DIGESTIVE DISEASE DAYS

2023

PROGRAMMA

13 en 14 september

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
NVMDL i.o.

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

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Woensdag 13 september 2023

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Plenaire opening en President Select – Brabantzaal 8
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NVGE Invited speaker Dr. M. Iacucci– Brabantzaal 9
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Symposium Sectie IBD en NVGIC - Brabantzaal 9
Symposium Nederlandse Vereniging voor Hepatologie - Brabantzaal 10
Toekenningen erelidmaatschap en lidmaatschap van verdienste 10
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Meet the Expert Chronische Diarree - Zaal 80 19
Seniorenprogramma - Zaal 80 19
Meet the Expert Ischemie - Zaal 80 20
Programma postersessies en studiegroepen - expositiehal 20-23

Tijdstippen diverse ledenvergaderingen woensdag:

Nederlandse Vereniging voor Gastroenterologie	13 september, 12.15 uur in de Brabantzaal
Nederlandse Vereniging voor Hepatologie	13 september, 16.00 uur Baroniezaal

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Donderdag 14 september 2023

Videosymposium Gastrointestinale Endoscopie – Auditorium 24
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Symposium Sectie Gastrointestinale Endoscopie – Auditorium 30
Symposium PhD netwerk – Baroniezaal 31
Symposium MLDS – Microbioom – Baroniezaal 31
Symposium Motiliteit - Baroniezaal 31
Abstractsessie Oncologie II - Baroniezaal 32
Research Netwerk - Baroniezaal 33
Meet the Expert - Parkzaal 34
Symposium Werkgroep Bariatrie - Parkzaal 34
ALV Nederlandse Vereniging van Maag-Darm-Leverartsen – Zaal 80 34
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Programma V&VN MDL – Plenair programma - Brabantzaal 36
Programma V&VN MDL - Endoscopie – Brabantzaal 36
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Programma V&VN MDL - Endoscopie II – Brabantzaal 37
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Postersessies – expositiehal 40-42

Tijdstippen diverse ledenvergaderingen donderdag

Nederlandse Vereniging van Maag-Darm-Leverartsen 14 september, 08.00 uur Zaal 80 en 81

Belangrijke mededeling
over de aanwezigheid van farmaceutische industrieën

Aan alle deelnemers tijdens de Digestive Disease Days op 13 en 14 september 2023

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

Abstractsessie Sectie Gastrointestinale Oncologie en Sectie NVGIC I **Brabantzaal**

Voorzitters: *A. van Lent, R. Schrauwen en J.H.M.B. Stoot*

Voordrachten in het Nederlands, 5 minuten presentatie en 3 minuten discussie

09.30 Risk of synchronous lymph node metastasis in patients with T2 colon cancer in The Netherlands – pushing the boundaries of local treatment? (p. 42)

J. Hanevelt[2], L.M.G. Moons[1], F.P. Vleggaar[1], W.H. de Vos Tot Nederveen Cappel[2], L. van Westreenen[3], [1]Dept. of Gastroenterology, UMC Utrecht, Utrecht, [2]Dept. of Gastroenterology, Isala, Zwolle, [3]Dept. of Surgery, Isala, Zwolle, The Netherlands

09.38 Colonoscopic-Assisted Laparoscopic Wedge Resection versus Segmental Colon Resection for Colonic lesions: A Comparative Cost Analysis (p. 43)

J. Hanevelt[2], L.W. Leicher[1], L.M.G. Moons[1], F.P. Vleggaar[1], J.F. Huisman[2], H.L. van Westreenen[3], W.H. de Vos Tot Nederveen Cappel[2], [1]Dept. of Gastroenterology, UMC Utrecht, Utrecht, [2]Dept. of Gastroenterology, Isala, Zwolle, [3]Dept. of Surgery, Isala, Zwolle, The Netherlands

09.46 Incidence and outcomes of deficient mismatch repair (dMMR) in patients treated for rectal cancer in a national cohort study (p. 44)

E.G.M. van Geffen[2], C.R.C. Hogewoning[1], S.J.A. Hazen[2], T.C. Sluckin[2], M.M. Lange[3], P. Snaebjornsson[4], R.G.H. Beets-Tan[5], C.A.M. Marijnen[6], C. Verhoef[7], M. Chalabi[8], P.J. Tanis[7], M. Kusters[2], T. Aukema[9], [1]Dept. of Surgery, St. Antonius Ziekenhuis, Nieuwegein, [2]Dept. of Surgery, Amsterdam UMC, [3]Dept. of Pathology, UMC, Amsterdam, [4]Dept. of Pathology, Antoni van Leeuwenhoek, Amsterdam, [5]Dept. of Radiology, Antoni van Leeuwenhoek, Amsterdam, [6]Dept. of Radiotherapy, Antoni van Leeuwenhoek, Amsterdam, [7]Dept. of Surgery, Erasmus MC, Rotterdam, [8]Dept. of Gastrointestinal Oncology, Antoni van Leeuwenhoek, Amsterdam, [9]Dept. of Surgery, Haga Ziekenhuis, Den Haag, The Netherlands

09.54 Nationwide standardization of the minimally invasive right hemicolectomy and development of video-based competency assessment tool: a Delphi study (phase 2 of Right Study) (p. 45)

A.A.J. Grüter[1], Y. Derraze[1], U.K. Coblijn[2], E. Belgersq[3], E. Belt[4], P. Van Duijvendijk[5], C. Hoff[6], R. Hompes[1], A. Smits[7], A. Van de Ven [8], H. Westreenen[9], B.R. Toorenvliet[10], P.J. Tanis[11], J.B. Tuynman[1], [1]Dept. of Surgery, Amsterdam UMC, Amsterdam, [2]Dept. of Surgery, Antoni van Leeuwenhoek, Amsterdam, [3]Dept. of Surgery, Zuyderland MC, Heerlen, [4]Dept. of Surgery, Albert Schweitzer Ziekenhuis, Dordrecht, [5]Dept. of Surgery, Gelre Ziekenhuizen, Apeldoorn, [6]Dept. of Surgery, Medisch Centrum Leeuwarden, Leeuwarden, [7]Dept. of Surgery, St Antonius Ziekenhuis, Nieuwegein, [8]Dept. of Surgery, Flevoziekenhuis, Almere, [9]Dept. of Surgery, Isala Ziekenhuizen, Zwolle, [10]Dept. of Surgery, Ikazia Ziekenhuis, Rotterdam, [11]Dept. of Surgery, Erasmus MC, Rotterdam, The Netherlands

10.02 Gastric and duodenal cancer risk in Lynch syndrome: a nationwide cohort study (p. 46)

I.A. Caspers[1], E.L. Eikenboom[2], M. Lopez-Yurda[3], N.C.T. van Grieken[4], T.M. Bisseling[5], E. Dekker[6], B.A.J. Bastiaansen[6], A. Cats[1], M.E. van Leerdam[1], [1]Dept. of Gastrointestinal Oncology, NKI Antoni van Leeuwenhoek, Amsterdam, [2]Dept. of Clinical Genetics, Erasmus MC, Rotterdam, [3]Dept. of Biometrics, NKI Antoni van Leeuwenhoek, Amsterdam, [4]Dept. of Pathology, Amsterdam UMC, Amsterdam, [5]Dept. of Gastroenterology, Radboud UMC, Nijmegen, [6]Dept. of Gastroenterology, Amsterdam UMC, Amsterdam, Nederland

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10.10 Tumour positive peritoneal cytology in patients with gastric cancer is associated with poor outcome: a large nationwide study (p. 47)
K. van der Sluis[1], S. Taylor[1], L. Kodach[2], J.M. van Dieren[1], I.H.J.T. de Hingh[3], B.P.L. Wijnhoven[4], R.H.A. Verhoeven[5], M.A. Vollebergh[6], J.W. van Sandick[1], [1]Dept. of Gastrointestinal Surgery, Kanker Instituut - Antoni Van Leeuwenhoek, Amsterdam, [2]Dept. of Pathology, s Kanker Instituut - Antoni Van Leeuwenhoek, Amsterdam, [3]Dept. of Surgery, Catharina Ziekenhuis, Eindhoven, [4]Dept. of Surgery, Erasmus Medisch Centrum, Rotterdam, [5]Integraal Kankercentrum (IKNL), Integraal Kankercentrum, Utrecht, [6]Dept. of Gastrointestinal Oncology, Kanker Instituut - Antoni Van Leeuwenhoek, Amsterdam, The Netherlands

10.18 Tumour-guided cell free tumour DNA analysis in peritoneal fluids of gastric cancer patients can detect occult peritoneal metastases (p. 48)
K. van der Sluis[1], J.W. van Sandick[1], M.A. Vollebergh[2], J.M. van Dieren[2], N. Hugen[1], K.J. Hartemink[1], A.A.F.A. Veenhof[1], E. Verhoeven[3], J. van der Berg[3], P. Snaebjornsson[3], T. van Wezel[3], M.C. Boelens[3], L. Kodach[3], [1]Dept. of Surgery, Kanker Instituut - Antoni Van Leeuwenhoek, Amsterdam, [2]Dept. of Gastrointestinal Oncology, Kanker Instituut - Antoni Van Leeuwenhoek, Amsterdam, [3]Dept. of Pathology, s Kanker Instituut - Antoni Van Leeuwenhoek, Amsterdam, The Netherlands

