eindhoven (CZE). Method: Current guidelines on gastro-protection were translated into electronic guidelines in the CDSS, following the strategy described earlier (Scheepers-Hoeks et al 2009). Retro- and prospective validation is performed to ensure correct exclusion of patients. The guidelines described as severe risk factors: age over 70 years, history of ulcers and/or untreated H. Pyloriinfection. Moderate risk factors included are: age 60-70 years, anticoagulants, corticosteroids, Selective Serotonin Reuptake Inhibitors (SSRI), rheumatoid arthritis, heart failure, diabetes and/or high-dose NSAID treatment. In the period May 2009-August 2010 the system was implemented in the hospital pharmacy. Once daily on weekdays the system checked all patients admitted to our hospital on gastro-intestinal risks and if they were eligible for the a PPI. The pharmacy technicians were allowed to start a standardized prescription of a PPI themselves without consultation of a physician. On the prescription label was explained that the PPI was started by the pharmacy based the patients_ risk factors. Results: Validation of the CDSS, developed to detect gastrointestinal risk patients, showed that all patients that should have been included were correctly identified. During the 16 months when the CDSS was applied, 1064 alerts were generated on patients eligible for gastroprotection. In 1034 patients (97.2%) this resulted in an immediate intervention (addition of a PPI). In the remaining patients reasons for not prescribing the PPI were: PPI was already started (10x), NSAID was stopped (10x), patient was discharged (7x), unknown (3x). Consequently 27 patients had correct reasons to deviate from the advice and only three patients (0.3%) the advice was not followed without reason. Conclusion: Pharmacy intervention is an effective way to apply a CDSS on gastro-protection in high-risk patients. A CDSS can effectively detect patients that need gastro-protection. The results show that when the pharmacy is authorized to optimize therapy in gastrointestinal risk patients, a very high follow-up percentage can be realized (97.2%). Nearly patients in our hospital receive adequate gastro-protection when indicated (99.7%). This application is only one example of the wide range of possibilities these promising systems can have. We believe that decision support systems can induce a revolution in healthcare though optimization of patient safety.

Cardiologie

Gelder BM van

Transseptal Left Ventricular Endocardial Pacing; Preliminary Experience from a femoral approach with subclavian Pull through

Gelder BM van*, Houthuizen P*, Bracke FA*

Wetenschapsavond 19-4-11

Background: Transvenous left ventricular (LV) endocardial lead implantation can be performed by an atrial transseptal approach where lead insertion is accomplished from the upper thoracic veins. We report on our preliminary experience with lead placement with a femoral transseptal technique followed by intra vascular pull through to the pectoral location. Methods: The technique was applied in 9 male candidates for cardiac resynchronization therapy, who had a failed LV lead implant or repeated dislodgements. An 8F transseptal sheath was introduced into the left atrium by femoral approach. A 130o hooked 6F catheter was advanced through this sheath into the LV and positioned at the optimal pacing followed by implantation of a 4F screw-in lead. Subsequently catheter and sheath were withdrawn into the right followed by removal of the hooked catheter. A 260 cm guide wire advanced into the superior vena cava through the transseptal sheath was grasped and pulled with a snare catheter from the subclavian vein. A 12F sheath was introduced over the guide wire to emerge from femoral vein. The proximal end of the lead was inserted in the 12F sheath and pulled into and through the venous system till it emerged from the subclavian insertion point and was connected to the CRT device. Results: LV endocardial implantation was successful in all patients. During follow-up no dislodgements or thrombo-

embolic events were observed. Conclusion: The technique described in this manuscript for LV endocardial lead implantation is an alternative for failed superior transseptal attempts.

Helmes HJ

Effect of a nurse coordinated prevention program on levels of depression and anxiety in patients after an acute coronary syndrome: results from the RESPONSE trial

Helmes HJ*, Jorstad HT, Martens EJ, Dantzig CJ van*, Tijssen JG, Peters RJ,

Wetenschapsavond 22-11-2011

Purpose: To quantify the impact of a hospital based Nurse Coordinated Prevention Program (NCPP) on patients of depression and anxiety after an Acute Coronary Syndrome (ACS). Methods: A prospective, randomised clinical trial in 7 medical centres in The Netherlands. Patients (18-80 years) eligible within 8 weeks after hospitalisation for an ACS. Patients were randomised to either NCPP in addition to care (intervention) or usual care alone (control). The intervention consisted of 4 NCPP visits within the first 6 months after inclusion and was based on current guidelines, focusing on established cardiovascular risk factors. No specific intervention took place for treatment of depression or anxiety. Depressive symptoms were assessed with the Beck Depression Inventory (BDI) and anxiety with the State Trait Anxiety Inventory (STAI) at baseline and 12 months. The primary outcome was the change in BDI and STAI at 12 months relative to baseline. Results: 164 participants were randomly assigned to the intervention group (n=81) or the control group (n=83). baseline, BDI was 7.54 (SD 6.51) in the intervention group and 6.08 (SD 4.78) in the control group (p=0.10). At months, the intervention group showed a decrease of 1.44 (SD 5.13) and the control group a slight increase of 0.22 (SD 4.89, p=0.035). In patients with a moderate to severe depression (BDI at baseline, BDI decreased by 6.22 (SD 5.52) from 17.03 to 10.81 in the intervention group and by 1.28 (SD 7.54) from 13.89 to 12.61 in the control (p=0.025). There was no difference in change in STAI; baseline STAI was 37.56 in the intervention group and 37.83 the control group (p=0.88). STAI decreased by 2.86 (SD 10.13) in the intervention group and by 3.34 (SD 10.42, p=0.77) in the control group. Conclusion: Our study shows that a 6-month Nurse Coordinated Prevention Program for ACS patients corresponds with a statistically significant, albeit small decrease in depressive symptoms, especially in patients with moderate severe depression. Our study did not show an effect on anxiety symptoms.

