DIGESTIVE DISEASE DAYS

2024

PROGRAMMA

20 en 21 maart

Congrescentrum NH Koningshof
Veldhoven

NVGE
NEDERLANDSE VERENIGING
VOOR GASTRO-ENTEROLOGIE

DIGESTIVE DISEASE DAYS - DDD

Het programma van de DDD werd samengesteld met inbreng van de volgende verenigingen en secties:

Nederlandse Vereniging voor Gastro-enterologie
Nederlandse Vereniging voor Gastrointestinale Chirurgie
Nederlandse Vereniging voor Hepatologie
Nederlandse Vereniging van Maag-Darm-Leverartsen
Nederlandse Vereniging voor Interventie Radiologie

Secties:
Sectie Gastrointestinale Endoscopie
Sectie Experimentele Gastroenterologie
Sectie Neurogastroenterologie en Motiliteit
Sectie Gastrointestinale Oncologie
Sectie Inflammatoire Darmziekten IBD
Sectie Kinder-MDL
Verpleegkundigen & Verzorgenden Nederland – MDL
PhD Netwerk

INHOUDSOPGAVE **pag.**

Tijdstippen diverse ledenvergaderingen woensdag:

Nederlandse Vereniging voor Gastroenterologie	20 maart. 12.15 uur Brabantzaal
Nederlandse Vereniging voor Hepatologie	20 maart, 15.30 uur Baroniezaal

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Donderdag 21 maart 2024

Tijdstippen diverse ledenvergaderingen donderdag

Nederlandse Vereniging van Maag-Darm-Leverartsen 21 maart, 15.15 uur Auditorium

Belangrijke mededeling
over de aanwezigheid van farmaceutische industrieën

Aan alle deelnemers tijdens de Digestive Disease Days op 20 en 21 maart 2024

De Nederlandse Vereniging voor Gastroenterologie kent een jarenlange samenwerking met de farmaceutische industrie. De vereniging stelt de farmaceutische industrie in de gelegenheid aanwezig te zijn bij de wetenschappelijke vergaderingen met een stand. Mede hierdoor kan de vereniging haar wetenschappelijke bijeenkomsten organiseren.

De Geneesmiddelenwet zegt dat - onder strikte voorwaarden - de farmaceutische industrie alleen reclame mag maken voor receptgeneesmiddelen voor personen die bevoegd zijn om dergelijke geneesmiddelen voor te schrijven. Alle andere personen (inclusief bijvoorbeeld verpleegkundigen, endoscopie-assistenten en biochemici) worden beschouwd als "publiek". De farmaceutische industrie mag geen reclame maken voor receptgeneesmiddelen voor publiek.

De Nederlandse Vereniging voor Gastroenterologie is een wetenschappelijke vereniging voor personen die beroepsmatig betrokken zijn bij zorg, onderwijs en onderzoek ten behoeve van patiënten met maag-darm- en leveraandoeningen. Dat betekent dat ook personen die geen arts zijn, lid van de NVGE zijn.
De aanwezigheid van artsen, niet-artsen en farmaceutische industrieën tijdens het congres kan de NVGE ongewild in aanraking brengen met de inspectie voor de gezondheidszorg, sectie reclametoezicht, en daarmee in diskrediet worden gebracht. Dat willen wij uiteraard voorkomen.

In verband met de Gedragscode Geneesmiddelenreclame van de CGR en de aan het NVGE-congres verbonden expositie van farmaceutische producten, medische instrumenten en voedingsmiddelen, zal bij uw congresregistratie via de NVGE-website worden gevraagd naar uw bevoegdheid om medicijnen voor te schrijven.

Alle congresdeelnemers dragen verplicht een congresbadge waarop behalve de naam ook beroep/ functie staat aangegeven. Farmaceutische standhouders benaderen uitsluitend congresdeelnemers die de bevoegdheid hebben om receptgeneesmiddelen voor te schrijven of ter hand te stellen. Om dit extra te verduidelijken zal wederom worden gekozen voor verschillende kleuren congresbadges.

Uit het bovenstaande volgt dat aanwezige reclame-uitingen en merkproductinformatie van farmaceutische industrieën alleen gericht zijn op personen die bevoegd zijn om de betreffende geneesmiddelen voor te schrijven. Wij maken u erop attent dat het voor niet-artsen dan ook niet is toegestaan de stands van de aanwezige farmaceutische industrieën te bezoeken.

De NVGE en farmaceutische industrie (sponsoren) vertrouwen erop u met bovenstaande voldoende te hebben geïnformeerd.

Bestuur van de NVGE

Symposium/abstracts IBD **Brabantzaal**

Voorzitters: *J.F. Brandse en M.C. Richir*

09.30 **State of the art lecture:** Alles over peri-anale fisteling bij Crohn
F.J. Hoogenboom, chirurg, UMC Groningen

09.49 Mesenchymal stem cell therapy for refractory Crohn's perianal fistulas: a case series
A.J.M. Pronk[1], C.J. Buskens[4], K.J. Beek[2], M.E. Wildenberg[3], W.A. Bemelman[1], J. Stoker[2], [1]Dept. of Surgery, Amsterdam UMC, Amsterdam, [2]Dept. of Radiology, Amsterdam UMC, Amsterdam, [3]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [4]Dept. of Surgery, Amsterdam UMC, Amsterdam, The Netherlands

09.57 Real life management of patients with active perianal fistulizing Crohn's disease (ALERT-CD study)
M.T.J. Bak[1], L.P.S. Stassen[2], C.J. Buskens[3], A.J.M. Pronk[3], J.D.W. van der Bilt[5], K.B. Gecse[6], K.H.N. de Boer[6], C.D.M. Witjes[7], C.E. Fitzpatrick[8], L.H.C. Nissen[9], E.G.G. Verdaasdonk[10], M.J. Pierik[11, 12], S.O. Breukink[13, 14, 15], L.P.L. Gilissen [16], J.G. Bloemen[17], R.L. West[18], R.T.J. Kortekaas[19], W.G. Mares[20], G.M. de Jong[21], S.V. Jansen[22], A.L.A. Bloemendaal[23], M. Sikkema[24], D.D.E. Zimmerman[25], K.C.M.J. Peeters[26], A.E. van der Meulen-de Jong[27], F.D.M. van Schaik[28], M.C. Richir[29], K.W. van Dongen[30], M. Duijvestein[31], F.J. Hoogenboom[32], M.C. Visschedijk[33], A.C. de Vries[1], O. van Ruler[7], [1]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, [2]Dept. of Surgery, Maastricht UMC+, [3]Dept. of Surgery, Amsterdam UMC, [5]Dept. of Surgery, FlevoZiekenhuis, [6]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, [7]Dept. of Surgery, IJsselland Ziekenhuis, Capelle aan den IJssel, [8]Dept. of Gastroenterology and Hepatology, IJsselland Ziekenhuis, Capelle aan den IJssel, [9]Dept. of Gastroenterology and Hepatology, Jeroen Bosch Ziekenhuis, Den Bosch, [10]Dept. of Surgery, Jeroen Bosch Ziekenhuis, Den Bosch, [11]Dept. of Gastroenterology and Hepatology, Maastricht University Medical Center+, Maastricht, [12]Dept. of Gastroenterology and Hepatology, NUTRIM, Maastricht University, Maastricht, [13]Dept. of Surgery, Maastricht University Medical Center +, Maastricht, [14]Dept. of Surgery, NUTRIM, Maastricht University, Maastricht, [15]Dept. of Surgery, GROW School for Oncology and Reproduction, Maastricht University, [16]Dept. of Gastroenterology and Hepatology, Catharina Ziekenhuis, Eindhoven, [17]Dept. of Surgery, Catharina Ziekenhuis, Eindhoven, [18]Dept. of Gastroenterology and Hepatology, Sint Franciscus Gasthuis & Vlietland, Rotterdam, [19]Dept. of Surgery, Sint Franciscus Gasthuis & Vlietland, Rotterdam, [20]Dept. of Gastroenterology and Hepatology, Ziekenhuis Gelderse Vallei, Ede, [21]Dept. of Surgery, Ziekenhuis Gelderse Vallei, Ede, [22]Dept. of Gastroenterology and Hepatology, Reinier de Graaf Groep, Delft, [23]Dept. of Surgery, Reinier de Graaf Groep, Delft, [24]Dept. of Gastroenterology and Hepatology, Elisabeth Tweesteden Ziekenhuis, Tilburg, [25]Dept. of Surgery, Elisabeth Tweesteden Ziekenhuis, Tilburg, [26]Dept. of Surgery, Leiden Universitair Medisch Centrum, [27]Dept. of Gastroenterology and Hepatology, Leids Univerisitair Medisch Centrum, [28]Dept. of Gastroenterology and Hepatology, UMC Utrecht, [29]Dept. of Surgery, UMC Utrecht, [30]Dept. of Surgery, Maasziekenhuis Pantein, Boxmeer, [31]Dept. of Gastroenterology and Hepatology, RadboudUMC, Nijmegen, [32]Dept. of Gastrointestinal Surgery, University Medical Center Groningen, Groningen, [33]Dept. of Gastroenterology and Hepatology, UMC Groningen, Groningen, The Netherlands

10.05 Identification of clinical risk factors for postoperative endoscopic recurrence in Crohn's disease: a prospective, multicenter cohort study

M.T.J. Bak[1], E.M.J. Beelen[1], J.D.W. van der Bilt[2], M.J. Romberg-Camps[3], G. Dijkstra[4], M. Duijvestein[5], S. van der Marel[6], L.P.S. Stassen[7], P.W.J. Maljaars[8], C.J. Buskens[9], S.V. Jansen[10], B.J.H. Jharap[11], C.S. Horjus[12], F.D.M. van Schaik[13], R.L. West[14], K.H.N. de Boer[15], C.J. van der Woude[1], O. van Ruler[16], A.C. de Vries[1], [1]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, [2]Dept. of Surgery, Flevo-Ziekenhuis, Amsterdam, [3]Dept. of Gastroenterology, Geriatrics, Internal and Intensive Care Medicine, Co-MIK, Zuyderland Medical Centre, Heerlen-Sittard-Geleen, [4]Dept. of Gastroenterology and Hepatology, UMC Groningen, Groningen, [5]Dept. of Gastroenterology and Hepatology, RadboudUMC, Nijmegen, [6]Dept. of Gastroenterology and Hepatology, Haaglanden Medisch Centrum, Den Haag, [7]Dept. of Surgery, Maastricht UMC+, Maastricht, [8]Dept. of Gastroenterology and Hepatology, Leids Univerisitair Medisch Centrum, Leiden, [9]Dept. of Surgery, Amsterdam UMC, Amsterdam, [10]Dept. of Gastroenterology and Hepatology, Reinier de Graaf Groep, Delft, [11]Dept. of Gastroenterology and Hepatology, Meander Medical Center, Amersfoort, [12]Dept. of Gastroenterology and Hepatology, Rijnstate Ziekenhuis, Arnhem, [13]Dept. of Gastroenterology and Hepatology, UMC Utrecht, Utrecht, [14]Dept. of Gastroenterology and Hepatology, Sint Franciscus Gasthuis & Vlietland, Rotterdam, [15]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [16]Dept. of Surgery, IJsselland Ziekenhuis, Capelle aan den IJssel, The Netherlands

10.13 Imaging-based preoperative body composition is associated with the risk of postoperative complications and postoperative endoscopic recurrence in patients with crohn's disease

M.T.J. Bak[1], K. Demers[2, 3, 4], O. van Ruler[5], M.J. Pierik[6, 7], J.D.W. van der Bilt[8], M.J. Romberg-Camps[9], G. Dijkstra[10], M. Duijvestein[11], S. van der Marel[12], P.W.J. Maljaars[13], C.J. Buskens[14], F.C.H. Bakers[15], D.P.J. Van Dijk[2, 4], R. Brecheisen[4], B.C. Bongers[16], E.F.C. Van Rossum[17, 18], D. De Witte[19], S.V. Jansen[20], B.J.H. Jharap[21], C.S. Horjus[22], F.D.M. van Schaik[23], R.L. West[24], K.H.N. de Boer[25], C.J. van der Woude[1], L.P.S. Stassen[26], A.C. de Vries[1], [1]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, [2]Dept. of Surgery, Maastricht University Medical Center +, [3]Dept. of Surgery, Maastricht University Medical Center+, [4]Dept. of Surgery, NUTRIM, Maastricht University, [5]Dept. of Surgery, IJsselland Ziekenhuis, Capelle aan den IJssel, [6]Dept. of Gastroenterology and Hepatology, Maastricht University Medical Center+, [7]Dept. of Gastroenterology and Hepatology, NUTRIM, Maastricht University, [8]Dept. of Surgery, FlevoZiekenhuis, [9]Dept. of Gastroenterology, Geriatrics, Internal and Intensive Care Medicine, Co-MIK, Zuyderland Medical Centre, Heerlen-Sittard-Geleen, [10]Dept. of Gastroenterology and Hepatology, UMC Groningen, [11]Dept. of Gastroenterology and Hepatology, Radboudumc, Nijmegen, [12]Dept. of Gastroenterology and Hepatology, Haaglanden Medisch Centrum, Den Haag, [13]Dept. of Gastroenterology and Hepatology, Leids Univerisitair Medisch Centrum, [14]Dept. of Surgery, Amsterdam UMC, [15]Dept. of Radiology and Nuclear Medicine, Maastricht University Medical Center, [16]Dept. of Nutrition and movement sciences, NUTRIM, Maastricht University, [17]Dept. of Internal Medicine, Erasmus MC, Rotterdam, [18]Dept. of Internal Medicine, Obesity Center CGG, Erasmus MC, Rotterdam, [19]Dept. of Radiology, Erasmus MC, Rotterdam, [20]Dept. of Gastroenterology and Hepatology, Reinier de Graaf Groep, Delft, [21]Dept. of Gastroenterology and Hepatology, Meander Medical Center, Amersfoort, [22]Dept. of Gastroenterology and Hepatology, Rijnstate Ziekenhuis, Arnhem, [23]Dept. of Gastroenterology and Hepatology, UMC Utrecht, [24]Dept. of Gastroenterology and Hepatology, Sint Franciscus Gasthuis & Vlietland, Rotterdam, [25]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, [26]Dept. of Surgery, Maastricht UMC+, The Netherlands

10.21 Pregnancy for IBD-patients with an enterostomy is feasible but is associated with complications

D.G. Bouwknegt[1], A.H.C. Van der Weide[1], G. Dijkstra[2], W. van Dop[3], J.R. Prins[4], F.J. Hoogenboom[5], C.J. van der Woude[6], M.C. Visschedijk[2],, [1]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, Groningen, [2]Dept. of Gastroenterology and Hepatology, UMC Groningen, Groningen, [3]Dept. of Gastroenterology and Hepatology, RadboudUMC, Nijmegen, [4]Dept. of Obstetrics and Gynecology, University Medical Center Groningen, [5]Dept. of Gastrointestinal Surgery, University Medical Center Groningen, [6]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, The Netherlands

10.29 Achieving Crohn's Disease treatment targets following the STRIDE-II recommendations in clinical practice

A. Aliu[1], L. Janssen[2], A. Rezazadeh Ardabili[1, 3], Z. Mujagic[1, 3], M.J. Pierik[2, 3], [1]Dept. of Gastroenterology and Hepatology, Maastricht UMC+, [2]Dept. of Gastroenterology and Hepatology, Maastricht University Medical Center+, [3]Dept. of Gastroenterology and Hepatology, NUTRIM, Maastricht University, The Netherlands

10.37 Development and internal-external validation of a dynamic multivariable prediction model for advanced colorectal neoplasia in patients with inflammatory bowel disease

A. Wijnands[1], B. Penning de Vries[2, 3], M. Lutgens[4], Z. Bakhshi[5], I. Al Bakir[6], L. Beaugerie[7], C. Bernstein[8], R. Choi[9], N. Coelho-Prabhu[5], T. Graham[10], A. Hart[11], J. Ten Hove[1], S. Itzkowitz[12], J. Kirchgesner[7], E. Mooiweer[13], S. Shaffer[8], S. Shah[14], S. Elias[3], B. Oldenburg[1], [1]Dept. of Gastroenterology and Hepatology, UMC Utrecht, Utrecht, [2]Dept. of Epidemiology, UMC Utrecht, Utrecht, [3]Dept. of Epidemiology, Julius Center for Health Sciences and Primary Care, Utrecht, [4]Dept. of Gastroenterology and Hepatology, Elisabeth Tweesteden Ziekenhuis, Tilburg, The Netherlands, [5]Dept. of Gastroenterology and Hepatology, Mayo Clinic, Rochester, Verenigde Staten, [6]Dept. of Gastroenterology and Hepatology, Chelsea and Westminster Hospital, London, Verenigd Koninkrijk, [7]Dept. of Gastroenterology and Hepatology, Hôpital Saint-Antoine, Paris, Frankrijk, [8]Dept. of Gastroenterology and Hepatology, University of Manitoba, Winnipeg, Canada, [9]Dept. of Gastroenterology and Hepatology, Concord Repatriation General Hospital, Sydney, Australië, [10]Dept. of Evolution and Cancer Laboratory, Barts Cancer Institute, London, Verenigd Koninkrijk, [11]Dept. of Gastroenterology and Hepatology, St Marks Hospital, London, Verenigd Koninkrijk, [12]Dept. of Gastroenterology and Hepatology, Icahn School of Medicine at Mount Sinai, New York, Verenigde Staten, [13]Dept. of Gastroenterology and Hepatology, St Jansdal, Harderwijk, [14]Dept. of Gastroenterology and Hepatology, University of California San Diego, San Diego, Verenigde Staten

10.45 Gemodereerde postersessies in de Meierij Foyer
Koffie-/theepauze in de expositiehal

Plenaire opening DDD en President Select — Brabantzaal

Voorzitters: *A.E. van der Meulen en A.G.L. Bodelier*

11.15 High-definition white light endoscopy with segmental re-inspection is non-inferior to dye-based chromoendoscopy in inflammatory bowel disease: the randomized controlled HELIOS trial

M. te Groen[1], A. Wijnands[2], N. den Broeder[3], D. de Jong[1], W. van Dop[1], M. Duijvestein[1], H. Fidder[2], F.D.M. van Schaik[2], M.M.C. Hirdes[2], A.E. van der Meulen - de Jong[4], P.W.J. Maljaars[4], P.W. Voorneveld[4], K.H.N. de Boer[5], C.P. Peters[5], B. Oldenburg[2], F. Hoentjen[6], [1]Dept. of Gastroenterology and Hepatology, Radboudumc, Nijmegen, [2]Dept. of Gastroenterology and Hepatology, UMC Utrecht, [3]Dept. of Rheumatology, Maartenskliniek, Nijmegen, [4]Dept. of Gastroenterology and Hepatology, Leids Univerisitair Medisch Centrum, [5]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, The Netherlands, [6]Dept. of Gastroenterology, University of Alberta, Alberta, Canada

11.23 Interim analysis of the TESAR trial: A multicentre randomised trial of radical surgery versus adjuvant chemoradiotherapy after local excision for early rectal cancer.

L.R. Moolenaar, J.B. Tuynman, - TESAR collaborative, Dept. of Surgery, Amsterdam UMC location Vrije Universiteit Amsterdam, The Netherlands

11.31 Endoscopic ultrasound-guided gallbladder drainage (EUS-GBD): A safe and patient-friendly alternative to percutaneous gallbladder drainage in acute cholecystitis

T.A. Ciftci[1], D.G. Gerrits[2], M.S.L. Liem[3], N.G. Venneman[1], [1]Dept. of Gastroenterology and Hepatology, Medisch Spectrum Twente, Enschede, [2]Dept. of Radiology, Medisch Spectrum Twente, [3]Dept. of Gastrointestinal Surgery, Medisch Spectrum Twente, The Netherlands

11.39 **Uitreiking Gastrostart Subsidies**

11.45 **Keynote Lecture**
Diagnostic possibilities of the cholangioscope

Dr. G. Webster, Consultant Gastroenterologist and Hepatologist, University College London and Royal Free London Hospitals, London, United Kingdom

12.15 Algemene Ledenvergadering NVGE

12.30 Gemodereerde postersessies in de Meierij Foyer
Lunch in de expositiehal

Symposium Sectie Gastrointestinale Endoscopie / Radiologie — Brabantzaal

Voorzitters: *B. Bastiaansen en M. Burgmans*

13.30 Gastrointestinale bloedingen - De rol van endoscopie
Dr. E.T.T.L. Tjwa, MDL-arts, Radboudumc, Nijmegen

14.00 Gastrointestinale bloedingen – De rol van interventieradiologie
Prof. dr. O.M. van Delden, Radioloog, Amsterdam UMC

14.30 Einde van deze sessie

Symposium NVGIC en NVIR — Brabantzaal

Voorzitters: *S. Ruiter en M. Suker*

Discovering new grounds - multimodal treatment of primary and secundary liver malignancies

14.30 MRI with liver-specific contrast agents in the work-up for resection of colorectal liver metastases.
Prof. dr. M.G. Besselink, chirurg, Amsterdam UMC

14.45 Ablation of liver tumors: what's cooking?
Dr. M.L.J. Smits, interventieradioloog, UMC Utrecht

15.00 Percutaneous ablation of colorectal liver metastases: Dutch design
Prof. dr. M. Meijerink, interventieradioloog, Amsterdam UMC

15.15 Optimization of percutaneous ablation for hepatocellular carcinoma.
Dr. M. Burgmans, interventieradioloog, LUMC

15.30 Primary percutaneous placement of metal stent versus endoscopic drainage in patients with a primary malignant perihilar obstruction; the TESLA RCT
Prof. dr. B. Groot Koerkamp, chirurg, Erasmus MC, Rotterdam

15.45 Surgery for extensive, initially unresectable CRLM: lessons learned from the CAIRO5 trial
Dr. R.J. Swijnenburg, chirurg, Amsterdam UMC

16.00 Gemodereerde postersessies in de Meierij Foyer
Koffie-/theepauze in de expositiehal

Symposium NVH / Radiologie — Brabantzaal

Voorzitters: *S. van Meer en M. Kramer*

16.30 To TIPS or not to TIPS
Dr. R. Maan, MDL-arts, Erasmus MC, Rotterdam

16.50 TIPS: hoe dan?
Dr. R.P.H. Bokkers, interventieradioloog, UMC Groningen

17.10 Radiologische alternatieven voor de behandeling van portale hypertensie - BRTO/PTO/mesocavale shunt
Dr. C.. van der Leij, interventieradioloog, MUMC, Maastricht

17.30 Start van de plenaire sessie: Top abstracts NVGE 2024 in deze zaal

Top abstracts NVGE 2024 — Brabantzaal

Voorzitters: *P. van der Veek en A. van der Meulen*

17.30 Durable effects of duodenal ablation using electroporation combined with semaglutide to eliminate insulin therapy in patients with type 2 diabetes; 24 months results of the eminent study
C.B.E. Busch[1,2], S. Meiring[1, 2], A.C.G. van Baar[1, 2], F. Holleman[3], M. Nieuwdorp[4], J.J.G.H.M. Bergman[1], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, [2]Dept. of Gastroenterology and Hepatology, Amsterdam Gastroenterology Endocrinology Metabolism Research Institute, [3]Dept. of Internal Medicine, Amsterdam UMC, [4]Dept. of Vascular Medicine, Amsterdam UMC, The Netherlands

17.38 Mass Cytometry Analysis reveals that Sphingosine-1-Phosphate Receptor Blockade with Etrasimod, alters Lymphocyte Trafficking in Crohn's Disease*
D. Nikolakis[1,2 3], M.J. Pruijt[4,5], V.E.R. Aberkrom[4], F.A.E. de Voogd[4], D. Branquinho[6], C. Crosby[7], C. Teichert[4,5], M.G.H. van de Sande[3,8,9], J. Grootjans[10], G.R.A.M. D'Haens[10], [1]Dept. of Rheumatology, Dept. of Gastroenterology and Hepatology, Amsterdam UMC, [2]Dept. of Rheumatology, Amsterdam Gastroenterology Endocrinology Metabolism Research Institute, Amsterdam, [3]Dept. of Rheumatology, Amsterdam UMC, Amsterdam, [4]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [5]Dept. of Gastroenterology and Hepatology, Amsterdam Gastroenterology Endocrinology Metabolism Research Institute, Amsterdam, [6]Pfizer Inc, New York NY, Verenigde Staten, [7]Pfizer, Inc, San Diego CA, Verenigde Staten, [8]Dept. of Rheumatology, Amsterdam Infection and Immunity Institute, Amsterdam, [9]Dept. of Rheumatology, Amsterdam Rheumatology & Immunology Center (ARC), Academic Medical Center, Amsterdam, [10]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, The Netherlands
*Presentation in English

17.46 Extended mesenterectomy is not superior to mesenteric sparing resection in primary ileocolic resection for Crohn's disease in terms of postoperative endoscopic recurrence – results of an international randomised controlled trial

E.M.L. Van der Does de Willebois[1], V. Bellato[2], M. Duijvestein[3], J.D.W. van der Bilt[4], K. van Dongen[5], A. Spinelli[6, 7], G. D'Haens[8], M.W. Mundt[9], F. Furfaro[10], S. Daneso[10, 11], A. Vignali[12], W.A. Bemelman[1, 12], C.J. Buskens[1], [1]Dept. of Surgery, Amsterdam UMC location University of Amsterdam, [2]Dept. of Minimally Invasive Surgery, Tor Vergata University Hospital, Rome, Italië, [3]Dept. of Gastroenterology, Erasmus MC, Rotterdam, Nederland, [4]Department of Surgery, Flevoziekenhuis, Almere, Nederland, [5]Dept. of Surgery, Maasziekenhuis Pantein, Boxmeer, Nederland, [6]IRCCS Humanitas Research Hospital , Milan, Italië, [7]Dept. of Biomedical Data Sciences, Humanitas University, Milan, Italië, [8]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [9]Dept. of Gastroenterology and Hepatology, FlevoZiekenhuis, Amsterdam, Nederland, [10]Dept. of Gastroenterology and Gastrointestinal Endoscopy, IRCCS San Raffaele, Milan, Italië, [11]Dept. of Gastroenterology, IRCCS Humanitas Research Hospital , Milan, Italië, [12]Dept. of Gastroenterology, IRCCS San Raffaele, Milan, Italië, [13]Dept. of Coloproctology and IBD Surgery , IRCCS San Raffaele, Milan, Italië, [15]Dept. of Surgery, IRCCS San Raffaele, MIlan, Italië

17.54 Do antro-duodenal manometry parameters predict clinical response after gastric per-oral endoscopic pyloromyotomy in refractory gastroparesis?

K.W.E. Sweerts[1], Z. Mujagic[1, 2], J.W.A. Straathof[3], D. Keszthelyi[1], J.M. Conchillo[1], [1]Dept. of Gastroenterology and Hepatology, Maastricht UMC+, Maastricht, [2]Dept. of Gastroenterology and Hepatology, NUTRIM, Maastricht University, Maastricht, [3]Dept. of Gastroenterology and Hepatology, Máxima Medisch Centrum, Veldhoven, The Netherlands.

18.02 **Toekenning Erelidmaatschap**

18.12 Uitreiking proefschriftprijs

18.20 Uitreiking Inspiratorprijs

18.30 Einde van deze sessie

Symposium NVGIC I **Auditorium**

Voorzitters: *K. Wevers en H. Handgraaf*

Discovering new grounds – visualization aided by new techniques

09.30 Fluorescence-guided endoscopy: detection of high-grade dysplasia and T1 colorectal cancer

R. Gabriëls, postdoc, UMC Groningen

09.48 Real-time surgical margin assessment using ICG-fluorescence during resections of colorectal liver metastases

Dr. F. Achterberg, aios chirurgie, Haaglanden Medisch Centrum

10.06 Fluorescence-aided detection of sentinel node in upper GI malignancy

Prof. dr. B.L.A.M. Weusten, MDL-arts, St. Antonius Ziekenhuis, Nieuwegein

10.24 Double-labelled CEA imaging in GI cancer
Dr. M. Hutteman, chirurg, Radboudumc, Nijmegen

10.45 Gemodereerde postersessies in de Meierij Foyer
Koffie-/theepauze in de expositiehal

Abstractsessie NVGIC II — Auditorium

Voorzitters: *R. Barendse en R. Coebergh*

13.30 Colonoscopic-Assisted Laparoscopic Wedge Resection for colonic lesions: impact on quality of life (results from the LIMERIC-study)
A.G. Brink[1], J. Hanevelt[1], L.W. Leicher[1], L.M.G. Moons[2], F.P. Vleggaar[2], J.F. Huisman[1], W.H. Vos tot Nederveen Cappel[1], H.L. van Westreenen[3], [1]Dept. of Gastroenterology, Isala Ziekenhuis, Zwolle, [2]Dept. of Gastroenterology and Hepatology, UMC Utrecht, [3]Dept. of Surgery, Isala Ziekenhuis, Zwolle, The Netherlands

13.38 The relation between postoperative complications after primary colon cancer surgery and long-term outcomes
E. Rademaker[1,2], B. Zamaray[1,3,4], E.C.J. Consten[5], P.J. Tanis[4], H.L. van Westreenen[1], [1]Dept. of Surgery, Isala Ziekenhuis, Zwolle, [2]Dept. of Surgery, Erasmus MC, Rotterdam, [3]Dept. of Surgery, University Medical Center Groningen, [4]Dept. of Surgery, Amsterdam UMC, Amsterdam, [5]Dept. of Surgery, Meander Medisch Centrum, Amersfoort, The Netherlands

13.46 Long-term oncological outcomes and patterns of distant metastasis in T1 versus T2 Colon Cancer
J. Hanevelt[1], B. Zamaray[2,3,4], E. Rademaker[2,5], R.M. Brohet[6], L.M.G. Moons[7], F.P. Vleggaar[7], B.C.T. van de Laar[8], E.C.J. Consten[8], P.J. Tanis[4], W.H. de Vos Tot Nederveen Cappel[1], H.L. van Westreenen[2], [1]Dept. of Gastroenterology, Isala Ziekenhuis, Zwolle, [2]Dept. of Surgery, Isala Ziekenhuis, Zwolle, [3]Dept. of Surgery, University Medical Center Groningen, Groningen, [4]Dept. of Surgery, Amsterdam UMC, Amsterdam, [5]Dept. of Surgery, Erasmus MC, Rotterdam, [6]Dept. of Biomedical Data Sciences, Isala Ziekenhuis, Zwolle, [7]Dept. of Gastroenterology and Hepatology, UMC Utrecht, [8]Dept. of Surgery, Meander Medisch Centrum, Amersfoort, The Netherlands

13.54 The Assessment of Burden of ColoRectal Cancer (ABCRC)-tool; a validity and reliability study
B.J.M. Thomassen[1,2,3], M.L. Kimman[4,5], S.O. Breukink[1,3,13], A.H.M. Gidding-Slok[16, 17], A.M.J. Somers[6], R.W.H.M. Ponds[7], J.W.T. Dekker[8], B.L. van Leiden[9], G.R. Vink[10,11], J.W.B. de Groot[12], J. Melenhorst[1, 3, 13], K.M.M.W. Reynders[1], C.M.J. Gielen[1], T.H.A. Weerts[14], M.F. Lutke Holzik[15], S.M.J. van Kuijk[4, 5], [1]Dept. of Surgery, Maastricht University Medical Center +, Maastricht, [2]Dept. of Surgery, Department of Gastroenterology and Hepatology, Maastricht UMC+, Maastricht, [3]Dept. of Surgery, NUTRIM, Maastricht University, Maastricht, [4]Dept. of Clinical Epidemiology and Medical Technology Assessment (KEMTA), KEMTA, Maastricht University Medical Center+, Maastricht, [5]Dept. of Clinical Epidemiology and Medical Technology Assessment (KEMTA), CAPHRI School for Public Health and Primary Care, Maastricht University, Maastricht, [6]Dept. of Internal Medicine, Catharina Hospital, Eindhoven, [7]Dept. of Medical Psychology, Amsterdam University Medical Center, Amsterdam, [8]Dept. of Surgery, Reinier de Graaf Gasthuis, Delft, [9]National Association of Dutch Health Insurers, Zeist, [10]Dept. of

Medical Oncology, University Medical Center Utrecht, Utrecht, [11]Dept. of Medical Oncology, Netherlands Comprehensive Cancer Organisation, Utrecht, [12]Dept. of Medical Oncology, Isala Oncology Center, Zwolle, [13]Dept. of Surgery, GROW School for Oncology and Reproduction, Maastricht University, Maastricht, [14]Dept. of Gastroenterology, Zuyderland Medical Center, Sittard-Geleen, [15]Dept. of Surgery, Hospital Group Twente, Almelo, [16]Dept. of Family Medicine, Maastricht University, Maastricht, [17]Dept. of Family Medicine, CAPHRI School for Public Health and Primary Care, Maastricht University, Maastricht, The Netherlands

14.02 Risk factors for benign anastomotic stenosis after esophageal cancer surgery

D.C. van der Aa[1,2], J. Boonstra[1], W.J. Eshuis[3, 4], F. Daams[5], S.S. Gisbertz[1], M.I. van Berge Henegouwen[3,4], [1]Dept. of Surgery, Amsterdam UMC, location University of Amsterdam, Amsterdam, [2]Dept. of Surgery, Cancer Center Amsterdam, Amsterdam, [3]Dept. of Surgery, Amsterdam UMC location University of Amsterdam, dept. of Surgery, Amsterdam, [4]Dept. of Surgery, Cancer Treatment and Quality of Life, Cancer Center Amsterdam, Amstterdam, [5]Dept. of Surgery, Amsterdam UMC, location Vrije Universiteit, Amsterdam, The Netherlands

14.10 Development of a core-set of self-management support needs of esophageal cancer patients: results from a Delphi study among patients

D.J.M. Adriaans[1,2,3], F.B.M. Heesakkers[1], J.A.W. Teijink[4,5], A.T.M. Dierick-van Daele[6,7], E. de Graaf[8], C. Rosman[9], R.S.F. van Elburg[10], C.C.G. Schippers[11], L. Notenboom[12], H.W.M. van Laarhoven[13,14], G.A.P. Nieuwenhuijzen[15], [1]Dept. of Gastrointestinal Surgery, Catharina Hospital, Eindhoven, [2]Dept. of Gastrointestinal Surgery, Fontys University of Applied Sciences, Eindhoven, [3]Dept. of Gastrointestinal Surgery, CAPHRI School for Public Health and Primary Care, Maastricht University, Maastricht, [4]Dept. of Vascular Medicine, Department of Surgery, Catharina Hospital, Eindhoven, [5]Dept. of Vascular Medicine, CAPHRI School for Public Health and Primary Care, Maastricht University, Maastricht, [6]School of Life Sciences, Fontys University of Applied Sciences, Eindhoven, [7]School of Life Sciences, Department of People and Development, Catharina Hospital, Eindhoven, [8]Dept. of Gastrointestinal Surgery, Reinier de Graaf Hospital, Delft, [9]Dept. of Surgery, RadboudUMC, Nijmegen, [10]Dept. of Gastrointestinal Surgery, Oncological Center, Gelderse Vallei Hospital, Ede, [11]Dept. of Gastrointestinal Surgery, University Medical Center Utrecht, Utrecht, [12]Dept. of Gastrointestinal Surgery, Cancer Center Amsterdam, Cancer Treatment and Quality of Life, Amsterdam, [13]Dept. of Gastrointestinal Oncology, Cancer Center Amsterdam, Cancer Treatment and Quality of Life, Amsterdam, [14]Dept. of Gastrointestinal Oncology, Amsterdam UMC, Amsterdam, [15]Dept. of Gastrointestinal Surgery, Catharina Hospital, Eindhoven, The Netherlands

Abstractsessie Sectie Gastrointestinale Endoscopie I — Auditorium

Voorzitters: H. Künzli en A.M. van Berkel

14.30 Additional value of expert care for patients with ultra-long Barrett's Esophagus in the Netherlands: results of the nationwide Barrett Expert Center Registry.

E.P.D. Verheij[1], M.T.P.M. Houben[2], S.N. van Munster[3], B.L.A.M. Weusten[3,4], L. Alvarez Herrero[3], A. Alkhalaf[5], E.J. Schoon[6], W. Curvers[6], A.D. Koch[7], V.M.C.W. Spaander[7], P.A. Zellenrath[7], W.B. Nagengast[8], J. Westerhof[9], M.H.M.G. Houben[10], S.L. Meijer[11], J.J.G.H.M. Bergman[2], R.E. Pouw[2], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC location University of Amsterdam, dept. of Gastroenterology, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [3]Dept. of Gastroenterology and Hepatology, St Antonius Hospital, Nieuwegein, [4]Dept. of Gastroenterology and Hepatology, UMC Utrecht, Utrecht, [5]Dept. of Gastroenterology and Hepatology, Isala Ziekenhuis, Zwolle, [6]Dept.

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14.38 Image quality challenges in AI: improving robustness of a computer aided detection system for Barrett's neoplasia.