10.26 Rapid liver regeneration following PVE/HVE improves overall survival compared to PVE alone – a midterm analysis of the multicentric multicenter DRAGON 0 cohort (p. 49)
R. Korenblik[1], J. Heil[4], S. James[1], J. Smits[1], M. Dewulf[2], C. van der Leij[3], E. Schadde[4], R.M. van Dam[1], [1]Dept. of Surgery, Maastricht University, [2]Dept. of Sugery, Maastricht University Medical Center+, [3]Dept. of Radiology, Maastricht University Medical Center+, Maastricht, [4]Dept. of Physiology, University of Zurich, Zurich, Zwitserland

10.34 Discussie

10.45 Koffie-/theepauze in de expositiehal

11.15 Voor de opening en President Select kunt u zich begeven naar de Brabantzaal

12.30 Lunch in de expositiehal en gemodereerde postersessies

Plenaire opening DDD en President Select — Brabantzaal

Voorzitters: *C.J. van der Woude en A.E. van der Meulen*

11.15 Mycophenolate mofetil is superior to azathioprine for the induction of remission in treatment-naive autoimmune hepatitis [CAMARO trial] (p. 50)

R.J.A.L.M. Snijders[3], A.E.C. Stoelinga[1], T.J.G. Gevers[2], S. Pape[3], M. Biewenga[1], M.E. Tushuizen[1], R.C. Verdonk[4], H.J.M. de Jonge[5], J.M. Vrolijk[6], S.F. Bakker[7], T. Vanwolleghem[8], Y.S. de Boer[9], A.M.C. Baven[10], U.H.W. Beuers[11], A.J. van der Meer[12], N.M.F. van Gerven[13], M.G.M. Sijtsma[14], B.C. van Eijck[15], M.C. van IJzendoorn[16], M. van Herwaarden[17], F.F. van den Brand[18], K. Sebib Korkmaz [19], A.P. van den Berg[20], M.J. Guichelaar[21], A.D. Levens[22], B. van Hoek[1], J.P.H. Drenth[3], [1]Dept. of Gastroenterology and Hepatology, Leiden University Medical Center, [2]Dept. of Gastroenterology and Hepatology, Maastricht University Medical Center, [3]Dept. of Gastroenterology and Hepatology, Radboudumc, Nijmegen, [4]Dept. of Gastroenterology and Hepatology, St. Antonius Hospital, Utrecht, [5]Dept. of Gastroenterology and Hepatology, Jeroen Bosch Hospital, 's Hertogenbosch, [6]Dept. of Gastroenterology and Hepatology, Rijnstate Hospital, Arnhem, [7]Dept. of Gastroenterology and Hepatology, Elisabeth-Tweesteden Hospital, Tilburg, [8]Dept. of Gastroenterology and Hepatology, Antwerp University Hospital, Edegem, België [9]Dept. of Gastroenterology and Hepatology, Amsterdam University Medical Centers, location VU Medical Center, Amsterdam, [10]Dept. of Gastroenterology and Hepatology, Groene Hart Hospital, Gouda, [11]Dept. of Gastroenterology and Hepatology, Amsterdam University Medical Centers, location Academic Medical Center, Amsterdam, [12]Dept. of Gastroenterology and Hepatology, Erasmus University Medical Center, Rotterdam, [13]Dept. of Gastroenterology and Hepatology, Rode Kruis Hospital, Beverwijk, [14]Dept. of Gastroenterology and Hepatology, St. Jansdal Hospital, Harderwijk, [15]Dept. of Gastroenterology and Hepatology, Spaarne Gasthuis, Haarlem, [16]Dept. of Gastroenterology and Hepatology, Hospital Bernhoven, Uden, [17]Dept. of Gastroenterology and Hepatology, Deventer Hospital, [18]Dept. of Gastroenterology and Hepatology, OLVG Oost, Amsterdam, [19]Dept. of Gastroenterology and Hepatology, IJselland Hospital, Capelle aan den IJssel, [20]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, Groningen, [21]Dept. of Gastroenterology and Hepatology, Medisch Spectrum Twente, Enschede, [22]Dept. of Clinical Pharmacy and Toxicology, Leiden University Medical Center, Leiden, The Netherlands

11.23 Interobserver agreement of the modified Rutgeerts' score and new proposed scores for endoscopic postoperative recurrence in Crohn's disease after ileocolic resection (p. 51)

M.T.J. Bak[1], O. van Ruler[1], G. Dijkstra[2], M. Romberg-Camps[3], N.S. Erler[4], K.H.N. de Boer[5], S.V. Jansen[6], S. van der Marel[7], C.S. Horjus[8], M.C. Visschedijk[2], R.L. Goetgebuer[5], W.A. van Dop[9], J. Hoekstra[10], A.G.L. Bodelier[10], I.M. Molendijk[11], L.A.A.P. Derikx[11], F.D.M. van Schaik[12], R.L. West[13], M. Duijvestein[9], C.J. van der Woude[11], A.C. de Vries[11],
[1]Dept. of Surgery, IJsselland Hospital, Capelle aan den IJssel, [2]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, [3]Dept. Gastroenterology- Geriatrics- Internal and Intensive Care Medicine Co-MIK, Zuyderland Medical Center, Heerlen, [4]Dept. of Biostatistics, Erasmus MC, Rotterdam, [5]Dept. of Gastroenterology and Hepatology, Amsterdam University Medical Center, Amsterdam, [6]Dept. of Gastroenterology and Hepatology, Reinier de Graaf Gasthuis, Delft, [7]Dept. of Gastroenterology and Hepatology, Haaglanden MC, Den Haag, [8]Dept. of Gastroenterology and Hepatology, Rijnstate Hospital, Arnhem, [9]Dept. of Gastroenterology and Hepatology, Radboud University Medical Center, Nijmegen, [10]Dept. of Gastroenterology and Hepatology, Amphia Hospital, Breda, [11]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, [12]Dept. of Gastroenterology and Hepatology, University Medical Center Utrecht, [13]Dept. of Gastroenterology and Hepatology, Sint Franciscus Gasthuis & Vlietland, Rotterdam, The Netherlands

11.31 High all-cause 5 years mortality among patients with a T1 colorectal cancer can be adequately predicted by the Charlson Co-morbidity Index (p. 52)
M.R. Naber[1], L. van der Schee[1], A.U.G. van Lent[2], M.M. Laclé[3], L.M.G. Moons[1], [1]Dept. of Gastroenterology, UMCU, Utrecht, [2]Dept. of Gastroenterology, OLVG, Amsterdam, [3]Dept. of Pathology, UMCU, Utrecht, The Netherlands

11.39 **Uitreiking Gastrostart Subsidies**

11.45 **Keynote lecture**: **New developments in endoscopy: IBD and AI**
M. Iacucci, Professor of Gastroenterology, Gastroenterology, University College Cork, Ierland

12.15 **Algemene Ledenvergadering NVGE**

12.30 Lunch in de expositiehal en gemodereerde postersessies

Symposium Sectie Gastrointestinale Oncologie — Brabantzaal

Voorzitters: *M.C.W. Spaander en T.M. Bisseling*

13.30 Hereditaire diffuus maagcarcinoom - Endoscopische surveillance
Dr. T.M. Bisseling, MDL-arts, Radboudumc, Nijmegen

13.45 Hereditaire diffuus maagcarcinoom - (Preventieve) maagresectie
Dr. J.W. van Sandick, chirurg, Kanker Instituut - Antoni van Leeuwenhoek, Amsterdam

14.00 Polyposis van het duodenum - Endoscopische surveillance/endoscopische resectie
Dr. J.W. Poley, MDL-arts, MUMC+, Maastricht

14.15 Polyposis van het duodenum - Duodenumresectie
Dr. M.W.J. Stommel, chirurg, Radboudumc, Nijmegen

14.30 Einde van deze sessie

Symposium Sectie IBD en NVGIC — Brabantzaal

Voorzitters: *M. Duijvestein, A.C. de Vries en O. van Ruler*

14.30 Molecular features of Crohn's disease phenotypes
Dr. M.E. Wildenberg, associate professor, Tytgat Institute, Amsterdam UMC

14.50 Pathophysiology of intestinal fibrosis in Crohn's disease
Dr. M.C. Barnhoorn, MDL-arts i.o., Leids Universitair Medisch Centrum

15.10 The diagnosis and management of intestinal fibrosis in Crohn's disease
Prof. dr. G. Dijkstra, MDL-arts, UMC Groningen

15.30 Surgery for Crohn's disease - related strictures
Prof. dr. A. D'Hoore, Chirurg, UZ Leuven, Leuven, België

16.00 Koffie-/theepauze in de expositiehal

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Symposium Nederlandse Vereniging voor Hepatologie — Brabantzaal

Voorzitters: *R. Maan en M.A. Lantinga*

Thema: **Hot topics in cirrhosis**

16.30 Beta-blockers anno 2023 – do's and don'ts
V. Hernandez-Gea, Hepatoloog, Hospital Clínic de Barcelona, Barcelona, Spanje

17.00 From portal hypertension to acute-on-chronic liver failure
Dr. M.J. Coenraad, MDL-arts, Leids Universitair Medisch Centrum

17.15 Hepatic encephalopathy – prognostic value and treatment?
Dr. R.B. Takkenberg, MDL-arts, Amsterdam UMC

17.30 Einde van deze sessie

Plenaire sessie — Brabantzaal

Voorzitters: *C.J. van der Woude en A.E. van der Meulen*

17.30 **Toekenningen erelidmaatschap en lidmaatschap van verdienste**

17.40 **Uitreiking Dicke Medaille**
Coeliakie: van Celbiologie tot Volksgezondheid
Em. prof. dr. M.L. Mearin Manrique