Chirurgie

Klaver Y

Population-based survival of patients with peritoneal carcinomatosis from colorectal origin in the era of increasing of palliative chemotherapy

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Wetenschapsavond 19-4-2011

Background: Palliative chemotherapy improves survival in patients with metastasised colorectal cancer. However, there is a lack data regarding effectiveness of modern chemotherapy in patients with isolated peritoneal carcinomatosis (PC). Patients and methods: All patients with synchronous PC of colorectal origin diagnosed in the Eindhoven Cancer Registry registration area between 1995 and 2008 were included (n = 904). We assessed use of chemotherapy and overall survival in three periods related to availability of different chemotherapy regimens. Results: Chemotherapy use gradually increased over time. Median survival (MS) for patients with PC without other metastases diagnosed in 1995_2000 was 35 weeks (95% confidence interval (CI) 24-43) and 34 weeks (95% CI 25-54) in 2005-2008. MS in patients diagnosed with PC plus other metastases was 21 weeks (95% CI 15-27) in 1995_2000 and weeks (95% CI 18-33) in 2005-2008. In multivariable regression analysis, use of chemotherapy had a beneficial influence on survival only

in 2005-2008. In the first two periods, chemotherapy treatment did not decrease the risk death. Conclusion: Despite increasing usage of palliative chemotherapy and availability of new agents population-based survival of patients with PC did not improve until very recently. Response to palliative chemotherapy in PC should be evaluated separately from haematogenous metastases.

Lauret GJ

The ClaudicationNet Concept: design of a national network of supervised exercise therapy for patients with intermittent claudication

Lauret GJ*, Dalen HC van*, Hendriks EJ, Spronk S, Rouwet EV, Sambeek MR van*, Cuypers P*, Bie RA de, Teijink JA*

Wetenschapsavond 19-4-2011

Introduction: The primary and most effective intervention for intermittent claudication is exercise therapy. When exercise therapy supervised by a physical therapist, superior results on walking distance and quality of life have been found. Caregivers like physical therapists, vascular surgeons en general practitioners should collaborate in regional integrated care networks. Description of care practice: ClaudicationNet aims to implement a nationwide coverage of regional networks for supervised exercise therapy. Participating physical therapists comply with a progressive set of quality markers. Over a period of five years (2011-2015) a fully transparent and high qualitative care, continuously evaluated by quality indicators with feedback, should be achieved. Apart from proven and effective supervised exercise therapy this new standard of integrated care, hold life style interventions (smoking cessation, weight control), dietary advice and assessment of medication

compliance. Quarterly reporting of maximal walking ability, quality of life, relevant comorbidities, life style parameters and cardiovascular risk factors will be gathered in a national database as well as reported back to referring physicians. Discussion: ClaudicationNet is supported by the following stakeholders; The Dutch Society for Vascular Surgery, the Royal Society for Physical Therapy and the Dutch cardiovascular patient association. However, a particular role must played by the Joint Dutch Health Care Insurers Association. We will develop a system that rewards those physical therapists who perform excellent care while according to the standards of quality of care. Conclusion: ClaudicationNet is a concept of an integrated care network in the Netherlands. We aim for a transparent and high qualitative standard of care for all patients with intermittent claudication.

Stokmans, RA

No differences in perioperative outcome between symptomatic and asymptomatic AAAs after EVAR: An analysis the ENGAGE Registry

Stokmans RA*, Teijink JA*, Cuypers PhW*, Riambau V, Sambeek MR van*

Wetenschapsavond 22-11-2011

Aim: Historic cohorts show that patients with symptomatic abdominal aneurysms (S-AAA) have worse perioperative outcomes after open repair when compared to elective non-symptomatic AAA patients (E-AAA). This study aimed compare the differences in perioperative outcome after endovascular repair of S-AAAs and E-AAAs. Methods: Data from the ENGAGE Registry was used for the analysis. Between March 2009 and December 2010, AAA patients were enrolled from 79 sites in 30 countries and treated with an Endurant Stent Graft. S-AAAs defined an AAA accompanied by abdominal and/or back pain associated with aneurysm tenderness, but without rupture, present in 185 (15.4%) patients. The S-AAA patients were compared to 1015 (84.6%) E-AAA patients. Analyses performed using a logistic regression model and P-values were adjusted for age, AAA diameter and American Society of Anaesthesiology (ASA) classification. Results: Operation time and technical success were similar in both groups, and S-AAA patients were admitted to ICU as often as E-AAA patients (35.7% vs. 33.4%, P=0.479). Post-operative

hospitalization was also comparable ± 5.29 in E-AAA and 4.37 ± 3.49 in S-AAA patients, $P=0.360$). No differences in the occurrence of major adverse (MAE), including mortality, within 30-days post-implantation were seen between S-AAA and E-AAA patients, respectively 3.2% and 4.2% ($P=0.572$). Conclusion: With contemporary devices and technical proficiency, there is no difference in outcome of symptomatic AAA patients and elective non-symptomatic AAA patients if treated endovascular.

Stokmans, RA

The effects of anaesthesia type on peri-operative outcome after EVAR: An analysis from the ENGAGE Registry

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

Wetenschapsavond 22-11-2011

Introduction: Besides general anaesthesia, both regional and local anaesthesia have proven to be feasible in endovascular aortic aneurysm repair (EVAR). Nevertheless, regional anaesthesia has not become accepted on scale. Data from the prospective ENGAGE database were used for retrospective analysis. Methods: From March 2009 to November 2010, 1200 AAA patients were enrolled from 79 sites in 30 countries and treated with an Endurant. During EVAR procedure 749 (62%) patients received general anaesthesia (GA), 325 patients received regional anaesthesia (RA), and 125 (10%) patients received local anaesthesia (LA). Multivariate logistic regression analysis was performed to adjust for possible confounding factors. Results: Higher ASA classification was associated with predominant use of general anaesthesia. Procedure time reduced in LA (81.4 ± 40.6 minutes) compared with RA (94.6 ± 41.8 , $P < 0.001$) and GA (105.5 ± 45.9 , $P = 0.001$). ICU admission occurred less after RA (26.5%) than after GA (35.5%, $P = 0.003$) and LA ($P = 0.001$), but no significant difference between GA and LA ($P = 0.162$). Hospital stay was similar in all three groups, 5.6 ± 5.6 , 6.1 ± 5.9 and $8.0 \pm$ days in respectively LA, RA and GA group (overall $P = 0.709$). Although a slight advantage was seen on the occurrence of major adverse events (MEA), including mortality, in both RA (2.2%) and LA (3.2%) when compared to GA (5.1 multivariate analysis with correction for ASA class showed no significant differences (overall $P = 0.097$). Conclusion: The ENGAGE data indicates that use of regional anaesthesia during EVAR appeared to be beneficial concerning procedure time and ICU admission, but no association was seen between anaesthesia type and MEA occurrence.