M.R. Jong[1], T.J.M. Jaspers[2], C.H.J. Kusters[2], J.B. Jukema[1], K.N. Fockens[1], R.A.H. Van Eijck van Heslinga[1], T.G.W. Boers[2], F. van der Sommen[2], P.H.N. de With[2], A.J. de Groof[1], J.J.G.H.M. Bergman[1], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [2]Dept. of Electrical Engineering, Eindhoven University of Technology, Eindhoven, The Netherlands

14.46 Endoscopic resection of early esophageal neoplasia can safely be performed in patients with esophageal varices

C.N. Frederiks[1,2], L.S. Boer[2], B. Gloudemans[2], L. Alvarez Herrero[1], J.J.G.H.M. Bergman[3], R.E. Pouw[3], B.L.A.M. Weusten[1, 2],, [1]Dept. of Gastroenterology and Hepatology, St Antonius Hospital, Nieuwegein, [2]Dept. of Gastroenterology and Hepatology, UMC Utrecht, Utrecht, [3]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, The Netherlands

14.54 Only half of the patients treated endoscopically for early Barrett related neoplasia is detected during Barrett surveillance

L.S. Boer[1], B.L.A.M. Weusten[2,1], S.N. van Munster[2], L. Alvarez Herrero[2], A. Alkhalaf[3], B.E. Schenk[3], E.J. Schoon[4], W. Curvers[4], A.D. Koch[5], P.J.F. de Jonge[6], W.B. Nagengast[7], J. Westerhof[8], M.H.M.G. Houben[9], J.J.G.H.M. Bergman[10], R.E. Pouw[10], L.A.A. Brosens[11], [1]Dept. of Gastroenterology and Hepatology, UMC Utrecht, Utrecht, [2]Dept. of Gastroenterology and Hepatology, St Antonius Hospital, Nieuwegein, [3]Dept. of Gastroenterology and Hepatology, Isala Ziekenhuis, Zwolle, [4]Dept. of Gastroenterology and Hepatology, Catharina Ziekenhuis, Eindhoven, [5]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, [6]Dept. of Gastroenterology and Hepatology, Erasmus University Medical Center, Rotterdam, [7]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, Groningen, [8]Dept. of Gastroenterology and Hepatology, UMC Groningen, Groningen, [9]Dept. of Gastroenterology and Hepatology, Hagaziekenhuis, Den Haag, [10]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [11]Dept. of Pathology, UMC Utrecht, Utrecht, The Netherlands

15.02 Endoscopic biopsy techniques in Barrett's esophagus patients: a randomized trial with a two-by-two factorial design

I.N. Beaufort [1,2], S. Elias[3], A.N. Milne[4], L.A.A. Brosens[5], L. Alvarez Herrero[1], B.L.A.M. Weusten[1,2], [1]Dept. of Gastroenterology and Hepatology, St Antonius Hospital, Nieuwegein, [2]Dept. of Gastroenterology and Hepatology, UMC Utrecht, Utrecht, [3]Dept. of Epidemiology, Julius Center for Health Sciences and Primary Care, Utrecht, [4]Dept. of Pathology, St Antonius Hospital, Nieuwegein, [5]Dept. of Pathology, UMC Utrecht, Utrecht, The Netherlands

15.10 Endoscopy-led risk stratification of gastric intestinal metaplasia - diagnostic accuracy of virtual chromendoscopy combined with targeted biopsies in patients with premalignant gastric lesions in a low incidence area

F.E. Marijnissen[1], W.W. Waddingham[2], S.A.V. Nieuwenburg[1], D. Graham[2], P.J.F. de Jonge[1], J. Honing[3], M. Rodriguez-Justo[4], M. Doukas[5], E.J. Kuipers[1], M. Banks[2], M. Jansen[4], V.M.C.W. Spaander[6], [1]Dept. of Gastroenterology and Hepatology, Erasmus University Medical Center, Rotterdam, [2]Dept. of Gastroenterology and Hepatology, University College Hospital NHS

Trust, London, Verenigd Koninkrijk, [3]Dept. of Gastroenterology, Erasmus Medical Centre, Rotterdam, [4]Dept. of Pathology, University College Hospital NHS Trust, London, Verenigd Koninkrijk, [5]Dept. of Pathology, Erasmus University Medical Center, Rotterdam, [6]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, The Netherlands

15.18 Unveiling the environmental footprint of colonoscopies in a Dutch university hospital: A life cycle assessment

P. Laemmer[1], M. Duijvestein[2], T. Stobernack [3], [1]Comprex Medical GmbH, Munich, Duitsland, [2]Dept. of Gastroenterology and Hepatology, RadboudUMC, Nijmegen, [3]Intensive Care, Radboud university medical center, Nijmegen, The Netherlands

15.26 From "see one, do one, teach one" to self-regulated learning: the future of endoscopy training

R.A. Mousset[1,2], A.D. Diemers[3], W.H. de Vos Tot Nederveen Cappel[4], J.P.E.N. Pierie[5], A.M.J. Langers[6], P.L.P. Brand[7], [1]Dept. of Gastroenterology and Hepatology, UMC Groningen, Groningen, [2]Dept. of Gastroenterology and Hepatology, Isala Ziekenhuis, Zwolle, [3]UMC Groningen, Groningen, [4]Dept. of Gastroenterology, Isala Ziekenhuis, Zwolle, [5]Dept. of Surgery, Medisch Centrum Leeuwarden, Leeuwarden, [6]Dept. of Gastroenterology and Hepatology, Leiden Universitair Medisch Centrum, Leiden, [7]Isala Ziekenhuis, Zwolle, The Netherlands

15.34 Real-time polyp size measurement during colonoscopy using a virtual scale: variability and systematic differences

Q.N.E. van Bokhorst[1], B.B.S.L. Houwen[1], Y. Hazewinkel[2], M. van der Vlugt[1], H. Beaumont[1], J. Grootjans[1], A. van Tilburg[3], M.P.M. Adriaanse[1], B.A.J. Bastiaansen[4, 5], Y.H. van Beurden[1], M.E.S. Bronzwaer[1], B.W.E. Hens[1], L.M. Hubers[1], G.M. Kramer[1], S.J. Lekkerkerker[1], B. Meijer[6], F.A. Ponds[1], D. Ramsoekh[1], P. Fockens[7, 5, 8], P.M.M. Bossuyt[9], E. Dekker[1], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, location AMC, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Tergooi MC, Hilversum, [3]Dept. of Pathology, Reinier de Graaf Gasthuis, Delft, [4]Dept. of Gastroenterology and Hepatology, Amsterdam UMC location University of Amsterdam, dept. of Gastroenterology, Amsterdam, [5]Dept. of Gastroenterology and Hepatology, Amsterdam Gastroenterology Endocrinology Metabolism, Amsterdam, [6]Dept. of Gastroenterology and Hepatology, Dijkerlander Ziekenhuis, Hoorn/Purmerend, [7]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, location University of Amsterdam, Amsterdam, [8]Dept. of Gastroenterology and Hepatology, Cancer Center Amsterdam, Amsterdam, [9]Dept. of Epidemiology and Biostatistics, Amsterdam UMC, location AMC, Amsterdam, The Netherlands

16.00 Gemodereerde postersessies in de Meierij Foyer
Koffie-/theepauze in de expositiehal

Symposium NVGIC II — Auditorium

Voorzitters: *W.M.U. van Grevenstein en J. van Iersel*

Discovering new grounds – evaluation aided by artificial intelligence

16.30 AI for real-time automatic polyp detection during endoscopy
Prof. dr. E. Dekker, MDL-arts, AUMC

16.45 AI for detection for pancreatic cancer
Prof. dr. M.D.P. Luyer, chirurg, Catharina Ziekenhuis, Eindhoven

17.00 AI for the detection of early cancer in upper GI endoscopy
Dr. ir. F. van der Sommen, associate professor Image Processing & Computer Vision, TU Eindhoven

17.15 AI for optimalisation of surgical technique and postoperative outcome; what can we learn?
Prof. dr. I.A.M.J. Broeders, chirurg, Meander Medisch Centrum, Amersfoort

17.30 uur Einde van deze sessie

Abstractsessie NVGIC en Sectie Gastrointestinale Endoscopie — Baroniezaal

Voorzitters: *M.J.M. Groenen en N. Kooreman*

09.30 Vacuum-Stent Treatment for Transmural Defects in the Upper Gastro-Intestinal Tract: Experience and Case Series in a Tertiary Referral Center
L.M.D. Pattynama[1,2,3], W.J. Eshuis[1,3], J.J.G.H.M. Bergman[4], M.I. van Berge Henegouwen[1,3], R.E. Pouw[4], [1]Dept. of Surgery, Amsterdam UMC location University of Amsterdam, dept. of Surgery, Amsterdam, [2]Dept. of Surgery, Amsterdam UMC location University of Amsterdam, dept. of Gastroenterology, Amsterdam, [3]Dept. of Surgery, Cancer Treatment and Quality of Life, Cancer Center Amsterdam, Amstterdam, [4]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, The Netherlands

09.38 Outcomes of Anastomotic Leakage after Esophagectomy Before and After implementation of Endoscopic Vacuum Therapy in a Tertiary Referral Center
L.M.D. Pattynama[1,2,3], R.E. Pouw[4], S.S. Gisbertz[5], F. Daams[6], J.J.G.H.M. Bergman[4], M.I. van Berge Henegouwen[1,3], W.J. Eshuis[1,3], [1]Dept. of Surgery, Amsterdam UMC location University of Amsterdam, dept. of Surgery, Amsterdam, [2]Dept. of Surgery, Amsterdam UMC location University of Amsterdam, dept. of Gastroenterology, Amsterdam, [3]Dept. of Surgery, Cancer Treatment and Quality of Life, Cancer Center Amsterdam, Amsterdam, [4]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [5]Dept. of Surgery, Amsterdam UMC, location University of Amsterdam, Amsterdam, [6]Dept. of Surgery, Amsterdam UMC, location Vrije Universiteit, Amsterdam, The Netherlands

09.46 Impact of EUS-guided choledochoduodenostomy versus transpapillary endoscopic biliary drainage on the intra- and post-operative outcome of pancreatoduodenectomy: a multicenter propensity score matched study

J.A. Fritzsche[1,2,3], M.J.P. de Jong[4], B.A. Bonsing[5], O.R.C. Busch[6, 7], F. Daams[8], F. van Delft[4], W.J.M. Derksen[9, 10], J.I. Erdmann[6,7,11], S. Festen[12], P. Fockens[1,2,3], E.M. van Geenen[4], A. Inderson[13], G. Kazemier[14,3], S.D. Kuiken[15], M.S.L. Liem[16], D.J. Lips[17], W.W. Te Riele[9,10], H.C. van Santvoort[9,10], P.D. Siersema[4,18], N.G. Venneman[19], R.C. Verdonk[20], F.P. Vleggaar[21], M.G. Besselink[22], R.L.J. van Wanrooij[14,2,3], R.P. Voermans[1,3], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, location University of Amsterdam, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Amsterdam Gastroenterology Endocrinology Metabolism, Amsterdam, [3]Dept. of Gastroenterology and Hepatology, Cancer Center Amsterdam, Amsterdam, [4]Dept. of Gastroenterology and Hepatology, Radboud university medical center, Nijmegen, [5]Dept. of Surgery, Leiden Universitair Medisch Centrum, Leiden, [6]Dept. of Surgery, Amsterdam UMC, location University of Amsterdam, Amsterdam, [7]Dept. of Surgery, Cancer Center Amsterdam, Amsterdam, [8]Dept. of Surgery, Amsterdam UMC, location Vrije Universiteit, Amsterdam, [9]Dept. of Surgery, St Antonius Hospital, Nieuwegein, [10]Dept. of Surgery, UMC Utrecht, Utrecht, [11]Dept. of Surgery, Amsterdam Gastroenterology Endocrinology Metabolism, Amsterdam, [12]Dept. of Surgery, OLVG, Amsterdam, [13]Dept. of Gastroenterology and Hepatology, Leids Univerisitair Medisch Centrum, Leiden, [14]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, location Vrije Universiteit, Amsterdam, [15]Dept. of Gastroenterology and Hepatology, OLVG, Amsterdam, [16]Dept. of Gastrointestinal Surgery, Medisch Spectrum Twente, Enschede, [17]Dept. of Surgery, Medisch Spectrum Twente, Enschede, [18]Dept. of Gastroenterology and Hepatology, Erasmus University Medical Center, Rotterdam, [19]Dept. of Gastroenterology and Hepatology, Medisch Spectrum Twente, Enschede, [20]Dept. of Gastroenterology and Hepatology, St Antonius Hospital, Nieuwegein, [21]Dept. of Gastroenterology and Hepatology, UMC Utrecht, Utrecht, [22]Dept. of Surgery, Amsterdam UMC, Amsterdam, The Netherlands

09.54 Safety of Surveillance Gastroscopy and Endoscopic Ultrasonography in the Oesophagus after neoadjuvant chemoradiotherapy: results from the SANO cohort

S.S.G. Gangaram Panday[1], L. Kuan Yean[2], B.P.L. Wijnhoven[1], J. Honing[3], B. Mostert[4], J.J.M.E. Nuyttens[5], P.C. van der Sluis[1], V.M.C.W. Spaander[3], S.M. Lagarde[2], [1]Dept. of Gastrointestinal Surgery, Erasmus MC, Rotterdam, [2]Dept. of Surgery, Erasmus MC, Rotterdam, [3]Dept. of Gastroenterology, Erasmus Medical Centre, Rotterdam, [4]Dept. of Medical Oncology, Erasmus MC, Rotterdam, [5]Dept. of Radiotherapy, Erasmus MC, Rotterdam, The Netherlands

10.02 EUS-guided choledochoduodenostomy for primary drainage of malignant distal biliary obstruction (SCORPION-II-p): a prospective pilot study using FCSEMS through LAMS

J.A. Fritzsche[1,2,3], P. Fockens[1,2,3], M.G. Besselink[4], O.R.C. Busch[5,6], F. Daams[7], J.W. Wilmink[8,9], R.P. Voermans[1,3], R.L.J. van Wanrooij[10,2,3], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, location University of Amsterdam, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Amsterdam Gastroenterology Endocrinology Metabolism, Amsterdam, [3]Dept. of Gastroenterology and Hepatology, Cancer Center Amsterdam, Amsterdam, [4]Dept. of Surgery, Amsterdam UMC, Amsterdam, [5]Dept. of Surgery, Amsterdam UMC, location University of Amsterdam, Amsterdam, [6]Dept. of Surgery, Cancer Center Amsterdam, Amsterdam, [7]Dept. of Surgery, Amsterdam UMC, location Vrije Universiteit, Amsterdam, [8]Dept. of Medical Oncology, Amsterdam UMC, location University of Amsterdam, Amsterdam, [9]Dept. of Medical

Oncology, Cancer Center Amsterdam, Amsterdam, [10]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, location Vrije Universiteit, Amsterdam, The Netherlands

10.10 Feasibility of hepatic arterial infusion pump chemotherapy combined with systemic chemotherapy for patients with colorectal liver metastases in the Netherlands: the PUMP-IT pilot study

K.F.D. Kuhlmann[1], M.F. Krul[1], H. Osmani[1], F.E. Buisman[2], B. Groot Koerkamp[3], D.J. Grunhagen[2], C. Verhoef[2], B. Mostert[4], P. Snaebjornsson[5], B. Westerink[6], E. Klompenhouwer[6], M.L. Donswijk[7], T.J.M. Ruers[1], J. Douma[8], N. Van Blijderveen[8], P. Kingham[9], M.I. D'Angelica[9], N.E. Kemeny[10], K. Bolhuis[8], T. Buffart[11], N.F. Kok[1], [1]Dept. of Surgery, Antoni van Leeuwenhoek - Nederlands Kanker Instituut, Amsterdam, [2]Dept. of Surgery, Erasmus University Medical Center Rotterdam, Rotterdam, [3]Dept. of Surgery, Erasmus MC, Rotterdam, [4]Dept. of Medical Oncology, Erasmus MC, Rotterdam, [5]Dept. of Pathology, Antoni van Leeuwenhoek - Nederlands Kanker Instituut, Amsterdam, [6]Dept. of Radiology, Antoni van Leeuwenhoek - Nederlands Kanker Instituut, Amsterdam, [7]Dept. of Radiology and Nuclear Medicine, Antoni van Leeuwenhoek - Nederlands Kanker Instituut, Amsterdam, [8]Dept. of Medical Oncology, Antoni van Leeuwenhoek - Nederlands Kanker Instituut, Amsterdam, [9]Dept. of Surgery, Memorial Sloan Kettering Cancer Center, New York, Verenigde Staten, [10]Dept. of Medical Oncology, Memorial Sloan Kettering Cancer Center, New York, Verenigde Staten, [11]Dept. of Medical Oncology, Amsterdam UMC, Amsterdam, The Netherlands

10.18 Endoscopic ultrasonography-guided gastroenterostomy for palliation of malignant gastric outlet obstruction: predictors of technical and clinical success

Y.L. van de Pavert[1], A. Bijlsma[2], A. Bogte[1], M.J. Bruno[3], H.M. van Dullemen[4], P. Fockens[5,6,7], A. Inderson[8], W.J. Lammers[3], N.G. Venneman[9], R.P. Voermans[5,7], R.L.J. van Wanrooij[10,6,7], T.R. de Wijkerslooth[11], L.M.G. Moons[12], F.P. Vleggaar[1], [1]Dept. of Gastroenterology and Hepatology, UMC Utrecht, Utrecht, [2]Dept. of Gastroenterology and Hepatology, Martini Ziekenhuis, Groningen, [3]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, [4]Dept. of Gastroenterology and Hepatology, UMC Groningen, Groningen, [5]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, location University of Amsterdam, Amsterdam, [6]Dept. of Gastroenterology and Hepatology, Amsterdam Gastroenterology Endocrinology Metabolism, Amsterdam, [7]Dept. of Gastroenterology and Hepatology, Cancer Center Amsterdam, Amsterdam, [8]Dept. of Gastroenterology and Hepatology, Leids Univerisitair Medisch Centrum, Leiden, [9]Dept. of Gastroenterology and Hepatology, Medisch Spectrum Twente, Enschede, [10]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, location Vrije Universiteit, Amsterdam, [11]Dept. of Gastrointestinal Oncology, Antoni van Leeuwenhoek - Nederlands Kanker Instituut, Amsterdam, [12]Dept. of Gastroenterology and Hepatology, UMC Utrecht, Utrecht, The Netherlands

10.26 Einde van deze sessie

10.45 Gemodereerde postersessies in de Meierij Foyer
Koffie-/theepauze in de expositiehal

Abstractsessie Sectie Gastrointestinale Oncologie I — Baroniezaal

Voorzitters: K. Grooteman en Y. van Herwaarden

13.30 N3 disease in esophageal cancer: results from a nationwide registry

C.J. van der Zijden[1], P.B. Olthof[1], P.C. van der Sluis[2], B.P.L. Wijnhoven[3], M. Erodotou[1], H.H. Hartgrink[4], B. van Etten[5], S. van Esser[6], S.M. Lagarde[1], J.W.T. Dekker[6], [1]Dept. of

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13.38 Genomic markers for enhanced risk stratification in Barrett's esophaghus patients with low grade dysplasia

P. Stougie[1], N.F. Frei[1], V.Y. Pappalardo[2], A.M. Khoshiwal[1], H. Yu[3], R.X. de Menezes[2], L.C. Duits[1], J.J.G.H.M. Bergman[4], M.D. Stachler[3], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC location University of Amsterdam, dept. of Gastroenterology, Amsterdam, [2]Dept. of Biostatistics, Netherlands Cancer Institute, Amsterdam, [3]Dept. of Pathology, University of California, San Francisco, Verenigde Staten, [4]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, Nederland

13.46 Identifying putative genomic biomarkers for risk stratification in Barrett's esophaghus patients with normal histological features

P. Stougie[1], N.F. Frei[1], V.Y. Pappalardo[2], A.M. Khoshiwal[1], H. Yu[3], R.X. de Menezes[2], L.C. Duits[1], J.J.G.H.M. Bergman[4], M.D. Stachler[3], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC location University of Amsterdam, dept. of Gastroenterology, Amsterdam, [2]Dept. of Biostatistics, Netherlands Cancer Institute, Amsterdam, [3]Dept. of Pathology, University of California, San Francisco, Verenigde Staten, [4]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, Nederland

13.54 Outcomes after surgical treatment of oesophagogastric cancer with synchronous liver metastases: a multicentre retrospective cohort study

S.J.M. van Hootegem[1], C.A. de Pasquale[2], S. Giacopuzzi[2], E. van Daele[3], J. Moons[4], P.C. van der Sluis[5], S.M. Lagarde[1], B.P.L. Wijnhoven[6], [1]Dept. of Surgery, Erasmus MC, Rotterdam, [2]Dept. of Gastrointestinal Surgery, University of Verona, Verona, Italië, [3]Dept. of Gastrointestinal Surgery, Ghent University Hospital, Ghent, België, [4]Dept. of Surgery, University Hospitals Leuven, Leuven, België, [5]Dept. of Gastrointestinal Surgery, Erasmus University Medical Center Rotterdam, Rotterdam, [6]Dept. of Gastrointestinal Surgery, Erasmus MC, Rotterdam, Nederland

14.02 Higher early gastric cancer yield of targeted than random biopsies in endoscopic surveillance in CDH1 and CTNNA1 pathogenic variant carriers

T. Bisseling[1], S. van Leerdam[2], L. Kodach[3], A. Cats[2], J. Sandick[4], B. Witteman[5], L. van der Kolk[6], N. Hoogerbrugge[7], C. van der Post[8], J.M. van Dieren[2], [1]Dept. of Gastroenterology and Hepatology, Radboud University Medical Center, Nijmegen, [2]Dept. of Gastrointestinal Oncology, Netherlands Cancer Institute, Amsterdam, [3]Dept. of Pathology, Netherlands Cancer Institute, Amsterdam, [4]Dept. of Surgery, Netherlands Cancer Institute, Amsterdam, [5]Dept. of Surgery, Rijnstate Ziekenhuis, Arnhem, [6]Dept. of Clinical Genetics, Netherlands Cancer Institute, Amsterdam, [7]Dept. of Human Genetics, Radboud University, Nijmegen, [8]Dept. of Pathology, Radboud University, Nijmegen, Nederland

14.10 Outcomes of different treatment approaches after R0 endoscopic resection of high-risk T1 esophageal adenocarcinoma: an international, multicentre, retrospective cohort study

M.W. Chan[1], R. Haidry[2, 3], B. Norton[2, 3], M. Di Pietro[4], A.V. Hadjinicolaou[4], M. Barret[5], P. Doumbe-Mandengue[5], S. Seewald[6], R. Bisschops[7], P. Nafteux[8], M.J. Bourke[9], S. Gupta[9], P. Mundre[10], A. Lemmers[11], C. Vuckovic[11], O. Pech[12], P. Leclercq[13], E. Coron[14], S.L. Meijer[15], J.J.G.H.M. Bergman[1], R.E. Pouw[1], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, University

College Hospital NHS Trust, London, Verenigd Koninkrijk, [3]Dept. of Gastroenterology and Hepatology, Cleveland Clinic London, London, Verenigd Koninkrijk, [4]Dept. of Gastroenterology and Hepatology, MRC Cancer Unit, University of Cambridge, Cambridge, Verenigd Koninkrijk, [5]Dept. of Gastroenterology and Hepatology, Cochin Hospital and University of Paris, Paris, Frankrijk, [6]Dept. of Gastroenterology and Hepatology, GastroZentrum, Klinik Hirslanden, Zurich, Zwitserland, [7]Dept. of Gastroenterology and Hepatology, University Hospitals Leuven, Leuven, België, [8]Dept. of Gastrointestinal Surgery, University Hospitals Leuven, Leuven, België, [9]Dept. of Gastroenterology and Hepatology, Westmead Hospital, Sidney, Australië, [10]Dept. of Gastroenterology and Hepatology, Bradford Teaching Hospitals, Bradford, Verenigd Koninkrijk, [11]Dept. of Gastroenterology and Hepatology, CUB Erasme Hospital, Brussels, België, [12]Dept. of Gastroenterology, Krankenhaus Barmherzige Brüder Regensburg, Regensburg, Duitsland, [13]Dept. of Gastroenterology, Clinique Mont Legia, CHC Groupe Santé, Liège, België, [14]Dept. of Gastroenterology and Interventional Endoscopy, Nantes University Hospital, Nantes, Frankrijk, [15]Dept. of Pathology, Amsterdam UMC, Amsterdam, Nederland
*Presentatie door V. Bos

14.18 Low recurrence rates after endoscopic resection (R0) of high-risk T1 adenocarcinoma in Barrett's esophagus support a strict endoscopic surveillance strategy: Preliminary results of a prospective, international, multicenter cohort study (PREFER)

M.W. Chan[1], E.A. Nieuwenhuis[1], M. Jansen[2], W.B. Nagengast[3], J. Westerhof[4], H. Neuhaus[5], T. Beyna[5], A.D. Koch[6], V.M.C.W. Spaander[6], M.J. Bourke[7], R. Bisschops[8], G. De Hertogh[9], B.L.A.M. Weusten[10, 11], A. Alkhalaf[12], O. Pech[13], S. Seewald[14], R. Haidry[15, 16], D. De Wulf[17], C. Schlag[18], E.J. Schoon[19], M.H.M.G. Houben[20], H. Messman[21], P. Dewint[22], J. Ortiz Fernández-Sordo[23], S.L. Meijer[24], J.J.G.H.M. Bergman[1], R.E. Pouw[1], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [2]Dept. of Pathology, University College Hospital NHS Trust, London, Verenigd Koninkrijk, [3]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, Groningen, [4]Dept. of Gastroenterology and Hepatology, UMC Groningen, Groningen, [5]Dept. of Gastroenterology and Hepatology, Evangelisches Krankenhaus Düsseldorf, Düsseldorf, Duitsland, [6]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, [7]Dept. of Gastroenterology and Hepatology, Westmead Hospital, Sidney, Australië, [8]Dept. of Gastroenterology and Hepatology, University Hospitals Leuven, Leuven, België, [9]Dept. of Pathology, University Hospitals Leuven, Leuven, België, [10]Dept. of Gastroenterology and Hepatology, St Antonius Hospital, Nieuwegein, [11]Dept. of Gastroenterology and Hepatology, UMC Utrecht, Utrecht, [12]Dept. of Gastroenterology and Hepatology, Isala Ziekenhuis, Zwolle, [13]Dept. of Gastroenterology, Krankenhaus Barmherzige Brüder Regensburg, Regensburg, Duitsland, [14]Dept. of Gastroenterology and Hepatology, GastroZentrum, Klinik Hirslanden, Zurich, Zwitserland, [15]Dept. of Gastroenterology and Hepatology, University College Hospital NHS Trust, London, Verenigd Koninkrijk, [16]Dept. of Gastroenterology and Hepatology, Cleveland Clinic London, London, Verenigd Koninkrijk, [17]Dept. of Gastroenterology and Hepatology, AZ Delta Roeselare, Roeselare, België, [18]Dept. of Gastroenterology and Hepatology, Klinikum rechts der Isar der, Technical University of Munich, München, Duitsland, [19]Dept. of Gastroenterology and Hepatology, Catharina Ziekenhuis, Eindhoven, [20]Dept. of Gastroenterology and Hepatology, Hagaziekenhuis, Den Haag, [21]Dept. of Gastroenterology and Hepatology, University Hospital Augsburg, Augsburg, Duitsland, [22]Dept. of Gastroenterology and Hepatology, AZ Maria Middelares, Ghent, België, [23]Dept. of Gastroenterology and Hepatology, Nottingham University Hospitals NHS Trust, Nottingham, Verenigd Koninkrijk, [24]Dept. of Pathology, Amsterdam UMC, Amsterdam, Nederland
*Presentatie door V. Bos

Pitches NVH Young Hepatologists Awards 2024 — Baroniezaal

Voorzitters: *M.J. Coenraad en D.J. van Doorn*

Sessie met vier klinische en drie basale pitches met de beste publicaties van eigen bodem 2023 t.b.v. de Young Hepatologist Aw ards. Stemmen verloopt via de DDD congresapp.

Pitches basaal

14.30 Rifaximin stimulates nitrogen detoxification by PXR-independent mechanisms in human small intestinal organoids
K. de Wit, aios MDL, Spaarne Gasthuis, Hoofddorp

14.37 Hypermethylation of DNA methylation markers in non-cirrhotic hepatocellular carcinoma
S. Fu, PhD student, Erasmus MC, Rotterdam

14.44 Validation and optimization of AFP-based biomarker panels for early HCC detection in Latin America and Europe
B.J.B. Beudeker, arts-onderzoeker, Erasmus MC, Rotterdam

Pitches klinisch

14.51 Epstein–Barr viral load monitoring strategy and the risk for posttransplant lymphoproliferative disease in adult liver transplantation. A cohort study
B.N. Ruijter, MDL-arts, LUMC, Leiden

14.58 Importance of complete response for outcomes of pregnancy in patients with autoimmune hepatitis
S.E. Fischer, PhD student, LUMC, Leiden

15.05 Association between the presence of metabolic comorbidities and liver-related events in patients with chronic hepatitis B
L. Patmore, arts-onderzoeker, Erasmus MC, Rotterdam

15.12 **Stemmen en prijsuitreiking Young Hepatologist Award basaal en klinisch**

15.30 Algemene Ledenvergadering Nederlandse Vereniging voor Hepatologie

16.00 Gemodereerde postersessies in de Meierij Foyer
Koffie-/theepauze in de expositiehal

Postersessie I — Meierij Foyer

Moderator: *N. Boogerd*

10.55 Sarcopenia and changes in skeletal muscle mass before and one year after cytoreductive surgery and intraperitoneal hyperthermic chemotherapy in patients with advanced gastrointestinal cancer

I. Barth[1, 2], L. Weerink[3], I.A. . Pool[4], F.A. van der Zant[5], M. Milovanovic[6], D. Gort-van Dijk[7], B.L. van Leeuwen[8], P.H.J. Hemmer[8], G. Dijkstra[9], M.J.E. Campmans-Kuijpers[9, 10], [1]Dept. of Gastroenterology, Hepatology and Endocrinoligy, University Medical Center Groningen, Groningen, [2]Dept. of Gastroenterology, Hepatology and Endocrinoligy, University of Groningen (RUG), Groningen, [3]Dept. of Radiology, Streekziekenhuis Koningin Beatrix (SKB), Winterswijk, [4]University of Groningen (RUG), Groningen, [5]Dept. of Surgery, UMC Groningen, Groningen, [6]Campus Groningen, Groningen, [7]Dept. of Dietetics, University Medical Center Groningen, [8]Dept. of Surgery, University Medical Center Groningen, [9]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, [10]Dept. of Gastroenterology and Hepatology, University of Groningen (RUG), The Netherlands

11.00 Establishing preconditions for effective duodenoscope reprocessing: an observational cohort study

K. van der Ploeg[1], M.C. Vos[2], N.S. Erler[3], B.C.G.C. Mason-Slingerland[2], J.A. Severin[2], M.J. Bruno[1], [1]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, [2]Dept. of Medical Microbiology, Erasmus MC, Rotterdam, [3]Dept. of Epidemiology and Biostatistics, Erasmus MC, Rotterdam, The Netherlands

11.05 Differentiation between active and quiescent ulcerative colitis using a novel wearable patch with self-adhesive dry electrodes: discriminating the role of heart rate variability

P.I. Metselaar[1], T.J. van den Broek[2], R.J.M. Kamstra[2], N. Uzunbajakava[3], G.R.A.M. D'Haens[4], W. van den Brink[2], A.A. te Velde[1], M. Löwenberg[5], [1]Tytgat Institute for Liver and Intestinal Research, Amsterdam, [2]TNO, Microbiology & Systems Biology, Leiden, [3]TNO, Holst Centre, Eindhoven, [4]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, [5]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, The Netherlands

Postersessie II — Meierij Foyer

Moderator: *M. Stevenson*

12.40 Remimazolam: A Promising Sedative with the potential of Enhanced Recovery in diagnostic Upper Gastrointestinal Endoscopies - Findings from a Pilot Study

K. Munters[1], S.N. van Munster[1], J.A.N. Groot[2], H.J. Blusse van Oud - Alblas[2], B.L.A.M. Weusten[1, 3], [1]Dept. of Gastroenterology and Hepatology, St Antonius Hospital, Nieuwegein, [2]Dept. of Anesthesiology, St Antonius Hospital, Nieuwegein, [3]Dept. of Gastroenterology and Hepatology, UMC Utrecht, Utrecht, The Netherlands

12.45 Lifestyle and psychosocial factors in IBD; prevalence and patients' perspective

K. Demers[1, 2, 3], E.M.B. Hendrix[4, 5], A. Rezazadeh Ardabili[6, 5], Q.M. Bredero[7], A.A. Van Bodegraven[8, 9], D. van der Horst[10], D.M.A.E. Jonkers[5], M.L. Kimman[11, 12], Z. Mujagic[6, 5], M.J. Romberg-Camps[8], T.E.H. Römkens[13], M.P. Scherpenzeel[10], M.J. Schroevers[7], L.P.S. Stassen[14], R.L. West[15], G. Dijkstra[16], M.J. Pierik[4, 5], [1]Dept. of Surgery, Maastricht University Medical Center +, Maastricht, [2]Dept. of Surgery, Department of Gastroenterology-Hepatology, Maastricht University Medical Center+, Maastricht, [3]Dept. of Surgery, NUTRIM, Maastricht University, Maastricht, [4]Dept. of Gastroenterology and Hepatology, Maastricht University Medical Center+, Maastricht, [5]Dept. of Gastroenterology and Hepatology, NUTRIM, Maastricht University, Maastricht, [6]Dept. of Gastroenterology and Hepatology, Maastricht UMC+, Maastricht, [7]Dept. of Health Psychology, University Medical Center Groningen, Groningen, [8]Dept. of Gastroenterology, Geriatrics, Internal and Intensive Care Medicine Co-MIK, Zuyderland Medical Centre, Heerlen-Sittard-Geleen, [9]Dept. of Gastroenterology, Geriatrics, Internal and Intensive Care Medicine Department of Gastroenterology and Hepatology, Maastricht UMC+, Maastricht, [10]Dept. of Digestive Diseases, Crohn & Colitis Netherlands, Woerden, [11]Dept. of Clinical Epidemiology and Medical Technology Assessment (KEMTA) KEMTA, Maastricht University Medical Center+, Maastricht, [12]Dept. of Clinical Epidemiology and Medical Technology Assessment (KEMTA) CAPHRI School for Public Health and Primary Care, Maastricht University, Maastricht, [13]Dept. of Gastroenterology and Hepatology, Jeroen Bosch Ziekenhuis, Den Bosch, [14]Dept. of Surgery, Maastricht UMC+, Maastricht, [15]Dept. of Gastroenterology and Hepatology, Sint Franciscus Gasthuis & Vlietland, Rotterdam, [16]Dept. of Gastroenterology and Hepatology, UMC Groningen, Groningen, The Netherlands

12.50 Early Versus Late Oral Feeding Regimens Following Esophagectomy: A Monocenter Retrospective Cohort Study

C.D. Kooij[1], R.B. den Boer[1], B.F. Kingma[1], J.P. Ruurda[1], R. van Hillegersberg[1], [1]Dept. of Surgery, University Medical Center Utrecht, Utrecht, The Netherlands

12.55 Faecal volatile organic compounds to detect colorectal neoplasia in Lynch syndrome – a prospective multicentre study

E.L.S.A. van Liere[1], D. Ramsoekh[2], E. Daulton[3], M. Dakkak[1], J. van Lingen[1], E. Dekker[2], M.A.J.M. Jacobs[1], J.J. Koornstra[4], J.P. Kuijvenhoven[5], M.E. van Leerdam[6], V.M.C.W. Spaander[7], J.A. Covington[3], K.H.N. de Boer[8], [1]Dept. of Gastroenterology, Amsterdam University Medical Centre, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [3]School of Engineering, University of Warwick, Coventry, Verenigd Koninkrijk, [4]Dept. of Gastroenterology, University Medical Center Groningen, Groningen, [5]Dept. of Gastroenterology, Spaarne Gasthuis, Hoofddorp, [6]Dept. of Gastrointestinal Oncology, Antoni van Leeuwenhoek - Nederlands Kanker Instituut, Amsterdam, [7]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, [8]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, The Netherlands

Postersessie III — Meierij Foyer

Moderator: *M.C. Visschedijk*

13.00 The impact of standardizing and optimizing CRS-HIPEC protocols on patient survival outcomes, a ten year single center retrospective analysis

L.J. van Kesteren[1], T.E. Buffart[2], J.B. Tuynman[1], W. Lameris[1], M.S. Vlug[1], [1]Dept. of Surgery, Amsterdam UMC, [2]Dept. of Medical Oncology, Amsterdam UMC, The Netherlands

13.05 Tofacitinib induces clinical remission in patients with chronic pouchitis

D.C. de Jong[1], R.L. Goetgebuer[1], B.L.M. Müskens[1], E.A. Neefjes-Borst[2], K.B. Gecse[1], M. Löwenberg[1], W.J. de Jonge[3], W.A. Bemelman[4], C.Y. Ponsioen[1], G.R.A.M. D'Haens[5], M. Duijvestein[6], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [2]Dept. of Pathology, Amsterdam UMC, Amsterdam, [3]Dept. of Gastroenterology and Hepatology, Tytgat Institute for Liver and Intestinal Research, Amsterdam, [4]Dept. of Surgery, Amsterdam UMC, Amsterdam, [5]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [6]Dept. of Gastroenterology and Hepatology, Radboudumc, Nijmegen, The Netherlands

13.10 Patients' attitude towards less frequent surveillance of low-risk pancreatic cysts

M.L.J.A. Sprij[1], D.D. Nieboer[2], G. Capurso[3], M.C.M. van der Ende-van Loon[4], M.C.B. Wielenga[5], J. Meziani[6], M.G. Besselink[7], I.M.C.M. De Kok[8], M.J. Bruno[9], D.L. Cahen[6], [1]Dept. of Gastroenterology, Erasmus MC, Rotterdam, [2]Dept. of Public Health, Erasmus MC, Rotterdam, [3]Dept. of Gastroenterology and Interventional Endoscopy, IRCCS San Raffaele Scientific Institute, Milan, Italië, [4]Dept. of Gastroenterology, Catharina Ziekenhuis, Eindhoven, [5]Dept. of Gastroenterology, Amsterdam UMC, Amsterdam, [6]Dept. of Gastroenterology and Hepatology, Erasmus University Medical Center, Rotterdam, [7]Dept. of Surgery, Amsterdam UMC, Amsterdam, [8]Dept. of Public Health, Erasmus MC, Rotterdam, [9]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, The Netherlands

13.15 Detection of early esophageal neoplastic lesions by quantitative fluorescence molecular endoscopy using oral administration of bevacizumab-800CW and cetuximab-800CW

L.E. van Heijst[1], Y.J. van Ginkel[2], G. Kats-Ugurlu[3], D.J. Robinson[4], D. Gorpas[5, 6], R.Y. Gabriëls[1], W.B. Nagengast[1], [1]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, Groningen, [2]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen Groningen, [3]Dept. of Pathology, University Medical Center Groningen, Groningen, [4]Dept. of Otorhinolaryngology and Head and Neck Surgery, Erasmus University Medical Center, Rotterdam, [5]Technical University of Munich, Munich, Duitsland, [6]Helmholtz Zentrum Munich, Munich, Germany.

Postersessie IV **Meierij Foyer**

Moderator: *D. Keszthelyi*

16.10 Early postoperative quality of recovery after subtotal gastrectomy

M.L. Feenstra[1, 2], S. Küçükçelebi[1], M.I. van Berge Henegouwen[3, 4], M.W. Hollmann[5], S.S. Gisbertz[1], F. Daams[6], J. Albersen[6], J. Hermanides[5], W.J. Eshuis[3, 4], [1]Dept. of Surgery, Amsterdam UMC, location University of Amsterdam, Amsterdam, [2]Dept. of Surgery, Amsterdam Gastroenterology Endocrinology Metabolism, Amsterdam, [3]Dept. of Surgery, Amsterdam UMC, Amsterdam, [4]Dept. of Surgery, Cancer Treatment and Quality of Life, Cancer Center Amsterdam, Amsterdam, [5]Dept. of Anesthesiology, Amsterdam UMC, Amsterdam, [6]Dept. of Surgery, Amsterdam UMC, Amsterdam, The Netherlands

16.15 Care needs and reasons for (not) seeking care among fatigued inflammatory bowel disease patients: A qualitative study

Q.M. Bredero[1], M.M. ter Avest[2, 3], J. Fleer[1], G. Dijkstra[4], M.J. Schroevers[1], [1]Dept. of Health Psychology, University Medical Center Groningen, Groningen, [2]Dept. of Psychiatry, Centre for Mindfulness RadboudUMC, Nijmegen, [3]Dept. of Psychiatry, Centre for Mindfulness Jeroen Bosch Ziekenhuis, Den Bosch, [4]Dept. of Gastroenterology and Hepatology, UMC Groningen, Groningen, The Netherlands

16.20 Contaminated duodenoscopes in endoscopic retrograde cholangiopancreatography: assessing risk and culture sensitivity

K. van der Ploeg[1], J.A. Severin[2], C.H.W. Klaassen[2], M.C. Vos[2], M.J. Bruno[1], B.C.G.C. Mason-Slingerland[2], [1]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, [2]Dept. of Medical Microbiology, Erasmus MC, Rotterdam, The Netherlands

Symposium **Kwaliteit van endoscopie** **Brabantzaal**

Voorzitters: *M.J.M. Groenen en A. Inderson*

12.45 Kwaliteit van endoscopie-training; hoe leiden we endoscopisten het beste op?
Dr. A.M.J. Langers, MDL-arts, LUMC

13.05 Endoscopische kwaliteitsregistratie in Nederland
Dr. P. van der Schaar, MDL-arts, St. Antonius Ziekenhuis, Nieuwegein

13.25 Voedselverspilling meten en voorkomen door inzet data (science)
J. Meijer en J. Brinkman, afdeling Analytics & Data Science Operations, Ahold Delhaize

13.45 Koffie-/theepauze in de expositiehal

IBD **abstracts / symposium III** **Brabantzaal**

Voorzitters: *R.L. Goetgebuer en N.G.M. Rossen*

14.15 **State of the art lecture:** Vasculaire risico's bij IBD
Dr. J.E. Roeters van Lennep, internist vasculaire geneeskunde, Erasmus MC, Rotterdam

14.40 Fatigued patients with Inflammatory Bowel Disease exhibit distinct systemic antibody epitope repertoires
M.G. Griesbaum[1, 2], A.R. Bourgonje[11,12], T. Vogl[3], S. Andreu-Sánchez[4], R. Gacesa[2], S. Klompus[5], I.N. Kalka[5], S. Peled-Leviatan[6, 7], H.M. van Dullemen[8], M.C. Visschedijk[8], E.A.M. Festen[9], K.N. Faber[9], G. Dijkstra[8], A. Weinberger[10], E. Segal[7], R.K. Weersma[9], [1]Dept. of Gastroenterology and Hepatology, University of Groningen (RUG), Groningen, [2]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, Groningen, [3]Dept. Of Molecular Cancer Research, Medical University of Vienna, Center for Cancer Research, Vienna, Oostenrijk, [4]Dept. of Genetics, University Medical Center Groningen, Groningen, [5]Dept. of Computer Science and Applied Mathematics, Weizmann Institute of Science, Rehovot, Israël, [6]Dept. of Molecular Cell Biology, Weizmann Institute of Science, Department of Computer Science and Cell Biology, Rehovot, Israël, [7]Dept. of Molecular Cell Biology, Weizmann Institute of Science, Rehovot, Israël, [8]Dept. of Gastroenterology and Hepatology, UMC Groningen, Groningen, [9]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, [10]Dept. of Analytical Sciences, Weizmann Institute of Science, Rehovot, Israël, [11]Dept. of Gastroenterology, Icahn School of Medicine at Mount Sinai, New York, Verenigde Staten, [12]Dept. of Gastroenterology, University Medical Center Groningen, The Netherlands

14.48 New-onset Inflammatory Bowel Disease is uncommon in patients with psoriasis, psoriatic arthritis and spondylarthritis treated with secukinumab: a retrospective cohort study in a tertiary centre.