18.00 **Tytgat Lecture**
Gastroenterology Enigmas
Em. prof. dr. G.N.J. Tytgat

18.20 Informele afsluiting eerste congresdag in de expositiehal

19.30 Diner en cabaret in Beneluxhal

22.00 Lustrumavond in Brabantzaal

WOENSDAG 13 SEPTEMBER

Symposium NVGIC I — Auditorium

Voorzitters: *G.A. Patijn en R.E. Pouw*

09.30 Surgical interventions after endoscopic upper GI-procedures
Prof. dr. med. C.J. Bruns, Director of the Department of General, Visceral, Cancer and Transplantation Surgery, University Hospital of Cologne, Germany

09.40 Endoscopic interventions after upper GI surgery
Dr. R.E. Pouw, MDL-arts, Amsterdam UMC, Amsterdam

09.50 Discussion with clinical cases

10.05 Lastige cholecystectomie na ERCP, cholangitis, cholecystitis of pancreatitis
Dr. P.R. de Reuver, chirurg, Radboudumc, Nijmegen

10.15 ERCP na galwegletsel
Dr. A. Inderson, MDL-arts, LUMC, Leiden

10.25 Discussion with clinical cases

10.45 Koffie-/theepauze in de expositiehal

11.15 Voor de opening en president select kunt u zich begeven naar de Brabantzaal

12.30 Lunch in de expositiehal en gemodereerde postersessies

Abstractsessie NVGIC II — Auditorium

Voorzitters: *W.H. Kopp en I.P.J. Alwayn*

Voordrachten in het Nederlands, 5 minuten presentatie en 3 minuten discussie

13.30 Current guidelines for the treatment and follow-up of gallbladder polyps lead to a high number of unwarranted cholecystectomies: results of the POLYP study. (p. 53)
E.A.J. de Savornin Lohman[1], M. van Dooren[2], P.R. de Reuver[2], [1]Dept. of Surgery, Radboudumc, Amsterdam, [2]Dept. of Surgery, Radboudumc, Nijmegen, Nederland

13.38 Laparoscopic cholecystectomy is associated with Textbook Outcome for the treatment of patients with abdominal pain and uncomplicated symptomatic gallstone disease (p. 54)
D.J. Comes[1], P.R. de Reuver[3], F.M. Thunnissen[1], C.S.S. Latenstein[2], C.J.H.M. Van Laarhoven[3], J.P.H. Drenth[4], F. Atsma[5], M.A. Lantinga[6], [1]Dept. of Gastrointestinal Surgery, Radboudumc, Nijmegen, [2]Dept. of Surgery, Rijnstate Hospital, Arnhem, [3]Dept. of Surgery, Radboudumc, Nijmegen, [4]Dept. of Gastroenterology and Hepatology, Radboudumc, Nijmegen, [5]IQ Healthcare, Radboudumc, Nijmegen, [6]Dept. of Gastroenterology and Hepatology, Amsterdam UMC location AMC, Amsterdam, The Netherlands

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13.46 Feasibility of bedside endoscopic assessment of colorectal anastomoses in the early postoperative course: a pilot study (p. 55)
D.J. Nijssen[1], W. Lameris[1], J.B. Tuynman[1], R. Hompes[2], [1]Dept. of Surgery, Amsterdam UMC, location VUmc, Amsterdam, [2]Dept. of Surgery, Amsterdam UMC, location AMC, Amsterdam, The Netherlands

13.54 Long-term follow-up study of necrotising pancreatitis: interventions, complications, and quality of life. (p. 56)
R.A. Hollemans[1], H.C. Timmerhuis[1], M.G. Besselink[2], M.J. Bruno[3], R.C. Verdonk[4], H.C. Santvoort[5], [1]Dept. of Research & Development, St. Antonius Hospital, Nieuwegein, [2]Dept. of Surgery, AUMC, Amsterdam, [3]Dept. of Gastroenterology, Erasmus MC, Rotterdam, [4]Dept. of Gastroenterology, St. Antonius Hospital, Nieuwegein, [5]Dept. of Surgery, St. Antonius Hospital, Nieuwegein, The Netherlands

14.02 Minimally invasive versus open distal pancreatectomy for resectable pancreatic cancer: an international randomized trial (p. 57)
M. Korrel[1], L. Jones[1], J. Van Hilst[2], O. Busch[1], A. Emmen[1], B. Groot Koerkamp[3], R. De Kleine[4], D. Lips[5], M. Luyer[6], M. Besselink[1], M. Abu Hilal[7], [1]Dept. of Surgery, Amsterdam UMC, Amsterdam, [2]Dept. of Surgery, OLVG, Amsterdam, [3]Dept. of Surgery, Erasmus MC, Rotterdam, [4]Dept. of Surgery, UMC Groningen, Groningen, [5]Dept. of Surgery, Medisch Spectrum Twente, Enschede, [6]Dept. of Surgery, Catharina Ziekenhuis, Eindhoven, [7]Dept. of Surgery, Poliambulanza Hospital Brescia, Brescia, Italy

14.10 Reactivation leakages following stoma reversal after rectal cancer surgery; an underestimated problem (p. 58)
K.R. Wienholts[1], S. Sharabiany[1], J.H.W. de Wilt[2], R. Hompes[1], P.J. Tanis[1], [1]Dept. of Surgery, Amsterdam UMC, location AMC, Amsterdam, [2]Dept. of Surgery, Radboudumc, Nijmegen, The Netherlands

14.18 Economic burden of pelvic sepsis after anastomotic leakage following rectal cancer surgery: a retrospective cost-of-illness analysis (p. 59)
K.R. Wienholts[1], D.J. Nijssen[1], S. Sharabiany[1], P.J. Tanis[1], M.J. Postma[2], W. Laméris[1], R. Hompes[1], [1]Dept. of Surgery, Amsterdam UMC, location AMC, Amsterdam, [2]Dept. of Health Evidence, University Medical Center Groningen, University of Groningen, Groningen, The Netherlands

14.30 Einde van deze sessie

WOENSDAG 13 SEPTEMBER

Symposium Sectie NVGIC/NVCO II — Auditorium

Voorzitters: *E. van der Stok en R. Hompes*

14.30 Chirurgische behandeling van complicaties na coloscopie/endoscopische colorectale interventies
Dr. R. Hompes, chirurg, Amsterdam UMC

14.52 Endoscopische behandeling van naadlekkage na anterior resectie: rol van de MDL-arts
Dr. L.M.G. Moons, MDL-arts, UMC Utrecht

15.14 Gecombineerde chirurgisch-endoscopische benadering van grote colonpoliepen
Dr. H.L. van Westreenen, chirurg, Isala, Zwolle

15.36 EUS geleide transrectale puncties bij diagnostische lymfeklier dilemma's in orgaansparende behandeling van rectumtumoren
Dr. F. ter Borg, MDL-arts, Deventer Ziekenhuis

16.00 Koffie-/theepauze in de expositiehal

Research Netwerken — Auditorium

Voorzitter: *M. Duijvestein*

16.30 **ICC**
Dr. M.C. Visschedijk, MDL-arts, UMC Groningen

Voorzitter: *C.J. Sperna Weiland*

16.55 **Pancreatitis Werkgroep Nederland**
Hoe we samen gaan voor het centrale orgaan
Dr. R.P. Voermans, MDL-arts, Amsterdam UMC
Dr. S.A.W. Bouwense, chirurg, Maastricht UMC+
Drs. M.J.P. de Jong, arts-onderzoeker MDL, Radboudumc

17.30 Voor de plenaire sessie kunt u zich begeven naar de Brabantzaal

Career event NVMDL i.o. — Baroniezaal

Voorzitters: *C.M. de Klerk en D. Wintjens*

08.30 **College Tour MDL**
Dr. R.E. Pouw, MDL-arts, Amsterdam UMC, Amsterdam
Dr. P. Koehestanie, MDL-arts, Bravis Ziekenhuis, Bergen op Zoom
Dr. F. Dirksmeier-Harinck, MDL-arts, Franciscus Gasthuis & Vlietland, Rotterdam

09:30 Einde van deze sessie

10.45 Koffie-/theepauze in de expositiehal

11.15 Voor de opening en President Select kunt u zich begeven naar de Brabantzaal

12.30 Lunch in de expositiehal en gemodereerde postersessies

Abstractsessie Nederlandse Vereniging voor Hepatologie — Baroniezaal

Voorzitters: *E.M.M. Kuiper en A.J.P. van der Meer*

Voordrachten in het Nederlands, 5 minuten presentatie en 3 minuten discussie

13.30 Relationship between presence of metabolic dysfunction associated fatty liver disease and change in liver stiffness in individuals with chronic hepatitis B (p. 60)
L.A. Patmore[3], M.J. Sonneveld[3], K.M.A. van Eekhout[1], O.M. Koc[2], R.J. de Knegt[3], H.L.A. Janssen[3], W.P. Brouwer[3], M. Kramer[2], P. Honkoop[4], J. de Bruijne[5], G.J. Boland[6], R.A. de Man[3], R.B. Takkenberg[1], [1]Dept. of Gastroenterology and Hepatology, Amsterdam University Medical Centers, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Maastricht University Medical Center, Maastricht, [3]Dept. of Gastroenterology and Hepatology, Erasmus MC, University Medical Center, Rotterdam, [4]Dept. of Gastroenterology and Hepatology, Albert Schweitzer Hospital, Dordrecht, [5]Dept. of Gastroenterology and Hepatology, Utrecht UMC, Utrecht, [6]Dept. of Medical Microbiology, Utrecht UMC, Utrecht, The Netherlands

13.38 Low HBV DNA and HBsAg levels at 24 weeks off-treatment predict sustained re sponse and HBsAg loss in patients who discontinued antiviral therapy (p. 61)
M.J. Sonneveld[1, 1]Dept. of Gastroenterology and Hepatology, Erasmus MC, University Medical Center, Rotterdam.