Inwendige geneeskunde

Geerse DA

Troponin I as a cardiac biomarker for cardiovascular mortality in patients on haemodialysis

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

Wetenschapsavond 19-4-11

Background: The high prevalence of cardiovascular mortality in patients on chronic haemodialysis is well established. Cardiac biomarkers like B-type natriuretic peptide and cardiac troponin T are correlated with cardiovascular mortality, but this relationship is much less clear for cardiac troponin I (cTnI). Objective: The relation between cTnI and cardiovascular mortality in asymptomatic chronic haemodialysis patients investigated, using a second generation, sensitive troponin assay. Furthermore, the cardiovascular mortality in patients with only minimally, but persistently elevated cTnI levels was evaluated. Methods: This study was a prospective, observational, single centre study with 206 chronic haemodialysis patients (months). The mean age was 65 ± 14.1 yrs. Patients were stratified in 4 subgroups according to mean cTnI. cTnI determined every 3 months for 24 months using a cTnI-ultra assay (Advia Centaur analyzer, Siemens Diagnostics). Cardiovascular morbidity and mortality was assessed over a period of 30

months. Results: In the study period, 49 of 206 patients (23.8%) died, 31 (15.1%) of which died due to cardiovascular disease. Higher cTnI levels were significantly correlated to mortality. Compared to patients with non-elevated cTnI levels, patients with cTnI levels of 0.01-0.05, 0.05_0.10 and e 0.10 have increasingly higher incidence of cardiovascular events, mortality ($p=0.005$) and particularly higher cardiovascular mortality. Conclusion: cTnI can be used as prognostic biomarker for (cardiovascular) mortality in chronic haemodialysis patients. High cTnI levels predict higher risk of cardiovascular events and mortality. Interestingly, this is already true for patients with only minimally elevated cTnI levels.

Thomassen I

Steroidgebruik en polymyalgia rheumatica voorspellen overbodige temporalisbiopten bij patiënten met verdenking arteritis temporalis.

Thomassen I*, Brok AN den, Konings CJ, Nienhuijs SW*, Poll MC van de

Wetenschapsavond 19-4-2011

Achtergrond: Behandeling van arteritis temporalis met corticosteroiden is geïndiceerd na een positief arteria temporalisbiopt. Bij hoge klinische verdenking worden steroiden echter ook voorgeschreven na een negatief temporalisbiopt. Daarmee wordt dit invasieve diagnosticum feitelijk overbodig. Doelstelling: Vaststellen van de waarde van temporalisbiopten in de klinische besluitvorming bij een mogelijke arteritis temporalis. Methode: Bij 135 patiënten werden middels uni- en multivariate analyses factoren geïdentificeerd die geassocieerd waren met overbodige temporalisbiopten. Het biopt werd overbodig bevonden als steroiden werden gestart of gecontinueerd ondanks negatieve histologie. Resultaten: Er waren 34 (25,1%) positieve en 101 (74,8%) negatieve biopten. Steroïd gebruik tijdens de bioptafname verschilde niet tussen patiënten met positieve (38,2%) of negatieve histologie (37,6%, $p=0,949$). Als steroiden reeds waren gestart, maar het temporalisbiopt toch niet afwijkend bleek, werd de behandeling 27 van de 38 keer (71,1%) gecontinueerd. Werde het temporalisbiopt wel afgewacht, werd 16 van de 63 keer (25,4%) alsnog gestart met steroiden ondanks negatieve histologie. Uiteindelijk kregen 43 patiënten corticosteroiden ondanks negatieve histologie (31,9% van het totaal, 42,6% van de patiënten met negatieve biopten). Een BSE $>60\text{mm}$ (OR 3,8 (1,0-13,6), $p=0,042$), polymyalgia rheumatica (OR 6,9 (1,9-25,5) $p=0,004$) en het blind starten van steroiden (OR 8,4 (2,6-27,6) $p<0,001$) waren onafhankelijke voorspellers van overbodige temporalisbiopten. Conclusie: Meer dan één derde van de patiënten werd behandeld met steroiden ondanks een negatief temporalisbiopt. Bij een hoge klinische verdenking op arteritis temporalis lijkt een temporalisbiopt overbodig. Dit is te verwachten BSE $>60\text{mm}$, als de behandeling met steroiden is gestart voor het biopt of als polymyalgia rheumatica gediagnosticeerd wordt.

Wlazlo N

Near-peer teaching in het coschap interne geneeskunde: een gerandomizeerde cross-over trial

Wlazlo N*

Wetenschapsavond 19-4-2011

Achtergrond: De toepassing van near-peer teaching in het trainen van medisch technische vaardigheden (skills) en in PGOonderwijs als tutor is in diverse studies gelijkwaardig gebleken aan onderwijs door stafleden. Het is echter nog onvoldoende onderzocht of ouderejaars studenten ook als docent van theoretisch, klinisch onderwijs kunnen functioneren. Doelstelling: Wij vergeleken de kwaliteit en wenselijkheid van klinisch onderwijs aan coassistenten door een zesdejaars student regulier onderwijs door een staflid in een gerandomizeerde cross-over studie. Methode: Zesentwintig vierdejaars geneeskundestudenten kregen wekelijks een uur theoretisch onderwijs in de algemene Interne Geneeskunde. Dit onderwijs werd beurtelings gegeven door een zesdejaars student (semi-arts) en een (internist-hematoloog). Coassistenten werden gerandomiseerd in een groep die begon met de semi-arts en een die begon met de internist. Per

student werden 4 onderwijsmomenten geëvalueerd met een vragenlijst bestaand items, en de gemiddelde score van deze items (de Totaal beoordeling) werd vergeleken middels linear mixed models. Resultaten: Een totaal van 92 vragenlijsten werd verzameld. De Totaal beoordeling van het onderwijs was significant hoger semi-arts (8.31) dan bij de internist (8.00; $p = 0.004$). Uit de vragenlijst bleek dit te verklaren met meer interactiviteit stimulatie in een plezierige leeromgeving, alsmede meer overzicht en fysiologische uitleg in het onderwijs van de Conclusies: Theoretisch onderwijs door een ouderejaars wordt even hoog gewaardeerd als onderwijs door een stafid. Deze resultaten kunnen verklaard worden door cognitieve en sociale congruentie, of het feit dat didactische vaardigheden belangrijker zijn dan vakinhoudelijke kennis.