N. Masic[1], S.I. Anjie[1], R. Sungur[1], G.R.A.M. D'Haens[1], M.G.H. van de Sande[2], C.J. van der Laken[2], K.H.N. de Boer[1], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [2]Dept. of Rheumatology, Amsterdam Infection and Immunity Institute, Amsterdam, The Netherlands

14.56 Deficits in Geriatric Assessment are dynamic and associate with hospitalizations and mortality during 18 months follow-up

A.B. Fons[1], S. Marel[2], V.E.R. Asscher[1], A.M.C. Baven-Pronk[3], R.J. Jacobs[4], K.J. Kalisvaart[5], P.W.J. Maljaars[1], S.P. Mooijaart[6], R.J.L. Stuyt[7], A.E. van der Meulen - de Jong[1], [1]Dept. of Gastroenterology and Hepatology, Leids Univerisitair Medisch Centrum, Leiden, [2]Dept. of Gastroenterology and Hepatology, Haaglanden Medisch Centrum, Den Haag, [3]Dept. of Gastroenterology and Hepatology, Groene Hart Ziekenhuis, Gouda, [4]Dept. of Gastroenterology and Hepatology, Alrijne Hospital, Leiden and Leiderdorp, [5]Dept. of Gerontology and Geriatrics, Spaarne Gasthuis, Haarlem, [6]Dept. of Gerontology and Geriatrics, Leids Univerisitair Medisch Centrum, Leiden, [7]Dept. of Gastroenterology and Hepatology, Hagaziekenhuis, Den Haag, The Netherlands

15.04 Higher predictive power of epigenetic signatures for response to vedolizumab and ustekinumab in anti-TNF naïve patients with active crohn's disease

V. Joustra[1], A.Y.F. Li Yim[2], J. Satsangi[6], W.J. de Jonge[2], G.R.A.M. D'Haens[1], S. van Zon[1], P. Henneman[3], I. Hageman[1], T. de Waard[4], E. Levin[5], A. Noble[6], T. Chapman[6], C. McGregor[6], A. Adams[6], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Tytgat Institute for Liver and Intestinal Research, Amsterdam, [3]Dept. of Genetics, Genome Diagnostics Laboratory, Amsterdam, [4]Dept. of Gastroenterology and Hepatology, Horaizon BV, Delft, [5]Dept. of Biomedical Data Sciences, Horaizon BV, Delft, [6]Dept. of Gastroenterology and Hepatology, Oxford University Hospitals NHS Foundation Trust John Radcliffe Hospital, Oxford, Verenigd Koninkrijk

15.12 Einde van deze sessie

IBD **abstracts / symposium II** **Auditorium**

Voorzitters: *R.L. Goetgebuer en A. Rezazadeh Ardabili*

08.45 **State of the art lecture:** Vaccinatie adviezen bij chronische darmziekten; de moderne immunosuppresiva
Dr. A.H.W. Bruns, internist-infectioloog, UMC Utrecht

09.10 Proctocolectomy is associated with improved transplant-free survival in patients with primary sclerosing cholangitis: results from a pooled collaborative international study
B. Mol[1], M.S. van Nieuwamerongen[1], M. Färkkilä[2], T. Folseraas[3], K. Boberg[3], M. Vesterhus[4], A. Bergquist[5], J.A. Bogaards[6], C.Y. Ponsioen[7], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Helsinki University Hospital, Helsinki, Finland, [3]Dept. of Gastroenterology and Hepatology, Oslo University Hospital, Oslo, Noorwegen, [4]Dept. of Gastroenterology and Hepatology, University of Bergen, Bergen, Noorwegen, [5]Dept. of Gastroenterology and Hepatology, Karolinska University Hospital, Stockholm, Zweden, [6]Dept. of Epidemiology and Biostatistics, Amsterdam UMC location University of Amsterdam, dept. of Gastroenterology, Amsterdam, [7]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, The Netherlands

09.18 Yield of surveillance colonoscopy in patients with Primary Sclerosing Cholangitis
N. van de Pol[1], B. Mol[2], M.J. de Jong[1], R.K. Weersma[3], A. Inderson[4], F.C. Slooter[5], L.A. Gibbes[5], A.J. van der Meer[1], L.A.A.P. Derikx[1], C.Y. Ponsioen[5], A.C. de Vries[1], [1]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, [2]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [3]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, Groningen, [4]Dept. of Gastroenterology and Hepatology, Leids Univerisitair Medisch Centrum, Leiden, [5]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, The Netherlands

09.26 Rapid symptomatic improvement with subcutaneous infliximab induction treatment for patients with moderate-to-severely active Crohn's disease: first results from the DIRECT-CD study
S.I. Anjie[1], B.J.H. Jharap[2], J. Jansen[3], W.G. Mares[4], M. Duijvestein[5], P.W.J. Maljaars[6], B. Oldenburg[7], G.R.A.M. D'Haens[8], K.B. Gecse[1], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Meander Medical Center, Amersfoort, [3]Dept. of Gastroenterology, OLVG, Amsterdam, [4]Dept. of Gastroenterology and Hepatology, Ziekenhuis Gelderse Vallei, Ede, [5]Dept. of Gastroenterology and Hepatology, RadboudUMC, Nijmegen, [6]Dept. of Gastroenterology and Hepatology, Leids Univerisitair Medisch Centrum, Leiden, [7]Dept. of Gastroenterology and Hepatology, UMC Utrecht, Utrecht, [8]Dept. of Gastroenterology and Hepatology, Amsterdam UMC location University of Amsterdam, dept. of Gastroenterology, Amsterdam, The Netherlands

9.34 Vedolizumab trough concentrations during subcutaneous treatment in patients with inflammatory bowel diseases
T.S. Straatmijer[1], M. Heijnen[2], P.W.J. Maljaars[3], F.D.M. van Schaik[4], M.C. Visschedijk[5], G. Tack[6], J. Jansen[7], M. Löwenberg[8], A.E. van der Meulen - de Jong[3], L. Šebek[2], E. Vasbinder[2], M. Duijvestein[9], [1]Dept. of Gastroenterology, LUMC, Leiden, [2]Dept. of Clinical Pharmacy, Sint Franciscus Gasthuis & Vlietland, Rotterdam, [3]Dept. of Gastroenterology and Hepatology, Leids Univerisitair Medisch Centrum, Leiden, [4]Dept. of Gastroenterology and Hepatology, UMC Utrecht, Utrecht, [5]Dept. of Gastroenterology and Hepatology, UMC Groningen, Groningen, [6]Dept. of Gastroenterology, Medisch Centrum

Leeuwarden, Leeuwarden, [7]Dept. Of Gastroenterology, OLVG, Amsterdam, [8]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [9]Dept. of Gastroenterology and Hepatology, RadboudUMC, Nijmegen, The Netherlands

09.42 Einde van deze sessie

09.45 Koffie-/theepauze in de expositiehal

Symposium MLDS - IBD: leefstijl & IBD **Auditorium**

Voorzitter: *M. Croon, directeur-bestuurder, Maag Lever Darm Stichting*

10.15 Jong geleerd is...
Dr. J. van Limbergen, kinderarts MDL, Amsterdam UMC

10.45 IBD en sport: Hoe kan bewegen bijdragen aan een betere kwaliteit van leven bij patiënten met Crohn en Colitis Ulcerosa?
Dr. M.J.M. Groenen, MDL-arts, Ziekenhuis Rijnstate, Arnhem

11.15 To fiber or not to fiber?
Dr. M.J.E. Campmans-Kuijpers, klinisch epidemioloog, UMC Groningen

11.40 Afsluiting en discussie

11.45 Gemodereerde postersessies in de Meierij Foyer
Lunch in de expositiehal

Symposium NVMDL Voeding **Auditorium**

Voorzitter: *J.W. Kruimel*

Titel: Ziekte is topsport

12.45 Een kijkje in de voedingskeuken van de Nederlandse Olympiërs
*P. Res, MSc. Performance Nutritionist Nederlands Olympisch Comité*Nederlandse Sport Federatie (NOC*NSF)*
J.F. Monkelbaan, MDL-arts UMC Utrecht

13.15 Richtlijn perioperatief Voedingsbeleid: voeding als medicijn
Dr. C.M. van der Beek, MDL-arts, Radboudumc, Nijmegen
Dr. S.A.W. Bouwense, chirurg, MUMC+, Maastricht

13.45 Koffie-/theepauze in de expositiehal

15.15 Algemene Ledenvergadering Nederlandse Vereniging van Maag-Darm-Leverartsen

Symposium NVMDL Echografie — Baroniezaal

Voorzitter: *R.J. de Knegt*

08.45 IBD echografie
Dr. K.B. Gecse, MDL-arts, Amsterdam UMC

09.15 Vaststellen levercirrose en portale hypertensie
Dr. R.J. de Knegt, MDL-arts, Erasmus MC, Rotterdam

09.30 Milieu aspecten echografie vs. CT, MRI
D.W. de Vries, Manager Techniek, Radiologie & Nucleaire Geneeskunde, Erasmus MC, Rotterdam

09.45 Koffie-/theepauze in de expositiehal

Sectie Experimentiele Gastroenterologie symposium / abstracts I — Baroniezaal

Voorzitters: *E.A.M. Festen en L.J.A.C. Hawinkels.*

10.15 Recent advances in mucosal immunology in IBD; potential for new drug targets
Prof. M.A. Hermoso, professor, UMC Groningen

10.45 Antibodies against Neutrophil Extracellular Traps (ANETAs) are associated with more severe disease course in ulcerative colitis
E.A. Mendieta Escalante[1], G. Dijkstra[2], K.N. Faber[1], D. Parada Venegas[1], A.R. Bourgonje[3, 4], M.A. Hermoso[1], C. Roozendaal[5], [1]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, Groningen, [2]Dept. of Gastroenterology and Hepatology, UMC Groningen, Groningen, [3]Dept. of Gastroenterology, Icahn School of Medicine at Mount Sinai, New York, Verenigde Staten, [4]Dept. of Gastroenterology, University Medical Center Groningen, Groningen, [5]Dept. of Clinical Laboratory, UMC Groningen, Groningen, The Netherlands

10.57 Granulocytes as potential targets in peri-anal fistula
M.E. Wildenberg[1], M.A. Becker[2], P.J. Koelink[2], J. Saris[3], C.J. Buskens[4], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [2]Tytgat Institute for Liver and Intestinal Research, Amsterdam, [3]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [4]Dept. of Surgery, Amsterdam UMC, Amsterdam, The Netherlands

11.09 Tryptophan metabolites as biomarkers for fatigue in Inflammatory Bowel Disease
P.I. Metselaar[1], M. Löwenberg[2], G.R.A.M. D'Haens[3], W.J. de Jonge[4], A.A. te Velde[1], M. Ghiboub[5], [1]Tytgat Institute for Liver and Intestinal Research, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [3]Dept. of Gastroenterology and Hepatology, Amsterdam UMC location University of Amsterdam, dept. of Gastroenterology, Amsterdam, [4]Dept. of Gastroenterology and Hepatology, Tytgat Institute for Liver and Intestinal

Research, Amsterdam, [5]Amsterdam University Medical Centers, University of Amsterdam, Amsterdam, The Netherlands

11.21 Distinct plasma proteomic biomarkers associate with disease progression in patients with inflammatory bowel diseases

F.E. Veenstra[1,2], S. Hu[1], H.M. van Dullemen[3], M.C. Visschedijk[3], K.N. Faber[1], G. Dijkstra[3], J.N. Samson[4], E.A.M. Festen[1], R.K. Weersma[1], L.M. Spekhorst[1], A.R. Bourgonje[5, 6], [1]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, Groningen, [2]Dept. of Gastroenterology and Hepatology, Medisch Spectrum Twente, Enschede, [3]Dept. of Gastroenterology and Hepatology, UMC Groningen, Groningen, [4]Dept. of Pediatrics, Erasmus University Medical centre, Rotterdam, [5]Dept. of Gastroenterology, Icahn School of Medicine at Mount Sinai, New York, Verenigde Staten, [6]Dept. of Gastroenterology, University Medical Center Groningen, Groningen, The Netherlands

11.33 Systemic redox status associates with disease activity and clinical phenotypes in inflammatory bowel disease

S. Geertsema[1], A.R. Bourgonje[2, 3], R. Gacesa[4], R.R. Fagundes[1], L.M. Spekhorst[1], S. Hu[1], A.K. Kannan[5], D. Ruane[5], S. de Jong[1], B.H. Jansen[1], M.L.C. Bulthuis[6], M. Reinders-Luinge[6], R.K. Weersma[1], H. van Goor[6], G. Dijkstra[7], K.N. Faber[1], [1]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, Groningen, [2]Dept. of Gastroenterology, Icahn School of Medicine at Mount Sinai, New York, Verenigde Staten, [3]Dept. of Gastroenterology, University Medical Center Groningen, Groningen, [4]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, Groningen, [5]Janssen Research & Development LLC, Spring House, Verenigde Staten, [6]Dept. of Pathology, University Medical Center Groningen, Groningen, [7]Dept. of Gastroenterology and Hepatology, UMC Groningen, Groningen, The Netherlands

11.45 Gemodereerde postersessies in de Meierij Foyer
Lunch in de expositiehal

Sectie Experimentele Gastroenterologie symposium / abstracts II — Baroniezaal

Voorzitters: K. Lenaerts en L.J.A.C. Hawinkels

12.45 Battle Junior Researcher Award

13.00 Profile guided low dose drug combination strategies and kinase activities with prognostic and therapeutic avenues in pancreatic ductal adenocarcinoma

A. Vallés Martí[1,2], E. Giovannetti[3], C.R. Jiménez[3], M. Bijlsma[4], G. Mantini[3], C. Waasdorp[4], P. Manoukian[4], R. De Goeij- de Haas[3], A. Henneman[3], S.R. Piersma[3], T. Pham[3], J. Knol[3], J. Verheij[5], F. Dijk[5], H. Halfwerk[3], [1]Dept. of Gastroenterology and Hepatology, Leiden Universitair Medisch Centrum, Leiden, [2]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [3]Dept. of Medical Oncology, Amsterdam UMC, Amsterdam, [4]Center for Experimental Molecular Medicine (CEMM), Amsterdam UMC, Amsterdam, [5]Dept. of Pathology, Amsterdam UMC, Amsterdam, The Netherlands

13.12 Gut microbiota perturbations precedes the onset of post-infectious irritable bowel syndrome in intercontinental travellers
J. Chan[1], G. Galazzo[1,2], M. Ward[1], P. van Genderen[3,4], N. van Best[1,5], J. Penders[1,2], [1]Dept. of Medical Microbiology, NUTRIM, Maastricht University, Maastricht, [2]Dept. of Medical Microbiology, CAPHRI School for Public Health and Primary Care, Maastricht University, Maastricht, [3]Dept. of Medical Microbiology, Institute for Tropical Diseases, University Hospital Erasmus MC, Rotterdam, [4]Dept. of Medical Microbiology, Erasmus University, Rotterdam, The Netherlands, [5]Dept. of Medical Microbiology, Institute of Medical Microbiology, RWTH University Hospital Aachen, Aachen, Duitsland

13.24 Elevated fecal calprotectin levels in COVID patients can be explained by ingestion of nasopharyngeal calprotectin
C. Chen[1], A.A. Van der Eijk[2], J.J.C. Voermans[3], A.J. Van Vuuren[1], M.P. Peppelenbosch[1], V.T. Janmaat[1], [1]Dept. of Gastroenterology and Hepatology, Erasmus University Medical Center, Rotterdam, [2]Dept. of Viroscience, Erasmus University Medical Center, Rotterdam, [3]Dept. of Viroscience, Erasmus University Medical Center, Rotterdam, The Netherlands

13.36 Junior Researcher Award and best abstract announcement

13.45 Koffie-/theepauze in de expositiehal

NVMDL Kennisagenda - Wat is Less en wat is More 1 jaar na presentatie? Baroniezaal

Voorzitters: M.P. Schwartz en J.J. Bergman

14.15 Update Vervolg Kennisagenda / Less-Is-More en IJsbrekerproject
Dr. M.P. Schwartz, MDL-arts, Meander MC, Amersfoort
Prof. dr. J.J. Bergman, MDL-arts, Amsterdam UMC

14.35 In het kielzog van de ijsbreker: programmatische aanpak van ZE&GG
Prof. dr. S. Repping, hoogleraar Zinnige Zorg, voorzitter Zorgevaluatie & Gepast Gebruik (ZE&GG), Amsterdam UMC

14.50 Stoppen met zorg-zonder-bewijs: gewoon doen?
Ir. K. van Hee, MDL-arts, Jeroen Bosch ziekenhuis, Den Bosch

15.05 Discussie

PhD Netwerk Baroniezaal

Voorzitter: A.M. Onnekink

Thema: AI voor wetenschappelijk onderzoek: voordelen en valkuilen

Deze sessie start om 15.15 uur en wordt verzorgd door onderstaande sprekers:

Prof. dr. Mark Levels, Professor of Health, Education and Work, Universiteit Maastricht
Ada Lopez, PhD student, Centre for Language Studies, Radboud Universiteit

Abstractsessie Sectie Gastrointestinale Oncologie II — Parkzaal

Voorzitters: *S. van de Ven en R. Schrauwen*

08.45 Dendritische celvaccinatie in Lynch
Dr. H. Westdorp, internist-oncoloog, Radboudumc, Nijmegen

09.13 Circulating tumor DNA test approaches for the detection of minimal residual disease in stage II and III colorectal cancer – the observational PLCRC-MEDOCC study
S.J. Schraa[1], J. Phallen[2], K.L. van Rooijen[1], S.C.M.W. van Nassau[1], D.E.W. van der Kruijssen[1], M. Sausen[3], C. Rubio-Alarcon[4], L. Meiqari[4], I.A. Franken[1], L.J.W. Bosch[4], M.M.W. Van Dongen[4], M. Lanfermeijer[4], M.A.G. Elferink[5], D.A. van den Broek[4], G.R. Vink[6, 7], R.J.A. Fijneman[4], M. Koopman[1], G.A. Meijer[4], V.E. Velculescu[2], [1]Dept. of Medical Oncology, UMC Utrecht, Utrecht, [2]Dept. of Cancer Epidemiology and Genetics, Johns Hopkins University School of Medicine, Baltimore, Verenigde Staten, [3]Dept. of Cancer Epidemiology and Genetics, Personal Genome Diagnostics, Baltimore, Verenigde Staten, [4]Dept. of Pathology, Antoni van Leeuwenhoek - Nederlands Kanker Instituut, Amsterdam, [5]Dept. of Cancer Epidemiology and Genetics, Netherlands Comprehensive Cancer Organisation, Utrecht, [6]Dept. of Medical Oncology, University Medical Center Utrecht, Utrecht, [7]Dept. of Medical Oncology, Netherlands Comprehensive Cancer Organisation, Utrecht, The Netherlands.
*Presentatie door D. van Steijn

09.21 Reducing outpatient visits in FIT-based CRC screening program - feasibility of a Digital Intake Tool
F.E. Marijnissen[1], E.E.C. Rijnders[1], M.M. Tielemans[2], D. van Noord[3], L.M.M. Wolters[4], J.M. Jansen[5], I. Schot[6], F.C. Bekkering[7], A.R. Reijm[1], S.M. van Baalen[1], S.Y. Ismail[8], I. Lansdorp-Vogelaar[9], P.J.F. de Jonge[1], V.M.C.W. Spaander[10], [1]Dept. of Gastroenterology and Hepatology, Erasmus University Medical Center, Rotterdam, [2]Dept. of Gastroenterology and Hepatology, Bravis ziekenhuis, Roosendaal, [3]Dept. of Gastroenterology and Hepatology, Franciscus Gasthuis & Vlietland, Rotterdam, [4]Dept. of Gastroenterology and Hepatology, Albert Schweitzer Ziekenhuis, Dordrecht, [5]Dept. of Gastroenterology and Hepatology, PoliDirect Klinieken, Breda, [6]Dept. of Gastroenterology and Hepatology, IJsselland Ziekenhuis, Capelle aan den IJssel, [7]Dept. of Gastroenterology and Hepatology, DC Klinieken, Almere, [8]Dept. of Medical Psychology, Erasmus University Medical Center, Rotterdam, [9]Dept. of Public Health, Erasmus University Medical Center, Rotterdam, [10]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, The Netherlands.

09.29 Neoadjuvant nivolumab plus relatlimab (anti-LAG3) in locally advanced MMR-deficient colon cancers: the NICHE-3 study
Y.L. Verschoor[1], M. Chalabi[1], J.G. van den Berg[2], S. Balduzzi[3], J.C. van Blijderveen[1], S.J. Oosterling[4], J.W.A. Burger[5], T.S. Aukema[6], T. Vogten[7], S. Dokter[1], R.G.H. Beets-Tan[8], A.U.G. van Lent[9], G.L. Beets[10], M.E. van Leerdam[1], J.B.A.G. Haanen[11], [1]Dept. of Gastrointestinal Oncology, Antoni van Leeuwenhoek - Nederlands Kanker Instituut, Amsterdam, [2]Dept. of Pathology, Antoni van Leeuwenhoek - Nederlands Kanker Instituut, Amsterdam, [3]Dept. of Biometrics, Antoni van Leeuwenhoek - Nederlands Kanker Instituut, Amsterdam, [4]Dept. of Gastrointestinal Surgery, Spaarne Gasthuis, Hoofddorp, [5]Dept. of Gastrointestinal Surgery, Catharina Ziekenhuis, Eindhoven, [6]Dept. of Gastrointestinal Surgery, Hagaziekenhuis, Den Haag, [7]Dept. of Gastrointestinal Surgery, Tergooi MC, Hilversum, [8]Dept. of Radiology, Antoni van Leeuwenhoek - Nederlands Kanker Instituut, Amsterdam, [9]Dept. of Gastroenterology, OLVG, Amsterdam, [10]Dept. of Gastrointestinal Surgery, Antoni van Leeuwenhoek –

Nederlands Kanker Instituut, Amsterdam, [11]Dept. of Medical Oncology, Antoni van Leeuwenhoek - Nederlands Kanker Instituut, Amsterdam, The Netherlands.

09.37 Risk of occult lymph node metastasis in pT2 rectal cancer: a nationwide retrospective analysis

S.C. Albers[1,2,3], R.T.J. Geitenbeek[4], E.G.M. van Geffen[5], E.C.J. Consten[4], M. Kusters[5], P.J. Tanis[5], E. Dekker[6], J.K. Wiggers[5], B.A.J. Bastiaansen[7, 8], R. Hompes[5], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Amsterdam Gastroenterology Endocrinology Metabolism Research Institute, Amsterdam, [3]Dept. of Gastroenterology and Hepatology, Cancer Center Amsterdam, Amsterdam, [4]Dept. of Surgery, Meander Medisch Centrum, Amersfoort, [5]Dept. of Surgery, Amsterdam UMC, location AMC, Amsterdam, [6]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, location AMC, Amsterdam, [7]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, [8]Dept. of Gastroenterology and Hepatology, Amsterdam Gastroenterology Endocrinology Metabolism, Amsterdam, The Netherlands.

09.45 Koffie-/theepauze in de expositiehal

Abstractsessie Sectie Neurogastroenterologie en Motiliteit — Zaal 81

Voorzitters: A.H. Oberndorff en J.T.W. Snijkers

10.15 Persisterende buikklachten bij IBD in remissie: hoe te managen?

A. Rezazadeh Ardabili, aios MDL, Maastricht UMC+, Maastricht

10.35 Mindfulness-based cognitive therapy to reduce psychological distress in patients with Inflammatory Bowel Disease: first results of a multicentre randomised controlled trial (MindIBD).

M.M. ter Avest[1,2], A.E.M. Speckens[1], G. Dijkstra[3], M. Dresler[4], S.J.E. Bosman[1], C.S. Horjus[5], T.E.H. Römkens[6], E.M. Witteman[7], W. van Dop[8], L.H.C. Nissen[6], M.J. Huijbers[1], [1]Dept. of Psychiatry, Centre for Mindfulness, RadboudUMC, Nijmegen, [2]Dept. of Psychiatry, Centre for Mindfulness, Jeroen Bosch Ziekenhuis, Den Bosch, [3]Dept. of Gastroenterology and Hepatology, UMC Groningen, Groningen, [4]Donders Institute for Brain, Cognition and Behaviour, RadboudUMC, Nijmegen, [5]Dept. of Gastroenterology and Hepatology, Rijnstate Ziekenhuis, Arnhem, [6]Dept. of Gastroenterology and Hepatology, Jeroen Bosch Ziekenhuis, Den Bosch, [7]Dept. of Gastroenterology and Hepatology, Canisius Wilhelmina Ziekenhuis, Nijmegen, [8]Dept. of Gastroenterology and Hepatology, RadboudUMC, Nijmegen, The Netherlands

10.43 Evaluation of a lifestyle program based on physical activity on quality of life and fatigue in patients with Inflammatory Bowel Disease: a pilot study

N. van de Pol[1], E.H. Visser[2], C.J. van der Woude[1], A.C. de Vries[1], V. de Jonge[3], R.L. West[2], [1]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, [2]Dept. of Gastroenterology and Hepatology, Sint Franciscus Gasthuis & Vlietland, Rotterdam, [3]Dept. of Gastroenterology and Hepatology, Albert Schweitzer hospital, Dordrecht, The Netherlands

10.51 The prevalence of disorders of anorectal function according to the london classification in >1000 consecutive patients: a prospective, international, multicentre study from the lower gastrointestinal international consortium (LoGIC)

P.F. Vollebregt[1,2], P.T. Heitmann[1], H. Damon[2], K. Garcia-Zermeño[3], F. Garcia[3], J.R. Baker[4], A. Schloithe[1], B. Moshiree[4], J. Remes-Troche[3], F. Mion[2], P.G. Dinning[1], C.H. Knowles[5], S.M. Scott[5], [1]Dept. of Surgery, Flinders Medical Centre, Adelaide, Australië, [2]Dept. of Gastroenterology, Université de Lyon et Hospices Civils de Lyon, Lyon, Frankrijk, [3]Dept. of Gastroenterology, University of Veracruz, Veracruz, Mexico, [4]Dept. of Gastroenterology, Atrium Health Wake Forest Medical University, Charlotte, Verenigde Staten, [5]Centre for Trauma and Surgery and GI Physiology Unit, Queen Mary University of London, London, Verenigd Koninkrijk

10.59 Routine esophagram to detect early esophageal leakage after peroral endoscopic myotomy

E.M. Wessels[1,2], S. Nullens[3,4], B.A.J. Bastiaansen[1,2], P. Fockens[5,2,6], G.M.C. Masclee[1,2], A.J. Bredenoord[1,2], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC location University of Amsterdam, dept. of Gastroenterology, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Amsterdam Gastroenterology Endocrinology Metabolism, Amsterdam, [3]Dept. of Gastroenterology and Hepatology, GZA hospitals, Antwerp, België, [4]Dept. of Gastroenterology and Hepatology, Antwerp University Hospital, Antwerp, België, [5]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, location University of Amsterdam, Amsterdam, [6]Dept. of Gastroenterology and Hepatology, Cancer Center Amsterdam, Amsterdam, The Netherlands

11.07 Incidence and risk factors of reflux esophagitis after peroral endoscopic myotomy

E.M. Wessels[1,2], B.A.J. Bastiaansen[1,2], P. Fockens[1,2,3], G.M.C. Masclee[1,2], A.J. Bredenoord[1,2], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, [2]Dept. of Gastroenterology and Hepatology, Amsterdam Gastroenterology Endocrinology Metabolism, Amsterdam, [3]Dept. of Gastroenterology and Hepatology, Cancer Center Amsterdam, Amsterdam, The Netherlands

11.15 Einde van deze sessie

11.45 Gemodereerde postersessies in de Meierij Foyer
Lunch in de expositiehal

Postersessie V **Meierij Foyer**

Moderator: *S. van de Ven*

11.55 Perioperative chemotherapy for gastro-esophageal or gastric cancer: anthracyclin triplets versus FLOT

C.J. van der Zijden[1], J.F.M. Geerts[2], P.C. van der Sluis[3], V.M.C.W. Spaander[4], G.A.P. Nieuwenhuijzen[5], C. Rosman[6], H.W.M. van Laarhoven[7, 8], R.H.A. Verhoeven[9], B.P.L. Wijnhoven[10], S.M. Lagarde[1], B. Mostert[11], [1]Dept. of Surgery, Erasmus MC, Rotterdam, [2]Dept. of Surgery, Catharina Ziekenhuis, Eindhoven, [3]Dept. of Gastrointestinal Surgery, Erasmus University Medical Center Rotterdam, Rotterdam, [4]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, [5]Dept. of Gastrointestinal Surgery, Catharina Hospital, Eindhoven, [6]Dept. of Surgery, RadboudUMC, Nijmegen, [7]Dept. of Gastrointestinal Oncology, Cancer Center Amsterdam, Cancer Treatment and Quality of Life, Amsterdam, [8]Dept. of Gastrointestinal Oncology, Amsterdam UMC, Amsterdam, [9]Dept. of Medical Oncology, Amsterdam UMC, Amsterdam, [10]Dept. of Gastrointestinal Surgery, Erasmus MC, Rotterdam, [11]Dept. of Medical Oncology, Erasmus MC, Rotterdam, The Netherlands

12.00 Effect of sub-sensory sacral neuromodulation on faecal incontinence in adults: a randomised crossover trial with cohort follow-up and mechanistic sub-study

P.F. Vollebregt[1, 2], Y.L. Goh[3], C. Chan[4], T. Dudding[5], P. Furlong[6], S. Hamdy[7], J. Haviland[4], R. Hooper[4], J. Jones[8], E. McAlees[1], C. Norton[9], R. O'Connell[10], S.M. Scott[1], N. Stevens[1], K. Tubby[1], S. Worthen[6], Y.L. Wong[4], C.H. Knowles[1], [1]Centre for Trauma and Surgery and GI Physiology Unit, Queen Mary University of London, London, Verenigd Koninkrijk, [2]Centre for Trauma and Surgery and GI Physiology Unit, Noordwest Ziekenhuisgroep, Alkmaar, [3]Dept. of Gastrointestinal Surgery, Sandwell and West Birmingham NHS Trust, Birmingham, Verenigd Koninkrijk, [4]Dept. of Biostatistics, Queen Mary University of London, London, Verenigd Koninkrijk, [5]Dept. of Surgery, University Hospital Southampton NHS Foundation Trust, Southampton, Verenigd Koninkrijk, [6]School of Life Sciences, Aston University, Birmingham, Verenigd Koninkrijk, [7]Dept. of Gastroenterology and Hepatology, University of Manchester, Manchester, Verenigd Koninkrijk, [8]Dept. of Medicine, University College Dublin, Ierland, [9]Dept. of Gastroenterology, King's College, London, Verenigd Koninkrijk, [10]Dept. of Surgery, St Vincent's Hospital, Dublin, Ierland

12.05 The steep ramp test is a valid practical test to assess cardiorespiratory fitness in patients with inflammatory bowel disease

K. Demers[1], B.C. Bongers[2], D.M.A.E. Jonkers[3], M.J. Pierik[3,4], L.P.S. Stassen[5], [1]Dept.. of Surgery, NUTRIM, Maastricht University, Maastricht, [2]Dept. of Nutrition and movement sciences, NUTRIM, Maastricht University, Maastricht, [3]Dept. of Gastroenterology and Hepatology, NUTRIM, Maastricht University, Maastricht, [4]Dept. of Gastroenterology and Hepatology, Maastricht University Medical Center+, Maastricht, [5]Dept. of Surgery, Maastricht UMC+, Maastricht, The Netherlands

12.10 Current evidence and future directions on improving the endoscopic recognition of early colorectal carcinoma using artificial intelligence – a scoping review

A. Thijssen[1, 2], R.M. Schreuder[1, 3], N. Dehghani[4], M. Schor[5], P.H.N. de With[4], F. van der Sommen[4], J.J. Boonstra[6], L.M.G. Moons[7], E.J. Schoon[8], [1]Dept. of Gastroenterology and

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Postersessie VI — Meierij Foyer

Moderator: *S. van de Ven*

12.15 Exploring diet categorisations and their influence on flare prediction in IBD, using Sparse Group LASSO

C.L. Stevens[1, 2], G.M.C. Adriaans[3, 4], C.E.G.M. Spooren[3, 4], V. Peters[1, 2], M.J. Pierik[5, 4], G. Dijkstra[6], R.J. Almeida[7, 8], D.M.A.E. Jonkers[4], M.J.E. Campmans-Kuijpers[1, 2], [1]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, Groningen, [2]Dept. of Gastroenterology and Hepatology, University of Groningen (RUG), Groningen, [3]Dept. of Gastroenterology and Hepatology, Maastricht UMC+, Maastricht, [4]Dept. of Gastroenterology and Hepatology, NUTRIM, Maastricht University, Maastricht, [5]Dept. of Gastroenterology and Hepatology, Maastricht University Medical Center+, Maastricht, [6]Dept. of Gastroenterology and Hepatology, UMC Groningen, Groningen, [7]Dept. of Quantitative Economics, School of Business and Economics, Maastricht University, Maastricht, [8]Dept. of Quantitative Economics, NUTRIM, Maastricht University, Maastricht, The Netherlands

12.20 Irritable bowel syndrome patients report higher symptom burden in end-of-day versus momentary assessments: results from a psychometric validation study

M. Bosman[1], L. Vork[1], D.M.A.E. Jonkers[2], A. Snijkers[1], R. Lalani[3], Q. Aziz[3], I. Midenfjord[4], M. Simren[4], A. Masclee[1], D. Keszthelyi[1], [1]Dept. of Gastroenterology and Hepatology, Maastricht UMC+, Maastricht, [2]Dept. of Gastroenterology and Hepatology, NUTRIM, Maastricht University, Maastricht, [3]Wingate Institute of Neurogastroenterology, Blizard Institute, Queen Mary Universtiy, London, Verenigd Koninkrijk, [4]Dept. of Internal Medicine, University of Gothenburg, Gothenburg, Zweden

12.25 Improving detection and treatment of locally advanced rectal cancer by dual-wavelength quantitative fluorescence molecular endoscopy targeting PD-1 and PD-L1 (ex vivo pre-analysis)*

P. Volkmer[1], L.E. van Heijst[1], I. Schmidt[1], V. Hoekstra[1], J.J. de Haan[2], G. Kats-Ugurlu[3], W.B. Nagengast[1], [1]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, Groningen, [2]Dept. of Medical Oncology, University Medical Center Groningen, Groningen, [3]Dept. of Pathology, University Medical Center Groningen, Groningen, The Netherlands

**Presentation in English*

12.30 An unrecognized issue in Crohn's Disease: Ileitis in patients with a permanent ileostomy

M.D. Hollenberg[1], L. Oldenburg[1], B.W.E. Hens[1], G.R.A.M. D'Haens[1], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, The Netherlands

Verpleegkundig Specialisten Netwerk — Zaal 81

Maag Darm Lever

Voorzitter: *T. Korpershoek.*

08.00	Intervisie verpleegkundig specialisten
09.00	Einde van dit programma onderdeel

V&VN MDL Plenair — Brabantzaal

Maag Darm Lever

Voorzitter: *M. van der Ende-van Loon*

09.00	Mijn ZORG nu en later, vroegtijdig bespreken van behandelvoorkeuren *C.J.R. Verstraete, verpleegkundig specialist, UMC Utrecht*
09.45	Koffiepauze
10.15	Microbioom voor Dummies *M. Heida, verpleegkundig specialist MDL, UMC Groningen*
11.00	Colonoscopisch geassisteerde laparoscopische wigresectie (CAL-WR) bij complexe poliepen en T1 colon carcinomen *J. Hanevelt, arts-onderzoeker, Isala, Zwolle*
11.30	Ledenvergadering en uitleg online leden portaal
12.00	Lunch in de expositiehal en gemodereerde postersessies

V&VN MDL - IBD — Parkzaal

Beroepsvereniging van zorgprofessionals
Maag Darm Lever

Voorzitter: *M. Schilders*

12.45	Ileo anale pouch *Prof. dr. L.P.S. Stassen, chirurg, Maastricht UMC*
13.15	Short Bowel *Prof. dr. G. Dijkstra, MDL-arts, UMC Groningen*
13.45	Koffie-/theepauze in de expositiehal
14.15	Stoma, hoe zat het ook al weer *R. van der Vlist, verpleegkundige, UMC Utrecht*
14.45	Mesenteriaal ischaemie *Dr. W.M.U. van Grevenstein, chirurg, UMC Utrecht*

Symposium V&VN MDL VE / Endoscopie — Zaal 81

Beroepsvereniging van zorgprofessionals
Maag Darm Lever

Voorzitter: *C.J.R. Verstraete en N. Klooster*

12.45	Cursus technische zorg rondom parenterale en enterale katheters *M.C.M. van der Ende-van Loon, verpleegkundig specialist, Catharina Ziekenhuis, Eindhoven*
13.00	PEC-J om de darm te spoelen & PEG app *Dr. L.P.L. Gilissen, MDL-arts, Catharina Ziekenhuis, Eindhoven* *A. Baars, verpleegkundige, Catharina Ziekenhuis, Eindhoven*
13.45	Koffie-/theepauze in de expositiehal
14.15	ASA classificatie en sedatie *H. Huismans, Sedatie Specialist & Anesthesieassistent, Erasmus MC*
14.45	Ziekte gerelateerde (onder)voeding *Dr. N.T. van Heek, chirurg, Ziekenhuis Gelderse Vallei, Ede*
15.15	Einde programma

Mesenchymal stem cell therapy for refractory Crohn's perianal fistulas: a case series

A.J.M. Pronk[1], C.J. Buskens[4], K.J. Beek[2], M.E. Wildenberg[3], W.A. Bemelman[1], J. Stoker[2], [1]Dept. of Surgery, Amsterdam UMC, Amsterdam, [2]Dept. of Radiology, Amsterdam UMC, Amsterdam, [3]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [4]Dept. of Surgery, Amsterdam UMC, Amsterdam, The Netherlands

Background: Nearly one-third of patients with Crohn's disease will develop one or multiple perianal fistulas within the first two decades after diagnosis, with the majority being complex. Treatment options are limited with high recurrence rates after both medical and surgical approaches. It has been demonstrated that a completely fibrotic tract on Magnetic Resonance Imaging (MRI) with a MAGNIFI-CD <6 is the best predictor for long-term clinical closure. Mesenchymal stem cell treatment (MST) has emerged as a new therapeutic strategy for these fistulas. The aim of the current study was to analyse the effectiveness of MST for complex Crohn's perianal fistulas based on MRI.
Methods: Consecutive patients with complex Crohn's perianal fistulas, previously failing both anti-TNF treatment and surgical closure, that underwent surgical closure of the internal opening with MST between December 2019 and March 2023 were included. All patients underwent a MRI preoperatively and between three to six months after MST. For the current study, MRI's were read by an senior radiologist. The primary endpoint was radiological remission of the fistula(s) defined as a MAGNIFI-CD <6 on MRI. Secondary endpoints were clinical closure (defined as closure of the external opening(s)), recurrence rate, change of MAGNIFI-CD over time, quality of life based on the perianal disease activity index (PDAI), and serious adverse events (SAE).
Results: In total, 30 patients (16 females) with 48 fistula tracts were included with a median clinical follow-up of 20 months. Radiological remission was achieved in thirteen patients (43.3%) after a median follow-up of 5.0 months (IQR 3.0-6.0). The median MAGNIFI-CD at baseline was 15.0 (IQR 7.0-20.0) which decreased significantly to 8.0 (IQR 3.0-15.0) after treatment (p= 0.001). Clinical closure of the fistula(s) was achieved in 21 patients (70.0%). Three patients (14.3%) developed a recurrence during long-term FU. All three patients had clinically closed fistula(s), but no radiological remission. The median PDAI decreased significantly from 10.5 (IQR 7.0-14.0) to 4.0 (IQR 0.0-7.3) (p= 0.001). Overall, in this patient group one SAE occurred requiring multiple reinterventions and temporary stoma.
Conclusion: Closure of the internal fistula opening with MST is a promising treatment strategy for therapy refractory Crohn's perianal fistulas, resulting in >40% radiological remission and clinical closure in 70%. No recurrences were seen in patients with radiological remission. MST was also associated with a significant increase in quality of life. Further research is needed to gain insight in which patients MST is most likely to induce radiological remission.

Real life management of patients with active perianal fistulizing Crohn's disease (ALERT-CD study)

M.T.J. Bak[1], L.P.S. Stassen[2], C.J. Buskens[3], A.J.M. Pronk[3], J.D.W. van der Bilt[5], K.B. Gecse[6], K.H.N. de Boer[6], C.D.M. Witjes[7], C.E. Fitzpatrick[8], L.H.C. Nissen[9], E.G.G. Verdaasdonk[10], M.J. Pierik[11, 12], S.O. Breukink[13, 14, 15], L.P.L. Gilissen [16], J.G. Bloemen[17], R.L. West[18], R.T.J. Kortekaas[19], W.G. Mares[20], G.M. de Jong[21], S.V. Jansen[22], A.L.A. Bloemendaal[23], M. Sikkema[24], D.D.E. Zimmerman[25], K.C.M.J. Peeters[26], A.E. van der Meulen-de Jong[27], F.D.M. van Schaik[28], M.C. Richir[29], K.W. van Dongen[30], M. Duijvestein[31], F.J. Hoogenboom[32], M.C. Visschedijk[33], A.C. de Vries[1], O. van Ruler[7], [1]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, [2]Dept. of Surgery, Maastricht UMC+, [3]Dept. of Surgery, Amsterdam UMC, [5]Dept. of Surgery, FlevoZiekenhuis, [6]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, [7]Dept. of Surgery, IJsselland Ziekenhuis, Capelle aan den IJssel, [8]Dept. of Gastroenterology and Hepatology, IJsselland Ziekenhuis, [9]Dept. of Gastroenterology and Hepatology, Jeroen Bosch Ziekenhuis, Den Bosch, [10]Dept. of Surgery, Jeroen Bosch Ziekenhuis, [11]Dept. of Gastroenterology and Hepatology, MUMC+, Maastricht, [12]Dept. of Gastroenterology and Hepatology, NUTRIM, Maastricht University, [13]Dept. of Surgery, MUMC+, Maastricht, [14]Dept. of Surgery, NUTRIM, Maastricht University, [15]Dept. of Surgery, GROW School for Oncology and Reproduction, Maastricht University, [16]Dept. of Gastroenterology and Hepatology, Catharina Ziekenhuis, Eindhoven, [17]Dept. of Surgery, Catharina Ziekenhuis, Eindhoven, [18]Dept. of Gastroenterology and Hepatology, Sint Franciscus Gasthuis & Vlietland, Rotterdam, [19]Dept. of Surgery, Sint Franciscus Gasthuis & Vlietland, Rotterdam, [20]Dept. of Gastroenterology and Hepatology, Ziekenhuis Gelderse Vallei, Ede, [21]Dept. of Surgery, Ziekenhuis Gelderse Vallei, Ede, [22]Dept. of Gastroenterology and Hepatology, Reinier de Graaf Groep, Delft, [23]Dept. of Surgery, Reinier de Graaf Groep, Delft, [24]Dept. of Gastroenterology and Hepatology, Elisabeth Tweesteden Ziekenhuis, Tilburg, [25]Dept. of Surgery, Elisabeth Tweesteden Ziekenhuis, Tilburg, [26]Dept. of Surgery, Leiden Universitair Medisch Centrum, [27]Dept. of Gastroenterology and Hepatology, Leids Univerisitair Medisch Centrum, [28]Dept. of Gastroenterology and Hepatology, UMC Utrecht, [29]Dept. of Surgery, UMC Utrecht, [30]Dept. of Surgery, Maasziekenhuis Pantein, Boxmeer, [31]Dept. of Gastroenterology and Hepatology, RadboudUMC, Nijmegen, [32]Dept. of Gastrointestinal Surgery, UMC Groningen, [33]Dept. of Gastroenterology and Hepatology, UMC Groningen, The Netherlands

Background: The multitude of medical and surgical treatment options for perianal fistulizing Crohn's disease (pCD) impels differences in management. This study aimed to assess management of pCD in current clinical practice in The Netherlands. Methods: Patients with active pCD (i.e. visible external fistula opening or patent fistula tract on imaging) were included in a prospective multicenter cohort study in 41 Dutch academic and non-academic hospitals from September 2022 to March 2023. pCD-related clinical, radiological and surgical data were prospectively collected during a follow-up period of 6 months and retrospectively collected from pCD diagnosis until inclusion. Primary outcome of the study was adherence to the international guidelines on pCD management during the disease course (from pCD diagnosis until end of follow-up). Adherence was defined as (I) imaging for pCD diagnosis using magnetic resonance imaging (MRI) and/or endo-anal ultrasound (EUS), (II) endoscopic evaluation of concomitant proctitis, (III) use of antibiotics for symptomatic response, (IV) initiation of an anti-tumour necrosis factor (TNF) agent for maintenance therapy, (V) fistula surgery aiming at fistula closure in case of surgically amendable disease and (VI) decision making by a multidisciplinary team (gastroenterologist and surgeon). Results: 449 patients with active pCD (52% female) were included (Table 1). At inclusion, median age and median pCD duration were 37.2 years (IQR 28.8–49.4) and 3.1 years (IQR 1.1–7.1). 54% of patients were treated in anon-academic hospital. 89%of patients were treated with CD medication, which concerned anti-TNF agents in 82% of these patients. As recommended by guidelines, aMRI (99%) and/or EUS(9%) were performed in the vast majority of patients(97%) for pCD diagnosis. Following diagnosis, endoscopy was performed in 81% of patients. During the disease course, antibiotics were initiated in 55%of patients and at least one anti-TNFagent(s)was started in 84% of patients for maintenance therapy (73% infliximab, 53% adalimumab, 26% both agents). Surgery aiming for fistula closure was performed in 38% of patients during the disease course. 60% of patients were discussed in a multidisciplinary team (MDT).
Conclusion: This study demonstrated a high adherence to international guidelines on pCD management concerning imaging at diagnosis, endoscopic evaluation for concomitant proctitis and treatment with anti-TNF agents. Adherence to use of antibiotics for symptoms, performance of fistula surgery aiming at fistula closure and decision making in a MDT is moderate and standardization may optimize pCD management.