13.46 Predictors of hepatic flares after nucleos(t)ide analogue cessation - Results of a global cohort study (RETRACT-B study) (p. 62)
E.J. Dongelmans[10], G. Hirode[1], B.E. Hansen[2], C.H. Chen[3], T.H. Su[4], W.K. Seto[5], A. Furquim d'Almeida[6], S. van Hees[6], M. Papatheodoridi[7], S. Lens[8], G.L.H. Wong[9], S.M. Brakenhoff[10], R.N. Chien[11], J.J. Feld[1], H.L.Y. Chan[12], X. Forns[8], G.V. Papatheodoridis[7], T. Vanwolleghem[6], M.F. Yuen[5], Y.C. Hsu[13], J.H. Kao[4], M. Cornberg[14], M.J. Sonneveld[10], W.J. Jeng[11], H.L.A. Janssen[10], Toronto Center for Liver Disease, Toronto General Hospital, University Health Network, Toronto, Canada [2]Dept. of Epidemiology and Biostatistics, Erasmus MC, Rotterdam, [3]Dept. of Internal Medicine, Kaohsiung Chang Gung Memorial Hospital, Kaohsiung City, Taiwan, [4]Dept.

of Internal Medicine, National Taiwan University Hospital, Taipei, Taiwan [5]Dept. of Medicine, The University of Hong Kong, Hong Kong, Hongkong [6]Dept. of Gastroenterology and Hepatology, Antwerp University Hospital, Antwerp, Belgium [7]Dept. of Gastroenterology, Medical School of National and Kapodistrian University of Athens, Athens, Griekenland [8]Dept. of Hepatology, University of Barcelona, Barcelona, Spain [9]Dept. of Analytical Sciences, The Chinese University of Hong Kong, Hong Kong, Hongkong [10]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, [11]Dept. of Gastroenterology and Hepatology, Chang Gung Memorial Hospital Linkou Medical Center, Chang Gung University, Taoyuan, Taiwan [12]Dept. of Medicine, The Chinese University of Hong Kong, Hong Kong, Hongkong [13]Dept. of Gastroenterology and Hepatology, Center for Liver Diseases, E-Da Hospital/I-Shou University, Kaohsiung, Taiwan[14]Dept. of Gastroenterology, Hepatology and Endocrinoligy, Hannover Medical School; Centre for Individualized Infection Medicine (CiiM), Hannover, Germany

13.54 A multi-center randomized controlled study of Primary preventiOn of esophageal vaRiceal bleeding in cirrhotic patients Treated with HVPG-guided therapy Or Standard heart rate-guided therapy: an interim analysis of the PORTHOS trial (p. 63)

A.G.C. Broekhoven[1], J.S. Schaapman[1], A.J.C. Kerbert[1], H.W. Verspaget[1], B. van Hoek[1], S.C. Cannegieter[2], A.R. Erkel[3], W.B. van den Hout[4], B.J.A. Mertens[5], R.A. Veenendaal[1], U.R. Beuers[6], R.B. Takkenberg[6], C.M.J. van Nieuwkerk[6], J.P.H. Kuyvenhoven[7], T. van Wolleghem[8], M.J. Coenraad[1], [1]Dept. of Gastroenterology and Hepatology, Leids Universitair Medisch Centrum, Leiden, [2]Dept. of Clinical Epidemiology, Leids Universitair Medisch Centrum, Leiden, [3]Dept. of Radiology, Leids Universitair Medisch Centrum, Leiden, [4]Dept. of Medical Decision Analysis, Leids Universitair Medisch Centrum, Leiden, [5]Dept. of Medical Statistics, Leids Universitair Medisch Centrum, Leiden, [6]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, [7]Dept. of Gastroenterology and Hepatology, Spaarne Gasthuis, Hoofddorp, [8]Dept. of Gastroenterology and Hepatology, UZ Antwerpen, Antwerpen, Belgium

14.02 Deep tissue exposure of antibiotics at the target site of infection in patients with cystic liver disease: a randomized pharmacokinetic trial (p. 64)

M.A. Lantinga[4], L.H.P. Bernts[1], R.J.M. Brüggemann[2], A.M.E. Jansen[2], N.G.L. Jager[2], H.F.L. Wertheim[3], J.P.H. Drenth[1], [1]Dept. of Gastroenterology and Hepatology, Radboudumc, Nijmegen, [2]Dept. of Clinical Pharmacy, Radboudumc, Nijmegen, [3]Dept. of Medical Microbiology, Radboudumc, Nijmegen, [4]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, The Netherlands

14.10 Antibodies against multiple post-translationally modified proteins aid in diagnosis of autoimmune hepatitis and associate with complete biochemical response to treatment (p. 65)

A.E.C. Stoelinga[3], M.D. van den Beukel[2], A. van der Meer[1], S. van der Meulen[2], L. Zhang[2], M.E. Tushuizen[3], L.A. Trouw[2], B. van Hoek[3], [1]Dept. of Gastroenterology and Hepatology, Erasmus Medical Center, Rotterdam, [2]Dept. of Immunology, Leiden University Medical Center, Leiden, [3]Dept. of Gastroenterology and Hepatology, Leiden University Medical Center, Leiden, The Netherlands

14.18 Real-world experience with fibrates in patients with primary biliary cholangitis (p. 66)

M.C. van Hooff[27], R.C. de Veer[27], A.J. van der Meer[27], E. Werner[27], U.H.W. Beuers[1], J.P.H. Drenth[2], F.J.C. Cuperus[3], B. van Hoek[4], J.T. Brouwer[5], M. Klemt-Kropp[6], S. van Meer[7], R.C. Verdonk[8], H.J. Flink[9], J.M. Vrolijk[10], T.J. Gevers[11], C.Y. Ponsioen[1], J.E. van Rooij[12], M.J. Kerbert-Dreteler [13], J. Sint Nicolaas[14], J.M. de Vree[15], A.C. Poen[16], P.W. Friederich[17], M.M. Tielemans[18], H. Aktas[19], D.M. Hotho[20], U. de Wit[21], J.P. Kuyvenhoven[22], S. Abraham[23], E. Kuiper[24], S. Schmittgens[25], Y.A. Alderlieste[26], H.L.A. Janssen[27], B.E. Hansen[28], N.S. Erler[28], [1]Dept. of Gastroenterology and Hepatology, Amsterdam University Medical Center, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Radboud University Medical Center, Nijmegen, [3]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, Groningen, [4]Dept. of

Gastroenterology and Hepatology, Leiden University Medical Center, Leiden, [5]Dept. of Gastroenterology and Hepatology, Reinier de Graaf Gasthuis, Delft, [6]Dept. of Gastroenterology and Hepatology, Noordwest Hospital Group, Alkmaar, [7]Dept. of Gastroenterology and Hepatology, University Medical Center Utrecht, Utrecht, [8]Dept. of Gastroenterology and Hepatology, Antonius Hospital, Nieuwegein, [9]Dept. of Gastroenterology and Hepatology, Catharina Hospital, Eindhoven, [10]Dept. of Gastroenterology and Hepatology, Rijnstate Hospital, Arnhem, [11]Dept. of Gastroenterology and Hepatology, Maastricht University Medical Center, Maastricht, [12]Dept. of Gastroenterology and Hepatology, Tjongerschans Hospital, Heerenveen, [13]Dept. of Gastroenterology and Hepatology, Medisch Spectrum Twente, Enschede, [14]Dept. of Gastroenterology and Hepatology, Amphia Hospital, Breda, [15]Dept. of Gastroenterology and Hepatology, Treant Hospital, Emmen/Hoogeveen, [16]Dept. of Gastroenterology and Hepatology, Isala Hospital, Zwolle, [17]Dept. of Gastroenterology and Hepatology, Meander Medical Center, Amersfoort, [18]Dept. of Gastroenterology and Hepatology, Bravis Hospital, Roosendaal, [19]Dept. of Gastroenterology and Hepatology, Hospital Group Twente (ZGT), Hengelo, [20]Dept. of Gastroenterology and Hepatology, St Jansdal Hospital, Harderwijk, [21]Dept. of Gastroenterology and Hepatology, Elisabeth – Tweesteden Hospital (ETZ), Tilburg, Tilburg, [22]Dept. of Gastroenterology and Hepatology, Spaarne Gasthuis Hospital, Haarlem, [23]Dept. of Gastroenterology and Hepatology, Alrijne Hospital, Leiden, [24]Dept. of Gastroenterology and Hepatology, Maasstad Hospital, Rotterdam, [25]Dept. of Gastroenterology and Hepatology, Nij Smellinghe Hospital, Drachten, [26]Dept. of Gastroenterology and Hepatology, Beatrix Hospital, Gorinchem, [27]Dept. of Gastroenterology and Hepatology, Erasmus MC, University Medical Center Rotterdam, Rotterdam, [28]Dept. of Biostatistics, Erasmus MC, University Medical Center Rotterdam, Rotterdam, The Netherlands