Longziekten

Utens CM

Begeleid vervoegd ontslag bij COPD exacerbaties

Utens CM*, Schayck OC van, Litsenburg W van*, Smeenk FW*

Wetenschapsavond 19-4-2011

Achtergrond: De GO AHEAD studie onderzoekt de effectiviteit van begeleid vervoegd ontslag voor patiënten opgenomen met een COPD exacerbatie. Patiënten die op de derde opnamedag voldoen aan de criteria van klinische stabiliteit worden gerandomiseerd. De interventiegroep gaat op de vierde opnamedag met vervoegd ontslag en ontvangt thuisbehandeling onder supervisie van een thuiszorgverpleegkundige. Tijdens de looptijd van de studie blijkt een deel van de patiënten niet te voldoen aan de randomisatiecriteria. Het onduidelijk of deze patiëntengroep bij opname verschilt van de groep die wel gerandomiseerd kan worden. Doelstelling: Onderzoeken welke factoren mogelijk voorspellend zijn voor geschiktheid voor randomisatie in de AHEAD studie. Methode: Univariate en multivariate logistische regressie analyse van baseline gegevens (Clinical COPD Questionnaire (CCQ) score, leeftijd, geslacht, ernst van de ziekte, vitale functies, leefsituatie en medische behandeling voor opname) van 121 gerandomiseerde patiënten en 69 niet-gerandomiseerde patiënten die informed consent hebben getekend voor de GO AHEAD studie. Resultaten: In de univariate analyse zijn geslacht ($p=.017$), CCQ functionele status ($p=.000$), CCQ totaal score ($p=.018$) en hartfrequentie ($p=.018$) significant verschillend. In de multivariate analyse is CCQ functionele status ($p=.016$) significant. Conclusie: Niet-gerandomiseerde patiënten zijn vaker vrouw, hebben een hogere hartfrequentie bij opname en ervaren een hogere functionele beperking en slechtere kwaliteit van leven bij opname. Alleen CCQ functionele status lijkt geassocieerd met het niet kunnen worden gerandomiseerd. Buiten studieverband zou deze factor mogelijk gebruikt kunnen worden voor het herkennen van patiënten die voor verkorte opname in aanmerking komen. Tevens geeft aan dat de mate van functioneren (mede) bepalend is in de beslissing patiënten met ontslag te laten gaan.

Maag-darm-leverziekten

Vilsteren F van~

The learning curve of endoscopic resection of esophageal neoplasia is associated with significant complications in a structured training program

Vilsteren FG van~, Pouw RE, Herrero LA, Peters FP, Bisschops R, Houben M, Peters FT., Schenk B, Weusten BL, Visser M, Kate FJW ten, Fockens P, Schoon EJ*, Bergman J

Wetenschapsavond 19-4-2011

BACKGROUND: Endoscopic resection (ER) of esophageal high-grade dysplasia (HGD) or intramucosal cancer is a technically demanding procedure requiring training and expertise. AIMS:

to prospectively evaluate efficacy and safety of the first 119 ERs of early esophageal neoplasia performed endoscopists (20 ERs per endoscopist) within a structured ER training program. METHODS: The program consisted of 4 trimonthly one-day courses with lectures, live-demo_s, hands-on training (HOT) on animal models, supervised ER procedures at 4 individual HOT-days. The first 20 ERs of all participants (gastroenterologists at centres with multidisciplinary expertise in upper GI oncology) were evaluated for: 1) complete endoscopic removal of the target area; 2) complications. RESULTS: 119 esophageal ER procedures (84 ER-cap, 35 MBM; 35 en-bloc (EB), 84 piecemeal (PM) ERs (median (IQR 2-4) specimens) were performed, for Barrett_s (108) or squamous neoplasia (11). Complete endoscopic removal was achieved in 110/119 (92%) cases. Acute complications included 6 perforations (5.0%): 5 were treated endoscopically (clips, covered stent); 1 underwent esophagectomy. Perforations occurred in ERs of 4 participants, ER-cap procedures (7%ER-cap vs 0%MBM, p=0.18), including 4 piecemeal ERs (5%PM vs 6%EB, p=1.00). Ten mild bleedings (8%) were managed endoscopically. No learning effects were detected between the first 10 ERs endoscopist vs second 10 ERs. CONCLUSION: In this intense, structured training program, the first 119 esophageal ERs were associated with perforation rate. Although perforations were adequately managed, performing 20 ERs may be insufficient to reach peak of the learning curve.

Medische psychologie

Esch L van ∞

Dispositionele angst voorspelt de gezondheidstoestand bij vrouwen met borstkanker

Esch L van∞, Claassen SJ*, Nieuwenhuijzen GA*, Riet YE van*, Rutten HJ*, Roukema JA, Vries J de
Wetenschapsavond 19-4-11

Achtergrond: Persoonlijkheidskenmerken krijgen in onderzoek naar de gezondheidstoestand (GT) van borstkankerpatiënten vaak minder aandacht dan de medische behandeling. Doelstelling: Het doel van deze studie was om de verschillen in GT 24 maanden na de operatie tussen vrouwen hoog en die niet hoog scoren op dispositionele angst (DA) te bekijken. Een tweede doel was het identificeren van mogelijke voorspellers van GT 12 en 24 maanden na de operatie. Methode: Vrouwen met borstkanker (N=460) vulden, naast andere vragenlijsten, een DA vragenlijst in voordat zij diagnose van hun borstafwijking kregen, en ze vulden een GT vragenlijst in op 3, 6, 12 en 24 maanden na de operatie. De analyses bestonden uit een ANCOVA voor herhaalde metingen en een multipele regressie-analyse. Resultaten: Vrouwen die hoog scoren op DA hebben 2 jaar na de operatie een significant slechter lichaamsbeeld, seksueel functioneren en toekomstperspectief dan vrouwen die niet hoog scoren op DA. Tevens rapporteren zij bijwerkingen van de behandeling, meer klachten aan hun borst en meer armklachten. Een hoge score op DA is enige factor die zowel op 1 als op 2 jaar na de operatie een slechtere score voorspelt op lichaamsbeeld, seksueel functioneren, toekomstperspectief, bijwerkingen van de behandeling, klachten aan de borst en armklachten. Conclusie: Hogere scores op DA resulteerden in een slechtere GT. Dit uitte zich in meer bijwerkingen, klachten borst en armklachten, slechter zelfbeeld, toekomstperspectief en seksueel functioneren. Er zou meer aandacht begeleiding moeten komen voor deze groep patiënten, liefst al voordat de behandeling start.