Identification of clinical risk factors for postoperative endoscopic recurrence in Crohn's disease: a prospective, multicenter cohort study

M.T.J. Bak[1], E.M.J. Beelen[1], J.D.W. van der Bilt[2], M.J. Romberg-Camps[3], G. Dijkstra[4], M. Duijvestein[5], S. van der Marel[6], L.P.S. Stassen[7], P.W.J. Maljaars[8], C.J. Buskens[9], S.V. Jansen[10], B.J.H. Jharap[11], C.S. Horjus[12], F.D.M. van Schaik[13], R.L. West[14], K.H.N. de Boer[15], C.J. van der Woude[1], O. van Ruler[16], A.C. de Vries[1], [1]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, [2]Dept. of Surgery, Flevo-Ziekenhuis, Amsterdam, [3]Dept. of Gastroenterology, Geriatrics, Internal and Intensive Care Medicine, Co-MIK, Zuyderland Medical Centre, Heerlen-Sittard-Geleen, [4]Dept. of Gastroenterology and Hepatology, UMC Groningen, Groningen, [5]Dept. of Gastroenterology and Hepatology, RadboudUMC, Nijmegen, [6]Dept. of Gastroenterology and Hepatology, Haaglanden Medisch Centrum, Den Haag, [7]Dept. of Surgery, Maastricht UMC+, Maastricht, [8]Dept. of Gastroenterology and Hepatology, Leids Univerisitair Medisch Centrum, Leiden, [9]Dept. of Surgery, Amsterdam UMC, Amsterdam, [10]Dept. of Gastroenterology and Hepatology, Reinier de Graaf Groep, Delft, [11]Dept. of Gastroenterology and Hepatology, Meander Medical Center, Amersfoort, [12]Dept. of Gastroenterology and Hepatology, Rijnstate Ziekenhuis, Arnhem, [13]Dept. of Gastroenterology and Hepatology, UMC Utrecht, Utrecht, [14]Dept. of Gastroenterology and Hepatology, Sint Franciscus Gasthuis & Vlietland, Rotterdam, [15]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [16]Dept. of Surgery, IJsselland Ziekenhuis, Capelle aan den IJssel, The Netherlands

Background: Further refinement of clinical risk stratification for postoperative endoscopic recurrence in patients with Crohn's disease is required to identify patients who will benefit from prophylactic therapy. Therefore, we aimed to assess risk factors for endoscopic recurrence in a large prospective, multicenter cohort study.
Methods: CD patients (≥16 years) scheduled for ileocolic (re-)resection (ICR) and those who underwent an ileocolonoscopy at 6 months following ICR were included. Primary outcome of the study was endoscopic recurrence (modified Rutgeerts' score ≥ i2b at 6 months). Multivariable logistic regression was performed to identify clinical risk factors. The model included a random effect for the study center to correct for potential correlation between treating center and the outcome.
Results: In total, 298 patients underwent ICR (79.2% primary ICR, 20.8% re-resection) after a median disease duration of 5.3 years (IQR 1.0 – 12.4). 60.4% of patients were female with a median age at surgery of 34.1 years (IQR 25.7 – 50.5). 67.8% of the patients were exposed to ≥1 biological prior to surgery. Postoperative prophylactic medication (<12 weeks to ICR) was initiated in 85/298 (28.5%) patients; 24.7% immunomodulator, 29.4% anti-TNF, 27.1% combination therapy [immunomodulator with anti-TNF agent], 4.7% vedolizumab, 14.1% ustekinumab. Mean time to postoperative ileocolonoscopy was 6.2 months (SD 1.3). Endoscopic recurrence was diagnosed in 37.9% of the patients. Multivariable logistic regression identified active smoking (adjusted OR [aOR] 3.12; 95% CI 1.63 – 5.98) and penetrating disease behaviour (aOR 1.92; 95% CI 1.04 – 3.57) as risk factors for endoscopic recurrence, whilst ileocolic disease (versus ileal disease; aOR 0.27; 95% CI 0.15 – 0.49) and postoperative prophylactic medication (aOR 0.24; 95% CI 0.12 – 0.47) were identified as protective factors for endoscopic recurrence.
Conclusion: Active smoking and penetrating disease behaviour at time of surgery were identified as risk factors for early postoperative recurrence in Crohn's disease. Reversely, ileocolic disease at time of surgery and initiation of postoperative prophylactic medication were identified as protective factors for early endoscopic recurrence. Young age at surgery, perianal disease and a prior intestinal resection, included as risk factors in the current international guidelines, were not associated with early endoscopic postoperative recurrence in this large prospective cohort study.

Imaging-based preoperative body composition is associated with the risk of postoperative complications and postoperative endoscopic recurrence in patients with crohn's disease

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Background: Alterations in body composition are common in Crohn's disease (CD) patients and influence disease outcomes. However, the impact of preoperative body composition on postoperative outcomes is not completely understood. This study aimed to investigate the association of preoperative body composition with postoperative complications and endoscopic recurrence in CD patients undergoing ileocolic (re-)resection (ICR).
Methods: CD patients (≥16 years) scheduled for an ICR with a computed tomography (CT) scan available (<12 months prior to ICR) were identified from an ongoing prospective, multicenter cohort study. Skeletal muscle mass (SM), visceral (VAT) and subcutaneous adipose tissue (SAT), and their radiation attenuation (RA) were assessed on a single CT image at L3 using a validated deep-learning automatic segmentation tool (Mosamatic). Low RA is associated with increased tissue triglyceride content (*e.g.* myosteatosis in case of SM). Cut-offs, based on sex-specific tertiles, were set at the lower and upper tertile for low and high values. The primary outcome was the development of overall postoperative complications within 90 days. Secondary outcomes were postoperative endoscopic recurrence (Rutgeerts' score ≥ i2b) at 6 months, infectious complications, and moderate to severe complications (Clavien-Dindo ≥ II). Multivariable logistic regression was performed to assess the association of body composition variables with postoperative outcomes, adjusting for confounders.
Results: 121 patients were included (age 37.1 years (IQR 27.1–53.2), 59.5% female). Disease duration was 3.6 years (IQR 0.4–12.7), and 57.0% had prior exposure to ≥ 1 biological. Overall postoperative complications were reported in 51.2%, endoscopic recurrence in 33.3%, infectious complications in 26.4%, and moderate to severe complications in 41.3%. High SM-RA (aOR 0.67; 95%CI 0.16–0.85) and low VAT (aOR 0.38; 95%CI 0.17–0.87) were associated with decreased overall postoperative complications. Low VAT-RA was associated with decreased endoscopic recurrence (aOR 0.21; 95%CI 0.07–0.67), and high SAT with increased infectious complications (aOR 3.05; 95%CI 1.28–7.28).
Conclusion: Low visceral adipose tissue and high radiation attenuation of skeletal muscle (*i.e.* no myosteatosis) were protective of overall postoperative complications in CD patients undergoing ICR. Low radiation attenuation of visceral adipose tissue (*i.e.* high triglyceride content) was protective of endoscopic recurrence. High subcutaneous adipose tissue increased the risk of postoperative infectious complications. Further research in larger populations is warranted to validate these findings to improve preoperative stratification and strategies for CD.

Pregnancy for IBD-patients with an enterostomy is feasible but is associated with complications

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Background: As inflammatory bowel disease (IBD) is frequently diagnosed in young adults, the disease often coincides with pregnancy. There are several indications for enterostomies in the treatment of IBD. Literature on enterostomy complications during pregnancy and pregnancy-outcomes remains scarce. Gaining insight in the incidence of complications and the course of these pregnancies serves as a first step in developing guidelines for the difficult question of how, when and by whom complications during pregnancy should be monitored and treated. The aim of this study was to assess stoma- and pregnancy-outcomes after pregnancy with an enterostomy in situ.
Methods: For this multicenter cohort and survey study, all patients who have been pregnant while having an enterostomy and who gave birth between 2016 and 2023 in three Dutch university medical centers were included. Complications of the enterostomy and pregnancy-outcomes were collected retrospectively from electronic patient files. In collaboration with gastroenterologists, surgeons, gynaecologists and IBD-patients, a survey was designed. Through this digital questionnaire, all participants were asked about their experience during pregnancy and any long-term enterostomy related complaints.
Results: Data was collected on 37 patients (mean age at conception 32.6 years; 64.9% Crohn's disease (CD), 32.4% ulcerative colitis (UC), 2.7% IBD undetermined (IBD-U)), comprising 48 pregnancies of which four ended in a miscarriage. Enterostomy related complications occurred in thirty of the full-term pregnancies (68.2%), with decreased stoma-output (43.2%) and small-bowel obstruction (29.6%) being the most prevalent. Other complications included leakage (25%), prolapse (15.9%) and peristoma hernia (22.7%). In a quarter of the pregnancies, surgical revision of the stoma was needed due to obstruction (27.3%), prolapse (27.3%) and peristomal herniation (45.6%). Of the fourteen women who completed the questionnaire, six reported non-resolved complications at least six months after delivery (42.9%). Eighteen pregnancies ended in a caesarean section (40.9%). There were 45 infants (one gemelli pregnancy), of whom eight (17.8 %) were born prematurely ,eight (17.8 %) had low birth weight (17.8%) and eight (17.8 %) were small for their gestational age.
Conclusion: Being pregnant and giving birth with an enterostomy is feasible but is in two third of pregnancies associated with complications. A reduced stoma output and leakage can be prevented by early counseling. Proper guidance before, during pregnancy and postpartum is therefore crucial for IBD-patients with an enterostomy.

Achieving Crohn's Disease treatment targets following the STRIDE-II recommendations in clinical practice

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Background: The Selecting Therapeutic Targets in Inflammatory Bowel Disease (STRIDE) initiative proposes therapeutic targets for inflammatory bowel disease (IBD) to be used for a treat-to-target strategy. However, there is lack of information regarding how many patients actually achieve defined treatment targets as outlined in STRIDE-II after initiation of new therapies. The objective of this study was to investigate the treatment response of Crohn's disease (CD) patients according to the STRIDE-II recommendations in the first year after starting a new pharmacological therapy in clinical practice.
Methods: CD patients enrolled in a remote monitoring care-path via myIBDcoach, starting a new therapy between January 1st 2020 and December 31st 2021 were eligible for inclusion. The short-term (2-4 months) treatment target was defined as clinical response based on at least 50% decrease in the Monitor IBD at home (MIAH) questionnaire, a patient-reported outcome measure validated to predict endoscopic disease activity. Intermediate (5-9 months) targets were clinical remission (MIAH ≤3.6) and normalization of inflammatory parameters, *i.e.* faecal calprotectin (<150 ug/g) and C-reactive protein ([CRP] <10 mg/L). Long-term (10-12 months) targets were absence of disability (IBD-control questionnaire ≥13), and a combination of MIAH score ≤3.6 and calprotectin <150 ug/g as surrogate markers for endoscopic remission.
Results: 39 CD patients were included in the current analysis, of which two started treatment with thiopurines and 37 with a biological. At baseline, median MIAH score was 3.0 (IQR 3.1) and median IBD-control score was 8.5 (IQR 9.0). After three months of therapy, 26% of patients showed clinical response and 64% of patients were in clinical remission (median MIAH 2.2 [IQR 1.8]). As for intermediate targets, clinical remission was seen in 62% (median MIAH 2.0 [IQR 2.3]), and CRP and calprotectin normalization in 79% and 59% of patients, respectively. At the end of follow-up, 41% had low surrogate marker scores indicative for endoscopic remission (median MIAH 1.9 [IQR 1.6] and median calprotectin 109.0 [IQR 241.0]). Resolution of disability was achieved in 65% (median IBD-control score 14.0 [IQR 6.0]). Three patients (9%) achieved all treatment targets within a year of follow-up.
Conclusion: This study used an incident user real-world cohort to evaluate the STRIDE-II recommendations. While all patients achieved at least one treatment target, only 9% achieved all treatment targets according to the STRIDE-II recommendations. Using these recommendations provides good guidance in clinical settings. However, treatment approaches need to be improved to reach the optimal outcomes in daily clinical practice.

Development and internal-external validation of a dynamic multivariable prediction model for advanced colorectal neoplasia in patients with inflammatory bowel disease

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Background: Surveillance is recommended in patients with colonic inflammatory bowel disease (IBD) given their increased risk of colorectal cancer (CRC). Present risk stratification strategies do not discriminate sufficiently between risk groups. We aimed to develop and validate a dynamic multivariable prediction model for advanced colorectal neoplasia (aCRN, high-grade dysplasia and CRC) in IBD.
Methods: We pooled data from six existing surveillance cohort studies (two unpublished). Patients with IBD and an indication for CRC surveillance were included if they underwent at least one follow-up procedure. Exclusion criteria included prior aCRN, prior colectomy, or an unclear indication for surveillance. Predictors were selected upfront based on literature/availability: extensive disease, prior dysplasia (indefinite for dysplasia or low-grade dysplasia), primary sclerosing cholangitis, male sex, IBD type, post-inflammatory polyps, age, and maximal endoscopic inflammation. A dynamic prediction model was developed using a landmarking approach based on Cox proportional hazard modelling. Model performance was assessed with Harrell's c-statistic and by calibration curves, adjusted for optimism by internal cross-validation. In a sensitivity analysis model performance was assessed in data ≥2010 only (internal validation). Generalizability across the surveillance cohorts was evaluated by internal-external cross-validation.
Results: The surveillance cohorts encompassed time periods 1973-2021 and comprised 3,731 patients with a median follow-up of 5.7 years (interquartile interval 3.3-9.6; 26,336 patient-years of follow-up); 146 individuals were diagnosed with aCRN (table 1). The final model contained eight predictors, with a cross-validation median c-statistic of 0.74 and 0.75 and calibration slope of 0.77 and 0.83 for, respectively, a 5- and 10-year prediction window in overall analyses. Calibration plots showed good calibration. Ninety percent of 10-year predicted aCRN risks were between 0.9 and 18.7%. Model discrimination improved in data ≥2010 and calibration results remained unchanged (48% of all procedures ≥2010). Internal-external cross-validation results showed medium discrimination and reasonable to good calibration.
Conclusion: We generated a model based on clinical factors that predicts future aCRN risk, with moderate to good model discrimination and good calibration. However, generalizability results vary and are impacted by varying cohort sizes and should be interpreted with caution. Future research should focus on formal external validation, relate predicted aCRN risks to surveillance intervals, and investigate the impact of this new model in daily clinic prior to clinical application.

High-definition white light endoscopy with segmental re-inspection is non-inferior to dye-based chromoendoscopy in inflammatory bowel disease: the randomized controlled HE-LIOS trial

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Background: Patients with colonic inflammatory bowel disease (IBD) undergo endoscopic surveillance to detect and remove colorectal neoplasia (CRN). Although high-definition dye-based chromo-endoscopy (HD-CE) is the recommended modality in guidelines, high-definition white light endoscopy (HD-WLE) with matched procedural time may yield similar neoplasia detection rates. We designed a non-blinded, randomized controlled trial in four academic hospitals aiming to compare three endoscopic surveillance techniques in IBD patients for the outcome of CRN detection rate.
Methods: Eligible patients were aged ≥18 years and scheduled for colitis-associated CRN surveillance according to Dutch IBD guidelines. Patients were excluded in case of insufficient bowel cleansing, active colitis, or if >50% of the colon was resected. Patients were randomly assigned (2:2:1) to undergo HD-WLE with segmental re-inspection (SR), HD-CE, or single pass HD-WLE. The primary outcome was CRN detection rate, defined as the proportion of procedures in which macroscopic CRN was detected. Secondary outcomes included the number of CRN and withdrawal time. To demonstrate non-inferiority of HD-WLE with SR compared to HD-CE (one-sided testing, α=0.05, 1−β=0.8, non-inferiority (NI) margin -10%), and superiority compared to single-pass HD-WLE (two-sided testing, estimated CRN detection rate of 24% and 12%, respectively) with Mantel-Haenszel analyses, a total of 566 patients were needed.
Results: In total, 666 patients were randomized, 563 fulfilled all study criteria and were analysed per protocol. Of these, 51.8% were male, with a median age of 51 years (interquartile range 35-63). CRN detection rates were 9.8% (n=23/234) for HD-WLE with SR, 13.1% (n=28/214) for HD-CE, and 6.1% (n=7/115) for single pass HD-WLE. HD-WLE with SR was non-inferior to HD-CE (Δ-3.1%, lower limit of the 95% confidence interval (CI) -8.1 not exceeding the NI margin of -10%, p<.05). HD-WLE with SR was not superior to single-pass HD-WLE (Δ3.7%, 95% CI -2.5:9.1%, p=0.31). A significant difference was found for the number of detected CRN (n=29 vs n=36 vs n=8, p=.04) and withdrawal time (median 19 vs 26 vs 15 minutes, p=.03) between HD-WLE with SR, HD-CE and single-pass HD-WLE, respectively. One advanced lesion was detected (high-grade dysplasia in the HD-CE arm).
Conclusion: In this large, randomized controlled trial, HD-WLE with SR was non-inferior to HD-CE for CRN detection in IBD patients. HD-WLE with SR was not superior to single-pass HD-WLE, although this may have resulted from lower than expected neoplasia yields and subsequent lower power. These results suggest that HD-WLE with SR may provide a feasible alternative to HD-CE in clinical practice (NCT04291976).

Interim analysis of the TESAR trial: A multicentre randomised trial of radical surgery versus adjuvant chemoradiotherapy after local excision for early rectal cancer

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Background: The implementation of screening programmes for colorectal cancer has led to a marked shift towards early detection. The current standard of care for rectal cancer is completion surgery. However, surgery for rectal cancer is often associated with significant morbidity and unfavourable long-term functional outcomes. Patients diagnosed with early-stage rectal cancer may potentially benefit from rectal preservation strategies. Local excision is sufficient when the risk of risk of lymph node involvement and subsequent recurrence is less than 5%. However, the majority of early-stage rectal cancers is associated with an intermediate risk of lymph node involvement (5-20%), suggesting that local excision alone may not be sufficient. Adjuvant chemoradiotherapy following local excision may be a viable alternative to completion total mesorectal excision (cTME) in intermediate-risk pT1 and pT2 rectal cancer.
Methods: In this multicentre non-inferiority trial, patients with locally excised intermediate-risk pT1 and pT2 rectal cancer were 1:1 randomised between cTME and adjuvant chemoradiotherapy. The study treatment consisted of 25x1.8 Gy limited to the mesorectum with concurrent capecitabine (825 mg/m2 twice daily). The primary endpoint was three-year local recurrence rate. Secondary outcomes were disease-free survival (DFS) and overall survival (OS), morbidity, stoma rate, functional outcomes, health-related quality of life and costs. Eligible patients who were unwilling to undergo additional treatment after local excision were invited to join a registry cohort to allow the collection of their clinical data.
Results: A total of 235 patients were included in this interim analysis. Baseline characteristics were well balanced. Median follow-up was 40 (22.0-60.0), 28.5 (15.3-52.3), and 18.5 (9.8-36.0) months for cTME, adjuvant chemoradiotherapy, and no additional treatment (NAT), respectively. Three-year local recurrence rates were 0% for cTME, 3.6% for adjuvant chemoradiotherapy and 15.4% for NAT. No differences in three-year OS and DFS were observed between cTME, adjuvant chemoradiotherapy and NAT, except for a lower DFS in the NAT cohort. Adjuvant chemoradiotherapy was associated with less morbidity and lower ostomy rates compared to cTME.
Conclusion: These interim results show near-equivalence in three-year local recurrence rates following cTME and adjuvant chemoradiotherapy in patients with locally excised intermediate pT1 and pT2 rectal cancer, as well as less morbidity and lower ostomy rates following adjuvant chemoradiotherapy.

Endoscopic ultrasound-guided gallbladder drainage (EUS-GBD): A safe and patient-friendly alternative to percutaneous gallbladder drainage in acute cholecystitis

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Background: In this single centre retrospective patient-control study, 52 patients were included. These patients were treated for AC with either EUS-GBD (n=26) or PTHC (n=26) between February 2019 and February 2023. The primary outcome measures included technical and clinical success, adverse event rates, reinterventions, recurrent AC, and length of hospital stay.
Methods: Currently, there is no consensus on the optimal management of acute cholecystitis (AC) in patients unfit for laparoscopic cholecystectomy (LC). Conservative treatment and percutaneous transhepatic gallbladder drainage (PTHC) are currently favoured, with the possibility of postponed LC. This study compares percutaneous drainage with endoscopic ultrasound-guided gallbladder drainage (EUS-GBD) to compare which intervention yields the best outcomes.
Results: Currently, there is no consensus on the optimal management of acute cholecystitis (AC) in patients unfit for laparoscopic cholecystectomy (LC). Conservative treatment and percutaneous transhepatic gallbladder drainage (PTHC) are currently favoured, with the possibility of postponed LC. This study compares percutaneous drainage with endoscopic ultrasound-guided gallbladder drainage (EUS-GBD) to compare which intervention yields the best outcomes.
Conclusion: The success rates were 84.6% (22/26) and 100% (26/26) for EUS-GBD and PTHC, respectively (p = .110). Clinical success was 92.3% (24/26) for both interventions (p = 1.0). Adverse events were reported in 34.6% (9/26) of cases with EUS-GBD and 53.8% (14/26) with PTHC (p = .264). Reintervention occurred in 7.7% (2/26) for the EUS-GBD and 11.5% (3/26) for the PTHC group (p = 1.0). Recurrent AC occurred in 11.5% (3/26) of patients treated with EUS-GBD and in 15.4% (4/26) of patients after PTHC (p = 1.0). The median hospital stay for EUS-GBD patients was 4.0 days (IQR 1.0 – 7.0) and for PTHC patients 6.5 days (IQR 2.1 – 10.9), which is significantly longer (p = .008).

Durable effects of duodenal ablation using electroporation combined with semaglutide to eliminate insulin therapy in patients with type 2 diabetes; 24 months results of the eminent study

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Background: Studies have shown that hydrothermal duodenal mucosal ablation (DMR) results in better glycemic control by improving insulin resistance, a root cause of T2D and metabolic syndrome. Re-Cellularization via Electroporation Therapy (ReCET) is an endoscopic procedure that uses electroporation to induce mucosal renewal of the duodenum. Electroporation induced by pulsed electric fields causes natural cell death through an apoptosis-like process. In this study, we aimed to eliminate insulin treatment in T2D patients with a single ReCET procedure combined with a GLP-1 receptor agonist (semaglutide). Here we present our 24 months follow-up results.
Methods: First-in-human study in 14 patients with T2D (28-75 years, BMI 24-40kg/m^2, glycosylated hemoglobin [HbA1c]≤8.0%, basal insulin dose <1U/kg/day, C-peptide≥0.2nmol/L). All patients underwent the ReCET procedure under deep sedation followed by a 2wk isocaloric liquid diet. Semaglutide was then titrated up to 1mg/week. Primary feasibility endpoints were procedure time (catheter in–catheter out), technical success and percentage of patients tolerating semaglutide. Safety endpoints were (serious) adverse events ([S]AEs) and hypoglycemic events. Efficacy endpoint was the percentage of patients off exogenous insulin at 6 months maintaining HbA1c ≤7.5%. Baseline and follow-up glycemic (HbA1c, fasting plasma glucose [FPG], time with glucose values in range [TIR]) and metabolic data (weight, liver fat fraction) and treatment satisfaction scores were collected.
Results: All patients underwent ReCET and completed 18 months of follow-up (24mo data available in Jan 2024). Median age was 62 (IQR 54–67) years, 57% was male and mean units of insulin were 27 (IQR 22–33). ReCET had a technical success rate of 100%. Procedure time was 58 (IQR 49–79) minutes. Maximum dose of semaglutide was tolerated by 13 (93%) patients. No device-related SAEs or severe hypoglycemic events were observed. At 6, 12, and 18 months, 12 (86%) patients were still off exogenous insulin, yet showed significant improvements in glycemic control (HbA1c from 7.2% to 6.7% (p=0.020) and metabolic parameters (weight from 91 to 72kg, p=0.003). Both FPG (8.8 to 7.4 mmol/L, p=0.075) and TIR (72 to 91%, p=0.386) improved though not significantly. Treatment satisfaction (33 to 36, p=0.049) and liver fat fraction (9.2 to 4.2%, p=0.016) improved significantly at 12 months.
Conclusion: These results suggest that duodenal ReCET is feasible and safe up to 18 months. Combined with semaglutide, ReCET eliminated the need for insulin therapy in 86% of patients up until 18 months post-treatment while improving glycaemia and metabolic health. 24 month follow-up data is available in January 2024.

Mass Cytometry Analysis reveals that Sphingosine-1-Phosphate Receptor Blockade with Etrasimod, alters Lymphocyte Trafficking in Crohn's Disease

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Background: The blockade of lymphocyte trafficking from the lymph nodes (LNs) towards the intestinal mucosa is an effective approach for the treatment of ulcerative colitis (UC). Etrasimod is an oral, once-daily (QD), selective sphingosine 1-phosphate (S1P)1,4,5 receptor (S1PR) modulator, which is currently also under investigation for Crohn's disease (CD).
The therapeutic mechanism of action of S1PR modulators in the context of inflammatory bowel disease (IBD) is not completely understood. It is hypothesized that both B and T- cell populations are affected by this treatment and are retained in the peripheral LNs, reducing circulating lymphocytes and resulting in fewer immune cells available to traffic in the gastrointestinal tract. Etrasimod has been reported to induce a partial and selective reduction of lymphocyte subsets in the blood of healthy subjects, but the direct effect of S1PR modulators on LN leukocytes has not been evaluated. The aim of this study was to investigate changes in leukocyte subpopulations in peripheral LNs and peripheral blood (PB) in response to S1PR inhibition with etrasimod in patients with CD.
Methods: CD patients with moderate to severe disease activity, participating in the Phase 2, double-blinded, non-placebo-controlled portion of the CULTIVATE trial, were eligible for this sub-study. At baseline and after 14 weeks of etrasimod induction treatment (2 or 3 mg/day), 10cc of PB and 4 ultrasound guided biopsy samples of an inguinal LN were obtained. The isolated peripheral blood mononuclear cells (PBMCs) and LN leukocyte populations, were analyzed at single cell level via high-dimensional immunophenotyping through mass cytometry (CyTOF) at both timepoints.
Results: We observed that in the LNs, the numbers/percentages of naïve, central and effector memory T-helper cells, as well as, of CD8+ naïve T-cells were increased after treatment with etrasimod. There was a *decrease* in the proportion of these cell populations in peripheral blood. Circulating naïve and memory B-cells were reduced, while these subsets where also slightly reduced in the LN compartment. Innate immune cell populations were not significantly altered.
Conclusion: Etrasimod induction treatment resulted in an increase of both naïve and central memory T-lymphocyte subsets in inguinal LNs, with a corresponding decrease in the periphery. The effect on the frequency of B-cells was not consistent in the LNs and PB, while innate immunotypes and T-regs, were not significantly affected. Despite the limited sample size, these selective effects were consistent with previously published PB immunophenotyping studies with etrasimod.

Extended mesenterectomy is not superior to mesenteric sparing resection in primary ileocolic resection for Crohn's disease in terms of postoperative endoscopic recurrence – results of an international randomised controlled trial

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Background: Extended mesenteric resection has recently been proposed to improve clinical outcomes after an ileocolic resection (ICR) for Crohn's disease. The aim of this study was to analyse the clinical relevance of extended mesenteric resection, up to the level of the ileocolic trunk (intervention group), compared to conventional mesenteric sparing resection (control group) with regard to postoperative outcomes in patients undergoing primary ICR for Crohn's disease.
Methods: In an international randomised controlled trial (RCT), patients ≥16 years, were assigned 1:1 to either the intervention- or the control-group. The anastomotic technique was standardised (side-to-side stapled). To demonstrate a relevant difference of 25% in postoperative endoscopic recurrence at 6 months (defined as a modified Rutgeerts score ≥i2b, according to blinded central reading), a minimum of 62 evaluable patients per arm were required. Secondary outcome parameters were postoperative morbidity, histopathological outcomes and use of Crohn's medication postoperatively.
Results: In total, of the 129 included patients, 56 (43.3%) were male with a median age of 36 (IQR 22-55). There were no statistically significant differences in baseline characteristics between the two groups. There was no difference in endoscopic recurrence rates between the two groups: 27/62 (43.5%) in the intervention group and 27/64 (42.2%) in the control group, (p=1.0) *Fig 1*. Median time until endoscopy was 6 months (IQR 6-7). More patients received postoperative medical prophylaxis in the intervention group (28% vs 14%). In the control group, more patients started medication after endoscopy (intervention group 20% vs control group 27%). This resulted in a similar number of patients in both groups being on Crohn's medication after six months, 48% in the intervention group and 41% in the control group. There was no significant difference in length of resection specimen (median length colon 7cm; ileum 22.5cm), blood-loss or operative time. Overall, a postoperative complication occurred in 28%, with anastomotic leakage in 5 (3.9%).
Conclusion: This is the first RCT to present data on the effect of extended mesenteric resection during ICR for Crohn's disease. The results of this study showed no superiority of extended mesenteric resection with regard to endoscopic recurrence or other perioperative outcomes.

Do antro-duodenal manometry parameters predict clinical response after gastric peroral endoscopic pyloromyotomy in refractory gastroparesis?

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Background: Gastric peroral endoscopic pyloromyotomy (G-POEM) is a therapeutic modality for the treatment of refractory gastroparesis (GP) with promising long-term outcomes. However, as a subset of patients do not respond to this treatment, it has been suggested that selection of patients for G-POEM should be based on objective measurements such as antro-duodenal manometry (ADM). The aim of the present study is to identify ADM parameters as predictors for clinical response after G-POEM in refractory GP.
Methods: In a prospective open-label study, refractory GP patients underwent a G-POEM between September 2017 and December 2022. Baseline assessment included Gastroparesis Cardinal Symptom Index (GCSI), C13 gastric emptying breath test and 6-hr high-resolution ADM. Antral contraction frequency (contractions per minute) < 1.0 was considered as antral hypomotility. The following neuropathic patterns were scored: presence of retrograde peristalsis, bursts, clustered contractions, and absence of phase III contractions. Abnormal ADM was defined as having antral hypomotility and/or neuropathic patterns. Treatment success (responders) was defined as a decrease of at least one point on the GCSI (range 0-5) at 12 months after G-POEM. Explorative analyses were performed on potential predictors of response using logistic regression analysis.
Results: Sixty patients (52 women, mean age 52 ± 14 yrs.) with decompensated GP (33 idiopathic, 16 diabetic, 11 post-surgical) were included and underwent the G-POEM procedure. Mean disease duration was 36 ± 32 months and mean baseline GCSI-score was 3.3 ± 0.7. At baseline, 83% of patients was dependent on enteral feeding and 70% used prokinetics. At 12 months, GCSI-scores of 50 patients were available and 21 patients (42%) showed treatment success (responders). Baseline GCSI was higher in responders compared with nonresponders (3.5 ± 0.6 vs. 3.1 ± 0.7, p=0.07). Overall, abnormal ADM was found in 77% of patients, with antral hypomotility in 33% (20/60) of the patients showing no difference between responders and nonresponders (p=0.54). Fifty-eight percent (32/55) showed at least one neuropathic pattern: 33% of patients showed retrograde peristalsis, 42% bursts, 7% clustered contractions and 22% absence of phase III contractions. Following explorative analyses, no ADM parameters could be identified as predictors for clinical response at 12 months after G-POEM.
Conclusion: Seventy-seven percent of refractory GP patients undergoing G-POEM showed antral hypomotility and/or neuropathic patterns on antro-duodenal manometry at baseline. However, ADM parameters did not predict clinical response after G-POEM for refractory gastroparesis.

Colonoscopic-Assisted Laparoscopic Wedge Resection for colonic lesions: impact on quality of life (results from the LIMERIC-study)

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Background: Not all colonic polyps are eligible for endoscopic removal. In these cases, a segmental colon resection (SCR) is performed, which is associated with substantial morbidity and mortality. The LIMERIC study, a prospective multicenter study, has proven that colonoscopic-assisted laparoscopic wedge resection (CAL-WR) is an effective and safe treatment for the removal of these polyps. This analysis aimed to evaluate the impact of CAL-WR on health-related quality of life (HRQoL).
Methods: The impact of CAL-WR on HRQoL was prospectively measured by using the 5-level EuroQoL 5-dimension (EQ-5D-5L) instrument. EQ-5D-5L questionnaires were administered at baseline and 3 months after the procedure. Patients whose pre- or postoperative questionnaires were missing and patients who underwent a combined intervention were excluded from the intention-to-treat analysis. Patients in whom CAL-WR was infeasible and those who underwent completion surgery were excluded from the per-protocol analysis. Changes in the patient's EQ-5D profile were analyzed using the Paretian Classification of Health Change (PCHC).The Wilcoxon's signed-rank test was used to assess alterations in the dimensions and EQ-VAS of the EQ-5D 5L.
Results: In total, 118 patients were included in the LIMERIC study. Questionnaires were administered to 103 patients. The response rate was 67% (69/103). CAL-WR did not affect HRQoL in the per-protocol analysis (n=56), nor in the intention-to-treat analysis (n=67). The majority of all patients reported no health change (57%). There were no significant differences in the distribution of responses across all five dimensions before and after CAL-WR. The EQ-VAS showed no significant decrease in quality of life, with a median VAS score of 82.5 at baseline and 80 after surgery in the per protocol analysis ($p = 0.63$).
Conclusion: CAL-WR is a minimally invasive local resection technique that has no significant impact on HRQoL in patients with benign colonic lesions and should therefore be preferred over segmental colon surgery.

The relation between postoperative complications after primary colon cancer surgery and long-term outcomes

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Background: It is widely acknowledged that postoperative complications after colon cancer resection are associated with postoperative mortality, but the association with long-term outcomes is controversial. This study examined the impact of postoperative complications on locoregional recurrence, defined as any intra-abdominal recurrence including peritoneal metastases, and overall survival.
Methods: This national, population-based cross-sectional cohort study was carried out in 46 Dutch hospitals. Patients who underwent colon cancer resection between January 2014 and December 2015 were eligible. Long-term outcomes were assessed in patients without synchronous metastases and a minimum follow-up of 6 months using logistic regression, Kaplan-Meier, log-rank test, and Cox regression analyses.
Results: A total of 8936 patients were included with a median follow-up of 59.6 months (IQR 28.0-65.6). Any complication occurred in 2649 (29.6%) patients, of whom 1576 had surgical complications (806 requiring reintervention) and 1791 non-surgical complications. Independent risk factors for locoregional recurrence were surgical approach, emergency setting, tumour location, pT, pN and resection margin status. Five-year overall survival probability was 86.7% versus 76.1% for patients with or without complications respectively ($p<0.001$), which remained significant in multivariable analysis (HR 1.43, 95CI% 1.29-1.59).
Conclusion: This study showed worse overall survival after a complicated postoperative course in stage I-III colon cancer patients, but no independent association with locoregional recurrence was found.

Long-term oncological outcomes and patterns of distant metastasis in T1 versus T2 Colon Cancer

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Background: Organ preservation for early colon cancer is receiving increasing attention. The question is to which extent a segmental resection contributes more to regional and distant control of disease in pT2 as compared to pT1 colon cancer.
Methods: A nationwide population-based retrospective cohort study was performed, including all consecutive patients diagnosed with pT1 or pT2 CC who underwent a surgical resection with curative intent between 2014 and 2015 in the Netherlands. Patients were retrieved from the SNAPSHOT complex colon cancer database of the Dutch Snapshot Research Group (DSRG). The primary outcome measures were 5-year overall and distant metastasis-free survival (OS/MFS). Survival outcomes were compared with the Kaplan-Meier method and log-rank test. Cox proportional hazard models were used to analyze risk factors associated with these outcomes.
Results: Lymph node metastases were identified in the resection specimen in 118 (12.7%) out of 928 patients in the pT1 cohort and in 252 (18.7%) out of 1349 patients in the pT2 cohort. Over the 5-year follow-up period, distant metastases were observed in 30 (3.2%) out of 928 pT1 patients and in 66 (4.9%) out of 1349 pT2 patients. Among the pT1 cohort, 20 (66.6%) out of 30 patients with distant metastases initially had an N0-status (pT1N0). In the pT2 cohort, 38 (57.6%) out of 66 patients were staged as pT2N0. The 5-year OS did not differ between the pT1N0 and pT2N0 patients (85.2% *vs.* 86.9%, p = 0.49, multivariable HR for pT2 adjusted for age, gender, ASA score and tumor location 0.8, 95% CI 0.57 — 1.009) and neither did 5-year MFS (96.0% *vs*. 95.9%, p = 0.65, multivariable HR 1.2, 95% CI 0.7 — 2.0). For patients with pT1N+ and pT2N+ stage, 5-year OS was 83.5% *vs.* 81.6% (p = 0.59, multivariable HR adjusted for administration of adjuvant chemotherapy of 1.0, 95% CI 0.6 — 1.8) and MFS was 90.9% *vs.* 87.1% (p = 0.43, multivariable HR adjusted for pN-stage and administration of adjuvant chemotherapy of 0.8, 95% CI 0.6 — 1.2).
Conclusion: In early colon cancer, depth of tumor invasion (pT1 or pT2) does not significantly affect the patient's metastasis-free- or overall survival if treated by formal oncological resection. The majority of distant metastases occur in N0 patients, suggesting that segmental colon surgery plays a limited role in distant control of disease.

The Assessment of Burden of ColoRectal Cancer (ABCRC)-tool; a validity and reliability study

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Background: Follow-up care after treatment for colorectal cancer (CRC) is increasingly focused on health-related quality of life (HRQoL) and functional outcomes. The Assessment of Burden of ColoRectal Cancer (ABCRC)-tool is developed to measure these outcomes and visualize the results, combined with treatment advice, in a balloon dashboard. In this way, it aims to support patient-oriented care. The tool comprises items assessing burden of disease and lifestyle parameters. It consists of a generic module combined with one of three CRC specific modules (i.e. colon with anastomosis, rectum with anastomosis or stoma). The objective of this study was to assess the construct validity and reliability of the items of the PROM of the ABCRC-tool.

Methods: Patients who received follow-up care after surgical CRC treatment were included in one academic and two non-academic hospitals in The Netherlands. Patients were invited to complete the ABCRC-tool together with other validated patient-reported outcome measures (PROMs). Construct validity was assessed by testing expected correlations between items of the ABCRC-tool and domains of other PROMs and by examining predefined hypotheses regarding differences in subgroups of patients. Patients completed the ABCRC-tool twice, with 8 days apart, to evaluate its test-retest reliability.

Results: In total, 177 patients participated (64% male) with a mean age of 67 years (range 33-88). The colon, rectum and stoma module were completed by 89, 53 and 35 patients, respectively. The second set of PROMs was completed by a total of 154 patients (87% of 177 of the first round) of which 76 patients completed the colon module (85% of 89 of the first round), 49 patients completed the rectum module (93% of 53 of the first round) and 29 patients completed the stoma module (83% of 35 of the first round). Most items correlated as expected with anticipated domains of the EORTC-QLQ-C30 or EORTC QLQ-CR29 (all p-values <0.05). Furthermore, the ABCRC-tool could discriminate between subgroups of patients. These subgroups were based on the presence of considerable depression or anxiety levels, type of treatment received and age. Finally, the intraclass correlation coefficient (ICC) was good (>0.70) for the majority of items, indicating good reliability.

Conclusion: The ABCRC-tool is a valid and reliable instrument that can provide a thorough understanding of the colorectal cancer patient's burden of disease after treatment. The ABCRC-tool is ready for use in a clinical setting to support personalized follow-up care after CRC treatment.

Risk factors for benign anastomotic stenosis after esophageal cancer surgery

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Background: The occurrence of benign strictures is a common outcome following an esophagectomy, causing dysphagia, problems with eating, and a diminished overall quality of life. The aim of this study is to identify risk factors associated with anastomotic stenosis specified for anastomotic technique following esophagectomy for cancer.
Methods: Nine hundred-forty patients were included between 2012 and 2022 with esophageal and gastroesophageal junction cancer who underwent esophagectomy in the Amsterdam UMC. Benign anastomotic stenosis was defined as the occurrence of postoperative dysphagia for which at least 1 endoscopic dilation of the anastomosis was needed. Anastomotic stenosis prediction was conducted by the utilization of uni- and multivariate logistic regression analysis.
Results: The study encompassed a cohort of 940 patients, 590 following Ivor Lewis, 246 after McKeown, 64 after Transhiatal, and 40 after LTA esophagectomy. Anastomotic stenosis was observed in 18.8%, 45.6%, 59.4%, and 2.0% ($p<0.001$) patients respectively requiring a median 4, 7, 6.5 and 2 dilations respectively ($p=0.734$). Median of time to anastomotic stenosis was 99, 85.5, 65.5 and 77 days ($p=0.197$). Following Ivor Lewis esophagectomy, immunosuppressants and age above 70 years were positive predictors in univariate analysis ($p=0.048$, $p=0.033$). In uni- and multivariate analysis anastomotic leakage was found as positive predictor for stenosis (OR 2.256; $p=0.012$). In Ivor-Lewis esophagectomy without postoperative anastomotic leakage, stapler size of 29mm was found as negative predictor (OR 0.528; $p=0.031$), and chronic pulmonary disease was found as a significant risk factor (OR 2.318; $p=0.032$) for stenosis. In McKeown esophagectomy postoperative pulmonary complications and ICU admission were found to be negative predictors for stenosis ($p=0.009$, $p=0.044$) in univariate analysis.
Conclusion: Most important risk factors for stricture are anastomotic leakage and chronic pulmonary disease. For Ivor Lewis esophagectomy, a higher diameter circular stapler size is associated with a lower risk for stricture. Strictures after McKeown esophagectomy seem to be difficult to treat and need the highest number of dilations.