14.30 Einde van deze sessie

ALV NVH — Baroniezaal

16.00 Algemene Ledenvergadering NVH

Research Netwerken — Baroniezaal

Voorzitters: *L.M.G. Moons en J.H.M.B. Stoot*

16.30 **DCCG (Dutch colorectal cancer group)**
Prof. dr. Hans de Wilt, chirurg, Radboudumc, Nijmegen
Dr. Geraldine Vink, programmamanager PLCRC, UMC Utrecht

Voorzitter: *E.J. de Groof en J.F.M. Lange*

16.55 **ICC-S (Initiative on Crohn and Colitis -Surgery)**

De oncologische principes van IBD chirurgie - hope for CURE in IBD
Dr. J.D.W. van der Bilt, IBD chirurg, Flevoziekenhuis Almere/Amsterdam UMC
Dr. M. Richir, IBD chirurg, UMC Utrecht

17.30 Voor de plenaire sessie kunt u zich begeven naar de Brabantzaal

Abstractsessie NVGIC en IBD — Parkzaal

Voorzitter: *M.C. Visschedijk en J.F.M. Lange*

Voordrachten in het Nederlands, 5 minuten presentatie en 3 minuten discussie

09.30 Immune and Molecular profiling of the dysplasia to carcinoma sequence in IBD and IBD/PSC using novel spatial transcriptomics. (p. 67)
S. Frigerio[1], H.N. Khan[1], E.A. Neefjes-Borst[2], B. Mol[1], C.I.J. Ponsioen[1], G.R.A.M. D'Haens[1], J. Grootjans[1], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, location AMC, Amsterdam, [2]Dept. of Pathology, Amsterdam UMC, location AMC, Amsterdam, The Netherlands

09.38 Methotrexate Polyglutamates in Paediatric Inflammatory Bowel Disease: Novel Tool for Therapeutic Drug Monitoring? (p. 68)
E. Vermeer[3], E.A. Struijs[1], K.H.N. de Boer[2], R. de Jonge[1], T.G.J. de Meij[3], [1]Dept. of Clinical Chemistry, Amsterdam UMC, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [3]Dept. of Pediatric Gastroenterology Hepatology and Nutrition, Amsterdam UMC, Amsterdam, The Netherlands

09.46 PRediction Tool for Early Identification of Patients at Risk of Crohn's Disease in Perianal Fistulas and Abscesses (PREFAB): a Prospective Pilot Study at a Non-academic, IBD-expert Centre in The Netherlands (p. 69)
L.J. Munster[1], E.J. de Groof[1], S. van Dieren[2], M.W. Mundt[3], G.R.A.M. D'Haens[4], W.A. Bemelman[2], C.J. Buskens[2], J.D.W. van der Bilt[1], [1]Dept. of Surgery, Flevoziekenhuis/Amsterdam UMC, location AMC, Amsterdam, [2]Dept. of Surgery, Amsterdam UMC, location AMC, Amsterdam, [3]Dept. of Gastroenterology, Flevoziekenhuis, Almere, [4]Dept. of Gastroenterology, Amsterdam UMC, location AMC, Amsterdam, The Netherlands

09.54 Platelet-rich stroma during surgery for treatment-refractory perianal fistulizing Crohn's disease is a promising therapy for beneficial long-term outcomes (p. 70)
M.T.J. Bak[3], C.D.M. Witjes[1], R.S. Dwarkasing[2], J.H.C. Arkenbosch[3], G.M. Fuhler[3], C.J. van der Woude[3], A.C. de Vries[3], O. van Ruler[1], [1]Dept. of Surgery, IJsselland Hospital, Capelle aan den IJssel, [2]Dept. of Radiology, Erasmus MC, Rotterdam, [3]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, The Netherlands

10.02 Early fecal calprotectin levels predict postoperative recurrence of Crohn's Disease: data from the REPREVIO trial (p. 71)
L. Oldenburg[11], C. Taxonera[1], A. Lopez-Sanroman[2], P. Nos[3], S. Danese[4], A. Armuzzi[5], X. Roblin[6], L. Peyrin-Biroulet[7], R. West[8], B. Witteman[9], M. Duijvestein[10], K. Gecse[11], M. Hulshoff[11], N. Mostafavi[11], E. Clasquin[11], Y. Bouhnik[12], D. Laharie[13], G.R.A.M. D'Haens[11], [1]Dept. of Gastroenterology and Hepatology, Hospital Clinico San Carlos, Madrid, Spain [2]Dept. of Gastroenterology, Hospital Ramon Y Cajal, Madrid, Spain [3]Dept. of Gastroenterology, Hospital Universitario y Politecnico La Fe de Valencia, Valencia, Spain [4]Dept. of Gastroenterology, Instituto Clinico Humanitas, Rozzano, Italië [5]Dept. of Gastroenterology, IRCCS Humanitas Research Hospital, Rozzano, Italy [6]Dept. of Gastroenterology, CHU Saint-Etienne, Saint Priest, France [7]Dept. of Gastroenterology, CHRU de Nancy, Brabois, France [8]Dept. of Gastroenterology and Hepatology, Franciscus Gasthuis & Vlietland, Rotterdam, [9]Dept. of Gastroenterology, Ziekenhuis Gelderse Vallei, Ede, [10]Dept. of Gastroenterology and Hepatology, RadboudUMC, Nijmegen, [11]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [12]Dept. of Gastroenterology, Hopital Beaujon, Clichy, France [13]Dept. of Gastroenterology, Hopital du Haut-Leveque, Pessac, France

10.10 Response To Tofacitinib in Ulcerative Colitis Predicted By A Machine-Learning Algorithm; A Multi-Omics Approach (p. 72)
D.C. de Jong[2], B. Voermans[1], S. van Gennep[2], V.W. Joustra[2], J.M.G. van Oostrom[2], A.Y.F. Li Yim[3], I.C.N. Fung[4], R.K. Ramkisoen[2], E. Clasquin[2], J. de Jong[2], L.C.S. de Vries[2], M. Davids[1], W.J. de Jonge[4], E. Levin[5], K.B. Gecse[2], M. Löwenberg[2], J. Woolcott[6], G.R.A.M. D'Haens[2],
[1]Dept. of Vascular Medicine, Amsterdam University Medical Center, University of Amsterdam, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Amsterdam University Medical Center, University of Amsterdam, Amsterdam, [3]Dept. of Human Genetics, Amsterdam University Medical Center, University of Amsterdam, Amsterdam, [4]Tytgat Institute for Liver and Intestinal Research, Amsterdam University Medical Center, University of Amsterdam, Amsterdam, [5]HORAIZON Technology BV, Delft, [6]Dept. of Gastroenterology, Pfizer Inc., Collegeville, PA, United States

10.18 Major variation in endoscopic recurrence rates after ileocolic resection for Crohn's disease – a systematic review and meta-analysis (p. 73)
E.M.L. van der Does de Willebois[3], V. Bellato[1], M. Duijvestein[2], S. van Dieren[3], S. Danese[1], P. Sileri[1], C.J. Buskens[3], A. Vignali[1], W.A. Bemelman[3], [1]Dept. of Surgery, Coloproctology and Inflammatory Bowel Disease Unit, HSR, Milan, Italy [2]Dept. of Gastroenterology and Hepatology, Radboud UMC, Nijmegen, [3]Dept. of Surgery, Amsterdam UMC, Amsterdam, The Netherlands

10.26 Discussie

10.45 Koffie-/theepauze in de expositiehal

11.15 Voor de opening en President Select kunt u zich begeven naar de Brabantzaal

12.30 Lunch in de expositiehal en gemodereerde postersessies

Meet the Expert NVH — Parkzaal

Moderators: *R. Maan, M.A. Lantinga en F.J.C. Cuperus*

Voor deze sessie moet van tevoren worden ingeschreven.

14.30 Baveno VII - renewing consensus in portal hypertension in Dutch clinical practice
V. Hernandez-Gea, hepatoloog, Hospital Clínic de Barcelona, Barcelona, Spanje

16.00 Koffie-/theepauze in de expositiehal

WOENSDAG 13 SEPTEMBER

Research Netwerken — Parkzaal

Voorzitter: *O.R. Busch*

16.30 **DPCG (Dutch Pancreatic Cancer Group)**

PACAP project en trial
Dr. A. Latenstein, arts-onderzoeker, Amsterdam UMC

EUS geleide gastroenterostomie en ENDURO trial
Prof. dr. F.P. Vleggaar, MDL-arts, UMC Utrecht

Voorzitter: *M.D.P. Luyer*

16.55 **DUCG (Dutch Upper GI cancer group)**
Dr. R. Pouw, MDL-arts, Amsterdam UMC

17.30 Voor de plenaire sessie kunt u zich begeven naar de Brabantzaal

Meet the Expert — Zaal 80

Thema: **Chronische diarree**

09.30 *Deze sessie - waarvoor tevoren moet worden ingeschreven - wordt verzorgd door:*
Dr. A.C.W. Vos, MDL-arts, Alrijne Ziekenhuis, Leiderdorp
Dr. C.H.M. Clemens, MDL-arts, Alrijne Ziekenhuis, Leiderdorp