Nyklícek I

Psychophysiological effects of two mindfulness stress reduction interventions in cardiac patients after a percutaneous coronary intervention (PCI): A randomized controlled trial

Nyklícek I∞, Dijkman SC*, Lenders PJ*, Fonteijn W*, Koolen JJ*

Wetenschapsavond 19-4-2011

Objectives. This study investigated effects of two mindfulness-based interventions aimed at stress reduction in cardiac patients who had a percutaneous coronary intervention (PCI). It was hypothesized that patients receiving group mindfulness training would show stronger beneficial effects on mood and on cardiovascular and inflammatory function compared to patients receiving mindfulness bibliotherapy. Methods. One-hundred-and-fourteen patients were randomly assigned to the group intervention or the bibliotherapy intervention. Before and after the intervention, all patients received questionnaires, cardiovascular measurements (resting heart rate variability, systolic and diastolic blood pressure; SBP and DBP) were performed during rest and a mild stressor (emotional Stroop task), and venipuncture was performed for determination of high sensitive C-reactive protein (HS-CRP). Results. Across mindfulness groups, significant pre-to-post intervention changes were obtained for nearly all psychological variables. In addition, the intervention was associated with a larger decrease of symptoms of anxiety and depression ($p < .01$, partial $\eta^2 =$ and a larger increase in total quality of life ($p < .05$, partial $\eta^2 = 0.07$) and mindfulness ($p < .05$, partial $\eta^2 = 0.06$) compared to the bibliotherapy group. No main or interaction effects were found on the cardiovascular measures whole group. However, when only (pre)-hypertensive patients were examined, the group intervention showed significantly larger SBP decrease compared to bibliotherapy ($p < .05$, partial $\eta^2 = 0.07$). HS-CRP data are in the process of analysis. Conclusions. Overall, no evidence was found for immediate post-intervention effects on the cardiovascular system. However, mindfulness based group intervention decreases distress and facilitates psychological well-being in PCI patients and among those with a (pre)-hypertensive status, SBP may be significantly lowered by a group mindfulness intervention.

Pullens M[∞]

Chemotherapy and cognitive complaints in women with breast cancer

Pullens MJ[∞], Vries J de, Warmerdam LJ Van*, Roukema JA

Wetenschapsavond 19-4-2011

Background: Although chemotherapy improves the clinical outcome of patients with early-stage breast cancer (BC), also known to have severe side-effects. Cognitive impairment after chemotherapy is a reported concern of BC patients, but evidence remains inconclusive. Aim: To examine the effect of chemotherapy on cognitive complaints in BC patients, and to indicate psychosocial predictors of cognitive complaints. Methods: Fifty-one women with BC who receive chemotherapy and 37 women with a benign breast problem (BBP) participated in the study. Before chemotherapy started (T1) and three months after ending chemotherapy (and equal moments for the BBP group) (T2) women completed questionnaires concerning cognitive complaints (forgetfulness, distractibility and false triggering), fatigue, stress, anxiety, and depression. Results: No differences in the total score of cognitive complaints ($p=.73$) and in the facets (distractibility ($p=.69$), triggering ($p=.42$) and forgetfulness ($p=.95$)) were found between the BC patients and the BBP patients. No interaction effects were found ($p>.42$), except for forgetfulness ($p=.03$). The increases in the total score of cognitive complaints ($p=.00$), distractibility ($p=.036$), and false triggering ($p=.00$) at T2 were significant. A higher score on depressive symptoms on T1 was predictive for higher scores on total cognitive complaints on T2 ($P=.00$). Conclusion: BC patients do not report more cognitive complaints compared to BBP patients. Both BC and BBP experience an increase in cognitive complaints over time. Depressive symptoms predict cognitive complaints. This information can facilitate health professionals to identify and support women who are at risk for developing cognitive complaints.

Psychiatrie

Gabriël ChR

An ambient versus standard environment during coronary angiography; differential effects on mood and physiological parameters

Gabriël ChR*, Mommersteeg PM, Scherders MJ*

Wetenschapsavond 19-4-2011

Purpose: Environmental light and sound can be used to create a comforting atmosphere for patients in various settings. This randomized trial examined whether a relaxing, ambient environment produced by ceiling projections, dynamic room lighting and sound conditions resulted in decreased anxiety and reduced measures of physiological arousal (cortisol, blood pressure and heart rate) during coronary angiography (CAG). Methods: 109 patients were randomly assigned to an ambient CAG room (Ambient, n=51), or a standard room (Control, n=58). In the Ambient condition patients were able to choose between four themes; abstract, under water, tropical forest, European landscape, and the projections, music and lighting were adjusted to the chosen theme. Daylight was absent in both conditions. State anxiety, salivary cortisol, blood pressure and heart rate were measured immediately before and after the procedure, controlled for pre-procedure levels, adjusted for age, sex, and a priori group differences. Results: Patients in the Ambient condition showed a significant reduction in anxiety after the procedure (beta= -p=.025) compared to the Control group, which remained significant after adjustment for pre-CAG anxiety (beta= p=.016) and covariates (ns). In addition, patients in the Ambient condition reported increased comfort (Z= -4.45, p<.001). Physiological parameters showed either a decrease (blood pressure and heart rate) or increase (cortisol) pre to post CAG, but no effects of Ambient versus Control conditions were found. Conclusion: The presence of ambient environment during a CAG procedure adds to patients well-being, but this was not reflected in physiological stress-related outcomes.