Development of a core-set of self-management support needs of esophageal cancer patients: results from a Delphi study among patients

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Background: We aimed to gain consensus on self-management support information needs of patients with esophageal cancer during the pre-operative phase.
Methods: A multicenter Delphi study among patients with esophageal cancer in the pre-operative phase from eight esophageal centers in the Netherlands was performed. Participants were surveyed twice. In round 1, participants rated 64 information items and 6 different sources of support from "not essential" to "absolutely essential" on a 1 to 9 Likert scale. Topics were included in the second round if predetermined criteria were met, and feedback on individual and group scores was provided. To be included in the final list, topics had to meet criteria for consensus and stability.
Results: Survey response rates were 84.3% (86 out of 102, round 1) and 73.4% thereafter. The final list included 26 topics, including expectations for future health condition as the one topic considered most important. No consensus on the source of support was reached.
Conclusion: This multicenter Delphi study among patients has established a core set for self-management support information needs of patients with esophageal cancer during the pre-operative phase. This core set may direct the systematic provision of information to support the patients' self-management.

Additional value of expert care for patients with ultra-long Barrett's Esophagus in the Netherlands: results of the nationwide Barrett Expert Center Registry.

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Background: The neoplastic progression risk in Barrett's Esophagus (BE) increases with increasing BE length. Therefore, some guidelines recommend that patients with ultra long-segment BE ≥10cm (ULS-BE) are referred to an expert center, however, recommendations on further management are lacking. This study aimed to evaluate findings of an imaging endoscopy performed at a Barrett Expert Center (BEC), for patients with ULS-BE.

Methods: We included patients with flat, non-dysplastic BE ≥10cm who were referred to one of the eight Dutch BECs between January 2018 and June 2022. Patients diagnosed with visible lesions (VL) or dysplasia in the referring hospital, were excluded. Imaging endoscopy in the BEC consisted of careful imaging with adequate sedation by an experienced endoscopist, and histologic sampling according to the Seattle protocol, assessed by an experienced pathologist. Outcomes included the proportion of patients diagnosed with a VL; proportion of patients diagnosed with dysplasia; and risk of progression during surveillance.

Results: We included 220 patients with median BE length of C11M12 (IQR9-12; 10-14) (mean age 63 years (SD 11)). BEC imaging endoscopy, performed median 3 months (IQR2-10) after the last endoscopy in the referring center, revealed a VL in 8/220 patients (4%), containing cancer (n=3), high-grade dysplasia (HGD, n=3) or low-grade dysplasia (LGD, n=2). Additionally, random biopsies in the absence of VL showed LGD in 31 patients (14%) and HGD in 2 patients (1%). So, upon referral to a BEC, 41 patients (19%) were upstaged from no dysplasia to BE with dysplasia or cancer. For 155/220 patients, non-dysplastic ULS-BE was confirmed after BEC imaging with adequate biopsy sampling. The remaining patients had dysplasia (n=41) or inadequate histologic sampling (n=24). Patients with confirmed non-dysplastic ULS-BE underwent endoscopic surveillance (n=119) or will be scheduled for surveillance (n=36). During median 27 months of surveillance (IQR23-47) with median 2 endoscopies (IQR 1-2), 8/119 patients progressed to HGD/cancer (7%) and 14/119 to LGD (12%) after median 26 months (IQR18-37). The progression rate to HGD/cancer was 2.5 per 100 patient years (95%CI 1-5). Progression to HGD/cancer was detected as visible abnormalities (n=7; 2 HGD, 5 cancer) or in random biopsies (n=1: HGD). All patients with progression to HGD/cancer were treated endoscopically.

Conclusion: Endoscopic inspection with adequate pathology sampling by Barrett experienced endoscopists for patients with USL-BE, upstaged the initial diagnosis of NDBE to dysplasia or cancer in 19% of patients, of which 4% was upstaged to HGD/cancer. Expert care may be beneficial for the high-risk population with ULS-BE.

Image quality challenges in AI: improving robustness of a computer aided detection system for Barrett's neoplasia

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Background: Endoscopic deep learning systems, developed in expert centers with high-quality imaging, often experience performance decline in community hospitals due to heterogeneity of image quality. The objective of this study was to measure performance reduction of a computer aided detection (CADe) system for Barrett's neoplasia in the diverse imaging conditions of local hospitals. Subsequently, we examined various state-of-the-art training approaches to counter this decline in performance.
Methods: First, a CADe system was developed using a high-quality training set consisting of 437 images from 173 neoplastic Barrett's patients and 574 images from 200 non-dysplastic Barrett's esophagus patients. All images originated from 11 expert centers. Its performance was evaluated on high, moderate and low-quality test sets, each comprising 120 images originating from the same group of 65 neoplastic Barrett's patients and 55 non-dysplastic Barrett's patients. The test sets were independent from the training set on a patient basis and simulated the heterogeneous image quality of community hospitals. We then introduced four training methods to enhance robustness: diversified training data, domain-specific pretraining, domain-specific data augmentation, and architectural modifications.
Results: Training the CADe system solely with high-quality data resulted in an 82% AUC on the high-quality test set. Performance significantly dropped to 79% ($p<0.001$) and 70% ($p<0.001$) AUC on moderate and low-quality test sets, respectively. Implementing robustness improving techniques substantially raised AUC scores to 93% for high-quality ($p=0.020$), 94% for moderate-quality ($p=0.006$), and 84% for low-quality test sets ($p=0.002$). These strategies also significantly reduced the performance decline on moderate (+1% vs -3%; $p<0.001$) and low-quality test sets (-9% vs -12%; $p=0.004$).
Conclusion: CADe systems trained with only high-quality images may not perform well across the variable image quality in community hospitals. This study demonstrates that adopting robustness improving techniques can significantly increase robustness and overall performance, facilitating the successful integration of AI systems in clinical practice.

Endoscopic resection of early esophageal neoplasia can safely be performed in patients with esophageal varices

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Background: Although endoscopic resection (ER) is recommended as first-choice treatment for early esophageal neoplasia, patients with esophageal varices are considered a high risk group due to an increased bleeding risk. This retrospective, multicenter study aimed to evaluate the efficacy and safety of endoscopic therapy of early esophageal neoplasia in this specific patient category.
Methods: Patients with esophageal varices who underwent ER for early esophageal neoplasia were included in three Dutch tertiary centers between January 2014 and December 2022. All ER procedures were performed by dedicated endoscopists and prophylactic measures to reduce the risk of variceal hemorrhage were initiated at the discretion of the endoscopist. Outcomes included the incidence of prophylactic measures, histologically radical and curative resection rate, adverse events and procedure-related mortality.
Results: Twenty-one patients (21 male; median age 69; 16 Child Pugh A liver cirrhosis) were included of which the majority was diagnosed with Barrett's neoplasia (15/21; 71%), while the remaining cases had esophageal squamous cell carcinoma (3/21; 14%) or cardia neoplasia (3/21; 14%). In 16/21 (76%) patients, the esophageal varices were small (i.e. <5mm) and prophylactic measures mainly consisted of octreotide administration (5/16; 31%) and/or direct varix coagulation during resection (9/16; 56%). In one patient (1/21; 5%), the lesion was located on top of a large varix (i.e. ≥5mm) after which the decision was made to ligate the lesion without subsequent snaring. Endoscopic rubber band ligation prior to ER was applied in one patient with large varices (1/21; 5%), while periprocedural prophylactic ligation was performed in one patient (1/21; 5%) with small varices distal from the lesion. A transjugular intrahepatic portosystemic shunt was placed prior to ER in two patients (2/21; 10%), either due to the large size of the varices (n = 1) or the large extent of the neoplastic lesion in combination with small varices (n = 1). Histologically radical resection was achieved in 18/21 (86% [95% CI 67-100%]) and the curative resection rate was 14/21 (67% [95% CI 43-86%]). While no procedure-related mortality was observed, adverse events were seen in 4/21 (19% [95% CI 5%-38%]) patients. Only one patient (1/21; 5% [95% CI 0%-14%]) with small varices experienced postprocedural bleeding which resolved after octreotide administration.
Conclusion: ER appears to be a safe and effective option in selected patients with concurrent early esophageal neoplasia and esophageal varices, provided that a tailored approach of adequate prophylactic measures is applied to prevent bleeding.

Only half of the patients treated endoscopically for early Barrett related neoplasia is detected during Barrett surveillance

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Background: Barrett's esophagus (BE) with early neoplasia is an indication for endoscopic treatment. Patients with non-dysplastic BE are typically enrolled in an endoscopic surveillance program to enable early detection, and treatment, of BE related neoplasia. In contrast, a subset of patients with early BE neoplasia is concurrently diagnosed with BE and early neoplasia. Our goal was to distinguish cases detected through endoscopic surveillance programs (i.e. initial detection of non-dysplastic BE with progression to neoplasia later in time (metachronous neoplasia)) from cases where BE and neoplasia were diagnosed simultaneously (synchronous neoplasia).
Methods: We obtained data from the Dutch Barrett Expert Center Registry, a nationwide registry comprising data from all BE patients who underwent endoscopic treatment in Dutch Barrett Expert Centers. We supplemented the registry with pathology reports sourced from the national pathology registry (PALGA). Primary endpoint was the proportion of patients diagnosed with BE and synchronous neoplasia. Enrollment in an endoscopic surveillance program was defined as the presence of at least one endoscopy with non-dysplastic BE ≥12 months prior to endoscopic treatment initiation.
Results: A total of 1,386 patients were identified with a mean age of 65 years (SD±10) and 81% being male. Median BE length was C2M5 (IQR 0-5; 3-8) and treatment indication encompassed low-grade dysplasia (LGD; 27%), high-grade dysplasia (HGD; 31%), or low-risk cancer (42%).
Overall, 699/1,386 patients (50%) underwent an endoscopy that revealed a new diagnosis of BE with synchronous neoplasia. Conversely, the remaining 687/1,386 patients (50%) were enrolled in endoscopic surveillance programs prior to neoplasia diagnosis, with a median surveillance duration of 8 years (IQR 4-13). The proportion of patients with new BE and synchronous neoplasia increased along with more severe histology at the moment of treatment. Specifically, the proportion of patients with synchronous neoplasia was 39% (147/375) for a treatment indication of LGD, 49% (205/422) for HGD and 59% (347/589) for cancer (P <0.01). There was no significant difference observed concerning varying BE lengths.
Conclusion: Only half of the patients with early Barrett's neoplasia receive a neoplasia diagnosis following enrollment in endoscopic surveillance programs, while the remaining half presents with de novo diagnosis of BE containing synchronous neoplasia. Notably, for patients with more severe histologic changes at the moment of treatment, the proportion of de novo BE with synchronous neoplasia is even higher. These findings support further critical view regarding the efficacy and cost-effectiveness of BE surveillance.

Endoscopic biopsy techniques in Barrett's esophagus patients: a randomized trial with a two-by-two factorial design

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Background: Different random biopsy techniques exist for Barrett's Esophagus (BE) surveillance, of which the impact on histopathological quality is unclear. Therefore, we compared the double- versus single-biopsy method and advance-and-close or turn-and-suction technique in BE patients in a randomized clinical trial.
Methods: In this multicenter, randomized factorial design trial, BE patients were randomly assigned to one of two biopsy methods (double-biopsy or single-biopsy) and techniques (advance-and-close or turn-and-suction) in a 1:1:1:1 approach, stratified by BE length and hospital. The primary endpoint of the study was the size of biopsy specimens, defined as surface area in mm^2. Secondary endpoints included the presence of muscularis mucosae, biopsy orientation and biopsy time. Assessment of histopathological parameters was done in a blinded fashion. Data was analyzed with mixed effects regression analyses with a random intercept per patient including stratification factors as fixed effects.
Results: In total, 107 patients were randomized and 1024 biopsies were assessed. Biopsy size increased with 25% from 2.68mm^2 (95% CI 2.45-2.92) with the double-biopsy method to 3.34mm^2 (95% CI 3.10-3.57) with the single-biopsy method (mean difference 0.65mm^2, [95% CI 0.34-0.97]; p<0.001). Single-method biopsies were also better-oriented (Odds Ratio [OR] 1.74 [95% CI 1.08-2.78]; p=0.02), although the presence of muscularis mucosae (OR 1.26, [95% CI 0.86-1.86]; p=0.24) and biopsy time were comparable (mean difference 2 seconds per biopsy, [95% CI -1-4]; p=0.26). Average biopsy sizes were 2.95mm^2 (95% CI 2.72-3.19) and 3.08mm^2 (95% CI 2.85-3.31) using the advance-and-close and turn-and-suction technique, respectively, translating into an increase of 4% using the turn-and-suction technique (mean difference 0.13mm^2, [95% CI -0.19-0.44]; p=0.44). In addition, biopsy time was significantly longer when biopsies were taken with the turn-and-suction technique compared to the advance-and-close technique (mean difference 7 seconds per biopsy, [95% CI 4-10]; p<0.001), and no significant differences were seen in the presence of muscularis mucosae (OR 1.14 [95% CI 0.77-1.69]; p=0.50) or biopsy orientation (OR 0.77 [95% CI 0.48-1.23]; p=0.28).
Conclusion: Biopsies in BE patients should be taken with the single-biopsy method in order to increase biopsy size and improve biopsy orientation. Although the use of the turn-and-suction technique does not result in increased biopsy quality, it may enhance the ability to take biopsies of a targeted area.

Endoscopy-led risk stratification of gastric intestinal metaplasia - diagnostic accuracy of virtual chromendoscopy combined with targeted biopsies in patients with premalignant gastric lesions in a low incidence area

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Background: Accurate identification and staging of gastric intestinal metaplasia (GIM) during endoscopy is challenging, especially in countries with a low incidence of gastric cancer (GC). Random biopsy histopathology remains the gold standard for GIM staging, although random biopsy sampling is poorly reproducible which hinders individual risk prediction. Virtual chromoendoscopy (VCE) has shown to be superior to white light endoscopy (WLE), achieving >90% accuracy in countries with middle-high GC incidence. We evaluated clinical yield of an endoscopy-led risk stratification strategy combining VCE and targeted GIM biopsies in low GC incidence setting.

Methods: A prospective study was conducted in the UK and the Netherlands, including patients with a premalignant gastric lesion(PGL). All participants underwent two endoscopies; standard WLE with random biopsies, and VCE with targeted biopsies by an expert endoscopist after at least six months. During second endoscopy, GIM appearance was systematically graded for each gastric location, with targeted biopsies of suspected GIM and/or non-GIM. Diagnostic accuracy was determined by the total number of targeted biopsies confirming GIM presence or absence divided by all biopsies taken. Endoscopists and pathologists were blinded to prior histopathology results. For final comparison of current practice to an endoscopy-led approach, diagnostic yield of WLE with random biopsies was compared to diagnostic yield of VCE with targeted biopsies.

Results: A total of 120 patients were included (mean age 62.7, female: 53.3%). VCE combined with targeted biopsies identified GIM in 109 (90.8%) patients, 34% with an OLGIM stage >2 and 34% with extensive GIM. Diagnostic accuracy (95% CI) of VCE for GIM was 80.9% (77.5 – 83.9). Location-specific accuracy was 77.8% (73.2 – 82.0) for antrum and 85.4% (80.4 – 89.6) for body. The area under the curve (AUC) of the ROC curve for identifying extensive GIM was 0.787. In 86 patients, diagnostic yield of WLE with random biopsies was compared to VCE with targeted biopsies. During WLE, GIM was found in 88.4% and extensive GIM in 36%, compared to 93% and 37.2% for VCE. VCE increased OLGIM stage in 34.9% of patients, with 46.5% and 18.6% showing the same or decreased OLGIM stage, respectively.

Conclusion: In low GC incidence countries, our study demonstrates that the accuracy of VCE for GIM is 80.9%. VCE combined with targeted biopsies results in a high GIM detection rate, with an AUC of 0.787 for identifying extensive GIM. Although the accuracy is lower than diagnostic accuracy reported in middle and high GC incidence countries, our findings support endoscopy-led risk stratification in patients with PGL, even in low incidence countries.

Unveiling the Environmental Footprint of Colonoscopies in a Dutch University Hospital: A Life Cycle Assessment

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Background: The healthcare system's environmental footprint accounts for a significant 5% of the global CO2eq emissions, a proportion that is even larger in many industrialized countries. Particularly, the health care sector, which is based on direct health outcomes and costs, often neglects its environmental impact. This research employs a Life Cycle Assessment (LCA) to discern the environmental footprint of an average colonoscopy within a Dutch university hospital. Objective was to identify the main contributing impact categories and processes, providing recommendations for footprint reduction.
Methods: Onsite visits at the hospital facilitated comprehensive data collection on resource utilization during the colonoscopy process. The LCA has been done by using the SimaPro software and the ReCiPe 2016 method.
Results: The findings indicate that the main impacted area of protection is the damage on human health, primarily attributed the midpoint impact categories global warming and fine particulate matter formation. The quantified health damage is approximately 11.3·10-5disability adjusted life years (DALYs), equivalent to 59 minutes. The carbon footprint attributable to global warming is 56.4 kg CO2eq. Remarkably, passenger transportation emerges as the most contributing process, accounting for over three-quarters of the impact. Given that this factor falls outside the hospital's direct operations and can only be limitedly influenced, a separate analysis excluding transportation was conducted. In this revised assessment, the impacts amount to 2.7·10-5DALYs and 14.2 kg CO2eq. In the absence of transportation factors, disposable items, fluids and gases, and energy consumption emerge as primary contributors. An additional significant observation was the water usage for the colonoscopy, amounting to 137 litres when omitting transportation. Based on these results, recommendations were formulated. Potential alternatives for disposable items are explored for their potential in reducing the environmental impact. However, it's important to note that some proposed measures may necessitate the introduction of alternative procedures, potentially nullifying the benefits. This underscores the importance of a comprehensive examination of impact categories and the environmental footprint of substitute processes to ensure beneficial decision-making.
Conclusion: Strikingly, passenger car transportation emerged as the leading contributor, constituting over three-quarters of the overall impact. In the absence of transportation factors, disposable items, fluids, gases, and energy consumption surfaced as primary contributors. An additional significant observation was the water usage for the colonoscopy.

From "see one, do one, teach one" to self-regulated learning: the future of endoscopy training

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Background: Gastrointestinal endoscopy training traditionally follows the apprenticeship model, in which residents learn endoscopy by doing, under the supervision of endoscopy trainers. Previous studies among gastroenterology residents and their trainers identified numerous challenges to achieve high-quality endoscopy training. In these studies, considerable variability within and between teaching hospitals was found, with regard to the exposure of residents to simulator training, the structure of endoscopy supervision, the use of learning objectives, and the participation of trainers in an endoscopy teaching course. The aim of this qualitative study is to explore endoscopy trainers' views on the current status and desired future best practices regarding endoscopy training.
Methods: We performed semi-structured interviews with 15 gastroenterology residency (associate) program directors (PDs) from both university hospitals and general teaching hospitals in all medical specialty training regions in the Netherlands. Interviews were transcribed verbatim and analyzed using thematic analysis.
Results: We identified three main themes capturing PDs' perceptions on the current status of endoscopy training and the desired future best practices. At first, with respect to the role of the supervisor, participants reported several effective interventions during endoscopy training, such as determination of acquired endoscopy experience, setting and evaluating learning objectives, and avoiding cognitive overload. They also emphasized the importance of formal education for supervisors on endoscopy teaching. Secondly, with respect to the role of the resident, responsibility and initiative of residents regarding their own learning process, with support and guidance of supervisors, was perceived essential for effective learning. Thirdly, with respect to the context, main barriers to effective supervision were a lack of time and supervisor availability. The desire for more uniformity in endoscopy training programs between teaching hospitals was expressed.
Conclusion: Formal education for supervisors on endoscopy teaching, promotion of self-regulated learning regarding endoscopy training, and standardization of endoscopy training programs as well as supervision practices has the potential to improve future endoscopy training.

Real-time polyp size measurement during colonoscopy using a virtual scale: variability and systematic differences

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Background: Colorectal polyp size is important for risk stratification and clinical decision-making regarding polypectomy technique and surveillance intervals. However, polyp size measurement is known to be prone to inter-observer variability and a standardized measurement method is lacking. Recently, a virtual scale (VS) function has been developed that facilitates polyp size measurement through the projection of a virtual measurement scale on the monitor screen during live endoscopy. This study aimed to compare VS measurements to other measurement methods in terms of variability and systematic differences.

Methods: We conducted a prospective study comprising 120 polyps. Polyp size was measured during colonoscopy using three methods: (1) visual estimation (without aid of any tools), (2) 9-mm polypectomy snare as reference and (3) VS as reference. All measurements were videotaped (10-15 seconds). Video extracts of all measurements were presented to eight endoscopy experts and nine endoscopy fellows in training through an online survey environment. All endoscopists estimated the size of each polyp based on the three measurement methods in random order. Primary outcomes concerned variability in polyp size measurements for, as well as systematic differences between, the different measurement methods as estimated using mixed linear models. Secondary outcomes concerned VS measurement success rate (percentage of measurements <180 seconds) and duration.

Results: Variability in polyp size measurements was significantly lower ($p<0.050$) for VS measurements compared to visual and snare measurements for both experts and fellows. Lower variability for VS measurements led to more uniform assignment of polyps to clinically relevant size categories (i.e. $\leq$5 mm, 6-9 mm, $\geq$10 mm) compared to visual and snare measurements for both experts (69.2% vs. 55.0% vs. 59.2%) and fellows (66.7% vs. 50.8% vs. 46.7%). Systematic differences between VS polyp size measurements and other methods were <0.5 mm. Clinical success rate of VS measurements was 95.0%. Median VS measurement duration was 17 seconds (IQR 8, 33).

Conclusion: Polyp size measurement using the VS leads to lower variability in polyp size measurements and more uniform assignment of polyps to different size categories by individual endoscopists when compared to visual and snare measurements. Moreover, no clinically relevant systematic differences were identified. Hence, the use of the VS might serve as a more objective tool for polyp size measurement compared to current methods, possibly leading to improved clinical decision-making processes involving polyp size. However, physicians should remain aware that VS measurement is not feasible for all polyps.

Vacuum-Stent Treatment for Transmural Defects in the Upper Gastro-Intestinal Tract: Experience and Case Series in a Tertiary Referral Center

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Background: Transmural defects in the upper gastro-intestinal (GI) tract are associated with severe morbidity and mortality. Endoscopic vacuum therapy (EVT) has recently been established as a promising endoscopic treatment option for such defects and is most often applied using vacuum-sponges. The vacuum-stent is a novel device to apply EVT, combining the advantages of negative pressure wound therapy and an intraluminal stent, allowing for oral intake.
Methods: The aim of this prospective cohort study is to describe the experiences of, and lessons learned by a tertiary referral center with EVT experience since 2018, regarding the vacuum-stent for transmural defects in the upper GI tract. All patients treated with a vacuum-stent between November 2022 and October 2023 were included. Outcome measures included successful closure of the defect, reasons of treatment failure, adverse events and strictures.
Results: 31 patients were included. Defect etiology was AL in 18 (58%) patients, Boerhaave syndrome in 5 (16%), iatrogenic in 5 (16%), and 'other' in 3 (10%). Success rates of vacuum-stent and –sponge EVT treatment (combined treatment) and vacuum-stent treatment alone were respectively 83% and 78%. Seven patients had unsuccessful vacuum-stent treatment. In this cohort, notable observed reasons of failure included a defect too close to the upper esophageal sphincter (UES), inadequate vacuum on the esophago-jejunal anastomosis, presence of carcinoma at a persisting perforated ulcer, and the occurrence of adverse events. Two adverse events occurred (19%): two patients developed a secondary defect at the site of the proximal flange, of whom one had a cervical anastomosis with a narrow proximal esophagus and one had Boerhaave syndrome. Four patients developed a severe stricture (15%) requiring more than 3 dilations, incision therapy or self dilation, of whom three after McKeown esophagectomy.
Conclusion: The vacuum-stent is a valuable treatment option for AL after Ivor Lewis esophagectomy, Boerhaave syndrome and iatrogenic defects with success rates of 80-89%. Treating cervical anastomotic leaks is not recommended by us, due to the narrow lumen of the proximal esophagus, the proximity of the UES and high risk of severe strictures. Furthermore, caution is recommended in case of a narrow esophagus and the value of the vacuum-stent is yet to be determined in case of an esophago-jejunal anastomosis. In our experience, vacuum-stent and –sponge treatment complement each other and might be indicated in different situations. Sharing experiences on the topic is important to assess the best techniques and indications, to be able to reach the full potential of the vacuum-stent and further increase the success rate.

Outcomes of Anastomotic Leakage after Esophagectomy Before and After implementation of Endoscopic Vacuum Therapy in a Tertiary Referral Center

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Background: Anastomotic leakage (AL) after esophagectomy is associated with severe morbidity and a high mortality. Endoscopic vacuum therapy (EVT) has recently been established as a promising endoscopic treatment option for AL, with success rates of higher than 80%. The aim of this study was to compare outcomes of AL after esophagectomy, before and after implementation of EVT.
Methods: For this cohort study, consecutive patients with AL after transthoracic esophagectomy with gastric conduit reconstruction with cervical or thoracic anastomosis from two different time periods (before the implementation phase of EVT [2013 – 2017, pre-EVT], and after the implementation phase of EVT [2020 – 2023, post-EVT]) were included. Data was collected from a prospectively maintained database. Outcome measures included initial treatment modality, re-operation, intensive care unit (ICU) admission, hospital stay, and complications, classified according to Clavien-Dindo.
Results: In total, 100 patients with AL were included, with 50 patients in the pre-EVT group and 50 patients in the post-EVT group. In the pre-EVT group, initial treatment of AL consisted of conservative therapy (n = 20, 40%), endoscopic stenting (n = 13, 26%), endoscopic drainage (n = 6, 12%) or surgery (n = 11, 22%). In the post-EVT group, initial treatment of AL consisted of conservative therapy (n = 5, 10%), surgery (n = 2, 4%) or EVT (n = 43, 86%). Baseline characteristics showed no differences. The post-EVT group had a significantly lower initial surgical treatment rate compared to the pre-EVT group (respectively 2 [4%] vs. 11 [22%], p = 0.03). Furthermore, the post-EVT group had a significantly lower ICU admission rate than the pre-EVT group (respectively 16 [32%] vs. 35 [70%], p < 0.001). Clavien-Dindo classification differed significantly between the two groups (p = 0.033), with less Grade IIIa and more Grade IVa in the pre-EVT group, compared to the post-EVT group. Reoperations occurred in 17 patients (34%) in the pre-EVT group and 9 (18%) in the post-EVT group, which was not statistically significant. No statistically significant difference was observed in length of hospital stay.
Conclusion: The implementation of EVT as treatment option for AL after esophagectomy in this tertiary referral center led to a lower ICU admission rate. Taking this into consideration, EVT may be associated with long term health benefits for the patient and reduced healthcare costs.

Impact of EUS-guided choledochoduodenostomy versus transpapillary endoscopic biliary drainage on the intra- and post-operative outcome of pancreatoduodenectomy: a multi-center propensity score matched study

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Background: Endoscopic ultrasound-guided choledochoduodenostomy (EUS-CDS) with lumen-apposing metal stents (LAMS) may be used in patients with a distal malignant biliary obstruction in whom either conventional biliary drainage by endoscopic retrograde cholangiopancreatography (ERCP) failed or as primary drainage approach in research setting. Although EUS-CDS has shown promising results, experience with EUS-CDS prior to pancreatoduodenectomy (PD) is still limited. Therefore, in daily clinical practice multidisciplinary teams are reluctant to opt for EUS-CDS in patients with potentially resectable tumors.

Methods: Patients who underwent a PD between January 2020 and December 2022 after preoperative biliary drainage by EUS-CDS were included. Prospectively collected data from patients in the Dutch Pancreatic Cancer Audit were retrospectively analyzed. Primary endpoint was major postoperative complications, defined as Clavien-Dindo score ≥3. Secondary endpoints included overall complications, pancreatic surgery specific complications, in-hospital mortality and hospital stay. A propensity score matching (1:4) analysis was performed using patient and tumor characteristics, neoadjuvant therapy, type of stent, and hospital volume. Surgeons who performed a PD in a patient who underwent preoperative EUS-CDS were requested to fill-out a 5-questions survey directly after the surgical procedure. Results: Overall, 641 patients after PD were included of whom 34 (5.3%) underwent EUS-CDS. Major postoperative complications occurred in 174 patients (28.7%) in the ERCP group and 6 patients (17.6%) in the EUS-CDS group (RR 0.55; 95% CI, 0.23-1.30). No significant differences were observed between the groups in the secondary endpoints. Time between biliary drainage and surgery in patients without neoadjuvant therapy differed significantly between the ERCP group (median 39 days; IQR, 28-52) and EUS-CDS group (32 days; IQR, 21.5-39.5; p=0.021). Operative time was shorter in the EUS-CDS group (mean 329 min [SD 88] vs 299 min [SD 68]; p=0.004). Results were similar after propensity-score matching. The survey was completed in 25 PD's after EUS-CDS. In the majority (n=19, 76%) there was no direct visualization of the stent during the PD. In most patients, the resection was not (n=13, 52%) or slightly (n=7, 28%) considered complicated by the LAMS according to the surgeon. The stent did not hamper the creation of the hepaticojejunostomy.

Conclusion: This nationwide retrospective study found EUS-CDS to be safe without increase in (major) postoperative complications after PD as compared to ERCP. Moreover, surgeons did not encounter evident difficulties during most of the resections.

Safety of Surveillance Gastroscopy and Endoscopic Ultrasonography in the Oesophagus after neoadjuvant chemoradiotherapy: results from the SANO cohort

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Background: An organ sparing strategy has been proposed for patients with oesophageal cancer and a clinically complete response after neoadjuvant chemoradiotherapy (nCRT). This active surveillance strategy involves oesophagogastroduodenoscopy (OGD) with bite- on- bite biopsies and endoscopic ultrasonography (EUS). The preSANO trial and preliminary results of the SANO trial concluded that these procedures are safe within three months after nCRT. However, their safety in a more extended post radiation setting remains unknown. The aim of this study is to assess the safety of endoscopic procedures after nCRT, extending beyond three months.
Methods: A retrospective multicentre cohort study was performed. Patients who were included in the pre-SANO and SANO studies were included. All were treated with CROSS for oesophageal cancer and underwent endoscopic response evaluations (OGD with biopsies and/or EUS with fine needle aspiration, as indicated). Primary outcome was serious adverse events (SAE) as defined by Central Committee on Research Involving Human Subjects (CCMO) associated with endoscopic procedures which include (but are not limited to) perforation, bleeding and infection. Secondary outcomes included mechanical injury.
Results: A total of 962 patients underwent at least one endoscopic response evaluation. Some 2372 endoscopic procedures (65% OGD and EUS, 34% OGD, 1% EUS only) were performed at a median (interquartile range) time of 3 (8) months after nCRT. Of these procedures, 789 (33%) were performed more than three months after nCRT. SAEs were reported for five endoscopic procedures (0.2%) and included three cases of gastrointestinal bleeding after OGD with biopsies and two cases with infection secondary to the endoscopic procedures. All patients were admitted to the hospital and discharged without persisting impairment. No significant difference was found in the number of SAEs between the procedures conducted before and those performed more than three months after nCRT (2 vs. 3, p = 0.34). In four additional cases (0.2%) a deep laceration was reported (no admission was required).
Conclusion: OGD with biopsies and EUS are safe procedures with a low complication rate for patients with a post radiation oesophagus.

EUS-guided choledochoduodenostomy for primary drainage of malignant distal biliary obstruction (SCORPION-II-p): a prospective pilot study using FCSEMS through LAMS

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Background: EUS-guided choledochoduodenostomy (EUS-CDS) with a lumen-apposing metal stent (LAMS) is an alternative for ERCP in patients with a malignant distal biliary obstruction (MBO). The main drawback of EUS-CDS using LAMS is the high rate of stent dysfunction which leads to cholangitis and reinterventions. Presumably, the short length and perpendicular angle of the LAMS to the bile duct contribute to the risk of stent dysfunction. Therefore, the aim was to investigate whether placement of a fully covered self-expandable metal stent (FCSEMS) through the LAMS, thereby changing the axis of biliary drainage towards the descending duodenum, will decrease the risk of stent dysfunction while maintaining high technical success and low adverse event rates.
Methods: We performed a prospective pilot study in patients with proven MBO and a bile duct diameter of at least 12mm, requiring biliary drainage, excluding patients with gastric outlet obstruction. Patients underwent biliary drainage with (as first procedure) EUS-CDS using a 6 or 8 mm LAMS with a 6 cm by 8 or 10 mm FCSEMS placed through the LAMS. Primary outcome was stent dysfunction, defined as recurrent jaundice after initial clinical success, ongoing jaundice in combination with persistent dilatation of the bile ducts, or cholangitis. Secondary outcomes were technical success, clinical success, and adverse events (AEs).
Results: Overall, 27 consecutive patients with MBO were enrolled. Technical success of EUS-CDS with LAMS was achieved in 24/27 patients (89%), placement of FCSEMS through the LAMS was successful in 20/24 (83%), in the remaining 4 patients a coaxial double pigtail stent (DPS) was placed. Periprocedural AEs occurred in 3 patients (11%) due to LAMS maldeployment which was solved intraprocedurally in all patients. In 1 patient this led to biliary peritonitis and fluid collections requiring percutaneous drainage, the other 2 patients recovered uneventfully.
Clinical success was achieved in 18/20 patients (90%). In 2 patients with LAMS with FCSEMS there was persistent cholestasis in need of stent revision (10%). Two patients experienced cholecystitis within 30 days after the procedure (10%), one patient who also had concomitant kidney failure subsequently deceased. The other patient recovered after antibiotics and percutaneous drainage. Two other patients deceased within 30 days which was unrelated to the procedure.
Conclusion: This study showed a stent dysfunction rate of 10% following technically successful EUS-CDS with placement of a FCSEMS through the LAMS. Improving the LAMS design may reduce the rate of stent dysfunction by improving the direction of bile flow through the stent towards the descending duodenum.

Feasibility of hepatic arterial infusion pump chemotherapy combined with systemic chemotherapy for patients with colorectal liver metastases in the Netherlands: the PUMP-IT pilot study

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Background: Hepatic arterial infusion pump chemotherapy combined with systemic chemotherapy (HAIP-SYS) for liver-only colorectal liver metastases (CRLMs) has shown promising results but has not been adopted worldwide. This study evaluated feasibility of HAIP-SYS in the Netherlands.
Methods: This was a single-arm phase II study of patients with CRLMs who received HAIP-SYS consisting of floxuridine in the pump with concomitant systemic FOLFOX or FOLFIRI. Main inclusion criteria were unresectable or borderline-resectable liver-only metastases, suitable arterial anatomy, and no previous local treatment. Patients underwent laparotomy for pump implantation and primary tumor resection if in situ. Primary endpoint was feasibility, defined as ≥70% of patients completing two cycles of HAIP-SYS. Sample size calculations led to 31 patients. Secondary outcomes included safety and tumor response to therapy.
Results: Thirty-one patients with a median of 13 CRLMs (IQR 6-23) were included. Twenty-eight patients (90%) received two cycles of HAIP-SYS. Three patients did not get two cycles due to extrahepatic disease at pump placement, definitive pathology of a recto-sigmoidal squamous cell carcinoma, and progressive disease before second cycle HAIP-SYS. Five patients experienced grade 3 surgical or pump device-related complications (16%) and eleven patients experienced grade ≥3 chemotherapy toxicity (38%). At first radiological evaluation, disease control rate was 83% (24/29 patients) and hepatic disease control rate 93% (27/29 patients).
Conclusion: Treatment of unresectable or borderline-resectable CRLMs with HAIP-SYS is feasible and deemed safe in the Netherlands. These results have led to the Dutch multicenter phase III randomized trial investigating the oncological benefit of HAIP-SYS (PUMP-IT RCT) that will lauch early 2024.

Endoscopic ultrasonography-guided gastroenterostomy for palliation of malignant gastric outlet obstruction: predictors of technical and clinical success

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Background: Endoscopic ultrasonography-guided gastroenterostomy (EUS-GE) with a lumen-apposing metal stent (LAMS) was recently proposed as a promising alternative to surgical gastroenterostomy or duodenal stent placement as treatment for malignant gastric outlet obstruction (GOO). EUS-GE is a complex procedure, with a risk of complications such as LAMS misdeployment, perforation, or peritonitis. Therefore, it is important to identify patient and disease characteristics that influence outcomes after EUS-GE to (de)select patients for this procedure. The present study aimed to assess risk factors for technical and clinical success.

Methods: In eight Dutch academic and teaching hospitals, we retrospectively included all consecutive patients who underwent EUS-GE for malignant GOO in a palliative setting. Primary outcomes were technical success, i.e. adequate positioning of the LAMS, clinical success, i.e. restoration of solid oral intake before last follow-up, and procedure related adverse events. Age, sex, etiology and location of obstruction, biliary obstruction, ascites, and peritoneal carcinomatosis were evaluated in its relation to technical and clinical success. Furthermore, we evaluated the presence of a learning curve effect with regards to technical success and adverse events (first ten procedures vs. procedures thereafter stratified by site).

Results: 307 patients (mean age 68.7 years, 50.1% female) underwent EUS-GE between January 2018 and November 2023. Most patients were diagnosed with pancreatic carcinoma (106/306, 34.5%) and had an obstruction located in the superior (D1) or descending (D2) duodenum (180/301, 60.0%). Technical and clinical success were achieved in 90.2% and 93.2%, respectively. Procedure related adverse events were observed in 37 patients (12.1%). Location of obstruction in D3 or D4 was negatively associated with technical success (unadjusted OR 0.25, 95% CI 0.07-0.81). None of the evaluated risk factors were associated with clinical success. No difference was observed between the first ten procedures and later procedures in terms of technical success (91.1% vs. 90.0%, p = 0.92) and adverse events (13.9% vs. 11.4%, p = 0.69).

Conclusion: The results of this large study indicate that patients with an obstruction located in the distal duodenum have a lower probability of technical success. Etiology of the obstruction was not associated with technical and clinical success. Furthermore, no learning curve effect was observed. Although these results are based on retrospectively collected data and therefore should be interpreted cautiously, they contribute to a better understanding of which patients might profit most from EUS-GE.

N3 disease in esophageal cancer: results from a nationwide registry

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Background: Patients with extensive lymph node metastases have a poor prognosis. Clinical staging of lymph node metastases poses significant challenges given the limited sensitivity and specificity of current imaging techniques. The aim of this study is to investigate the overall survival (OS) of patients with cN3M0 and (y)pN3M0 disease in a real-world Dutch population and to investigate the added value of surgery in these patients.
Methods: Patients with cN3M0 esophageal or gastroesophageal cancer were identified from the Netherlands Cancer Registry (2012-2019). Treatment consisted of neoadjuvant chemo(radio)therapy followed by resection or chemo(radio)therapy, radiotherapy or esophagectomy alone. OS was calculated using the Kaplan-Meier method. Proportions were calculated relative to all patients with cN3M0 disease or patients who underwent surgery.
Results: Some 21.566 patients were diagnosed with esophageal cancer of whom 359 (1.7%) had cN3M0 disease. Median OS of these patients was 12.5 months (95% CI 10.7-14.3). Treatment with chemoradiotherapy alone and neoadjuvant therapy followed by surgery resulted in a median OS of 13.3 months (95% CI 10.7-15.9) and 23.7 months (95% CI 18.3-29.2), respectively. Of all patients who underwent esophagectomy, 391 (2.8%) had pathological (y)pN3 disease and median OS was 16.1 months (95% CI 14.8-17.4). Twenty-one patients (5.4%) were pretreatment correctly classified as cN3 and 3-year OS was 21%.
Conclusion: Clinical staging appears to be difficult, particularly in patients with N3 esophageal cancer, leading to unfavorable prognoses. Surgery seems to be of benefit to these patients. More research is required to address the ongoing challenges in clinical staging and the best neoadjuvant therapy.