10.45 Einde van deze sessie, koffie-/theepauze in de expositiehal

11.15 Voor de opening en President Select kunt u zich begeven naar de Brabantzaal

12.30 Lunch in de expositiehal en gemodereerde postersessies

Seniorenprogramma — Zaal 80

12.00 Ontvangst en lunch tot 13.00 in het Uithof Restaurant (gele zone)

Voorzitters: *J.F.W.M. Bartelsman en H.P.M. Festen*

13.00 6-TG, meer dan 20 jaar strijd voor registratie
Prof. dr. C.J.J. Mulder

13.30 Geschiedenis van de Electrogastrografie
Prof. dr. A.J.P.M. Smout

14.00 Enigmata in de Gastroenterologie
Em. prof. dr. G.N.J. Tytgat

14.30 Discussie n.a.v. enkele stellingen
15.00 Einde programma en evt. aansluiten bij vervolgprogramma in diverse zalen.

WOENSDAG 13 SEPTEMBER 2023

Meet the Expert — Zaal 80

Thema: **Ischemie**

16.30 *Deze sessie - waarvoor tevoren moet worden ingeschreven - wordt verzorgd door:*
Prof. dr. J.J. Kolkman, MDL-arts, Medisch Spectrum Twente, Enschede
Dr. J.T.M. Blauw, chirurg, Tjongerschans Ziekenhuis, Heerenveen

17.30 Einde van deze sessie

Voor de plenaire sessie kunt u zich begeven naar de Brabantzaal

Posters studiegroepen I — Expositiehal

Moderator: *C.J. van der Zijden*

10.50 LOGICA - Laparoscopic versus Open Gastrectomy. A multicenter prospectively randomized controlled trial
L. Triemstra, arts-onderzoeker, UMC Utrecht

10.55 PLASTIC - Evaluation of PET and Laparoscopy in STaglng advanced gastric Cancer: a multicenter prospective study
L. Triemstra, arts-onderzoeker, UMC Utrecht

11.00 PEPMEN trial: Paravertebral catheter versus EPidural analgesia in Minimally invasive Esophageal resectioN: a randomized controlled multicenter trial
C.D. Kooij, arts-onderzoeker, UMC Utrecht

11.05 SANO - Surgery As Needed for Oesophageal cancer
C.J. van der Zijden, arts-onderzoeker, Erasmus MC, Rotterdam

Postersessie I **Expositiehal**

Moderator: *R.L. Goetgebuer*

12.35 Quality of life in IBD: what is the role of age? (p. 74)
M.M. ter Avest[8], Q.M. Bredero[1], P.W.A. Thomas[2], E.M.B. Hendrix[3], M.G.V.M. Russel[4], M. Duijvestein[2], M.J.L. Romberg-Camps[5], R.L. West[6], M.J. Pierik[3], J.M. Jansen[7], T.E.H. Römkens[8], G. Dijkstra[9], L.H.C. Nissen[8], [1]Dept. of Health Psychology, University Medical Centre Groningen, University of Groningen, Groningen, [2]Dept. of Gastroenterology and Hepatology, Radboud University Medical Centre, Nijmegen, [3]Dept. of Internal Medicine, Division of Gastroenterology and Hepatology, Maastricht University Medical Centre, Maastricht, [4]Dept. of Gastroenterology and Hepatology, Medisch Spectrum Twente, Enschede, [5]Dept. Gastroenterology-Geriatrics- Internal and Intensive Care Medicine Co-MIK, Zuyderland Medical Centre, Sittard-Geleen, [6]Dept. of Gastroenterology and Hepatology, Franciscus Gasthuis en Vlietland, Rotterdam, [7]Dept. of Gastroenterology and Hepatology, Onze Lieve Vrouwe Gasthuis, Amsterdam, [8]Dept. of Gastroenterology and Hepatology, Jeroen Bosch Hospital, 's-Hertogenbosch, [9]Dept. of Gastroenterology and Hepatology, University Medical Centre Groningen, University of Groningen, Groningen, The Netherlands

12.40 Prevalence, Treatment Response, and Survival in NTRK Gene Fusion- Positive Mi crosatellite-Instability-High Metastatic Colorectal Cancer (p. 75)
S.J. Schraa[2], M.M. Lacle[1], K. Zwart[2], E.H. Gort[2], W.W. De Leng[1], M. Koopman[2], G.R. Vink[3], G.M. Bol[2], [1]Dept. of Pathology, UMC Utrecht, Utrecht, [2]Dept. of Medical Oncology, UMC Utrecht, Utrecht, [3]Dept. of Research & Development, IKNL, Utrecht, The Netherlands

12.45 Risk Factors for Crohn's Disease in Patients Presenting with Perianal Abscesses and Fistulas: a Retrospective Matched Cohort Study at a Non-academic, IBD-expert Centre in The Netherlands (p. 76)
L.J. Munster[1], J. Schuitema[1], E.J. de Groof[1], S. van Dieren[2], M.W. Mundt[3], G.R.A.M. D'Haens[4], W.A. Bemelman[2], C.J. Buskens[2], J.D.W. van der Bilt[1], [1]Dept. of Surgery, Flevoziekenhuis/Amsterdam UMC, location AMC, Amsterdam, [2]Dept. of Surgery, Amsterdam UMC, location AMC, Amsterdam, [3]Dept. of Gastroenterology, Flevoziekenhuis, Almere, [4]Dept. of Gastroenterology, Amsterdam UMC, location AMC, Amsterdam, The Netherlands

12.50 Development and validation of the new Autoimmune Hepatitis Fibrosis Score for use during follow up of autoimmune hepatitis (p. 77)
A.M.C. Baven-Pronk[3], C.M.J. Marijnissen[1], M. Biewenga[1], A.F. Stättermayer[2], M.E. Tushuizen[1], B. van Hoek[1], [1]Dept. of Hepatology, LUMC, Leiden, [2]Dept. of Hepatology, Medical University Vienna, Wenen, Oostenrijk, [3]Dept. of Hepatology, Groene Hart Ziekenhuis, Gouda, Nederland.

12.55 The clinical relevance of an affected appendix in Crohn's disease (p. 78)
E.M.L. van der Does de Willebois[1], C. Sari[1], A. Mookhoek[2], W.A. Bemelman[1], C.J. Buskens[1], [1]Dept. of Surgery, Amsterdam UMC, Amsterdam, [2]Dept. of Pathology, University of Bern, Bern, Zwitserland

Postersessie II **Expositiehal**

Moderator: *M.C. Visschedijk*

13.00 Detection and treatment of recurrent pancreatic cancer – a European prospective, snapshot study (p. 79)

P.C.M. Andel[1], I.W.J.M. van Goor[1], M.G. Besselink[2], P. Ghorbani[3], B. Groot Koerkamp[4], M. Liem[5], M. Maglione[6], E. Pando Rau[7], I. Q. Molenaar[1], L.A. Daamen[1], H.C. van Santvoort[1],[1]Dept. of Gastrointestinal Surgery, Regional Academic Cancer Center Utrecht, Utrecht, [2]Dept. of Gastrointestinal Surgery, Amsterdam UMC, location University of Amsterdam, Amsterdam, [3]Dept. of Gastrointestinal Surgery, Karolinska Institutet at Karolinska University hospital, Stockholm, Zweden [4]Dept. of Gastrointestinal Surgery, Erasmus Medical Center, Rotterdam, [5]Dept. of Gastrointestinal Surgery, Medical Spectrum Twente, Enschede, [6]Dept. of Gastrointestinal Surgery, Medical University Innsbruck, Innsbruck, Oostenrijk [7]Dept. of Gastrointestinal Surgery, Hospital Vall d'Hebron, Barcelona, Spanje

13.05 The impact of inflammatory bowel disease on sexual distress (p. 80)

A.S. Huberts[3], L.B. Koppert[1], H. Pastoor[2], J.M.W. Hazes[3], C.J. Van der Woude[4], [1]Dept. of Surgery, Erasmus MC, Rotterdam, [2]Dept. of Obstetrics and Gynecology, Erasmus MC, Rotterdam, [3]Dept. of Quality and patientcare, Erasmus MC, Rotterdam, [4]Dept. of Gastroenterology, Erasmus MC, Rotterdam, The Netherlands

13.10 Increasing incidence of primary biliary cholangitis in The Netherlands (p. 81)

R.C. de Veer[27], M.C. van Hooff[27], E. Werner[27], A.J. van der Meer[29], U.H.W. Beuers[1], J.P.H. Drenth[2], F.J.C. Cuperus[3], B. van Hoek[4], J.T. Brouwer[5], M. Klemt-Kropp[6], S. van Meer[7], R.C. Verdonk[8], H.J. Flink[9], J.M. Vrolijk[10], T.J. Gevers[11], C.Y. Ponsioen[1], M. ter Borg[12], K. Soufidi[13], F. Boersma[14], H.J.M. De Jonge[15], F.H.J. Wolfhagen[16], L.C. Baak[17], S.L. Onderwater[18], J.D. van Bergeijk[19], P.G. van Putten[20], G.J. de Bruin[21], R.P.R. Adang[22], M.N. Aparicio-Pages[23], W. de Boer[24], F. ter Borg[25], H. van Soest[26], H.L.A. Janssen[27], B.E. Hansen[28], N.S. Erler[28], [1]Dept. of Gastroenterology and Hepatology, Amsterdam University Medical Center, [2]Dept. of Gastroenterology and Hepatology, Radboud University Medical Center, Nijmegen, [3]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, Groningen, [4]Dept. of Gastroenterology and Hepatology, Leiden University Medical Center, [5]Dept. of Gastroenterology and Hepatology, Reinier de Graaf Gasthuis, Delft, [6]Dept. of Gastroenterology and Hepatology, Noordwest Hospital Group, Alkmaar, [7]Dept. of Gastroenterology and Hepatology, University Medical Center Utrecht, [8]Dept. of Gastroenterology and Hepatology, Antonius Hospital, Nieuwegein, [9]Dept. of Gastroenterology and Hepatology, Catharina Hospital, Eindhoven, [10]Dept. of Gastroenterology and Hepatology, Rijnstate Hospital, Arnhem, [11]Dept. of Gastroenterology and Hepatology, Maastricht University Medical Center, [12]Dept. of Gastroenterology and Hepatology, Maxima Medical Center, Eindhoven, [13]Dept. of Gastroenterology and Hepatology, Zuyderland Medical Center, Heerlen, [14]Dept. of Gastroenterology and Hepatology, Gelre Hospitals, Apeldoorn, [15]Dept. of Gastroenterology and Hepatology, Jeroen Bosch Hospital, Den Bosch, [16]Dept. of Gastroenterology and Hepatology, Albert Schweitzer Hospital, Dordrecht, [17]Dept. of Gastroenterology and Hepatology, Onze Lieve Vrouwe Gasthuis, Amsterdam, [18]Dept. of Gastroenterology and Hepatology, Diakonessenhuis,, Utrecht, [19]Dept. of Gastroenterology and Hepatology, Hospital De Gelderse Vallei, Ede, [20]Dept. of Gastroenterology and Hepatology, Medical Center Leeuwarden, Leeuwarden, [21]Dept. of Gastroenterology and Hepatology, Tergooi Hospital, Hilversum-Blaricum, [22]Dept. of Gastroenterology and Hepatology, VieCurie Hosp., Venlo, [23]Dept. of Gastroenterology and Hepatology, Canisius / Wilhemina Hospital, Nijmegen, [24]Dept. of Gastroenterology and Hepatology, Bernhoven, Uden, [25]Dept. of Gastroenterology and Hepatology, Deventer Hospital, Deventer, [26]Dept. of Gastroenterology and Hepatology, Medical Cen-