Radiotherapie

Dries WJ

Een eenvoudige ME-checker als effectief alternatief voor de AAPM-114 methode

Dries WJ*, Steenhuijsen JL, Meijer GJ*

Wetenschapsavond 22-11-11

Achtergrond: Uitvoeringscontroles zijn essentieel binnen de radiotherapie omdat ook kleine afwijkingen (typisch >10%) zeer ernstige consequenties kunnen hebben (complicaties, recidieven). Een van deze methoden is de controle van de Monitor Eenheden (ME's), dwz de maat voor de totale dosis die op het bestralingstoestel (linac) ingesteld wordt. Deze ME's worden per patiënt berekend door het dosisplanningssysteem (TPS). De ME-controlesoftware berekent onafhankelijk de dosis terug uit de ingestelde ME's en vergelijkt die met de bedoelde dosis. Deze controle is bedoeld om procedurele fouten in de uitvoering te detecteren. Doelstelling: In onze afdeling hebben we tbv patientlogistiek en veiligheid de bestralingstechnieken veelal gestandaardiseerd. Hypothese is dat dit ook de variatie in ME's onder patiënten met dezelfde bestralingstechniek reduceert en dat dit gebruikt kan worden om de complexiteit van ME-controles te verminderen. Dit in contrast met de traditionele MEcontrole techniek, (bijv conform AAPM-114) die ontwikkeling en onderhoud van complexe software nodig maakt. Methode: De dosis en de afwijking (SCF) ten opzichte van ons TPS (Pinnacle) worden berekend met een zeer eenvoudig dosis algoritme. Voor 18 patiëntgroepen met dezelfde bestralingstechniek in een historische cohort van patiënten zijn gemiddelde en spreiding van de afwijking bepaald; 2*sigma wordt als actieniveau gehanteerd. Bij nieuwe patiënt worden de ME_s vergeleken hiermee

voordat de bestralingsparameters onherroepelijk vastgelegd worden. Dit systeem is geëvalueerd na de eerste 2900 patiënten. Resultaten: De SCF-waardes voor enkele veel gebruikte bestralingstechnieken waren 0,94 (oesofagus 4- veldentechniek), 1,06 (mamma 2-veldentechniek), 1,16 (prostaat 13-velden gemoduleerde techniek). Standaarddeviaties waren respectievelijk 0,02, 0,06 en 0,06. Conclusie: De variaties binnen de meeste groepen zijn zo klein dat deze techniek voor ME-controles toepasbaar is gevoelig genoeg voor het detecteren van fouten van 3%-11%. Voor enkele bestralingstechnieken gaat dit niet op (te veel variatie in techniek, te kleine aantallen). Een complex onafhankelijk ME-controlesysteem is hierdoor overbodig.

Hurkmans CW

Adaptive Radiation Therapy for breast IMRT-SIB: Three-year clinical experience

Hurkmans CW*, Dijckmans I*, Reijnen M*, Leer J van der*, Vliet-Vroegindewij C van, Sangen M van der*

Wetenschapsavond 19-4-2011

Purpose: It has been shown that seroma volumes reduce during breast conserving radiotherapy in a significant percentage patients. We report on our experience with an Adaptive Radiation Therapy (ART) strategy involving rescanning replanning patients to take this reduction into account during a course of Intensity-Modulated Radiation Therapy Simultaneously Integrated Boost (IMRT-SIB). Material: From April 2007 till December 2009, 1274 patients eligible for SIB treatment were enrolled into this protocol. Patients for which the time between the initial planning CT (CT1) and lumpectomy was less than 30 days and who had an seroma volume > 30 cm³ were rescanned at day 10 of treatment (CT2) and replanned when significant changes observed by the radiation oncologist. Patients received 28 fractions of 1.81 Gy to the breast and 2.30 Gy to the volume. Results: 9% (n=113) of the 1274 patients enrolled met the criteria and were rescanned. Of this group, 77% (n=87) of treatment plans were adapted. Time between surgery and CT1 (20 days versus 20 days for adapted and non-adapted plans, p=0.89) and time between CT1 and CT2 (21 days versus 22 days for adapted and non-adapted plans, p=0.43) revealed no procedural differences which might have biased our results. In the adapted plans, seroma reduced significantly from 60 cm³ to 27 cm³ (p<0.001), tumour bed volume from 70 to 45 cm³ (p<0.001) and PTVboost 277 to 220 (p<0.001). The volume receiving more than 95% of the boost dose (V95%(total-dose)) could be reduced 19% (linear fit, R² = 0.73) from on average 360 cm³ to 292 cm³ (p<0.001). Delay in treatment and a prolonged treatment schedule using a different fractionation for patients with seroma could thus be prevented. Conclusion: The adaptive radiation therapy SIB procedure has proven to be efficient and effective, leading to a clinically significant reduction of the high dose volume. Seroma present in a subgroup of patients referred for breast radiation therapy not hamper the introduction of highly conformal SIB techniques.

Meijer G

Online IGART for bladder cancer patients by in-room plan selection based on CBCT images

Meijer G*

Wetenschapsavond 19-4-2011

Purpose: To deliver a highly conformal dose distribution in a highly deforming bladder geometry Materials: For 11 patients with localized bladder cancer the GTV was demarcated by injecting several drops of lipiodol in the submucosa around the tumour. One week later two CT scans were acquired with a full bladder and a voided bladder. At both scans, the boost volume (GTV) and the elective bladder volume were delineated. Depending on the range bladder filling difference between both scans, one, two or three intermediate boost and bladder volumes were created (Fig. A). For each set of structures, an IMRT plan was generated with a 10-mm PTV margin

(23x2.5Gy to PTVboost, 23x2Gy to PTVbladder). During the treatment course, the patients were instructed to void their bladder one hour treatment and drink 300 ml to 600 ml afterwards depending on the individual bladder capacity. The procedure at the treatment unit for each fraction was as follows: First, a CBCT was acquired and based on amount of bladder filling the best fitting bladder contours and corresponding GTV and IMRT plan were selected. Second, the lipiodol markers were registered using the corresponding GTV contours (Fig B) and it was verified corresponding PTVbladder covers the entire bladder. Finally, an online setup correction was applied based on this registration and the corresponding treatment plan was irradiated. For each patient, an advanced surface modeldeformable image registration system was used (Pinnacle 8.1x research version) to analyse the delivered dose distributions. Results: Two patients were able to maintain a stable bladder volume throughout the treatment course (SDbladder volume 20%) and did not benefit from the adaptive treatments approach. The remaining nine patients had fluctuating bladder volumes and a single irradiation plan would have resulted in underdosed target areas (Fig C) and/or considerable excessive treated volumes predominantly at the small bowel. Using the adapted treatment approach, we were able deliver a highly conformal dose distribution (Fig C) to all bladder patients. Conclusions: Online IGART is feasible for patients with a localized bladder cancer and enables us to steer the right dose to the tissues.