Genomic markers for enhanced risk stratification in Barrett's esophaghus patients with low grade dysplasia

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Background: Current risk stratification of Barrett's esophagus (BE) patients, reliant on histological dysplasia identification, lacks reliability due to poor interobserver agreement and the limited predictive value of low-grade dysplasia (LGD). This study aims to identify genomic factors enhancing risk stratification for BE patients with a community diagnosis of LGD.
Methods: Progressors to esophageal adenocarcinoma and non-progressors were identified in a randomized controlled trial screening cohort of community-based LGD patients. Sequencing used a targeted panel to detect mutations and copy number changes (CNV). Filtered for likely pathogenic events, mutations, homozygous deletions, and high-level amplifications were analyzed using logistic regression, covariate analysis, and penalized mixed-effects models. A joint survival and mixed-effects model was applied for spatiotemporal data analysis.
Results: 220 samples, comprising 28 progressors (median time to progression of 1.2 (IQR 0.4-2.2) years) and 95 non-progressors (median progression-free follow-up of 7.9 (IQR 5.9-10.6) years), with a median C3M5 BE, were analyzed. Multiple factors were associated with progression, including *TP53* ($p<0.0001$, Hazard Ratio (HR) = 13.39, 95% confidence intervals (CI) 5.64-31.78), chromosomal arm 17p loss ($p<0.0001$, HR = 10.24, 95% CI 4.82-21.76), mutational burden ($p<0.001$, HR=1.52, 95% CI 1.21-1.90), and total number of CNVs ($p<0.0001$, HR=1.48, 95% CI 1.34-1.64). Other alterations trended to be associated with progression, including *APC* mutation and presence of an oncogenic amplification. Combining *TP53* and 17p loss enhanced the accuracy of risk prediction. However, high correlation precluded their use. Patients with samples containing >3 mutations had a high risk of progression (HR=10.33, 95% CI 2.22-48.01). Presence of any genetic variant—amplification, deletion, CNV, or mutation— indicated progression risk ($p<0.0001$, HR=1.15, 95% CI 1.11-1.21). Samples lacking any genetic variants showed no progression. A combined *TP53* and CNV model effectively identifies progression risk (64% sensitivity, 96% specificity, AUC=0.837), distinguishing 91 out of 95 non-progressors.
Conclusion: This study not only reinforces the well-established role of *TP53* mutations but also introduces crucial novel genomic markers. The addition of 17p loss emerges as indispensable for enhanced risk assessment. Furthermore, distinct genetic variations, including CNVs and total mutations, individually and collectively signify a significantly higher risk. Intriguingly, patients without any distinctive genetic abnormalities did not progress. A combined genomic model could accurately risk stratify BE patients with a community-based LGD diagnosis.

Identifying putative genomic biomarkers for risk stratification in Barrett's esophaghus patients with normal histological features

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Background: Current surveillance for low-risk Barrett's Esophagus (BE) patients is burdensome and cost-ineffective, relying on subjective histological assessment of dysplasia with high inter-observer variability. This study aims to identify genomic features that can be identified in a clinically translatable targeted sequencing panel, enhancing the stratification of low-risk BE patients.
Methods: BE patients, progressing to early esophageal adenocarcinoma or not, were matched for age, sex, and BE segment length. DNA from baseline and prior non-dysplastic biopsies was sequenced via a targeted capture-based panel designed to detect mutations and copy number changes (CNV). Detected mutations, homozygous deletions, and high-level amplifications were filtered for likely pathogenic events. We performed logistic regression, covariate analysis, and penalized mixed-effect models. A joint model for survival and mixed effects was implemented to analyze the data distributed over space and time.
Results: 331 baseline and 214 temporal samples, accounting for 105 progressors who progressed after a median 4 (IQR 2.4-7.2) years, and 115 non-progressors who had a median progression-free follow-up of 6 (IQR 4.3-7.3) years, were analyzed. *TP53* mutations strongly predict risk ($p < 0.0001$, Hazard Ratio (HR) = 3.84, 95% confidence interval (CI) 2.89-5.67) as does CNV 17p loss ($p < 0.0001$, HR = 4.41, 95% CI 2.29-8.52). While there is significant overlap between *TP53* mutations and 17p loss, patients with both trended to progress faster Chromosomal arm CNVs ($p = 0.0012$, HR = 1.32, 95% CI 1.14-1.52), amplifications ($p < 0.001$, HR = 2.89, 95% CI 1.57-5.31) and mutational burden ($p<0.0001$, HR = 1.30, 95% CI 1.21-1.40) were also associated with progression risk. A combined model incorporating: —TP53 mutations, 17p loss, and mutational burden—demonstrated a 57% sensitivity and 84% specificity and an AUC of 0.758. This model identified 60 of 105 progressors in non-dysplastic BE patients.
Conclusion: As expected, *TP53* was a pivotal risk factor in this spatial and time-dependent cohort, even in the absence of dysplasia. Two hits in *TP53* (mutation with 17p loss) suggested a trend toward near term progression, suggesting the possibility of more refined stratification. Prior studies focused on either mutations or CNVs for risk stratification. We show the combination of both, detected in a clinically translatable assay, improves prognostic value, effectively identifying the majority of progressors among non-dysplastic BE patients while maintaining an acceptable false-positive rate. This approach has the potential to dramatically impact risk stratification and surveillance strategies in non-dysplastic BE patients.

Outcomes after surgical treatment of oesophagogastric cancer with synchronous liver metastases: a multicentre retrospective cohort study

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Background: Some oesophageal and gastric cancer (OGC) patients present with oligometastatic metastases located in the liver upon presentation. Potential curative treatment is debated. We aimed to describe the outcomes of OGC patients who underwent simultaneous treatment for the primary tumour and synchronous liver metastases.
Methods: Patients with OGC who underwent (surgical) treatment between 2008 and 2020 for the primary tumour, and up to five synchronous liver metastases with intent to cure (*i.e.* no residual tumour) were identified from four institutional databases. The primary outcome was overall survival (OS), calculated with the Kaplan-Meier method. Secondary outcomes were disease-free survival and postoperative outcomes.
Results: Some 31 patients were included, with complete follow-up data in 30 patients. Twenty-six patients (84%) received neoadjuvant therapy followed by response evaluation. Median OS was 21 months [IQR 9-36] with a 2- and 5-year survival rates of 43% and 30%, respectively. While disease recurred in 80% of the patients (20 of 25 patients) after a radical resection, patients with a solitary liver metastasis had a median OS of 34 months. The number of liver metastases was a prognostic factor for OS (solitary metastasis HR 0.330; *p*-value = 0.025). Thirty-day mortality was nil, with complications occurring in 55% of the patients.
Conclusion: While true oligometastatic disease of the liver is rare, long-term survival can be achieved in well-selected patients after surgical resection of the primary tumor and treatment of synchronous liver metastases. In particular, patients with a solitary liver metastasis seem to have a favourable prognosis.

Higher early gastric cancer yield of targeted than random biopsies in endoscopic surveillance in CDH1 and CTNNA1 pathogenic variant carriers

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Background: Hereditary diffuse gastric cancer (HDGC) is caused by germline pathogenic variants (PV) of *CDH1* or *CTNNA1,* which play an important role in misorientation of cell divisions and cell adhesion. The current international HDGC guidelines recommend that carriers of these susceptibility genes undergo either a prophylactic gastrectomy or annual gastroscopic surveillance with both targeted and random biopsies in an expert center, dependent on their family history, age, co-morbidity and personal preference. Almost all PV carriers develop multiple early (T1a) diffuse gastric cancer (DGC) lesions. However, only 30-40% develop advanced (>T1) DGC, which indicates an indolent behavior of the ubiquitously present T1a lesions.

Methods: The goal of this study was to evaluate the yield of DGC with targeted and random biopsies during endoscopy in PV carriers of *CDH1* and *CTNNA1*. A retrospective cohort study of all PV carriers who underwent at least one surveillance endoscopy, was performed in two HDGC expert centers in the Netherlands.

Results: One hundred and four *CDH1* and 27 *CTNNA1* PV carriers (57 men, mean age 40, range 17 to 84 years), from 46 families, underwent 398 endoscopies. Advanced gastric cancers (>T1) were found only at baseline endoscopies (n=2). No interval cancers (>T1) were identified in 272 patient years of follow-up. DGC was identified during endoscopy in 47 PV carriers (36%): in 27/131 (21%) by targeted biopsies only, in 12/131 (9%) by random biopsies only and in 8/131 (6%) in both random and targeted biopsies. DGC was detected in 83 out of 1187 targeted biopsies (7%), whereas random biopsies revealed DGC in 32 out of 5526 biopsies (0,6%). Seventy-one PV carriers underwent a total gastrectomy after baseline or surveillance endoscopy. At least one T1a lesion was found in 63 (89%) of these gastrectomy specimens during pathological examination of all gastric mucosa. DGC had been identified by endoscopic biopsies in 37 of these 63 (59%) DGC positive specimens, indicating that DGC had been missed in 26 patients during endoscopy. Missed lesions were all T1a DGC, no advanced DGC has been missed.

Conclusion: In our cohort of 131 *CDH1* and *CTNNA1* PV carriers, DGC was identified by an extensive endoscopic expert surveillance protocol in 47 (36%). Missed lesions were all T1a DGC. In this cohort, surveillance in an expert center was safe since advanced lesions were recognized during endoscopy and no interval cancers were seen. The low number of DGC detected through random sampling demands a critical reappraisal of random biopsy sampling in the HDGC guideline, which will be updated in 2024.

Outcomes of different treatment approaches after R0 endoscopic resection of high-risk T1 esophageal adenocarcinoma: an international, multicentre, retrospective cohort study

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Background: Optimal management after R0 endoscopic resection (ER) of T1 esophageal adenocarcinoma (EAC) with ≥1 high-risk histological feature (submucosal invasion a/o poor differentiation a/o lympho-vascular invasion) is subject to debate, given conflicting reports on risk of lymph node metastases (N+). This cohort study aimed to assess outcomes following R0 ER for high-risk T1 EAC.
Methods: All patients who underwent R0 ER (radical deep margin) for high-risk T1 EAC (2008-2019) were retrospectively identified in 11 international centers. Outcomes included rates of N+, distant metastasis (M+), and EAC-related mortality.
Results: 131 patients (106 male) were identified: 46 high-risk T1a (HR-T1a), 27 T1sm1 without other risk factors (LR-T1b) and 58 T1b with other risk factor(s) (HR-T1b). Management after ER: surgical resection n=34 (26%), with neo-adjuvant chemoradiotherapy (nCRT) in 2/34; endoscopic FU n=80 (61%); C/RT n=9 (7%); no management n=8 (6%).
In the 34 patients (64 ±11 yrs) who underwent surgery, surgical morbidity was 56% (n=19, 95CI 38-73), 30-day mortality 0%. Among the 32 patients without nCRT, 11 (34%) had residual T1 disease and 3 (9%) N+ in the surgical specimen. Review of clinical reports for all T1 cases identified 4 cases of endoscopic non-radical resection misclassified as R0. Another 3 cases were upstaged to R1 following pathological revision. After median 58 (IQR 40-85) months of FU after surgery, 1/32 (3%, 95CI 0-10) developed N+; 2/32 (6%, 95CI 0-15) developed M+ and died. 1/32 (3%) died of unrelated cause. 5/32 (16%) were lost to FU.
80 patients (71 ±9 yrs) entered endoscopic FU. After median clinical FU of 46 (IQR 25-59) months, 5/80 (6%, 95CI 1-12) were diagnosed with recurrent disease, of which 4 (5%, 95CI 1-10) died. 15/80 (19%) died of unrelated causes. 9/80 (11%) were lost to FU.
In our cohort of N=112, rates of N+ and N+/M+ were 7% (95CI 2-12) and 9% (95CI 4-14). EAC-related and overall mortalities were 5% (95CI 1-10) and 20% (95CI 12-27), resp.
Conclusion: Despite limitations such as the retrospective setting, absence of standardized FU protocols and histological revision, and potential preselection of unfit surgical candidates for endoscopic FU, our results align with lower N+ rates observed in endoscopic-oriented studies for high-risk T1 EAC. Our study demonstrates that majority of cases with surgical T1 had ER misclassified as R0, challenging previous studies that reported higher N+ rates. It reflects that surgery is not a definitive curative approach and did not improve disease-specific mortality. Our results advocate for a larger cohort and prospective evaluation of outcomes in patients treated endoscopically for high-risk T1 EAC (PREFER, NCT03222635).

Low recurrence rates after endoscopic resection (R0) of high-risk T1 adenocarcinoma in Barrett's esophagus support a strict endoscopic surveillance strategy: Preliminary results of a prospective, international, multicenter cohort study (PREFER)

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Background: Optimal management following radical endoscopic resection (R0 ER) of T1 esophageal adenocarcinoma (EAC) is still a matter of debate due to conflicting reports on the risk for lymph node metastases (LNM). In case of histological risk factors for LNM, additional treatment with esophagectomy is often still recommended. In this prospective international multicenter cohort study (NCT03222635), we aim to evaluate the safety of a strict endoscopic follow-up (FU) strategy following R0 ER for T1b and high-risk T1a EAC.

Methods: In 19 hospitals in Europe and Australia, we included patients who underwent radical ER for a high-risk T1a EAC (poor differentiation, a/o lympho-vascular invasion (LVI)), low-risk T1b (submucosal invasion <500 um, well-moderate differentiation, no LVI) and high-risk T1b (sm-invasion ≥500um, a/o poor differentiation, a/o LVI).

After ER, patients underwent re-staging with endoscopic ultrasound (EUS) and CT/PET. If there were no signs of LNM or distant metastases, patients were consented for strict endoscopic FU, with gastroscopy and EUS every 3 months during years 1 and 2, every 6 months during years 3 and 4, and at year 5. CT/PET was repeated after 1 year. Primary outcome parameters are 5-year disease-specific and overall survival; secondary outcome parameters are rates of distant metastasis, LNM, and local recurrence ineligible for endoscopic re-treatment.

Results: Since July 2017, 143 T1b patients (118 men, 69 ±9 yrs, 95 high-risk T1b, 48 low-risk T1b) were included. Median follow-up was 19 (IQR 8-33) months. 1/143 (0.7%, 95CI 0-2.1) patient was diagnosed with a distant pulmonary metastasis that was resected with selective surgery. 9/143 (6%, 95CI 2.3-10.3) were diagnosed with LNM. All were detected at a curable stage, but 1/9 declined surgery and eventually died from EAC. 7/143 patients (5%, 95CI 1.3-8.5) developed an intra-luminal tumor recurrence ineligible for endoscopic treatment, of which 2/7 declined additional esophagectomy and eventually died from EAC. 7/143 (5%) died during FU due to unrelated causes.

Since July 2020, 41 HR-T1a patients (36 men, 70 ±8 yrs) were included. After median FU of 8 (IQR 2-17) months, no patients in this subcohort were diagnosed with recurrent disease.

Conclusion: Our preliminary findings support a strict endoscopic FU strategy in selected patients who underwent radical ER for high-risk T1 EAC with no signs of metastatic disease (cN0M0) at baseline. In our cohort, 9% (95CI 5-13) of patients was diagnosed with metastasis or invasive intra-luminal recurrence during FU, of which the vast majority (16/17) were still diagnosed at a curable disease stage. Non-EAC-related mortality (4%) was higher than EAC-related mortality (1.6%).

Sarcopenia and changes in skeletal muscle mass before and one year after cytoreductive surgery and intraperitoneal hyperthermic chemotherapy in patients with advanced gastrointestinal cancer

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Background: Cytoreductive surgery (CRS) followed by hyperthermic intraperitoneal chemotherapy (HIPEC) offer potential benefits for patients with advanced gastrointestinal (GI) cancer. Patient selection to assess the fitness for surgery is crucial, yet patients often present with pre-surgical sarcopenia (low muscle mass) which is associated with poor outcomes. Prospective longitudinal studies measuring muscle mass after CRS-HIPEC treatment are lacking. This study aims to investigate changes in muscle mass in patients undergoing CRS-HIPEC, before and after treatment, and explores potential predictors for long-term muscle mass.
Methods: Adult patients scheduled for CRS-HIPEC were included between 2017-2022 and prospectively followed for one year. Skeletal muscle mass area (SMA) was measured on CT at the level of the third lumbar vertebra. Sarcopenia was determined by calculation of the skeletal muscle mass index (SMI) (calculated by dividing SMA by height2[cm2/height m2]) using sex- and BMI specific cut-off values. A paired t-test was used to compare the difference in SMI between baseline (T0) and 12 months (T12). Univariate linear regression analysis was conducted to explore the relationship between the following possible predictor variables: handgrip strength (HGS) and Time Up and Go at T0, Charlson Comorbidity Index (CCI), American Society of Anesthesiologistsscore, Peritoneal Cancer Index, Completeness of Cytoreduction score and total removal of small intestine in cm and the outcome SMI at T12.
Results: Of the 70 patients included, 12 were excluded and 26 were lost to follow up. Median age was 63, 67.2% were female and most patients presented with colorectal cancer (60.0%). In total, 56 and 44 routine CT-scans were analyzed at T0 and T12 respectively. Sarcopenia was present in 53.4% (31 out of 58) patients at T0 and 61.4% (27 out of 44) patients at T12. No significant difference was observed in SMI between T0 and T12(mean difference -0.32; p=0.666; 95%CI -1.18, 1.83). Univariate regression analysis showed a significant relation between CCI (β=0.395, SE=0.13, R2=17.6%, p=0.003), HGS (β=1.227, SE=0.42, R2=14.9%, p=0.005) and SMI at T12.
Conclusion: This explorative study shows that after CRS-HIPEC, muscle mass did not significantly change, and sarcopenia is still present in more than half of the patients. Comorbidity and handgrip strength prior to surgery have a predictive value in predicting muscle mass after CRS-HIPEC. Further exploration of possible key predictive variables, including nutritional intake, malabsorption, and disease factors, is needed to enhance understanding of muscle mass development for targeted interventions in CRS-HIPEC patients.

Establishing preconditions for effective duodenoscope reprocessing: an observational cohort study

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Background: The use of contaminated duodenoscopes in endoscopic retrograde cholangiopancreatography (ERCP) has caused numerous healthcare-associated infection outbreaks. Despite adherence to reprocessing protocols, duodenoscopes often remain contaminated. Moreover, there's a lack of evidence outlining the prerequisites for adequate duodenoscope cleaning, disinfection, and storage to prevent contamination. This study aims to investigate the effect of manual cleaning and drying factors on duodenoscope contamination.
Methods: Duodenoscope cultures from Pentax ED34-i210T2 models were collected between February 2022 and June 2023. Contamination was determined by the presence of microorganisms of gut or oral origin (MGO). Data on duodenoscope usage, reprocessing start time, cleaning duration, personnel involved, and drying time were retrieved from electronic medical records. Risk factors, including delays in manual cleaning initiation and insufficient drying time, were determined based on reprocessing guidelines and literature. A generalized linear mixed-effects model was used to investigate the effect of these risk factors on duodenoscope contamination.
Results: A total of 242 duodenoscope cultures were collected from eight different duodenoscopes. Contamination with MGO was identified in 48 (19.8%) cultures. Over the study duration, the duodenoscopes underwent reprocessing 909 times. Manual cleaning durations of 7 minutes or less were associated with higher odds of contamination (aOR=1.63, 95% CI: 1.06-2.49, p=0.02). Interestingly, duodenoscope usage appeared to provide protection against contamination (aOR=0.78, 95% CI: 0.59-1.03, p=0.08). However, factors such as a 30-minute delay in initiating manual cleaning, drying times below 90 minutes or exceeding 7 days, and reprocessing personnel experience didn't demonstrate a clear association with contamination rates.
Conclusion: There are substantial knowledge gaps regarding the risk factors for duodenoscope contamination. Meticulous monitoring of the reprocessing timeline and steps may prove beneficial. Manual cleaning durations of 7 minutes or shorter are linked to increased odds of contamination with MGO. Future research is needed to determine whether heightened surveillance of manual cleaning duration could lead to reduced contamination.

Differentiation between active and quiescent ulcerative colitis using a novel wearable patch with self-adhesive dry electrodes: discriminating the role of heart rate variability

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Background: The autonomic nervous system (ANS) maintains homeostasis of the gastrointestinal tract through the brain-gut axis. Previous studies have shown a dysregulated balance between the sympathetic and parasympathetic nervous system in ulcerative colitis (UC) patients, in particular during and preceding active disease. This leads to decreased vagal nerve activity and manifests in reduced heart rate variability (HRV). HRV could, therefore, potentially serve as quantitative non-invasive biomarker to differentiate active from quiescent UC. We aimed to increase our understanding of autonomic function in UC, by investigating a non-invasive wearable patch device measuring HRV to assess the difference in parasympathetic and sympathetic activity between active and quiescent UC, while correcting for HRV-modulating factors depression, anxiety and fatigue.
Methods: A proprietary vital signs patch with self-adhesive dry electrodes was used to acquire ECG (single lead) and bio-impedance (2 leads) in 26 UC patients for 72 hours continuous home monitoring, to calculate heart rate, respiratory rate and HRV. Fifteen patients had quiescent UC (SCCAI ≤ 2, CRP < 5mg/l, faecal calprotectin < 250µg/g) and eleven had active disease (SSCAI > 2, CRP > 5mg/l, faecal calprotectin > 250µg/g). Patients filled out the Multidimensional Fatigue Inventory and Hospital Anxiety and Depression Score questionnaires on fatigue, depression and anxiety, kept sleep diaries and provided feedback on patch usability. Time-domain (pNN50, RMSSD), frequency-domain (high (HF), low (LF), LF/HF ratio), as well as non-linear (SD1, SD2, SD) HRV metrics were calculated for 5-minute segments during self-reported nocturnal sleep periods.
Results: No significant differences were found in fatigue, depression, and anxiety in the active and quiescent UC patient groups. Six HRV measures were significantly lower in active than in quiescent disease ($p<0.001$), indicating lower HRV and lower vagal parasympathetic tone. LF/HF ratio did not differ ($p=0.242$), reflecting no difference in ANS balance. The patch caused skin irritation in 72% of the patients. Nevertheless, 69% of patients indicated they would wear it again.
Conclusion: A wearable vital signs patch, utilizing ECG, is able to distinguish active from quiescent UC in patients matched for fatigue, anxiety, and depression. HRV metrics across all three domains, except LF/HF ratio, were reduced in active UC, indicating reduced vagal nerve activity. Pending further longitudinal validation and clinical integration, it is envisioned that continuous HRV monitoring can support early and non-invasive detection of relapses in UC, allowing timely intervention and prevention of severe symptoms.

Remimazolam: A Promising Sedative with the potential of Enhanced Recovery in diagnostic Upper Gastrointestinal Endoscopies - Findings from a Pilot Study

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Background: Remimazolam, a relatively novel sedative that gained approval in Europe in 2021, has emerged as a promising option for sedation during endoscopic procedures. Its potential benefits, as compared to the widely used midazolam, encompass shorter recovery times, while ensuring an adequate level of sedation. In this pilot study, we aimed to evaluate feasibility, safety, and patient recovery of remimazolam for sedation during upper gastrointestinal (GI) endoscopies.
Methods: We enrolled patients with ASA scores ≤3 that were scheduled for diagnostic upper GI endoscopy in a single Dutch hospital. Remimazolam monotherapy (without using additional opioids) was used for procedural sedation. Outcomes included feasibility (evaluated by successfully completed procedures), safety (evaluated by adverse events), and patient recovery (evaluated by time to full alertness (the first of 3 consecutive MOAA/S scores of ≥ 5), and time to readiness for discharge (the first Aldrete score of ≥ 9)). We evaluated patient experience by nausea, procedural recall, and overall satisfaction scores (all on a scale ranging 0-10).
Results: We included 19 patients (74% male; mean age 68 (± 2.5) years). All endoscopies were successfully completed during a median endoscopy time of 7.5 (± 3.5) minutes. No adverse events occurred. Adequate sedation (MOAA/S score ≤ 3) was achieved in 19/19 (100%) patients with median 7.5mg (p25-p75 7.5-7.5). Adequate sedation was achieved median 2.5 (p25-p75 2-3) minutes after the first dosage. Overall, 10/19 (53%) patients maintained adequate sedation after the start of the procedure, while 9/19 (47%) patients received median 1 (p25-p75 1-2.5) extra dosage during the procedure. The total dosage used was median 10mg (p25-p75 7.5-10) per patient. After the last dosage of remimazolam, patients were scored as fully alert after mean 10.5 (± 3) minutes and readiness for discharge was achieved after mean 18.0 (± 7.7) minutes. Overall, 17/19 patients (89%) were already defined as being fully alert, when leaving the endoscopy room. Median (p25-p75) scores were 0 (0-0) for nausea, 0 (0-5) for procedural recall, and 9.5 (8-10) for overall patient satisfaction.
Conclusion: Drawing from this pilot study, remimazolam as monotherapy appears a feasible, safe, and efficacious sedative during upper GI endoscopies. Notably, patients exhibited swift recovery, with the vast majority achieving full alertness upon departure from the endoscopy room. This suggests potential implications for future routine clinical practices, including the prospect of abbreviated recovery periods or even bypassing the need for a dedicated recovery room. A randomized study comparing remimazolam to midazolam is currently underway.

Lifestyle and psychosocial factors in IBD; prevalence and patients' perspective

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Background: Lifestyle and psychosocial factors impact mucosal inflammation and subjective well-being in Inflammatory Bowel Disease (IBD) patients. Better understanding of the relevancy of these factors within the IBD population, including prevalence and patients' perspective, may enhance systematic implementation of lifestyle interventions in regular care. This collaborative study with the Dutch patient organisation aimed to estimate the prevalence and patients' perspectives on lifestyle and psychosocial factors in an outpatient cohort of IBD patients.

Methods: A multicentre cross-sectional study was conducted, enrolling IBD patients who utilized the remote monitoring platform myIBDcoach in 2022. Patients reported on clinical disease activity, lifestyle and psychosocial factors on this platform. A nationwide online survey was distributed by the Dutch patient organisation for IBD in April 2022 to assess patients' perspectives regarding the impact of lifestyle and psychosocial factors on intestinal complaints, motivation to make changes, and need for and satisfaction with support in this regard from the hospital.

Results: In the multicentre myIBDcoach cohort (*n*=460), 16.3% adhered to a specific diet. Two third (67.4%) did not comply with the Dutch healthy exercise norm and smoking was prevalent in 9.3%. About one-third experienced at least regularly poor sleep (33.8%), at least occasionally emotional distress (33.9%), and high perceived stress (36.7%). In the nationwide survey (*n*=1148), most (58.3-75.7%) patients believed that stress, unhealthy food, poor sleep, minimal or no exercise, and symptoms of anxiety and depression could lead to intestinal complaints. Around 70% of patients were taking action or were motivated to do so regarding their diet, stress, and physical activity. About 30% had no intention of addressing social support, and 22.8% were unwilling to change their alcohol use. Less than one-fifth received support from the hospital regarding these various factors. When support was received, most patients expressed satisfaction. Although desired, approximately 20% lacked support concerning stress, physical activity, diet, and sleep.

Conclusion: There is considerable scope for improvement in lifestyle and psychosocial factors among individuals with IBD, highlighting the need for systematic integration of these factors into clinical care. From the patient's viewpoint, widespread recognition of the impact of these factors emerged, with most expressing openness to initiating changes across various areas. These insights emphasize the potential for implementing targeted interventions, particularly in areas where patients indicated a need for additional support.

Early Versus Late Oral Feeding Regimens Following Esophagectomy: A Monocenter Retrospective Cohort Study

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Background: While immediate (early) oral feeding is a pivotal aspect of enhanced recovery after surgery (ERAS) protocols for gastrointestinal surgery, concerns persist regarding its potential association with an increased risk of anastomotic leakage after esophagectomy. This study aims to compare the short- and long-term outcomes of patients following early and late feeding regimens after esophagectomy.
Methods: This monocenter retrospective cohort study included patients who underwent an esophagectomy between May 2017 and December 2020. The shift from early to late feeding occurred in March 2019. Early feeding involved immediate oral intake after esophagectomy, while late feeding included tube feeding through a routinely placed jejunostomy, maintaining nil-by-mouth until at least postoperative day 4. Primary outcome was anastomotic leakage rate and severity. Secondary outcomes included feeding re-interventions, pneumonia and other postoperative complications, hospital and intensive care unit (ICU) stay, readmission, and 3-year overall survival (OS).
Results: Of the 247 patients undergoing esophagectomy (97% minimally invasive, 3% open; 26% transhiatal, 74% transthoracic approach; 42% intrathoracic, 57% cervical anastomosis), 147 adhered to the early and 100 followed the late feeding regimen. Anastomotic leakages were observed in 41 (28%) patients in the early and 24 (24%) in the late feeding group (p=0.495), of which 36 (88%) and 14 (58%) were severe (Clavien Dindo≥3a) (p=0.006). Multivariate logistic regression revealed a significant association between early feeding and more severe anastomotic leakage (OR 0.444; 95% CI, 0.211-0.937). In the early feeding cohort, 63 (43%) patients received a jejunostomy during esophagectomy. A total of 51 (35%) patients in the early feeding group and 12 (12%) in the late feeding group underwent ≥1 feeding re-intervention(s), encompassing jejunostomy placement, feeding tube insertion and total parenteral nutrition. There were no significant differences in postoperative complications, including pneumonia (33% vs 37%, p=0.480). Median length of hospital stay was shorter in the late feeding group (11 vs 12 days, p=0.016) with no differences in ICU stay. Lastly, no significant disparity was found in 3-year OS between the early and late feeding group (54% vs 50%, Log Rank, p=0.732).
Conclusion: The early and late feeding cohorts exhibit comparable short- and long-term outcomes. Although the incidence of anastomotic leakage was similar, early feeding was associated with more severe cases. Notably, a substantial number of patients within the early feeding group necessitated feeding re-interventions.

Faecal volatile organic compounds to detect colorectal neoplasia in Lynch syndrome – a prospective multicentre study

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Background: Colonoscopy surveillance for Lynch syndrome is burdensome and post-colonoscopy colorectal cancer (CRC) still occurs. Non-invasive faecal volatile organic compounds (VOCs) might guide optimal colonoscopy intervals.
Methods: Prospective, multi-centre study in which individuals with Lynch syndrome collected a faecal sample prior to high-quality surveillance colonoscopy. Samples were analysed using field asymmetric ion mobility spectrometry (FAIMS) and our well-established machine learning pipeline including 10-fold cross validation, to assess diagnostic performance of faecal VOC patterns for relevant neoplasia: advanced neoplasia (CRC, advanced adenomas [AA] and advanced serrated lesions [ASL]) and non-advanced adenomas (NAA). On sensitivity analysis, individuals with and without neoplasia were matched 1:1 on possible confounders: gender, age, BMI, smoking and diet. Using gas chromatography time-of-flight mass spectrometry (GC-TOF-MS), individual faecal VOCs were identified from a random subset of 13 NAA and 14 controls.
Results: Of the 132 included individuals (57% female, median age 51y, 86% ≥2 previous colonoscopies), 3 had CRC, 3 AA, 3 ASL and 32 NAA as most relevant neoplasia. Faecal VOC patterns showed a 66% positivity rate and a sensitivity and negative predictive value of, respectively, 100% and 100% for advanced neoplasia (54% specificity), and 88% and 89% for relevant neoplasia (44% specificity). On sensitivity analysis (n=9 *versus* n=9 [advanced neoplasia], n=35 *versus* n=35 [relevant neoplasia]), specificity for advanced neoplasia improved to 89% at equal sensitivity (100%) whereas sensitivity for relevant neoplasia decreased to 79% at equal specificity (44%). NAA presence was associated with decreased faecal VOC abundance of butanal, dimethyldisulfide, dimethyltrisulfide, hydrazinecarboxamide and 2-hexanone.
Ranging from extremely burdensome [0] to not burdensome [10], median patient acceptability regarding faeces collection was 7 (IQR 6 – 9), with "not burdensome" being more prevalent among patients under 39y than over 60y irrespective of gender (OR 0.484, p-value 0.045).
Conclusion: Faecal VOC patterns seem to detect relevant neoplasia in Lynch syndrome with high sensitivity and moderate specificity, with the latter potentially improving upon correction for external confounders. Individual faecal VOCs provide pathophysiological insights and, following validation, may be translated into a diagnostic test. These results provide a perspective on faecal VOCs enabling personalised colonoscopy surveillance in Lynch syndrome.

The impact of standardizing and optimizing CRS-HIPEC protocols on patient survival outcomes, a ten year single center retrospective analysis

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Background: Ten percent of patients with colorectal carcinoma (CRC) present with peritoneal metastasis (PM) during initial treatment of the primary tumor or during follow-up. Patients presenting with CRC-PM have a poor prognosis compared to patients with non-peritoneal metastasis, cytoreductive surgery and hyperthermic intraperitoneal chemotherapy (CRS-HIPEC) is the only curative option for these patients. This study aimed to assess the impact of standardizing and optimizing surgical protocols on survival of patients receiving CRS-HIPEC for CRC-PM in a single tertiary care center.
Methods: All patients presented in our tertiary care center with peritoneal metastasis between 2010 and 2021 were included for screening for this study. For analysis, patients were excluded per protocol if they retrospectively were not eligible for CRS-HIPEC or operated on for different pathologies. Surgical protocols and approach were standardized and optimized in September 2015 according to best known clinical practice, Overall Survival (OS) and Disease-Free Survival (DFS) were compared between the two protocols.
Results: Of 308 patients proposed to the multidisciplinary team for surgery, 168 patients received a CRS-HIPEC per protocol. Per initial protocol, 51 patients received a CRS-HIPEC with a median OS of 38.5 months. After optimizing the protocol, a significant increase in survival was found with a median OS of 50.4 months in 117 patients (P=0.036). The median DFS was not affected by the protocol optimization, with 14.5 months DFS in the initial group versus 11.7 months in the optimized group (P=0.442). The 3-year DFS did show a significant improvement from 17% to 27% (P=0.018).
Conclusion: This single center study showed that standardizing and optimizing surgical protocols according to best known clinical practice for CRS-HIPEC could improve the overall survival of patients with CRC-PM. The improvement of the 3-year DFS suggests that surgical optimization could improve DFS in some patients.

Tofacitinib induces clinical remission in patients with chronic pouchitis

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Background: Up to 10% of patients with ulcerative colitis and an ileal-pouch anal anastomosis will develop chronic or antibiotic refractory pouchitis. Several case reports and -series investigated the effect of tofacitinib for refractory pouchitis, but reported conflicting results(1-5). In this study, we aimed to prospectively evaluate the efficacy of tofacitinib in chronic or antibiotic refractory pouchitis patients using clinical and objective outcome measures.
Methods: We conducted a prospective single centre pilot study in which thirteen patients with chronic or antibiotic refractory pouchitis (Pouchitis Disease Activity Index (PDAI)≥ 7) were treated with tofacitinib 10mg BID for eight weeks. Clinical, biochemical, endoscopic and histologic disease activity was assessed at baseline and week 8. The primary endpoint was the proportion of patients reaching clinical remission, defined as a PDAI < 7 and a reduction of ≥ 3 points from baseline at week 8. Pouch endoscopy videos were scored by two gastroenterologists and pouch biopsies were assessed by an IBD pathologist, who were blinded to the time points and clinical outcomes. Medians and interquartile ranges were calculated, and Wilcoxon signed rank test was used to analyse changes from baseline.
Results: Thirteen patients (61% male, median age 34 years) were included. Three patients did not complete eight weeks of treatment due to adverse events (pyelonephritis, primo EBV infection, worsening of pouchitis), two of whom underwent an early termination endoscopy. In total, 31% achieved clinical remission (4/13) and 62% showed clinical response (8/13). Both the total PDAI score (11 (IQR 9 – 12.75) vs 8 (4.5 – 9.75), p = 0.033), and the clinical PDAI subscore (4 (3 – 4) vs 2 (0.25 – 3.75), p = 0.014) decreased significantly from baseline compared to week 8 or early withdrawal, respectively. We did not observe a significant change in endoscopic PDAI subscore (4.5 (2 – 5.75) vs 3 (1 – 4.75), p = 0.120) or histologic subscore (3 (2 – 4) vs 2 (1 – 4), p = 0.214). Biochemical parameters did not decrease significantly compared to baseline (fecal calprotectin: 389 mg/kg (38 – 1222) vs 116 mg/kg (31 – 466), p = 0.530 and CRP: 1,2 mg/L (0.75 – 15.2) vs 0.95 mg/L (0.58 – 17.7), p = 0.307).
Conclusion: In this pilot study, a clinical remission rate of 31% was achieved in patients with chronic pouchitis after eight weeks of treatment with tofacitinib. Total and clinical PDAI dropped significantly compared to baseline, but we did not observe a significant change in biomarkers, endoscopic appearance or histologic disease activity. Presumably, treatment duration of eight weeks was too short to achieve endoscopic or histologic response in these refractory patients.

Patients' attitude towards less frequent surveillance of low-risk pancreatic cysts

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Background: International guidelines recommend annual surveillance for pancreatic cysts. However, evidence is emerging that low-risk cysts may require less frequent monitoring. Our goal was to explore patients' willingness to undergo less frequent surveillance and identify potentially associated patient characteristics.
Methods: This is a side-study of the ongoing international PACYFIC study, which aims to establish the yield of pancreatic cyst surveillance. Surveillance outcomes are recorded for patients that warrant follow-up according to their treating physician. Data on patient and cyst characteristics, along with questionnaires, are prospectively collected at each follow-up visit.
The aim of the current side-study was to explore our patients' perspective on less frequent surveillance intervals. Only patients with low-risk cysts at baseline (without worrisome features or high-risk stigmata) were included. Patients did not receive pre-specified information regarding their risk status from the study coordinators. Their response to the baseline question; 'would you prefer less frequent surveillance? yes/no' was related to baseline characteristics by multivariable logistic regression. These characteristics comprised age, country of residence, pancreatic symptoms, medical history and family history, and years already under surveillance. Also, this comprised their baseline score on the Hospital Anxiety Depression Scale (HADS) (>8 reflects possible anxiety disorder or depression).
Results: A total of 215 patients from the Netherlands (n=185) and Italy (n=30) were included. Their median age was 68 years, range 32-83. The median time since first diagnosis was 2 years, range 0-15.
Only 47 patients were willing to undergo less frequent surveillance. Characteristics that were positively associated with this outcome included aging (OR 1.87 per 10 years, 95% CI; 1.15-3.04) and Italian residency (OR 16.35, 95% CI; 5.65 - 47.31). A medical history of cancer was negatively associated (OR 0.28, 95% CI; 0.09 - 0.90). Other characteristics and the HADS-score were not significantly associated.
Conclusion: Patient willingness to undergo less frequent pancreatic cyst surveillance seems to depend on age and country of residence. Aging and living in Italy rendered individuals more willing to decrease surveillance, while a history of cancer did the opposite. Italian residency could be explained by a different patient-doctor relationship or possible healthcare barriers (compared to the Netherlands. More research is needed to determine what drives patients' surveillance preferences, to allow physicians to guide them in informed decision making on cyst follow-up.

Detection of early esophageal neoplastic lesions by quantitative fluorescence molecular endoscopy using oral administration of bevacizumab-800CW and cetuximab-800CW

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Background: Patients with Barrett's esophagus (BE) have an increased risk of developing esophageal adenocarcinoma (EAC) and therefore surveillance is necessary. However, lesion detection with high-definition white light endoscopy (HD-WLE) and narrow-band imaging (NBI) is hampered by high miss rates. Previous phase II studies have confirmed the great potential of quantitative fluorescence molecular endoscopy (qFME) in combination with topically administered fluorescent tracers for lesion detection in BE. However, incubation time after topical tracer administration prolongs the procedure time. In this ongoing clinical study, oral administration of bevacizumab-800CW, targeting vascular endothelial growth factor A (VEGFA), and cetuximab-800CW, targeting epidermal growth factor receptor (EGFR), is evaluated to improve both lesion detection and the clinical implementation of qFME.
Methods: A total of 25 patients with BE scheduled for a diagnostic and/or therapeutic endoscopy will be included. Patients receive 4.5 mg and/or 9 mg oral bevacizumab-800CW (n=8), or 4.5 mg and 9 mg oral cetuximab-800CW (n=1), ten minutes before qFME. During qFME, *in vivo* fluorescence data is gathered and quantified with multi-diameter single fiber reflectance / single fiber fluorescence (MDSFR/SFF) spectroscopy. Additionally, biopsies are collected from non-dysplastic Barrett tissue and (suspected) dysplastic tissue on which *ex vivo* analysis will be performed.
Results: Eight patients received 4.5 mg and/or 9 mg bevacizumab-800CW and one patient received 4.5 mg cetuximab-800CW. Oral administration of both tracers was well tolerated by patients. All endoscopically visible lesions (n = 11) were detected by qFME with bevacizumab-800CW and cetuximab-800CW and were pathologically confirmed to be dysplastic. With further analysis *in vivo* target-to-background ratios and/or contrast-to-noise ratios and quantitative *in vivo* fluorescence based on MDSFR/SFF spectroscopy will be evaluated and visualized.
Conclusion: Our preliminary results show that qFME with oral administration of bevacizumab-800CW and cetuximab-800CW is feasible and, compared to topical administration, seems promising for shortening the procedure time, while remaining adequate in lesion detection. We will extend the cetuximab-800CW cohort to 5 patients undergoing both endoscopic procedures. The optimal dose and tracer will be determined and compared to combined administration of both tracers in five patients. Lastly, depending on what achieves the best in vivo results, either the optimal tracer or a combination of both tracers will be administered to five patients with non-dysplastic BE to test the specificity of our tracers.

Early postoperative quality of recovery after subtotal gastrectomy

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Background: Gastric resection is major surgery with substantial morbidity, impacting short and long term recovery. The Quality of Recovery-40 questionnaire (QoR-40) is a validated 40-item patient questionnaire, covering five dimensions of postoperative recovery, with a score ranging from 40-200 (the higher, the better). The aim of this study was to evaluate the quality of recovery after subtotal gastrectomy using the QoR-40, to establish a reference standard to be used in future studies and to identify items for potential improvement.
Methods: This prospective observational study includes all patients undergoing subtotal gastrectomy in the Amsterdam UMC from January 2020 to September 2022. Primary endpoint was quality of recovery on postoperative day (POD) three. Secondary endpoints included the incidence of poor quality of recovery (PQR), defined as either impairment in two or more of the five QoR-40 dimensions, or impairment in the total QoR-40.
Results: Sixty-two patients were included. Mean total score of the QoR-40 questionnaire on POD three was 182 (SD 10), indicating overall good recovery. Twelve patients (19.4%) had PQR, of whom two patients (16.7%) developed postoperative complications, compared to 11.6% in the group without PQR. Impairment occurred mainly in the dimension of physical comfort, with the lowest scoring items on patients' sleep.
Conclusion: This study presents a reference standard for quality of recovery based on the QoR-40 in patients undergoing subtotal gastrectomy, which can be used as a reference standard in future studies. Future studies should focus on enhancing sleep optimization to improve quality of recovery.