ter Haaglanden, Den Haag, [27]Dept. of Gastroenterology and Hepatology, Erasmus MC, University Medical Center, Rotterdam, [28]Dept. of Biostatistics, Erasmus MC, University Medical Center, Rotterdam, The Netherlands

13.15 Permanent stoma rate and long-term stoma complications in laparoscopic, robot-assisted, and transanal total mesorectal excisions: a retrospective cohort study. (p. 83)
T.A. Burghgraef[1], R.T.J. Geitenbeek[1], M. Broekman[1], J.C. Hol[2], R. Hompes[3], E.C.J. Consten[1], [1]Dept. of Surgery, University Medical Centre Groningen, Groningen, [2]Dept. of Surgery, Isala Ziekenhuis, Zwolle, [3]Dept. of Surgery, Amsterdam UMC, Amsterdam, The Netherlands

Posters studiegroepen II **Expositiehal**

Moderator: J.W. van Sandick

16.05 PERISCOPE II trial
K. van der Sluis, promovendus, Antoni van Leeuwenhoek, Amsterdam

16.10 MIRECA - MInimally invasive REctal Carcinoma surgery
Prof. dr. E.C.J. Consten, chirurg, Meander Medisch Centrum, Amersfoort

16.15 TIGER study: Distribution of lymph node metastases in esophageal carcinoma
Dr. S.S. Gisbertz, chirurg, Amsterdam UMC

16.20 The Dutch Nationwide IVORY Study
Dr. S.S. Gisbertz, chirurg, Amsterdam UMC

16.30 Einde van deze sessie

DONDERDAG 14 SEPTEMBER

Videosymposium Gastrointestinale Endoscopie — Auditorium

Voorzitters: *B.A.J. Bastiaansen en E.J. Schoon*

09.30 Freeze with 180 degrees
K. Munters, arts-onderzoeker, UMC Utrecht

Een percutane ontlasting
Dr. K. Basiliya, MDL-arts, LUMC

EMD, wat kan je daar nu weer mee?
Dr. P. Didden, MDL-arts, UMC Utrecht

Bubbelen in het pancreas
Dr. E. van Helden, aios MDL, LUMC

More than meets the eye
Dr. R.E. Pouw, MDL-arts, Amsterdam UMC

ESD, overal een goed idee?
Dr. P. Didden, MDL-arts, UMC Utrecht

From Pixels to Patients: Modernizing Barrett's Endoscopy
M.R. Jong, arts-onderzoeker, Amsterdam UMC

Keep the juices flowing
Dr. A. Bogte, MDL-arts, UMC Utrecht

Underwater ESD
Dr. L.M.G. Moons, MDL-arts, UMC Utrecht

ERCP for a Refugee
Dr. A. Inderson, MDL-arts, LUMC

11.00 Koffie-/theepauze in de expositiehal en gemodereerde postersessies

DONDERDAG 14 SEPTEMBER

Abstractsessie Endoscopie I — Auditorium

Voorzitter: *L.M.G. Moons en W. Nagengast*

Voordrachten in het Nederlands, 5 minuten presentatie en 3 minuten discussie

11.30 Implementation of a smartphone app to guide outpatient clinic patients in discontinuing inappropriate PPI use: an open randomized superiority trial (p. 86)
L.M. Koggel[2], T. Timmers[1], M.A. Lantinga[2], R.B. Kool[1], C. Kramers[3], N. van Herwaarden[4], D. Siersema[2], [1]IQ Healthcare, Radboudumc, Nijmegen, [2]Dept. of Gastroenterology and Hepatology, Radboudumc, Nijmegen, [3]Dept. of Clinical Pharmacy and Toxicology, Radboudumc, Nijmegen, [4]Dept. of Rheumatology, Sint Maartenskliniek, Nijmegen, The Netherlands

11.38 Treatment or a wait-and-see policy for Dientamoeba fragilis in General Practice in the Netherlands: a prospective, observational cohort study (DEFER) (p. 87)
E.J. van Soest[3], H. Hazenberg[3], T.G. Mank[2], C. Band[1], S.M. Euser[2], [1]Dept. of Clinical Research Office, Spaarne Gasthuis, Haarlem, [2]Dept. of Medical Microbiology, Streeklab Haarlem voor Medische Microbiologie, Haarlem [3]Dept. of Gastroenterology, Spaarne Gasthuis, Haarlem, The Netherlands

11.46 Safety profile of the motorized power spiral enteroscope: data from 250 procedures from a single center (p. 88)
W.F.W. Kappelle, P.G.A. Van Boeckel, J. Tenthof van Noorden, A. Al-Toma, Dept. of Gastroenterology, Antonius Ziekenhuis, Nieuwegein, The Netherlands

11.54 Comparing low-volume and intermediate volume bowel preparation on cost-effectiveness and quality of life: An open-label, non-inferiority, randomized controlled trial (p. 89)
M.L.M. van Riswijk[3], F.A. Indemans[1], K. Hawinkels[2], R.M. Schreuder[2], L. Wildeman[3], A.C.I.T.L. Tan[4], P.S. Siersema[3], [1]Dept. of Gastroenterology and Hepatology, Maasziekenhuis Pantein, Boxmeer, [2]Dept. of Gastroenterology and Hepatology, Catharina ziekenhuis, Eindhoven, [3]Dept. of Gastroenterology and Hepatology, Radboudumc, Nijmegen, [4]Dept. of Gastroenterology and Hepatology, Canisius Wilhelmina Ziekenhuis, Nijmegen, The Netherlands

12.02 Re-Cellularization via Electroporation Therapy (ReCET) of the Duodenum combined with GLP-1RA to replace insulin therapy in patients with type 2 diabetes; 12 months results of the eminent study (p. 90)
C.B.E. Busch[1], S. Meiring[1], A.C.G. Van Baar[1], F. Holleman[2], M. Nieuwdorp[2], J.J.G.H.M. Bergman[1], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [2]Dept. of Internal Medicine, Amsterdam UMC, Amsterdam, The Netherlands

12.10 Gliadin specific CD4+ T-cells analyzed with gliadin peptide loaded dextramers persist after introduction of a gluten-free diet and may improve less-invasive celiac disease diagnosis (p. 91)
D.A.R. Castelijn, K. de Buck, J. Hollander, G. Bouma, H.J. Bontkes, Dept. of Clinical Chemistry, Amsterdam UMC, Amsterdam, The Netherlands

12.18 Medium-term oncological outcomes following endoscopic full-thickness resection for T1 colorectal cancer: results from the Dutch prospective colorectal eFTR registry (p. 92)

S.C. Albers[1], L.W. Zwager[1], B.W. van der Spek[2], R.M. Schreuder[3], L.E. Perk[4], B.L.A.M. Weusten[5], J.J. Boonstra[6], H. van der Sluis[7], M.P. Schwartz[8], M.S. Vlug[9], C. Wientjes [10], F.J. Rando Munoz[11], W.B. Nagengast[12], F.C. Bekkering [13], W.R. ten Hove[14], J. Terhaar sive Droste[15], M.H.M.G. Houben[16], T.C.J. Seerden[17], T.R. de Wijkerslooth[18], E.A.R. Gielisse[19], A. Fariña Sarasqueta[20], P. Fockens[1], E. Dekker[1], B.A.J. Bastiaansen[1], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Noordwest Ziekenhuisgroep, Alkmaar, [3]Dept. of Gastroenterology and Hepatology, Catharina Ziekenhuis, Eindhoven, [4]Dept. of Gastroenterology and Hepatology, Haaglanden Medisch Centrum, Den Haag, [5]Dept. of Gastroenterology and Hepatology, St. Antonius Ziekenhuis, Nieuwegein, [6]Dept. of Gastroenterology and Hepatology, LUMC, Leiden, [7]Dept. of Gastroenterology and Hepatology, Isala, Zwolle, [8]Dept. of Gastroenterology and Hepatology, Meander Medisch Centrum, Amersfoort, [9]Dept. of Gastroenterology and Hepatology, Dijklander Ziekenhuis, Hoorn, [10]Dept. of Gastroenterology and Hepatology, OLVG, Amsterdam, [11]Dept. of Gastroenterology and Hepatology, Nij Smellinghe Ziekenhuis, Drachten, [12]Dept. of Gastroenterology and Hepatology, UMCG, Groningen, [13]Dept. of Gastroenterology and Hepatology, IJsselland Ziekenhuis, Capelle aan de IJssel, [14]Dept. of Gastroenterology and Hepatology, Alrijne Zorggroep, Leiden, [15]Dept. of Gastroenterology and Hepatology, Jeroen Bosch Ziekenhuis, Den Bosch, [16]Dept. of Gastroenterology and Hepatology, HagaZiekenhuis, Den Haag, [17]Dept. of Gastroenterology and Hepatology, Amphia Ziekenhuis, Breda, [18]Dept. of Gastrointestinal Oncology, Nederlands Kanker Instituut / Antoni van Leeuwenhoek Ziekenhuis, Amsterdam, [19]Dept. of Gastroenterology and Hepatology, Rode Kruis Ziekenhuis, Beverwijk, [20]Dept. of Pathology, Amsterdam UMC, Amsterdam, The Netherlands