Urologie

Tjiam I

Boxtraining voor basisvaardigheden laparoscopische urologische skills

Tjiam I*, Persoon M*, Hendriks A*, Scherpbier A, Witjes F

Wetenschapsavond 19-4-2011

Introductie: Met de komst van minimaal invasieve technieken is er steeds meer vraag naar effectieve trainingmethoden buiten operatiekamers. In deze studie wordt een boxtraining ontwikkeld en gevalideerd voor het aanleren van basisvaardigheden laparoscopie gericht op de urologie (BLUS). Hiermee wordt beoogd om tot standaardisatie en uniformiteit van basisvaardigheden laparoscopie in de opleiding urologie te komen. Methode: In het BLUS-model zijn 3 van de 5 taken afgeleid van de *Fundamentals of Laproscopic Surgery* (FLS). Deze zijn uitgebreid gevalideerd in de Verenigde Staten. Samen met urologen zijn 2 nieuwe taken ontwikkeld en hieraan toegevoegd: een naaldgeleidingstaak en een clip-en-knip taak naar analogie van het doornemen van de nierhilus een laparoscopische nefrectomie.

Vijftig participanten met verschillende laparoscopische ervaring de hebben de BLUS-taken uitgevoerd. De BLUS-zijn beoordeeld op tijd, het aantal gevallen kralen en de kwaliteit. Kwaliteit is beoordeeld door 2 geblijnde experts. Alle deelnemers hebben hun mening gegeven over de bruikbaarheid van de BLUS voor laparoscopie training in opleiding urologie. Resultaten: 13 medisch studenten, 20 AIOS urologie en 17 urologen hebben de BLUS-taken uitgevoerd. Er is een significante correlatie tussen laparoscopische ervaring en tijd (lineaire regressie; $p < 0.0005$), gevallen kralen (lineaire regressie; $p < 0.0005$) en kwaliteit (spearman correlatie; $p < 0.0001$). Alle deelnemers (100%) vinden de BLUS nuttig voor het aanleren van basisvaardigheden laparoscopie. Van de participanten is 90% van mening dat de clip-en-knip taak onderdeel zou moeten zijn van de BLUS. Voor de naaldgeleidingstaak is 98% van mening dat het onderdeel moet zijn van de BLUS. Conclusie: Het BLUS-model wordt door experts, AIOS-en en studenten nuttig bevonden voor het trainen van basisvaardigheden urologische laparoscopie. Een significante correlatie wordt aangetoond tussen laparoscopische ervaring en BLUS-prestaties; validiteit is hiermee aangetoond.

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Overzichten 2011

Tabel 1: Overzicht aantal publicaties

Specialisme	Tijdschrift artikelen	Promoties	Boeken	Hoofdstuk	Wetenschaps avond	Totaal
Algemeen Klinisch						
Laboratorium	6				3	94
Anesthesiologie	12			1	1	14
Apotheek	9	1	1	1	4	16
Cardiologie	26			3	2	31
Cardiothoracale chirurgie	15	1		9		25
Chirurgie	45	1	1	8	9	64
Dermatologie	2				1	3
ECC en Bloedmanagement	1					1
Geestelijke verzorging			1	3		4
Gynaecologie	29					29
Intensive care	3			1		4
Inwendige geneeskunde	19				4	23
KNO		1				1
Klinisch Fysische Dienst					1	1
Kindergeneeskunde	8					8
Longziekten	2			1	3	5
Maag, darm en leverziekten	6		1		1	8
Medische microbiologie	4					4
Medische psychologie	1			1	3	5
Mondziekten en kaakchirurgie	4			1		5
Neurologie	8					8
Nucleaire geneeskunde	3					3
O&O	4			1		5
Orthopedie	1					1
Plastische chirurgie	5				1	6
Psychiatrie					1	1
Radiologie	4					4
Radiotherapie	16				3	19
Urologie	7				2	9
Totaal	240	4	4	29	39	316

Tabel 2: Overzicht aantal artikelen en gemiddelde impactfactor per specialisme

Specialisme	Artikelen met Impact factor	Artikelen zonder impact factor	Totaal aantal artikelen	Gemiddelde impactfactor	Standaard deviatie
Algemeen Klinisch Laboratorium	4	2	6	3.511	3.812
Anesthesiologie	5	7	12	1.599	2.215
Apotheek	6	3	9	2.617	2.255
Cardiologie	18	8	26	3.655	4.071
Cardiothoracale chirurgie	11	4	15	1.856	1.465
Chirurgie	41	4	45	3.919	3.201
Dermatologie	2		2	3.552	0.961
ECC en Bloedmanagement	1		1	1.875	0
Gynaecologie	25	4	29	2.901	2.471
Intensive care	3		3	2.854	1.645
Inwendige geneeskunde	16	3	19	3.220	2.217
Kindergeneeskunde	8		8	3.831	2.755
Longziekten	2		2	13.013	8.424
Maag, darm, leverziekten	6		6	5.039	3.619
Medische microbiologie	2	2	4	4.754	7.713
Medische psychologie	1		1	1.995	0
Mond en Kaakchirurgie	3	1	4	1.614	1.612
Neurologie	7	1	8	5.345	3.093
nucleaire geneeskunde	2	1	3	3.420	3.261
O&O	4		4	2.621	1.281
Orthopedie	1		1	1.857	0
Plastische chirurgie	3	2	5	1.027	1.137
Radiologie	4		4	4.407	1.802
Radiotherapie	15	1	16	4.845	3.978
Urologie	7		7	6.310	6.028
Totaal	197	43	240	3.542	3.394