Care needs and reasons for (not) seeking care among fatigued inflammatory bowel disease patients: A qualitative study

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Background: Fatigue is one of the most prevalent and burdensome symptoms experienced by patients with inflammatory bowel disease (IBD), even when the disease is in remission. Many patients report dissatisfaction towards fatigue-related care and uptake of available interventions is often low. This study aims to explore reasons why IBD patients do or do not engage in professional fatigue-related care and their needs regarding type of care and how to offer care.
Methods: We conducted a qualitative study, taking a phenomenological methodological approach. Sixteen adult IBD patients with disease in remission and severe fatigue (i.e., Checklist Individual Strength – subjective fatigue ≥ 35) were recruited from an academic hospital. We performed semi-structured interviews. Data were analysed using template analyses.
Results: We identified six themes regarding reasons *why* to (not) seek care for fatigue: 1) cognitions about fatigue and coping (e.g., a need to deal with fatigue alone), 2) perceptions of fatigue-related care and previous care experiences (e.g., perceiving that nothing can be done about fatigue), 3) knowledge and behaviour of the healthcare provider (e.g., fatigue complaints are not taken seriously), 4) somatic factors (e.g., physical symptoms of IBD), 5) social factors (e.g., feeling misunderstood by others) and 6) practical factors (e.g., time and money). Furthermore, we identified needs regarding *how* to offer care, i.e., proactive screening and active offer of care by healthcare providers, a holistic and person-centred approach and practical needs taken into account. Finally, regarding *what* care to offer, patients suggested a broad range of options, including information provision on fatigue management, eliminating physical causes of fatigue, discussing medication options, lifestyle support, psychological support, peer support and practical support.
Conclusion: IBD patients' perceptions, coping and knowledge, as well as healthcare professionals' behaviours play a major role in seeking fatigue-related care. Findings emphasize the importance of discussing IBD-related fatigue actively and taking a holistic and patient-centred approach to treat fatigue, targeting a broad range of physical- and psychological factors. These results yield a better understanding of factors that hinder and facilitate care seeking in fatigued IBD patients and hereby provide ways to optimize the uptake of care.

Contaminated duodenoscopes in endoscopic retrograde cholangiopancreatography: assessing risk and culture sensitivity

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Background: Contaminated duodenoscopes used in Endoscopic Retrograde Cholangiopancreatography (ERCP) can transmit pathogens to patients. Although duodenoscope cultures are the primary method to detect contamination, their sensitivity remains unknown. Therefore, unintended use of contaminated duodenoscopes is possible. This study aims to estimate the prevalence of contaminated duodenoscope usage and determine the sensitivity of duodenoscope cultures.
Methods: Seven years of microbiological surveillance data on duodenoscopes were analyzed alongside usage records to assess patient exposure to duodenoscopes contaminated with microorganisms of gut or oral origin (MGO). We identified duodenoscopes that were repeatedly contaminated with matching microorganisms at the species-level within a one-year period. We compared susceptibility results per bacterial species cultured and performed molecular typing to determine relatedness. Persistent contamination was defined as one duodenoscope being repeatedly contaminated with the same microorganism. Simultaneous contamination of multiple duodenoscopes with identical microorganisms was categorized as a cluster. We categorized intermediate cultures as 'false-negatives' when an identical bacterium, initially identified in a culture, disappeared in subsequent tests but reappeared afterward. Sensitivity was calculated based on the count of true positive cultures and false negative cultures.
Results: A total of 556 duodenoscope cultures from 15 duodenoscopes were included, with 185 cultures (33.3%) contaminated with MGO. The total duodenoscope usages amounted to 5226. We identified one period of persistent contamination and two clusters. Between 16.1% and 23.8% of ERCPs during the study period involved contaminated duodenoscopes. Duodenoscope culture sensitivity ranged from 75.1% to 98.9%.
Conclusion: Despite appropriately implemented microbiological surveillance and quarantine measures for MGO-positivity, there remains a significant risk of patient exposure to contaminated duodenoscopes. The lower the microbiological surveillance frequency, the higher the number of exposed patients, consequently elevating the risk of duodenoscope-associated infections. Given that duodenoscope cultures lack 100% sensitivity, lifting quarantine only after multiple negative cultures should be considered.

Fatigued patients with Inflammatory Bowel Disease exhibit distinct systemic antibody epitope repertoires

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Background: Patients with inflammatory bowel diseases (IBD) frequently experience fatigue, affecting up to 80% of those with active disease and approximately 50% with quiescent disease. The exact cause of IBD-associated fatigue is often unknown, making clinical management challenging. In this study we aimed to explore whether patients with IBD reporting fatigue exhibit specific systemic antibody responses, which could elucidate immune reactivities underlying fatigue.
Methods: Systemic antibody epitope repertoires were profiled in 327 patients with IBD (156 Crohn's disease [CD]; 171 ulcerative colitis [UC]) leveraging phage-display immunoprecipitation sequencing (PhIP-Seq) against 344,000 rationally selected peptide antigens. Fatigue severity was assessed on a 10-point Likert scale, based on severity of fatigue. Quiescent IBD was defined as clinical (Harvey-Bradshaw Index [HBI] <5 or Simple Clinical Colitis Activity Index [SCCAI] <2.5) and biochemical remission (C-reactive protein [CRP] <5 mg/L) at time of sampling. Multivariable logistic regression analyses, allowing adjustment for potential confounding factors e.g. age, sex, and smoking, were performed to identify associations between fatigue and systemic antibody responses.
Results: A total of 105 different antibody-bound peptides were associated with fatigue (nominal *P*-value <0.05), albeit none passed adjustment for multiple comparisons. Among these antibodies, 50 (47.6%) were found to be less frequent in highly fatigued patients (fourth quartile, Q4), while 55 (52.4%) were identified as more frequent in highly fatigued patients compared to those with low fatigue scores (first quartile, Q1). Among highly fatigued patients, antibody responses were primarily directed towards viral antigens, notably several antigens from Epstein-Barr virus (EBV), as well as bacterial antigens, including functional proteins from *Streptococcus* and *Staphylococcus* species. Fatigued patients with CD exhibited elevated systemic antibody responses against allergens, Adenovirus and *Pseudomonas aeruginosa* species. Fatigued patients with UC showed higher frequencies of antibody responses against Herpes simplex virus (HSV), Influenza viruses, and few responses against allergens and *H. influenzae* bacteria. These results remained materially unchanged when repeating analyses in patients with quiescent IBD.
Conclusion: This study may suggest a potential role of viral antigens, particularly EBV, in the pathophysiology of fatigue in patients with IBD. However, larger confirmatory studies are needed to validate these findings. PhIP-Seq may represent a valuable strategy to approach the investigation of immune responses underlying complex symptoms such as fatigue.

New-onset Inflammatory Bowel Disease is uncommon in patients with psoriasis, psoriatic arthritis and spondylarthritis treated with secukinumab: a retrospective cohort study in a tertiary centre.

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Background: Secukinumab (SEC) is an IL-17A inhibitor prescribed in patients with immune mediated inflammatory diseases like psoriasis (PsO), psoriatic arthritis (PsA) and spondylarthritis (SpA). Conflicting data are available on the onset of inflammatory bowel disease (IBD) among patients after the start of SEC. We aimed to provide data evaluating pre-existing and newly diagnosed IBD in patients being treated with SEC.
Methods: All patients receiving SEC at a single tertiary centre in The Netherlands between 2012-2022 were identified through the pharmacy registry. Data from electronic medical records were retrospectively collected: baseline (i.e. at initiation of SEC) characteristics, medical history (including pre-existing IBD), use of (disease modifying) concurrent medication, clinical symptoms, biochemistry (C-reactive protein, faecal calprotectin), endoscopy with pathology and cross-sectional imaging (CT, MRI, intestinal ultrasound). Patients were excluded if they received ≤3 doses of SEC.
Results: A total of 351 patients were included with one or more of the following indications for SEC treatment: PsO in 166/351 (47%), PsA in 130/351 (37%), axial SpA in 130/351 (37%), peripheral SpA in 31/351 (9%) and juvenile idiopathic arthritis in 1/351 (0.3%). Frequently used co-medication were NSAIDs (44%), topical corticosteroids (37%) and methotrexate (16%). Median follow-up time was 48 months (IQR 22,74). In total, ten patients with IBD were identified: 5/351 (1.4%) patients had pre-existing IBD (2/5 Crohn's disease, 3/5 ulcerative colitis) and 5/351 (1.4%) patients developed IBD after SEC initiation (3/5 Crohn's disease, 1/5 ulcerative colitis, 1/5 IBD-unclassified). All new-onset IBD cases were confirmed with endoscopy and pathology. Predominant clinical symptoms were diarrhoea, abdominal pain and haematochezia. In patients with new-onset IBD median time from initiation of SEC to development of clinical symptoms was 1.3 months (range 0-12) and median time to diagnosis was 7.5 months (range 3-16). Out of patients with pre-existing IBD in remission 2/5 developed clinical symptoms after start of SEC with a median time to development of 9 months (range 6-12); 3/5 patients sustained remission. After starting SEC 25% of patients reported gastrointestinal symptoms, however diagnostic work-up took place in only 52% of these patients revealing no signs of IBD.
Conclusion: In our cohort new-onset IBD after SEC initiation was uncommon (<2%) with a short median time to onset. IBD seemed equally distributed among indications. Caution and monitoring of gastrointestinal symptoms during SEC treatment is warranted in patients with pre-existing IBD, considering the possibility of an exacerbation.

Deficits in Geriatric Assessment are dynamic and associate with hospitalizations and mortality during 18 months follow-up

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Background: We aimed to prospectively evaluate a) the course of geriatric deficits, reflecting the level of frailty, b) factors associated with changes in geriatric deficits, and c) the association of geriatric deficits with mortality and hospitalization, during 18 months of follow-up in older patients with Inflammatory Bowel Disease (IBD).
Methods: A prospective multicenter cohort study was conducted in IBD patients (≥ 65 years). At baseline, a geriatric assessment was performed in 405 patients, covering deficits in domains of somatic, activities of daily living, physical, mental and social functioning. Follow-up was conducted after 18 months, part of the patients were seen for a follow-up geriatric assessment, the rest was contacted by phone. Primary outcomes were: change in number of domains at follow-up compared to baseline (an increase in number of domains suggests a worsened frailty status; a decrease suggests an improved status). Secondary outcomes were: all-cause mortality, all-cause, acute and IBD-related hospitalization during 18 months. Logistic regression was performed to identify factors associated with changes in number of domains, adjusted for age, sex, type of IBD and educational level. Linear-and Cox regression analyses were performed to study the association of geriatric deficits with adverse outcomes, adjusted for age, sex and biochemical disease activity (C-reactive protein ≥10 mg/L and/or fecal calprotectin ≥250 μg/g).
Results: Out of 405 patients at baseline (median age: 70 years), 11 patients (2.7%) died and follow-up was conducted in 356 patients (87.9%). For the follow-up contact, 154 patients were seen for a follow-up geriatric assessment and 202 patients were contacted by phone. In the geriatric assessment, 32.5% had increased and 26.0% decreased ≥ 1 in number of impaired domains compared to baseline. Use of systemic corticosteroids at or three years prior to baseline associated with an increase in impaired domains (aOR 3.00; 95% confidence interval (95% CI) 1.11-8.08; p-value= 0.030), while initiation of biological therapy associated with a decrease in impaired domains (aOR 4.92, 95%CI 1.41-17.15, p-value=0.013). The number of impaired domains at baseline was independently associated with mortality (p=0.001, B=2.76), all-cause hospitalization (p=0.016, B=1.28) and acute hospitalization (p=0.02, B=1.3).
Conclusion: Geriatric deficits, reflecting the level of frailty, are dynamic over 18 months in older patients with IBD. Therapeutic IBD management appeared an important determinant for the longitudinal course of frailty. Also, the presence of geriatric deficits associates with worse health outcomes over time in older patients with IBD.

Higher predictive power of epigenetic signatures for response to vedolizumab and ustekinumab in anti-TNF naïve patients with active crohn's disease

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Background: Despite the progress in IBD care with biological therapies, the current 'trial-and-error' method remains suboptimal. Previous results from our EPIC-CD study demonstrated that two distinct epigenetic panels of 25 and 68 DNA methylation markers, respectively, were associated with (non-)response to vedolizumab (VDZ) and ustekinumab (USTE) in active Crohn's disease (CD). Data from clinical trials have demonstrated that response rates in patients naïve to biological treatment are higher. We therefore aimed to evaluate the performance of our models in bionaive and anti-TNF exposed subpopulations.

Methods: We prospectively measured peripheral blood DNA methylation profiles from 184 adult CD patients prior to treatment with VDZ or USTE in a discovery (n=126) and independent validation (n=58) cohort using the Illumina EPIC BeadChip array. Between 26 and 52 weeks, patients were categorized as responders or non-responders based on a combination of endoscopic response (≥50% reduction in SES-CD score), steroid-free clinical response (≥3-point drop in Harvey-Bradshaw Index (HBI) or HBI ≤4 AND no systemic steroids), and/or biochemical response (≥50% reduction in C-reactive protein (CRP) and fecal calprotectin or a CRP ≤5 g/mL and fecal calprotectin ≤250 µg/g). Epigenetic biomarker identification and classification analyses were conducted through stability selection gradient boosting on the discovery cohort. Subsequently, the performance of the identified epigenetic biomarkers was assessed independently on the validation cohort, with patients stratified by prior anti-TNF exposure.

Results: Out of the 58 patients in the validation cohort, 25 received treatment with VDZ, and 33 with USTE, with 52% (n=13) and 36% (n=12) respectively naïve to anti-TNF treatment. Baseline characteristics between anti-TNF naive and anti-TNF exposed patients showed no significant differences, despite a slight significant age difference in the vedolizumab group, where anti-TNF exposed patients were younger (24 versus 65).

In the overall independent validation cohort, the prediction models demonstrated an AUC of 0.75 for both VDZ and USTE. However, after stratification by prior anti-TNF exposure, we observed increased performance of our models among anti-TNF naive patients for both VDZ ($AUC_{non\text{-}exposed}$=0.85 versus $AUC_{exposed}$=0.66) and USTE ($AUC_{non\text{-}exposed}$=0.97 versus $AUC_{exposed}$=0.63.

Conclusion: Our findings demonstrate that prior anti-TNF exposure leads to somewhat reduced predictive power of our epigenetic models for vedolizumab and ustekinumab response. The predictive models may therefore find its optimal application in bio-naive patients, although they remain significant in anti-TNF exposed patients.

Proctocolectomy is associated with improved transplant-free survival in patients with primary sclerosing cholangitis: results from a pooled collaborative international study

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Background: It is hypothesized that the gut-liver axis plays a pivotal role in the aetiology of primary sclerosing cholangitis (PSC). Colectomy before liver transplantation is associated with decreased rates of recurrent PSC. We previously observed that proctocolectomy with permanent ileostomy is associated with better transplant-free survival in a population-based Dutch cohort. The aim of the present study is to confirm the effect of colectomy on PSC disease course in an international context.
Methods: We conducted a retrospective analysis on the International PSC Registry (IPSCR), comprising patients from Finland, Norway, Sweden, and the Netherlands. Endpoints were defined as liver transplantation (LT) and PSC-related death (excluding colorectal carcinoma) and were censored in the first year after colectomy to allow for a delayed protective effect. Cox proportional hazards regression was performed, with correction for the following known risk factors; sex, age at diagnosis, large or small duct PSC, features of auto-immune hepatitis, and inflammatory bowel disease (IBD) status (i.e. ulcerative colitis, Crohn's disease or IBD unspecified). IBD status and colectomy status were included as time-dependent exposure variables, the latter stratified for extent and indication for colectomy.
Results: A total of 2595 patients were included, of which 1341 from the Netherlands, 560 from Finland, 528 from Norway, and 166 from Sweden. Of all patients 1900(73%) were diagnosed with IBD and 346(15%) had undergone a colectomy; 34(9%) hemi-, 91(26%) subtotal, and 172(50%) proctocolectomy with pouch and 65(19%) with ileostomy. During a total follow-up of 28,282 patient years, 848(33%) patients reached the endpoint LT or PSC-related death.
Hazard ratio (HR) of reaching LT or PSC-related death was significantly decreased in patients with proctocolectomy (0.70(0.52-0.93)) compared to patients without colectomy with variation per country (Netherlands 0.82(0.56-1.19), Finland 0.52(0.24-1.13), Norway 0.59(0.31-1.03), Sweden 0.28(0.06-1.24)). This effect was less pronounced in case of a hemi- or subtotal colectomy (HR 0.84(059-1.20)). The effect was most pronounced in the proctocolectomy with permanent ileostomy group (HR 0.55(0.30-0.99)). Of the known risk factors only a concurrent IBD diagnosis had no significant effect on transplant-free survival.
Conclusion: Our extended data confirm that colectomy is associated with a decreased risk of liver transplantation and PSC-related death. An incremental effect was seen with the extent of the colectomy, with the most pronounced effect in the proctocolectomy group with permanent ileostomy. Our data support the putative role of the gut-liver axis in the disease course of PSC.

Yield of surveillance colonoscopy in patients with Primary Sclerosing Cholangitis

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Background: Patients with primary sclerosing cholangitis (PSC) have a higher risk of developing colorectal cancer (CRC), in particular in patients with concurrent diagnosis of inflammatory bowel disease (IBD). Therefore, strict surveillance colonoscopy in patients with PSC and PSC-IBD is recommended with consideration of random biopsies. The aim of this study was to assess the method and yield of surveillance colonoscopy in patients with PSC and PSC-IBD in routine practice in the Netherlands.
Methods: An observational cohort study was performed within the EpiPSC2 cohort in The Netherlands. Patients with a confirmed PSC diagnosis were included from January 2008 onwards. Data were collected retrospectively from the date of diagnosis until inclusion, and prospectively from that date forward. Patient demographics, PSC and IBD disease characteristics were collected at study inclusion and during annual follow-up. For this study, data collection was expanded retrospectively with colonoscopy and pathology reports. Outcomes were endoscopic surveillance technique, whether random or targeted biopsies were taken, if polypectomy was performed, dysplasia detection rate and type of dysplasia.
Results: The study population included 1,203 PSC patients, of whom 82.1% had large duct PSC, and 70.6% concomitant IBD. A total of 4,099 colonoscopies were performed in 759 individual patients, with a median of 4 colonoscopies per patient (IQR 2 – 8). The median follow-up duration was 11 years (IQR 12 – 17). In total, 11.5% (n=473) of colonoscopies were performed with chromo-endoscopy. Among the conducted colonoscopies, 2,543 included biopsies, 355 involved polypectomies, and 86 comprised both biopsies and polypectomies. Dysplasia was identified in 11.4% (341 out of 2,984) of the colonoscopies, including 14.1% indefinite for dysplasia (n=48), 75.1% low grade dysplasia (n=256), 7.6% high grade dysplasia (n=26), and 5.9% adenocarcinoma (n=20). The detection of dysplasia occurred through random biopsies in 89 colonoscopies (26.1%), targeted biopsies in 114 colonoscopies (33.4%) and polypectomy in 153 colonoscopies (44.9%). Dysplasia was observed in 195 (26%) individual patients, of whom 80.5% had PSC-IBD.
Conclusion: Our data highlights the importance of colonoscopic surveillance in PSC and PSC-IBD patients. Dysplasia was detected in over a quarter of patients undergoing surveillance colonoscopy. Notably, 26.1% of dysplasia cases were identified through random biopsies, emphasizing the importance of incorporating random biopsies into surveillance protocols for this specific patient population.

Rapid symptomatic improvement with subcutaneous infliximab induction treatment for patients with moderate-to-severely active Crohn's disease: first results from the DIRECT-CD study

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Background: Subcutaneous (SC) formulation of infliximab (IFX) received regulatory approval for the maintenance treatment of Crohn's disease (CD) in 2020. DIRECT-CD is an ongoing multicentre trial to evaluate the efficacy of SC IFX induction and maintenance treatment in monotherapy versus combination therapy in CD patients (EUDRACT 2021-000469-33). Here we aimed to determine the rapidity of symptom improvement during this SC IFX induction regimen.
Methods: Patients with moderate-to-severe CD (Crohn's disease activity index [CDAI]) >220 and endoscopic ulceration) received fixed SC IFX induction doses of 240 mg at Week 0 and 2, followed by maintenance treatment (120 mg every other week). We analysed diary PRO-2 entries (stool frequency and abdominal pain) through 14 days from the first injections of SC IFX. CDAI was assessed at Week 0, 2, 4 and 8. Changes in biochemical parameters were assessed (C-reactive protein [CRP]: Week 4 and 8; faecal calprotectin [FC] at Week 8). Combined corticosteroid-free remission (CSFR) was defined as CDAI<150 and CRP≤5 mg/L or FC≤250 mg/kg and complete tapering of corticosteroids.
Results: Twenty-five patients completed 8 weeks of treatment (60% female, median age 30 years [IQR 24-45], median weight 66.6 kg [IQR 64.0-89.5], median disease duration 4 years [IQR 1-8], 64% had ileocolonic disease [L3] and 76% exhibited an inflammatory phenotype [B1], 52% were using concomitant immunomodulators, and 28% were on stable dose of steroids). On the first day after the initial dose of SC IFX (240 mg), a significant decrease in PRO-2 was observed compared to baseline (5 [IQR 3-9] vs 8 [IQR 7-10], P<0.001) and this response was sustained throughout day 14 (P<0.001). At all measured time points, CDAI decreased significantly compared to baseline (Week 0: 313 [IQR 271-402]; Week 2: 245 [IQR 140-296], P<0.001; Week 4: 218 [101-258], P<0.001; Week 8: 172 [127-260], P<0.001). Combined CSFR was reached in 30% and 57% of all patients at Week 4 and 8, respectively. Median CRP was lower at Week 4 compared to baseline CRP (2.8 mg/L [IQR 0.7-4.9] vs 7.1 mg/L [IQR 2.1-26.3], P=0.001), a significant drop of FC was observed at Week 8 compared to baseline (77 mg/kg [IQR 37-847] vs 1385 mg/kg [IQR 219-3093], P<0.001).
Conclusion: Induction treatment with SC IFX provided a rapid decrease of abdominal pain and diarrhoea as early as day one. CDAI, CRP and FC decreased significantly at the earliest time point of evaluation (Week 2-8). DIRECT-CD is an ongoing clinical trial.

Vedolizumab trough concentrations during subcutaneous treatment in patients with inflammatory bowel diseases

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Background: An exposure-response relationship has been described for intravenous (IV) vedolizumab (VDZ), but little is known about through levels and real life outcomes of subcutaneous (SC) VDZ treatment. We aimed to study the effect of SC VDZ in a prospective real life cohort and assessed what clinical variables are associated with vedolizumab trough concentrations.
Methods: IBD patients initiating VDZ SC treatment were included in our nationwide, prospective Initiative on Crohn and Colitis (ICC) registry. Adult IBD patients were included if a known trough level during IV and SC therapy was available. Two different assays were used for trough levels measurements: i.e. an enzyme linked immunosorbent assay (ELISA) and liquid chromatography-tandem mass spectrometry (LC-MS/MS). The primary outcome measure was the mean VDZ trough concentration during maintenance treatment (after at least four SC injections). In addition, associations between VDZ serum trough concentrations and corticosteroid-free clinical remission were assessed. A Receiver Operating Characteristic (ROC) analysis was performed to determine the concentration threshold that was associated with corticosteroid free clinical remission after 4 SC VDZ injections (i.e. defined as a Harvey Bradshaw Index (HBI) score ≤ 4 for CD and a Short Clinical Colitis Activity Index (SCCAI) score ≤ 2 for UC).
Results: In total, 24 with Crohn's disease (CD) and 32 with ulcerative colitis (UC) patients were included. Twelve patients started SC VDZ after a maximum of three VDZ infusions and 44 patients switched to VDZ SC after at least four VDZ infusions. The mean VDZ trough concentration was 34.4 µg/mL (SD 12.9) after 13 (IQR 11-20) weeks of SC treatment. The mean VDZ trough concentration increased from 20.5 µg/mL to 35.2 µg/mL ($P < 0.001$) in patients who switched from IV to SC VDZ. Biochemical remission (defined as a C-reactive protein (CRP) ≤ 5 µg/mL with a faecal calprotectin (FC) ≤ 250 µg/g) prior to the switch, VDZ measurements using LC-MS/MS and higher VDZ levels during IV therapy were associated with higher VDZ serum levels during SC therapy. Active smoking and prior use of >1 biologic and/or tofacitinib were associated with lower VDZ levels during SC therapy. A VDZ trough concentration of ≥ 34.5 µg/mL during SC maintenance therapy predicted corticosteroid free clinical remission with a sensitivity, specificity, positive predictive value and negative predictive value of 60%, 75%, 86% and 43%, respectively.
Conclusion: VDZ serum concentrations were significantly higher during SC therapy versus IV treatment. A VDZ trough concentrations ≥ 34.5 µg/mL was associated with corticosteroid free remission.

Antibodies against Neutrophil Extracellular Traps (ANETAs) are associated with more severe disease course in ulcerative colitis

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Background: Antibodies against Neutrophil Extracellular Traps (ANETAs) have emerged as markers in multiple autoimmune disorders (i.e. rheumatoid arthritis and systemic lupus), indicating disease activity and treatment response. Given the established presence of NETs in UC, we investigated the existence and role of ANETAs in Inflammatory Bowel Disease (IBD).
Methods: Serum samples from UC (n=33), Crohn's Disease (CD; n=28), and healthy controls (HC; n=8) underwent incubation with non-lytic Neutrophil Extracellular Traps (NETs) for immunofluorescence microscopy. For clinical relevance, these patients were followed over ten years to track treatment resistance, extraintestinal manifestations, surgeries, and disease recurrence. For functional relevance, *in vitro* generated NETs were exposed to ANETAs, followed by quantifying macrophage-mediated clearance of these ANETA pre-treated NETs by real-time microscopy via pHrodo for 24 hours, as well as assessing pro-inflammatory cytokine (IL-6, TNF-α, IL-8, and IL-23) genetic expression levels in these macrophages.
Results: Among UC patients, ANETA positivity correlated with high rates of treatment resistance, extraintestinal manifestations, colorectal surgeries, and recurrence of disease like pouchitis (93.3% vs. 6.7%, 61.5% vs. 38.5%; 71.4% vs. 28.6%; 87.5% vs. 12.5%, for $ANETA^+$ and $ANETA^-$ UC patients, respectively). CD patients with ANETAs exhibited high rates of resistance of treatment (75% vs 25%) and lower rates of extraintestinal manifestations, colectomy, and disease recurrence (38.1% vs 61.9%, 40% vs 60% , 33.3% vs 66.7%). Macrophages displayed robust engulfment of untreated NETs and those treated with healthy control sera, while ANETA-coated NETs exhibited reduced susceptibility to macrophage phagocytosis. Gene expression analysis revealed a significant upregulation of pro-inflammatory cytokines (IL-6, TNF-α, IL-8, and IL-23) when NETs were incubated with serum from ANETA-positive individuals compared to sera from healthy controls ($p<0.05$).
Conclusion: ANETAs may serve as markers for a distinct subgroup of UC patients characterized by aggressive disease and poorer prognosis. The potential mechanism might involve impaired NETs clearance by, and inducing a proinflammatory response in macrophages. Discrepancies observed between UC and CD suggest diverse pathophysiological mechanisms in both diseases. Further research is imperative to comprehensively understand the underlying pathophysiology, function, and potential clinical applications of ANETAs in IBD.

Granulocytes as potential targets in peri-anal fistula

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Background: Treatment of perianal disease and in particular fistula in IBD remains highly challenging. Targeted medical therapy is not available, and a majority of patients fails to respond to surgical intervention. In contrast, cryptoglandular fistula (CG) show response rates with closure in up to 80-90%. Interestingly, the most present cell type in fistula, the granulocyte, is also the least studied due to their fragile nature. To fill this void, we evaluated granulocytes in perianal fistula and those present in the blood.
Methods: Curettage material of 18 fistula (Crohn n=15 and CG n=5) was processed by mass cytometry. Two additional fistula samples were obtained (1 Crohn, 1 CG) together with matching blood samples and assessed by single cell RNASeq.
Results: Granulocytes formed the majority of cells in all fistula (mean 64%), with significantly more granulocytes in CG than Crohn's related fistula. Single cell analysis showed 5 subsets: Subset 1 and 2 were the main subsets in blood, and were consistent with known mature peripheral granulocyte markers. Subset 2 appeared more activated, with increased expression of IFN related genes (IFIT2, IFIT3, MX1). The vast majority of fistula derived granulocytes clustered into three subsets, separately from those in the blood. Cluster 3 displayed an intermediate phenotype, possibly recently migrated from the circulation and expressing relatively high levels of CXCR1 and CXCR2, low levels of L-Selectin but also CD69. The final two clusters were characterized by expression of PI3 and IDO1 respectively and both expressed high levels of CXCR4. Pseudotime analysis suggested a developmental trajectory from blood derived subsets into the immature granulocytes and subsequent branching into either PI3+ or IDO1+ populations, further supporting the notion of an intermediate and two more terminal subsets present in fistula. Pathway analysis showed strong degranulating activity and reactive oxygen production in subset 4 (PI3+). In contrast, cluster 5 (IDO1+) was high in cytokine/interferon activity. Interestingly, although only individual patients were included, the Crohn's fistula mainly contained intermediate and IDO1+ granulocytes, while the CG fistula contained a large number of PI3+ cells. In addition, within each subset, Crohn derived cells expressed higher levels of immune activation marker HLA-DR, while CD derived cells expressed more inhibitory PDL1.
Conclusion: Granulocytes form the main component of fistula tracts. Three different granulocyte subsets could be identified, of which differ in phenotype, activity and method of recruitment. This data may be a starting point for specific interventions in this highly abundant but often overlooked cell type.

Tryptophan metabolites as biomarkers for fatigue in Inflammatory Bowel Disease

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Background: Fatigue represents one of the largest unmet needs in inflammatory bowel disease (IBD), comprised of Crohn's disease (CD) and ulcerative colitis (UC), both during active and quiescent disease. Tryptophan (Trp) metabolites play an important role in mediating mood regulation, intestinal homeostasis and immune responses. Dietary Trp is metabolized in the intestines by three different pathways (i.e. kynurenine, serotonin and indole cascade). Previous studies have shown the importance of tryptophan/serotonin balance in fatigued subjects and altered tryptophan serum levels have been reported in IBD patients. We aimed to explore changes in Trp metabolite plasma levels in fatigued IBD patients.
Methods: In total, 40 CD and UC patients in clinical and biochemical remission (21 females, HBI <5, SCCAI ≤2, CRP <5mg/l and/or fecal calprotectin <250µg/g) and 25 with active disease (18 females; HBI >5, SSCAI >2, CRP >5mg/l and/or fecal calprotectin >250µg/g) were included. Patients were classified as fatigued (and further classified as active vs remission: 17 vs 15 females, 6 vs 18 males) or non-fatigued (active vs remission: 1 vs 6 females, 1 vs 1 males) based on their Multidimensional Fatigue Inventory score (fatigue ≥ 40). Targeted quantitative analysis was performed of 21 Trp metabolites in plasma samples utilizing liquid chromatography coupled with quadrupole mass spectrometry. Receiving Operator Characteristic (ROC) curve and random forest analysis were used to assess the biomarker power of Trp metabolites for fatigue. Data were analyzed according to sex and fatigue status.
Results: 5-OH-Tryptophan (5-HTP) plasma concentrations, the direct precursor of serotonin, were significantly higher in fatigued compared to non-fatigued female IBD patients who were in remission ($p= 0.02$), and this was not observed in male patients independent of disease status nor in female patients with active disease. ROC analysis (area under the curve (AUC)=0.82) and Random Forest analysis showed that 5-HTP could distinguish well between fatigue and no fatigue in females with quiescent IBD, as well as the 3-OH-Kynurenine/Indole-3-Aldehyde ratio (AUC=0.89).
Conclusion: 5-HTP might represent a novel biomarker for fatigue in female patients with quiescent IBD, but it should be acknowledged that the sample size of male patients and female patients with active disease was limited. The impaired balance between the kynurenine and serotonin pathway suggests a potential role for Trp metabolism in fatigued IBD patients. These results warrant a larger-scale, longitudinal study in male and female patients, both with active and quiescent IBD.

Distinct plasma proteomic biomarkers associate with disease progression in patients with inflammatory bowel diseases

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Background: Inflammatory bowel diseases (IBD), including Crohn's disease (CD) and ulcerative colitis (UC), are characterized by complex pathophysiology and heterogeneity in disease course and progression. Patients with IBD show distinct shifts in circulating inflammatory proteins, which may be suggestive of biological mechanisms behind clinical disease progression. Thus far, proteomics studies in IBD have primarily focused on changes in the plasma proteome at pre- and post-diagnostic stages, as well as its genetic and phenotypic determinants. However, studies focusing on proteomic biomarkers for predicting disease progression risk are lacking. Here we aimed to identify plasma proteomic biomarkers associated with disease progression in patients with IBD.
Methods: In this study, a total of 83 inflammation-related plasma proteins were quantified in a cohort of 452 patients with IBD (267 with CD, 185 with UC) who participated in the 1000IBD project and had available follow-up data. Proximity extension assay technology was leveraged to measure these proteins. Disease progression outcomes, including the development of intestinal stenosis, IBD-related surgical interventions, and extraintestinal manifestations (EIMs), were extracted from electronic health records. Logistic regression analyses and Cox proportional hazards regression models were used to investigate associations between plasma proteins and the risk of disease progression outcomes.
Results: During a median follow-up of 10.3 (interquartile range [IQR] 7.6-11.1) years, 63 (23.6%) patients with CD developed intestinal stenosis, 53 (19.9%) patients with CD and 14 (7.6%) patients with UC underwent IBD-related surgery, and 120 (44.9%) patients with CD and 45 (24.3%) patients with UC developed EIMs. On multivariable analysis, macrophage colony-stimulating factor-1 (CSF-1) was most strongly associated with the presence of stricturing disease (odds ratio [OR] per doubling in protein level 4.5, 95%CI: 1.6-12.9, P=0.005) and with a shorter stenosis-free survival (hazard ratio [HR] per doubling 4.2, 95%CI: 1.5-11.6, P=0.006). Furthermore, interferon-gamma (IFN-γ) was most strongly associated with surgery in CD (OR per doubling 1.6, 95%CI: 1.2-2.2, P=0.003) and with shorter surgery-free survival in CD (HR per doubling 1.4, 95%CI: 1.2-1.7, P<0.001) in multivariable analysis.
Conclusion: This study highlights that disease progression in IBD is associated with elevated levels of specific inflammatory plasma proteins. Specifically, CSF-1 and IFN-γ show most promise as possible proteomic biomarkers for the future development of intestinal stenosis and the risk of surgical interventions in patients with CD, respectively.

Systemic redox status associates with disease activity and clinical phenotypes in inflammatory bowel disease

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Background: Oxidative stress is a key pathophysiological mechanism in inflammatory bowel diseases (IBD). Systemic levels of oxidative stress are reflected by reduced levels of free thiols (FT) in circulating proteins, especially those in albumin, which associates with disease activity in IBD. Yet, clinal value of circulating FT level as biomarkers of disease and therapy response remains largely unexplored. Here we investigated the association between plasma FT levels and clinical parameters, the plasma inflammatory proteome and medication use.
Methods: Plasma samples from 1,028 patients with IBD (567 Crohn's disease [CD] and 461 ulcerative colitis [UC]), and 500 healthy controls (HCs) participating in the 1000IBD and LifeLines projects were profiled for free thiols (FT), uric acid, bilirubin and 92 inflammation-related proteins (Olink Inflammation panel®). All biomarkers were associated with clinical phenotypes using general linear models adjusting for age, sex, body mass index, smoking and medication use.
Results: Plasma FT levels were significantly lower in IBD compared to HCs ($p<0.05$), with patients with UC showing even lower levels than patients with CD ($p<0.05$). Patients with UC on induction therapy had lower FT levels compared to patients on maintenance therapy ($p<0.05$). Furthermore, FT levels of patients with IBD were strongly associated with systemic inflammation (C-reactive protein [CRP], $p<0.05$). In both patients withCD and UC, reduced FT levels were associated with elevated levels of inflammation-, apoptosis-, and growth factor-related proteins, including C-X-C motif chemokine 9 (CXCL9), CUB domain-containing protein 1 (CDCP1) and caspase-8 (CASP8), proteins that have been previous associated with preclinical IBD. Furthermore, specifically for patients with UC, reduced FT levels were associated with elevated eotaxin-1 (CCL11), monocyte chemotactic protein-1 (MCP-1), and several cytokine biomarkers like Interleukine-6 (IL6) and Interleukin-17A (IL17A).
Conclusion: Systemic FT levels associate with inflammatory disease activity and clinical therapy and may offer potential utility in clinical assessments. This study highlights the intricate involvement of oxidative stress in various inflammatory pathways and components, particularly in innate/adaptive immune balance, cell damage, and apoptosis. These findings contribute to a deeper understanding of the interplay between oxidative stress, inflammation, and IBD.

Profile guided low dose drug combination strategies and kinase activities with prognostic and therapeutic avenues in pancreatic ductal adenocarcinoma

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Background: Pancreatic ductal adenocarcinoma (PDAC) is a devastating disease, commonly characterized by multiple aberrant signaling. Phosphoproteomics provides a direct read-out of these complex signaling networks and the resultant clinically relevant phenotype, as well as a functional scaffold to identify new targets. In the absence of an oncogenic driver, low dose (LD) kinase inhibitor (KI) combinations against multiple (parallel) activated kinases might provide higher efficacy and reduce toxicity as compared to single drug treatment.
Methods: By using a two step phosphopeptide enrichment with phosphotyrosine immunoprecipitation and immobilized metal affinity chromatography, followed by label free MS analysis, we analyzed phosphoproteome data of 7 immortalized and 2 primary PDAC cell lines, and of 42 PDAC tumors. We used integrative inferred kinase activity (INKA) scoring of the maxquant output to identify hyperactive kinases. For the cell line panel, five KIs were selected based on targeting coverage of the INKA profiles. LD were set as IC20s for 2,3,4 drug combinations. Cell growth inhibition was assessed by SRB assay. Median-effect analysis was used to assess synergy. Functional testing was performed in immortalized 2D, xenoderived 2D and 3D cultures. Effective low dose 3 drug combinations were further validated using patient-derived xenografts.
Results: High INKA scoring of multiple activities per cell line without clear outliers of single kinases underscores the need for combination therapies. Multiple LD combinations showed effective growth inhibition (70 to 92%) and synergism, mostly 3 drug combinations, which required targeting of several RTKs and downstream signaling. Different responses were further observed between epithelial and mesenchymal cell lines. These top performing combinations were further validated in PDAC organoids and in vivo. Clinical utility of these kinase targets was then confirmed in 42 tumor phosphoprofiles, which were characterized in different subtypes with distinct therapeutic options. Phosphoproteome signals and kinases activities with potential prognostic value and mutational associations were further described.
Conclusion: Our INKA pipeline, which can rank kinase activities in individual tumors, is optimally suited to specifically prioritize actionable kinases with targeting purposes. Tailored LD combination strategies exhibited promising efficacy in preclinical models and may ultimately improve treatment outcomes. Multicellular patient-derived models will be used to further study and target the TME in PDAC tumors.

Gut microbiota perturbations precedes the onset of post-infectious irritable bowel syndrome in intercontinental travellers

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Background: Travel related exposures often lead to gastrointestinal infections. Consequently, several travellers report the onset of irritable bowel symptoms (IBS) after an episode of traveller's diarrhoea (TD), denoted as post-infectious IBS (PI-IBS). To what extent microbiota alterations precede or are a consequence of the infectious episode remains undescribed. We prospectively characterized the faecal microbiota diversity and community structure in Dutch intercontinental travellers with and without new onset IBS after TD.
Methods: Our study included a nested case-control group of 96 travellers within a large longitudinal cohort of travellers (n = 2001). Cases (n = 48) were defined as healthy travellers (without gastrointestinal symptoms at baseline) who experienced diarrhoea during travel and met the ROME III criteria for IBS at 6-12 months after travel return. For each case, we matched one control based on age, gender and travel destination. Faecal samples collected pre-travel (T0), immediately post-travel (T1) and 1-month post-travel (T2) were profiled by 16S rRNA gene amplicon sequencing to examine the microbial diversity, composition and community structure.
Results: Gut microbial richness and diversity prior to the onset of PI-IBS was significantly lower in future cases compared to controls. This disparity remained but did not become more pronounced at T1 and T2. No difference was observed in the enteropathogenic triggers for TD between cases and controls. The microbial community structure of cases was significantly different compared to controls at T0, T1 and at T2 (PERMANOVA $P < 0.05$ for all time-points). Differential abundance testing indicated increased levels of *Eggerthella* and decreased level *of Lachnospiraceae NK4A136 group* in cases compared to controls.
Conclusion: We identified an altered microbiota profile preceding the onset of PI-IBS. These results strengthen the evidence for a causal role of the microbiota in the pathophysiology of IBS.

Elevated fecal calprotectin levels in COVID patients can be explained by ingestion of nasopharyngeal calprotectin

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Background: Diarrhea was considered an indicator symptom of SARS-CoV-2 infections. It was used as one of the risk factors stratifying patients for SARS-CoV-2 testing in the emergency ward. Diarrhea as an indicator symptom was done because SARS-CoV-2 was thought to infect intestinal epithelial cells to a clinically relevant degree. This theory was supported by elevated levels of fecal calprotectin (CP) found in COVID patients. Our study aims to investigate if elevated fecal CP levels in COVID patients are proof of SARS-CoV-2-specific intestinal infection and inflammation.
Methods: Existing datasets were reviewed. Healthy volunteers ingested pig CP, their feces were analyzed by ELISA. A retrospective cohort study was performed of patients admitted to our hospital. Cohorts consisting of the following patients were selected:
1) Nasopharyngeal swab positive for SARS-CoV-2 (n=56).
2) Swab positive for a non-SARS-CoV-2 upper respiratory tract virus (n=27).
CP was quantified in the swab and the feces and leucocyte counts were extracted. T-tests and linear regressions were performed.
Results: Existing datasets showed a high expression of CP in the epithelium of the upper respiratory tract, and low expression in the lower gastrointestinal tract. After ingesting pig CP, it could be detected by ELISA in fecal samples of volunteers. This suggests ingestion of nasopharyngeal CP could cause elevated fecal CP levels in COVID patients. Indeed, CP levels in swab and feces samples of COVID patients correlated (R=0.65; p=0.008). Additionally, the amount of SARS-CoV-2 found in the nasopharynx predicted fecal CP levels (R=-0.36; p =0.025). Non-SARS-CoV-2 upper respiratory tract viral infection patients had lower fecal CP levels compared to COVID patients (82µg/g versus 447µg/g; p<0.001). The highest leucocyte count during hospitalization showed a positive correlation with both swab (R=0.32; p=0.044) and fecal CP levels (R=0.33; p=0.043).
Conclusion: CP is highly expressed in the upper respiratory tract, can traverse the digestive system, and can be identified in fecal samples. Both SARS-CoV-2 and CP levels in the nasopharynx of COVID patients were predictive of their fecal CP levels.
Fecal CP values are higher in non-COVID compared to COVID patients. This is a general phenomenon in respiratory viruses and is more pronounced in non-COVID infections. Severe COVID, indicated by a high leucocyte count, is associated with high CP levels in the nasopharynx and feces.
In summary, elevated fecal CP levels in COVID patients can be explained by ingestion of nasopharyngeal CP and is not proof of intestinal inflammation. This also explains how respiratory virus infections cause elevated fecal CP levels in IBD practice.

Circulating tumor DNA test approaches for the detection of minimal residual disease in stage II and III colorectal cancer – the observational PLCRC-MEDOCC study

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Background: Presence of circulating tumor DNA (ctDNA) after surgical resection of colorectal cancer (CRC) is indicative for minimal residual disease (MRD) and poor recurrence-free survival (RFS) and could therefore guide decisions regarding adjuvant treatument. However, challenges remain in developing tests with high sensitivity and specificity due to extremely low levels of ctDNA post-surgery and presence of DNA alterations due to clonal hematopoiesis, respectively. We compared the direct detection of ctDNA in cell-free plasma to white blood cell (WBC)-informed and tumor-informed ctDNA approaches to determine the approach with the highest diagnostic accuracy. We subsequently evaluated the prognostic value of ctDNA detection for RFS and overall survival (OS) in stage II and III CRC patients enrolled in the observational PLCRC-MEDOCC study.
Methods: We analyzed plasma cell-free DNA (cfDNA), WBC germline DNA and tumor DNA from 117 stage II and 57 stage III CRC patients with at least three years of follow-up or a clinical recurrence in the PLCRC-MEDOCC observational study. Targeted ultra-sensitive sequencing of a panel of common cancer driver genes was performed to identify sequence alterations in cfDNA and patient-matched WBCs and tumor tissue.
Results: The tumor-informed ctDNA approach had the lowest false-positivity rate (20%) as compared to the plasma-only (73%) and the WBC-informed (47%) ctDNA approach. Using this approach, ctDNA was detected in 60% of patients prior to resection and in 5.7% of patients post-surgery. Patients with detectable ctDNA post-surgery had inferior RFS (HR = 27.2, 95% CI 10.7-69.4) and OS (HR = 16.3, 95% CI 5.38-49.1) compared to patients without detectable ctDNA. Patients who developed liver metastases were more likely to have detectable ctDNA post-surgery (4/10) as compared to patients with non-liver metastases (1/11), including lung-only (0/3) and locoregional recurrence (0/5). All 11 patients with detectable ctDNA during follow-up experienced a recurrence.
Conclusion: A tumor-informed approach for ctDNA detection is needed for the identification of MRD in stage II and III CRC. Detectable ctDNA post-surgery is prognostic for recurrence and was detected mainly in patients who developed liver metastases.

Reducing outpatient visits in FIT-based CRC screening program - feasibility of a Digital Intake Tool

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Background: Currently, all screenees of the Dutch colorectal cancer (CRC) screening program with a positive faecal immunochemical test (FIT) undergo face-to-face counselling at an outpatient clinic. In order to reduce the burden for screenees, healthcare system, and society, we have developed and evaluated a Digital Intake Tool (DIT) for the Dutch CRC screening population.
Methods: A prospective study was conducted in seven centres, including academic and regional hospitals, and endoscopy centres. All included FIT positive screenees received a DIT invitation by email. The web-based tool facilitated a patient journey guiding them through the counselling process, providing information on CRC risk, colonoscopy, sedation and bowel preparation via spoken animations. The DIT collected patient information and obtained informed consent for colonoscopy. For screenees in who no additional information was required colonoscopy was scheduled without an outpatient visit. Primary outcome was the rate of participants with adequate bowel preparation, defined as a Boston Bowel Preparation Scale (BBPS)≥ 6. To assess whether this digital intake could replace the 'human touch' of in-person counselling, we evaluated patient-reported outcomes related to satisfaction, anxiety, and psychological distress as secondary outcomes.
Results: *Preliminary* Between October 2021 and September 2023, 1701 FIT positive screenees were approached for inclusion. The Participation and response rate were 58.8% and 96.9% respectively. Mean age was 64.0 (SD 6) with 44.9% being female. Adequate bowel preparation was achieved in 97.1% (95% CI 0.958 – 0.982), with a mean BBPS score of 8.0 (SD 1.6). After the DIT, a significant decrease in distress was reported on a 11-point Likert scale ($Z = -15.698$ $p < 0.001$). Also anxiety levels, measured by the STAI-6, decreased ($Z = -2.520$ $p = 0.012$). Almost all participants (98.9%), were satisfied with the information provided, mean score of 8.5 (SD 1.0) and 88.9% would choose the DIT again, while 5.3% preferred face-to-face counselling. After completing the DIT, 98.6% felt adequately informed (mean 8.5, SD 1.1). The information recall test confirmed this, with 92.9% demonstrating sufficient knowledge of the previously provided information.
Conclusion: This study showed that use of a Digital Intake Tool is feasible and can replace face-to-face counselling for FIT positive screenees. Adequate bowel preparation was achieved in more than 90% of the participants, meeting the requirements of the CRC screening program. Furthermore, the digital transformation did not result in negative patient experiences. Implementing this home-based approach will decrease the burden for screenees and increase outpatient capacity.

Neoadjuvant nivolumab plus relatlimab (anti-LAG3) in locally advanced MMR-deficient colon cancers: the NICHE-3 study

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Background: Neoadjuvant immunotherapy has shown promising responses in various tumor types. In the NICHE-2 study, neoadjuvant nivolumab/ipilimumab in MMR deficient (dMMR) colon cancers resulted in 95% major pathologic responses (MPR), including 67% pathologic complete responses (pCR) within 6 weeks of treatment. In melanoma patients, nivolumab/relatlimab has shown a favorable toxicity profile and promising efficacy in the neoadjuvant setting. We investigated this regimen in patients with non-metastatic dMMR colon cancer (NCT03026140).
Methods: In the NICHE-3 study, patients with resectable, locally advanced (at least cT3 and/or N+), dMMR colon cancer were treated with two doses of nivolumab 480 mg plus relatlimab 480 mg at a 4-week interval, followed by surgery within 8 weeks of registration. Pathologic response was defined as 50% or less residual viable tumor (RVT), and MPR as ≤10% RVT. The primary endpoint was pathologic response rate. According to a Simon-2-stage design, ≥15/19 responders are needed in stage 1 to continue accrual in stage 2. Here we present the prespecified analysis of pathologic response from stage1.
Results: A total of 19 patients were treated and underwent surgery without delays. Grade 1-2 immune-related adverse events (irAEs) were observed in 14/19 patients (74%), with infusion related reactions being the most frequent (43%). Only one patient (5%) experienced a grade 3 irAE (hyperthyroidisim). Endocrinopathy for which supplementation was required was observed in 4 (21%) patients and consisted of 1 patient with hypothyroidism and 3 patients with hypophysitis with secondary adrenal and/or thyroid insufficiency. There were no grade 4-5 irAEs. With a median of 7.4 weeks between the first dose and surgical resection, the treatment resulted in a 79% pCR rate, 89% MPR rate and 100% overall pathologic response rate among 19 patients.
Conclusion: Here we present data from NICHE-3, the first study showing the safety and efficacy of neoadjuvant nivolumab/relatlimab in dMMR colon cancer patients, with a pathologic response in all patients, including 79% pCR. Accrual is currently ongoing in stage 2, in which an additional 40 patients will be treated.

Risk of Occult Lymph Node Metastasis in pT2 Rectal Cancer: a Nationwide Retrospective Analysis

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Background: Advances in transanal surgical and endoscopic resection techniques have increased the use of local excision (LE) as a diagnostic and potentially organ-sparing approach for early-stage (cT1-2N0) rectal cancer (RC). For pT1 RC, total mesorectal excision (TME) can be omitted if histologic risk factors for lymph node metastasis (LNM) and local recurrence are absent, regardless of submucosal invasion depth, as defined by the current Dutch CRC guideline. However, for pT2 RC, completion TME is recommended, irrespective of the presence of histologic risk factors and despite the potentially variable associated risks for LNM. At present, little is known about the incidence and predictive value of histologic risk factors in pT2 RC. This study aims to describe the association between histologic risk factors and LNM rate in pT2 RC.

Methods: All consecutive pT2 RC patients from two large Dutch multicentre retrospective registries who were node-negative on preoperative imaging (cN0) and underwent surgery without neoadjuvant therapy between 2012 and 2020 were analysed. Treatment options included TME and LE followed by completion TME or active MRI surveillance for ≥24 months. The primary outcome was the LNM rate in pT2 RC without the presence of histologic risk factors available in the dataset (lymphovascular invasion (LVI) and poor differentiation (PD)). Secondary outcomes were the predictive value of PD and LVI in univariable and multivariable analyses corrected for age, sex and tumor distance from the anal verge.

Results: In total, 339 pT2 RC patients met the inclusion criteria (mean age 69 years, 64% male). The majority – 262 (77%) patients – underwent primary TME, while LE was performed in 77 (23%). Of these, 58 (75%) patients received completion TME, with the remainder undergoing active surveillance. The overall LNM rate was 16% (53/339). In the 271 patients (80%) without both LVI and PD, the LNM rate was 12.5% (34/271). The presence of either LVI or PD alone resulted in LNM rates of 28% and 14%, respectively. When both LVI and PD were present, LNM occurred in 2 out of 3 cases. In our study, LVI was the only independent predictor of LNM according to univariable and multivariable analyses (p=0.002; adjusted odds ratio 2.8, 95%CI 1.4-5.5).

Conclusion: In this large retrospective cohort, the absence of LVI and PD was associated with a relatively low risk of LNM in patients with pT2 RC. This suggests the presence of a potential low-risk group of pT2 RC patients who may qualify for omission of completion TME. However, to accurately identify this group, a more detailed histologic risk assessment including a wider range of potential histologic risk factors such as tumor budding is warranted.

Mindfulness-based cognitive therapy to reduce psychological distress in patients with Inflammatory Bowel Disease: first results of a multicentre randomised controlled trial (MindIBD).

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Background: Many patients with inflammatory bowel diseases (IBD) suffer from psychological distress and fatigue. Moreover they report a reduced quality of life. The availability of psychosocial treatment options is limited. As mindfulness-based cognitive therapy (MBCT) has been shown to reduce psychological distress and fatigue, and improve quality of life in other populations, MBCT might also be effective in patients with IBD.
Methods: The MindIBD trial was a prospective, multicentre, randomised controlled study, conducted in one academic and three general hospitals in the Netherlands. Patients of 16 years and older with a confirmed IBD diagnosis were eligible if the IBD was in remission (based on faecal calprotectin <250 mg/kg and no changes in IBD medication for at least three months) and they experienced at least mild psychological distress (based on Hospital Anxiety and Depression Scale (HADS) total score ≥ 11). Participants were allocated in the intervention group (MBCT plus treatment as usual) or control group (treatment as usual alone). Assessments were conducted at baseline, post-intervention (3 months) and at 6, 9 and 12 months after baseline. Primary outcome was the effect on psychological distress post-intervention. Secondary outcomes included fatigue, perceived disease control, disease activity, disease-specific quality of life and positive mental health. This trial was registered at ClinicalTrials.gov: NCT04646785.
Results: A total of 142 IBD patients were randomly assigned to the intervention group (n=70) or the control group (n=72). The study population had a median age of 50 years (IQR 39-59 years), consisted of 91 women (64%) and 68 participants (48%) were diagnosed with Crohn's disease. Post-intervention, participants in the intervention group showed a mean decrease on the HADS total of 4.7 ± 6.3 points compared to a mean decrease of 1.2 ± 5.2 points in the control group. This difference in improvement of psychological distress was statistically significant ($p<0.001$), and this benefit was maintained during follow-up ($p=0.005$). MBCT did also result in a significant improvement on fatigue ($p=0.022$) and positive mental health ($p=0.022$) post-intervention. These improvements remained in favour of the intervention group during follow-up, although not significantly different. No differences were found on perceived disease control, disease activity and disease-specific quality of life.
Conclusion: MBCT reduces psychological distress and improves fatigue and positive mental health. Therefore MBCT can be considered as a valuable addition to the limited psychosocial interventions for patients with IBD to improve psychological distress, fatigue and positive mental health.

Evaluation of a lifestyle program based on physical activity on quality of life and fatigue in patients with Inflammatory Bowel Disease: a pilot study

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Background: Patients with inflammatory bowel disease (IBD) tend to be less physical active, whilst maintaining an active lifestyle has been associated with enhanced disease control, diminished fatigue and improved quality of life. The primary objective was to evaluate the potential impact on physical fitness, fatigue, quality of life and disease control of a specially designed exercise program for IBD patients.
Methods: Patients with IBD, treated at two teaching hospitals in the southwest of the Netherlands, participated in a 16-week exercise program (IBD-Fit) between March until June 2023. The program was designed especially for patients with IBD to sport with peers and was adjusted to a patient's fitness level. Improvement of physical fitness (measured with body composition, grip strength, sit-and-reach test, Y-balance test and 6-minute walk test) was analysed. In addition, patients were asked to fill in validated questionnaires at baseline and at the end of the program (IBD-Q, IBD-F and IBD-control), to assess the effect of the exercise program on quality of life, fatigue and disease control. For statistical analyses, a paired t-test or Wilcoxon matched paired rank test was used.
Results: A total of 27/32 patients completed the entire exercise program, with a mean age of 50.4 years (SD 12.5), 40.7% were male, 48.1% had Crohn's disease and 51.9% had ulcerative colitis. After 16 weeks, body composition, such as BMI and muscle mass improved compared to baseline; fat percentage significantly decreased (32.3 to 29.7%; Z=-2.983; P=0.003). Physical fitness improved significantly, based on the sit-and-reach test (23 to 29 cm; Z=-3.03; P=0.002), the absolute reach distance of the Y-balance test (73.7 to 79 cm; Z=-2.77; P=0.006), and the mean distance during a 6-minute walk test (505.2 to 557.5 m; 95%CI 32.6 – 72.2; P<0.001). Grip strength showed no significant improvement. Quality of life improved on average with 8.0 points on the IBDQ. The Systemic Symptoms domain improved significantly (mean difference 2.7; 95%CI 0.1–5.4, P=0.043). The program significantly improved fatigue scores (Z = -2.296, P=0.022). Disease control showed no significant improvement after the program. Overall, patients were very satisfied with the exercise program. Average rating was 8.6 out of 10.
Conclusion: This pilot study in a small number of patients shows that a specially designed exercise program has a positive effect on IBD patients. These results underline the importance to broaden our standard of care and can be used as a steppingstone to implement the program on a larger scale and ultimately become part of the standard of care for patients with IBD.

The prevalence of disorders of anorectal function according to the london classification in >1000 consecutive patients: a prospective, international, multicentre study from the lower gastrointestinal international consortium (LoGIC)

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Background: Clinical and diagnostic assessments of patients with faecal incontinence (FI) and chronic constipation (CC) vary widely. The recent International Anorectal Physiology Working Group (IAPWG) protocol and London classification have provided recommended methods and nomenclature for characterisation of these disorders, though large population studies using this standardised approach have not been performed. Five specialist centres (UK, France, Mexico, Australia, USA) collaborated in this prospective, international, multicentre study.
Aims: (1) Establish an international research collaboration (Lower Gastrointestinal International Consortium [LoGIC]) using the IAPWG protocol and London classification; (2) Describe the prevalence of disorders of anorectal function using the London classification in patients with FI, CC, or coexistent symptoms.
Methods: Collaboration and data sharing agreements were implemented to establish the consortium. Prospective, standardised data collection of symptom questionnaires and results of anorectal tests according to the IAPWG protocol were performed for all adult patients over an 18-month period. Descriptive statistics reported the prevalence of disorders of anorectal function according to the London classification.
Results: 1,012 adult patients were included (866 females, 85.6%), presenting with CC (n=309, 30.5%), FI (n=336, 33.2%), or coexistent symptoms (n=367, 36.3%). Key findings include: Part I: rectoanal areflexia was very uncommon (3.1%); Part II: disorders of anal tone and contractility were more common in patients with FI (61.9%) or coexistent symptoms (59.7%) compared to patients with CC (44.0%; $p<0.01$); Part III: 34.8% of patients overall had abnormal balloon expulsion, but only 13.4% had abnormal expulsion combined with a manometric abnormality. Dyssynergia was uncommon (<10% overall) and had a similar prevalence in each of the three symptom subgroups, raising uncertainty over its clinical utility; Part IV: disorders of rectal sensation were specific for symptom subgroups, with rectal hyposensitivity being more prevalent in patients with CC (10% vs. 5% in FI; $p=0.02$), and rectal hypersensitivity in patients with FI (9% vs. 4% in CC; $p=0.01$).
Conclusion: This initial study from the LoGIC group demonstrates that a prospective, international, multicentre study with standardised data collection in the field of anorectal physiology is feasible and could be expanded globally. Some test results, specifically measurement of anal tone/contractility and rectal sensation, were significantly different between symptom subgroups. These results could guide further refinement of the London classification.

Routine esophagram to detect early esophageal leakage after peroral endoscopic myotomy

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Background: Peroral endoscopic myotomy (POEM) is a successful and safe treatment for achalasia patients. However, there is a substantial practice heterogeneity in postoperative care after POEM and it is unclear if routine postoperative imaging will result in the early detection and better treatment of post-procedural adverse events (AEs). The aim of this study was therefore to evaluate the incidence of early AEs following POEM and to assess whether routine esophagram one day after POEM prevents serious AEs due to early detection of esophageal leakage.
Methods: Patients who underwent POEM between August 2011 and December 2022 were included in this retrospective cohort study. Post-procedural AEs were graded according to the AGREE classification. Until July 2016 routine esophagram was routinely performed one day after POEM, afterwards this was abandoned. The number and severity of post-procedural AEs were compared between patients with and without routine esophagram after POEM. Cases without routine esophagram in which post-procedural AEs occurred were discussed by an adjudication committee to evaluate whether routine esophagram could have been of added value.
Results: In total, 352 patients were included (mean age 47 years, 48% female) and POEM was performed in 344 patients for achalasia (97.7%; type I 20%, type II 54%, type III 10%, unclassified 15%), in three patients for hypercontractile esophagus (0.9%) and in five patients for diffuse esophageal spasm (1.4%). A total of 41 intraprocedural AEs were reported in 38 patients (11%). Nineteen post-procedural AEs occurred of which ten were grade I (2.8%), three grade II (0.9%), five grade IIIa (1.4%) and one grade IVa (0.3%). No post-procedural AEs had resulted in death. Routine esophagram one day after POEM was performed in 129 consecutive patients and two patients underwent repeat endoscopy for endoscopic closure of the esophageal leakage seen on routine esophagram. No difference was found in the number and severity of post-procedural AEs between patients with and without routine esophagram one day after POEM. Conclusion from the adjudication committee was that cases without routine esophagram in which post-procedural AEs occurred would not have benefited from routine esophagram as it would not have detected post-procedural AEs earlier nor reduced its severity.
Conclusion: POEM is safe with relatively low number of AEs. The benefit of routine esophagram one day after POEM is limited as it does not reduce the risk and severity of serious AEs. We propose performing an esophagram only when prompted by symptoms. This will reduce costs and radiation exposure and is likely to allow more rapid discharge of patients after POEM.

Incidence and risk factors of reflux esophagitis after peroral endoscopic myotomy

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Background: Peroral endoscopic myotomy (POEM) is an effective and safe treatment for achalasia, but often leads to post-treatment gastroesophageal reflux disease. Identification of risk factors for reflux esophagitis could help in selecting patients for POEM or pre-emptively start anti-reflux treatment. The aim of this study was therefore to examine the incidence and severity of reflux esophagitis after POEM and to identify associated predictive factors.
Methods: This retrospective cohort study includes patients who underwent POEM between August 2011 and December 2022. The primary outcome of this study was the rate and severity of reflux esophagitis observed during routine endoscopy performed between three months and one year after POEM. Multivariate logistic regression was used to assess predictive factors for reflux esophagitis after POEM. Sensitivity analysis was performed to establish predictors for severe reflux esophagitis (grade C/D).
Results: In total 252 achalasia patients were included (46% female; age range 18-87 years). Achalasia was diagnosed in all patients (type I 19%, type II 60%, type III 9.5%, unclassified 12%). Prior to POEM, 179 patients (71%) had undergone at least one previous endoscopic or surgical treatment. Reflux esophagitis within one year after POEM was observed in 131 patients (52%). Of these patients, reflux esophagitis was classified as grade A in 57 patients (44%), as grade B in 45 patients (34%), as grade C in 25 patients (19%) and as grade D in 4 patients (3.1%). Barrett esophagus was reported in one patient (C1M2; pathology showed intestinal metaplasia without dysplasia) during routine endoscopy seven months after POEM, but it had previously been observed during endoscopy before POEM. Length of full-thickness myotomy (centimeters; OR 1.11, 95%-CI 1.02-1.21), Eckardt scores before POEM (OR 0.84, 95%-CI 0.74-0.96), previous pneumatic dilation (OR 0.51, 95%-CI 0.29-0.91) and previous laparoscopic Heller myotomy (LHM; OR 0.44, 95%-CI 0.23-0.86) were associated with reflux esophagitis after POEM. Alcohol use (none vs. > 7 units per week; OR 3.51, 95%-CI 1.35-9.11) and overweight (BMI ≥ 25 kg/m^2; OR 2.67, 95%-CI 1.17-6.09) were positive predictive factors and previous LHM (OR 0.13, 95%-CI 0.02-0.95) was a negative predictive factor for the presence of severe reflux esophagitis after POEM (LA grade C/D).
Conclusion: About half of the patients develop reflux esophagitis after POEM, but most is mild. Recognizing predictive factors of reflux esophagitis after POEM leads to better patient selection before POEM and provides an opportunity to take preventive measures or start pre-emptive treatment.

Perioperative chemotherapy for gastro-esophageal or gastric cancer: anthracyclin triplets versus FLOT

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Background: The FLOT4-AIO trial (2019) showed improved survival with perioperative fluorouracil, leucovorin, oxaliplatin and docetaxel (FLOT) compared to anthracyclin triplets in gastric cancer treatment. It is unclear whether these results extend to real-world scenarios in the Netherlands. This study aimed to compare outcomes of perioperative FLOT to anthracyclin triplets in a real-world Dutch gastric cancer population.
Methods: Patients diagnosed with resectable (cT2-4a/cTxN0-3/NxM0) gastric or gastroesophageal junction carcinoma between 2015-2021 who received neoadjuvant FLOT or anthracyclin triplets were selected from the Netherlands Cancer Registry. The primary outcome was overall survival (OS), analyzed through multivariable Cox regression. Secondary outcomes included pathological complete response (pCR), neoadjuvant chemotherapy cycle completion, surgical resection rates, and adjuvant therapy.
Results: Adjusted OS showed no significant survival benefit (HR=0.88, 95% CI 0.77-1.01, p=0.07), even though the median OS was numerically improved by 8 months with FLOT compared to anthracyclin triplets (48.1 vs. 39.9 months, p=0.16). FLOT patients were more likely to undergo diagnostic staging laparoscopies (74.2% vs. 44.1%, p<0.001), had higher rates of completing neoadjuvant chemotherapy (OR=1.35, 95% CI 1.09-1.68, p=0.007), receiving adjuvant therapy (OR=1.34, 95% CI 1.08-1.66, p=0.08), and achieving pCR (OR=1.52, 95% CI 1.05-2.20, p=0.03). No significant differences were observed in (radical) resection rates.
Conclusion: Real-world data showed no significant OS improvement for FLOT-treated patients compared to anthracyclin triplets, despite more staging laparoscopies. However, FLOT patients demonstrated higher rates of neoadjuvant therapy completion, proceeding to adjuvant therapy, and increased pCR rates. Therefore, we recommend the continued use of neoadjuvant FLOT therapy in the current clinical setting.

Effect of sub-sensory sacral neuromodulation on faecal incontinence in adults: a randomised crossover trial with cohort follow-up and mechanistic sub-study

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Background: Sacral neuromodulation (SNM) is considered the first-line surgical treatment in adults with faecal incontinence (FI). The clinical efficacy of SNM has never been rigorously determined in a trial setting and the mechanism of action remains unclear.
Methods: Randomised, multicentre, double-blind crossover trial (2x16-week periods) of active stimulation vs. sham followed by (patient-chosen sub/supra-sensory) open-label follow-up to 58 weeks. Embedded mechanistic study using magnetoencephalography (MEG) on functional connectivity between brain and anorectum. Patients (18-80 years) with refractory FI were recruited. Interventions: *active*: subsensory stimulation of a sacral nerve using a surgically implanted pulse generator; *sham*: identical implant but turned off. Primary objectives: to determine whether: (1) sub-sensory SNM led to a reduction in FI episodes per week vs. sham; (2) clinical responses to sub-sensory SNM were biologically related to changes in evoked and induced activity between brain and anorectum. Primary outcome: FI episodes per week (paper bowel diary) during the final 4 weeks of each crossover period (12 weeks washout). Randomised allocation (1:1) to arm 1 (SNM/SHAM) or 2 (SHAM/SNM). Sample size: 80 patients required to detect 30% reduction in episodes (alpha=0.05; power=90%).
Results: 39 patients of 220 screened and 65 pre-enrolled (arm 1: N=17; arm 2: N=22) were recruited to the crossover trial of whom only 16 (arm 1: N=9; arm 2: N=7) had complete primary outcome data. Of these, 19 completed follow-up to 58 weeks. Trial delivery was severely affected by COVID. 25 patients underwent MEG studies compared to 20 healthy volunteers. Primary outcome (N=16): SNM conferred a non-significant reduction in mean FI episodes per week vs. sham (-0.7[95%CI: -1.5-0.0], p=0.06) but effect size varied according to method used to interpret missingness on the paper bowel diary (sensitivity analysis: -0.9[-1.8-0.0], p=0.04). Secondary outcomes: data suggested successful allocation concealment. Improvements were observed in FI symptoms in the follow-up cohort (at 58 weeks) compared to baseline (approx. 3 fewer FI episodes per week). MEG studies demonstrated bidirectional afferent evoked cortical and efferent induced anal activity that did not vary greatly from control subjects and appeared unchanged by SNM.
Conclusion: The experimental efficacy of SNM remains uncertain. Effects on symptoms observed during double-blinded crossover point to some efficacy over sham, though not large in comparison with placebo responses. The magnitude of effect was highly dependent on interpretation of event recording.

The steep ramp test is a valid practical test to assess cardiorespiratory fitness in patients with inflammatory bowel disease

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Background: Comprehensive disease management of inflammatory bowel disease (IBD) requires a holistic approach that extends beyond achieving endoscopic healing. Monitoring health-related physical fitness (HRPF) parameters (*i.e.* body composition, cardiorespiratory fitness, muscular strength, muscular endurance, and flexibility) may lead to a more proactive approach to managing IBD, as IBD may affect HRPF due to *e.g.* chronic inflammation, malnutrition, corticosteroid use, and reduced physical activity. Yet, knowledge regarding HRPF in patients with IBD is limited. Assessment of cardiorespiratory fitness (CRF), a key component of HRPF in other chronic diseases, could offer valuable insights into physical capacity and overall health. However, the gold standard, measuring oxygen uptake at peak exercise (VO_{2peak}) achieved during cardiopulmonary exercise testing (CPET) is impractical for widespread implementation. The steep ramp test (SRT), a short-term maximal exercise test on a cycle ergometer, might serve as a less demanding assessment method to facilitate routine assessment of CRF in clinical practice and deliver more practical endpoints for intervention studies. This study aimed to examine the criterion validity of the SRT as compared with CPET in evaluating CRF in patients with IBD.
Methods: Adult patients with IBD in remission or with mild-to-moderate clinical disease activity were consecutively enrolled. Each participant performed a SRT and a CPET within 14 days to examine CRF. The main outcome measures were the achieved work rate at peak exercise (WR_{peak}) for the SRT (SRT-WR_{peak}) and VO_{2peak} as well as WR_{peak} for CPET (CPET-VO_{2peak} and CPET-WR_{peak}). Validity of the SRT was evaluated with Pearson's correlation coefficients between SRT-WR_{peak} and CPET-VO_{2peak} and SRT-WR_{peak} and CPET-WR_{peak}.
Results: A total of 50 participants, with a mean age of 42.9 years and 56% diagnosed with CD, were included. One participant was excluded from the analysis due to the inability to achieve a maximal effort during CPET. Mean (±SD) WR_{peak} attained at the SRT was 4.32 (±1.06) W·kg^{-1}, and mean (±SD) VO_{2peak} and WR_{peak} achieved during CPET were 33.47 (±9.85) mL·kg^{-1}·min^{-1} and 2.90 (±0.95) W·kg^{-1}, respectively. Robust linear relationships with very strong correlations were observed between SRT-WR_{peak} and CPET- VO_{2peak} ($r=0.944$, $p<0.001$) and SRT-WR_{peak} and CPET-WR_{peak} ($r=0.959$, $p<0.001$).
Conclusion: Results of this study suggest that the SRT is a valid alternative test for examining CRF in patients with IBD, indicating its potential application in both clinical practice and intervention studies. Further research should explore the criterion validity of practical tests for other components of HRPF.

Current evidence and future directions on improving the endoscopic recognition of early colorectal carcinoma using artificial intelligence – a scoping review

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Background: Artificial intelligence (AI) has great potential to improve the endoscopic recognition of early stage colorectal carcinoma (CRC). As a result, AI may facilitate a higher rate of endoscopic resection of early CRC. This scoping review aims to summarize current evidence regarding the use of AI for improving endoscopic recognition of early stage CRC, to identify knowledge gaps on this topic, and to provide an overview of the methodologies currently used.
Methods: A systematic search was performed following the PRISMA-ScR guidelines. PubMed (including Medline), Scopus, Embase, IEEE Xplore, and ACM Digital Library were searched for relevant publications up to April 2023. Studies were suitable for inclusion if AI was used for distinguishing CRC from colorectal polyps on endo(cyto)scopy imaging, using histopathology as gold standard. Sensitivity, specificity, or accuracy should be reported as outcome measures, and articles must be available in English. Study selection was performed by two reviewers independently.
Results: Out of 4185 screened articles, 24 were included in this review. All but three studies were published in the past 5 years. None of the studies reported real-time CADx system testing. Convolutional neural network architectures were used in all studies except one that employed a support vector machine and three studies that did not specify algorithm details. CADx system classification categories ranged from two categories, such as lesions suitable or unsuitable for endoscopic resection, to five categories, such as hyperplastic polyp, sessile serrated lesion, adenoma, cancer, and other. CRC was classified together with adenomas (n=11), in a separate classification category (n=9), or CRC invasion depth was estimated (n=4). The number of images used in testing databases for the CADx systems varied from 69 to 48.391, the latter using dozens of images of one lesion. The diagnostic performances vary, with sensitivities ranging from 55.0-98.1%, specificities from 67.5-100%, and accuracies from 74.7-94.9%.
Conclusion: This scoping review highlights that the use of AI to improve endoscopic recognition of early stage CRC is an upcoming field of research. Diagnostic performances are promising, but large heterogeneity in the methodologies used, should be taken into account when interpreting the results. There is a knowledge gap regarding the real-time performance of CADx systems during multicenter external validation with sufficient amounts of test data. To enhance the utility of CADx systems in clinical practice, future research should focus on the development of CADx systems that can differentiate CRC from premalignant lesions, while also providing a submucosal invasion depth indication.

Exploring diet categorisations and their influence on flare prediction in IBD, using Sparse Group LASSO

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Background: Diet is an important environmental factor that may affect flare occurrence in inflammatory bowel disease (IBD), but analyses are hindered by its complexity. Different a priori and a posteriori dietary assessment tools can be used, such as dietary quality scores and dietary pattern analyses. The Sparse Group LASSO (SGL) might be a novel method combining an a priori and an a posteriori approach. In this study, we aim to explore the SGL method to study whether different food categorisations, representing different dietary patterns, can predict flares in patients with IBD.
Methods: Baseline data on habitual dietary intake and longitudinal data on disease course was collected over a period of 24 months from two cohorts from the Northern and Southern provinces of the Netherlands. Collected food items were classified into 22 food groups. These were further classified into 3 diet categorisations, representing different dietary patterns: model 1. Plant vs animal vs mixed; model 2. Potentially healthy vs neutral vs potentially unhealthy; model 3. Ultra-processed vs not ultra-processed. The SGL parameter 'lambda' identifies important groups using a priori group information, while allowing for only a subset of variables within a group to be important predictors.
Results: Of 724 eligible patients, 427 were in remission at baseline and could be included in the SGL analyses. 106 patients (65.1% female, 34% ulcerative colitis, mean age 43.3 ± 14.7 years) developed a flare within 11.2 ± 6.6 months. There was a significant higher crude food intake of red meat (p=0.028) and vegetables (p=0.027) in patients who developed a flare compared to those remaining in remission. Prediction models were moderate with AUC varying between 0.425 and 0.542 for model 1, 0.512 and 0.562 for model 2 and 0.451 and 0.612 for model 3. All models showed red meat, legumes and vegetables as the first selected predicting variables. Unexpectedly, legumes and vegetables predicted a higher risk on flares independently of their categorisation. This was robust in our data and confirmed by Kaplan-Meier survival analyses. Notably, clinical confounders sex and kilocalorie intake had the highest predictive values in all 3 models.
Conclusion: Categorisation of the same food groups and food items in different ways influences the predictive value of the SGL method. For the present study, categorising according to ultra-processed and not ultra-processed achieved the best prediction model, though still moderate. The current exploration of the SGL method showed that food might not be the most important predictor of flares in IBD. However, red meat, legumes and vegetables were the most important dietary influencers in these cohorts.

Irritable bowel syndrome patients report higher symptom burden in end-of-day versus momentary assessments: results from a psychometric validation study

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Background: Real-time assessment of gastrointestinal (GI) symptoms in irritable bowel syndrome (IBS) using the experience sampling method (ESM) has been suggested as a more accurate measurement approach than currently used end-of-day or end-of-week reports, which are subject to important biases. This study evaluates the validity, reliability, and responsiveness of a previously developed patient-reported outcome measure (PROM), based on ESM, for assessing symptoms in IBS patients.
Methods: This multicenter validation study included 230 Rome IV IBS patients (81% female; mean age 49.4 years) in three European countries. Patients completed the electronic ESM-PROM (at a maximum of ten random moments during the day, with a minimum completion rate of 33%) and an end-of-day symptom diary for seven consecutive days. End-of-week questionnaires, completed after the seven consecutive days, included the Gastrointestinal Symptom Rating Scale for IBS (GSRS-IBS), IBS Severity Scoring System (IBS-SSS), Patient Health Questionnaire-9 (PHQ-9), and General Anxiety Disorder-7 (GAD-7).
Results: ESM assessment completion rate was 71%, corresponding with 49.4 (±10.4) out of 70 assessments per participant over seven days. There were strong and significant associations between ESM scores for GI symptoms to corresponding end-of-day scores (correlation coefficients range 0.651-0.956), with moderate-to-good consistency between the methods (ICCs range 0.580-0.779). However, the end-of-day scores were significantly higher (Δ0.790-1.758) compared to the mean daily ESM scores ($p < 0.001$). The difference between ESM and end-of-week scores was even more pronounced and correlations were weaker (Pearson's r range 0.393-0.802). There was moderate-to-good internal consistency for the five symptom-domains within the ESM-PROM (Cronbach's α coefficients range 0.585-0.887). In addition, first half-week and second half-week scores showed good-to-excellent consistency (ICCs range 0.871-0.958). Last, regarding responsiveness, ESM appears to perform comparably to the current gold standard for assessing treatment efficacy.
Conclusion: This psychometric evaluation demonstrated strong validity and reliability of the ESM-PROM for real-time GI symptom assessment in IBS. This ESM-PROM has several benefits, including a more detailed and accurate view of individual symptom pattern and trigger interactions, compared to retrospective methods. Future studies should explore these interactions, as this leads to a valuable instrument for effectively monitoring disease course and treatment response in personalized healthcare in IBS patients, both in clinical and research settings.

Improving detection and treatment of locally advanced rectal cancer by dual-wavelength quantitative fluorescence molecular endoscopy targeting PD-1 and PD-L1 (ex vivo pre-analysis)

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Background: Colorectal cancer (CRC) is often treated with a combination of neoadjuvant chemoradiotherapy (nCRT) and surgery. Recently, neoadjuvant immunotherapy targeting PD-1/PD-L1, is considered to improve treatment outcomes. Although predicting patient response to immunotherapy is difficult, high expression of PD-L1/PD-1 is expected to be associated with an improved treatment response. We fluorescently labeled the anti-PD-L1 drug durvalumab (durvalumab-680LT) and anti-PD1 drug nivolumab (nivolumab-800CW) to quantitatively measure the PD-1/PD-L1 concentrations *in vivo* using quantitative fluorescence molecular endoscopy. Before starting this clinical study, we used cell lines to allow visualization of the binding of durvalumab-680LT and nivolumab-800CW.
Methods: Three cell lines (HT29, MOLT4, Caco2) were evaluated for PD-1/PD-L1 expression using qPCR, SDS-page, and Western blot. Furthermore, the effect of interferon (5ng/mL or 10ng/mL) and nivolumab (1µM or 10µM) on the PD-L1 and PD-1 expression was evaluated. Caco2 cells were used as a negative control for both PD-1 and PD-L1 expression. Finally, the cells were treated with our fluorescent tracers, nivolumab-800CW or durvalumab-680LT, fixed and the binding of the tracers was analyzed by fluorescence microscopy.
Results: When comparing HT29, MOLT4 and Caco2 cells, PD-L1 protein expression was highest in unstimulated HT29 cells (45.77 ± 12.3 relative protein expression), while MOLT4 cells showed the highest PD-1 protein expression (29.66 ± 1.1 relative protein expression) after interferon stimulation. The protein quantification results were confirmed by qPCR data. Fluorescence microscopy analysis revealed a membranous fluorescence signal on HT29 cells that were treated with durvalumab-680LT (1-10µM) 24h before fixation. Furthermore, we visually observed an increased proliferation/reduced apoptosis in HT29 cells treated with nivolumab or durvalumab-680LT, while nivolumab treatment did not affect the PD-L1 expression. MOLT4 cells grew in suspension, and it was not feasible to perform fluorescence microscopy on nivolumab-800CW-treated MOLT4 cells.
Conclusion: Our preliminary results showed PD-L1 expression and durvalumab-680LT binding in HT29 cells. We are currently exploring the PD-1 expression of interferon-stimulated PBMCs in order to perform fluorescence microscopy with nivolumab-800CW-treated PBMCs. Additional analysis will be performed to assess the increased proliferation and/or reduced apoptosis in durvalumab and nivolumab-treated cells. Finally, these results will be used to validate the fluorescence data acquired in our future clinical study using both tracers in CRC patients starting in Q1 2024.

An unrecognized issue in Crohn's Disease: Ileitis in patients with a permanent ileostomy

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Background: A significant number of patients with Crohn's disease (CD) require intestinal surgery within their disease course and roughly one in ten CD patients undergo stoma placement. However, most guidelines on postoperative management have focused on intestinal resections with (ileocolonic) anastomosis. Recommendations for postoperative surveillance of patients with a permanent ileostomy (PI) are lacking. Therefore, we assessed the endoscopic ileal recurrence of CD in patients with PI and investigated predictive factors for ileal recurrence in these patients.
Methods: We performed a retrospective observational study. CD Patients aged ≥16 years an ileostomy for at least 12 months were included. Medical records of patients with an ileostomy placement between 1988 and 2023 were reviewed. Ileal recurrence was defined as the presence of superficial or deep ulcerations in the ileum, based on the endoscopy report of the gastroenterologist. The selection of predictive factors for CD recurrence were based on current literature and guidelines for postoperative management. The probability of developing ileitis was examined by Kaplan-Meijer analysis. Predictors for ileitis were examined by univariable and multivariable logistic regression analysis.
Results: In total, 169 medical records with diagnosis codes for CD and PI were screened and 108 patients were included (61.1% female, median age 34 years), with a median follow-up of 6.5 years (IQR 3.2-12.7). Disease location at diagnosis was stratified by the Montreal Classification: 9.3% L1, 60.2% L2 and 20.4% L3. Almost 2/3 of the patients received a postoperative ileoscopy. The indication for ileoscopy was symptoms of flare (44.7%), CD surveillance (25.1%) and stenosis (8.8%). Ileitis was present in 38.6% of the performed ileoscopies. The cumulative 1-, 3- and 5-year probability for developing ileitis were respectively 12% (SE 0.040), 22% (SE 0.052) and 30.1% (SE 0.061). In univariate analysis prior treatment with anti-TNF (HR 4.14; 95% CI 1.41-12.12) and failure of ≥2 biologicals (HR 2.48; 95% CI 1.03-5.94) were associated with a higher rate of ileitis. In multivariate analysis only prior treatment with anti-TNF remained a significant predictive factor for ileitis (HR 3.57; 95% CI 1.12-11.48). Further analysis on treatment efficacy was hampered by the small sample size.
Conclusion: In our study, ileitis was present in 38.6% of the performed ileoscopies. Within 5 year after PI placement, 1/3rd of the patients will develop ileitis. Patients who prior failed anti-TNF may benefit from endoscopic surveillance. This implies the need for a postoperative management guideline for CD patients with a permanent ileostomy.