Tabel 3: Impactfactor per tijdschrift

Titel	Impact factor	Titel	Impact factor
AANA J	-	Clin Cancer Res.	7.338
Acta Anaesthesiol Belg.	-	Clin Chem Lab Med	2.069
Acta Cardiol.	-	Clin Endocrinol (Oxf).	3.323
Acta Chir Belg.	-	Clin Exp Metastasis.	4.113
Acta Paediatr.	1.955	Clin J Am Soc Nephrol	8.288
Am J Cardiol.	3.680	Clin Microbiol Infect.	4.784
Am J Clin Pathol	2.504	Clin Nucl Med.	3.766
Am J Gastroenterol.	6.882	Clin Ther	2.551
Am J Hum Genet	11.680	Cordiaal	-
Am J Hypertens.	3.129	Crit Care.	4.60
Am J Respir Crit Care Med.	10.191		
Anestezjoi Intens Ter.	-	Dig Liver Dis	2.805
Anesthesiology.	5.486	Dis Esophagus	1.536
Ann Hematol.	2.688		
Ann Oncol	6.452	Early Hum Dev.	1.587
Ann Surg Oncol	4.182	Epidemiol Infect	2.257
Ann Surg.	7.474	Eur Heart J.	10.046
Ann Thorac Surg.	3.039	Eur J Cancer.	4.994
Ann Vasc Surg	1.332	Eur J Cardiothorac Surg.	2.293
Antimicrob Agents Chemother.	4.672	Eur J Clin Microbiol Infect Dis.	2.631
Arch Dermatol	4.231	Eur J Gynaecol Oncol	0.633
Arthritis Rheum	8.435	Eur J Heart Fail.	4.512
Artif Organs	1.719	Eur J Intern Med	1.657
Asian Cardiovasc Thorac Ann.	-	Eur J Pediatr	1.644
		Eur J Surg Oncol	2.428
BJOG	3.349	Eur J Vasc Endovasc Surg.	2.872
BJU Int.	3.190	Eur Respir J.	5.922
BMC Anesthesiol	-	Eur Rev Med Pharmacol Sci	0.922
BMC Cancer	3.150	Eur Urol	8.843
BMC Gastroenterol	2.470	EuroIntervention.	-
BMC Neurol	2.800	Europace.	1.839
BMC Pediatr	1.900	European Geriatric Medicine	-
BMC Pregnancy Childbirth.	2.090		
BMC Surg.	1.400	Fertil Steril.	3.958
Br J Surg.	4.444		
Brain.	9.230	Gastrointest Endosc.	6.713
Breast Cancer Res Treat.	4.859	Guneaika	-
Breast.	2.089	Gut.	10.614
		Gynecol Oncol.	3.760
Case Reports in Cardiology	-	Gynecol Surg.	-
Cellular Oncology	3.175		
Cephalalgia.	3.686	Health Care Manage Rev.	1.721
Clin Breast Cancer	2.790	Heart Fail Rev	3.761

Heart Lung Circ	1.33	Med Eng Phys.	1.906
Heart	4.706	Medisch Contact	-
Hum Mol Genet	8.058	Microsurgery.	-
Hum Reprod Update	8.755	Mol Diagn Ther.	2.561
Hum Reprod	4.357	Mult Scler.	4.230
Int J Cancer	4.926	Nat Genet	-
Int J Colorectal Dis	2.645	Ned Tijdschr Geneesk	1.842
Int J Gynecol Cancer	1.558	Ned Tijdschr Heelk	-
Int J Oral Maxillofac Surg.	1.302	Ned Tijdschr Klin Chem Lab gen	-
Int J Radiat Oncol Biol Phys.	4.503	Ned Tijdschr Tandheelkd.	-
Int Urogynecol J.	2.368	Ned Tijdschr plastische chir	-
Invest Radiol	4.670	Nephrol Dial Transplant.	3.564
J Allergy Clin Immunol	9.273	Neth Heart J.	-
J Am Coll Cardiol	14.292	Neth J Med	1.842
J Antimicrob Chemother	4.659	Neurology.	8.17
J Bone Miner Res	7.056	Neurourol Urodyn	2.903
J Card Surg	0.557	Obstet Gynecol Int.	4.392
J Cardiothorac Vasc Anesth.	1.596	Obstet Gynecol	4.392
J Cardiovasc Surg (Torino).	1.352	Osteoporos Int	4.859
J Clin Endocrinol Metab.	6.495	Pain Pract	-
J Clin Microbiol	4.162	Pediatr Pulmonol	2.239
J Clin Oncol	18.97	Pediatrics	5.391
J Clin Pathol	2.475	Perit Dial Int	-
J Clin Virol	4.023	Pharmaceutisch Weekblad : WP	-
J Electrocardiol	1.109	Pharmacogenomics.	4.306
J Eur Acad Dermatol Venereol.	-	Plast Reconstr Surg	2.647
J Mol Cell Cardiol.	5.499	Radiology	6.066
J Mol Diagn	4.219	Radiother Oncol	4.337
J Nucl Med Technol	-	Reg Anesth Pain Med.	2.807
J Plast Reconstr Aesthet Surg.	1.660	Scand J Surg.	1.08
J Reconstr Microsurg	0.83	Stroke.	5.756
J Rheumatol	3.85	Surg Endosc.	3.436
J Surg Oncol	2.428	Surg Obes Relat Dis	3.173
J Thorac Cardiovasc Surg.	3.608	Tex Heart Inst J.	-
J Thromb Haemost	5.439	Tijdschr Neurol Neurochir	-
J Vasc Interv Radiol	2.064	Tijdschrift voor Medisch Onderwijs	-
J Vasc Surg	3.851	Toxicol Sci.	5.093
JACC Cardiovasc Interv.	5.862	Trials	2.08
Journal of Affective Disorders,	3.740	World J Gastroenterol.	2.24
Journal of Clinical Nursing	1.228		
Knee Surg Sports Traumatol Arthrosc	1.857		
Lancet Infect Dis	16.144		
Lancet Oncol.	17.764		

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