12.30 Lunch in de expositiehal en gemodereerde postersessies

Abstractsessie Endoscopie II — Auditorium

Voorzitters: *M.J.M. Groenen en H.T. Künzli*

Voordrachten in het Nederlands, 5 minuten presentatie en 3 minuten discussie

13.30 1 mm of preserved muscularis propria on MRI accurately identifies rectal cancers suit able for local excision in the intermuscular plane (p. 93)

L. van der Schee[9], R. Carten[1], S.C. Albers[2], J. van den Bergh[3], M.N.G. Braat[4], A. Goede[1], S. Kol[3], M.M. Laclé[5], B. Mearadji[3], S.I. Moos[3], I.M. Nota[3], N.H.G.M. Peters[6], J.F. Prince[4], J. Reimerink[7], A. Fariña Sara squeta[8], J. van Vooren[4], J.H.T.M. Waesberghe[3], B.A.J. Bastiaansen[2], F.P. Vleggaar[9], L.M.G. Moons[9], K. Horsthuis[3], G. Brown[10], [1]Dept. of Surgery, Buckinghamshire Healthcare NHS Trust, London, Verenigd Koninkrijk [2]Dept. of Gastroenterology and Hepatology, Amsterdam University Medical Centers, Amsterdam, [3]Dept. of Radiology, Amsterdam University Medical Centers, Amsterdam, [4]Dept. of Radiology, University Medical Center Utrecht, Utrecht, [5]Dept. of Pathology, University Medical Center Utrecht, Utrecht, [6]Dept. of Radiology, Maastricht University Medical Center, Maastricht, [7]Dept. of Gastroenterology, Amsterdam University Medical Centers, Amsterdam, [8]Dept. of Pathology, Amsterdam University Medical Centers, Amsterdam, [9]Dept. of Gastroenterology and Hepatology, University Medical Center Utrecht, Utrecht, [10]Dept. of Radiology, Imperial College London, London, United Kingdom

13.38 Endoscopic eradication therapy with multifocal cryoballoon ablation for Barrett's esophagus related neoplasia (p. 94)

C.N. Frederiks[1], A. Overwater[1], M. Barret[2], R. Maselli[3], J.J.G.H.M. Bergman[4], R.E. Pouw[4], R. Bisschops[5], R. Haidry[6], V. Sehgal[6], T. Beyna[7], H. Neuhaus[7], B.L.A.M. Weusten[8], [1]Dept. of Gastroenterology and Hepatology, UMC Utrecht, Utrecht, [2]Dept. of Gastroenterology, Cochin Hospital, Paris, France [3]Dept. of Gastroenterology, Humanitas Research Hospital, Milan, Italië [4]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [5]Dept. of Gastroenterology, UZ Leuven, Leuven, Belgium, [6]Dept. of Gastroenterology, University College London Hospitals, Londen, United Kingdom, [7]Dept. of Internal Medicine, Evangelical Hospital Dusseldorf, Dusseldorf, Germany, [8]Dept. of Gastroenterology and Hepatology, St. Antonius Ziekenhuis, Nieuwegein, The Netherlands

13.46 Effect of octreotide on delayed bleeding after EMR of large non-ampullary duodenal adenomas: a propensity score matching analysis. (p. 95)

P. Didden, F.P. Vleggaar, L.M.G. Moons, Dept. of Gastroenterology and Hepatology, University Medical Center Utrecht, Utrecht, The Netherlands

13.54 EUS-guided Hepaticogastrostomy in Patients with Malignant Biliary Obstruction (EPSILON); a prospective cohort study (p. 96)

J.A. Fritzsche[1], P. Fockens[1], M.G. Besselink[2], O.M. van Delden[3], J.I. Erdmann[2], H.J. Klümpen[4], R.P. Voermans[1], R.L.J. van Wanrooij[5], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, location University of Amsterdam, Amsterdam, [2]Dept. of Surgery, Amsterdam UMC, location University of Amsterdam, Amsterdam, [3]Dept. of Radiology and Nuclear Medicine, Amsterdam UMC, location University of Amsterdam, Amsterdam, [4]Dept. of Medical Oncology, Amsterdam UMC, location University of Amsterdam, Amsterdam, [5]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, location VUmc, Amsterdam, The Netherlands

14.02 Linear endo-ultrasonographic assessment of tumor fixation to the muscularis propria layer – a strong signal of T2 rectal cancer (p. 97)

F. ter Borg[1], K.M. Gijsbers[1], A. Guitink[1], J. Faber[2], [1]Dept. of Gastroenterology, Deventer Hospital, Deventer, [2]Dept. of Epidemiology and Biostatistics, Deventer Hospital, Deventer, The Netherlands

14.10 Oncological outcome of ESD for treating pT1 colorectal cancer is dependent on predicted depth of invasion (p. 98)

R. van Eijck van Heslinga[1], P. Didden[1], A.D. Koch[2], A. Lemmers[3], M. Figueiredo Ferreira [4], J. Santos-Antunes[5], W. de Graaf[2], J. Hardwick[6], S.E. Elias[7], M.M. Lacle[8], J.J. Boonstra[6], L.M.G. Moons[1], [1]Dept. of Gastroenterology and Hepatology, UMC Utrecht, Utrecht, [2]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, [3]Dept. of Gastroenterology and Hepatology, Erasme Hospital, Hôpital Universitaire de Bruxelles (HUB), Brussel, Belgium [4]Dept. of Gastroenterology and Hepatology, Erasme Hospital, Hôpital Universitaire de Bruxelles (HUB), Brussels, Belgium [5]Dept. of Gastroenterology and Hepatology, 5 Pedro Hispano Hospital, Advanced Endoscopy Center Carlos Moreira da Silva, Porto, Portugal [6]Dept. of Gastroenterology and Hepatology, LUMC, Leiden, [7]Dept. Julius Center for Health Sciences and Primary Care, Julius Center, Utrecht,[8]Dept. of Pathology, UMC Utrecht, Utrecht, The Netherlands

14.18 High sensitivity of biliary brush cytology after optimization of protocol in patients with suspected perihilar or intrahepatic cholangiocarcinoma: a prospective cohort study with historical control (p. 99)

J.A. Fritzsche[1], E. Smit[1], O.M. van Delden[2], F. Dijk[3], J.I. Erdmann[4], P. Fockens[1], A. Farina Sarasqueta[3], G. Kazemier[5], H.J. Klümpen[6], S.L. Meijer[3], C.Y. Ponsioen[1], A. Uyterlinde[7], R.L.J. van Wanrooij[8], M.C.B. Wielenga[1], I.J.A.J. Zijlstra[2], J. Verheij[3], R.P. Voermans[1], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, location University of Amsterdam, Amsterdam, [2]Dept. of Radiology and Nuclear Medicine, Amsterdam UMC, location University of Amsterdam, Amsterdam, [3]Dept. of Pathology, Amsterdam UMC, location University of Amsterdam, Amsterdam, [4]Dept. of Surgery, Amsterdam UMC, location University of Amsterdam, Amsterdam, [5]Dept. of Surgery, Amsterdam UMC, location VUmc, Amsterdam, [6]Dept. of Medical Oncology, Amsterdam UMC, location University of Amsterdam, Amsterdam, [7]Dept. of Pathology, Amsterdam UMC, location VUmc, Amsterdam, [8]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, location VUmc, Amsterdam, The Netherlands

14.30 Einde van deze sessie

Top Abstracts — Auditorium

Voorzitters: *P.P.J. van der Veek en A.G.L. Bodelier*

Voordrachten in het Nederlands, 5 minuten presentatie en 3 minuten discussie

14.30 Hepatocellular carcinoma risk in sub-Saharan African and Afro-Surinamese individuals living with chronic hepatitis B in Europe: an international multicenter retrospective cohort study (p. 100)

L.A. Patmore[4], R.B. Takkenberg[1], I. Carey[11], M.J. Sonneveld[4], K.M.A. van Eekhout[1], M. Buti[2], O.M. Koc[3], R.J. de Knegt[4], H.L.A. Janssen[4], K. Agarwal[5], M. van der Valk[6], F.I. Lieveld[7], M. Kramer[3], J. de Bruijne[8], M. Claassen[9], C. Smit[10], R.A. de Man[4], [1]Dept. of Gastroenterology and Hepatology, Amsterdam University Medical Centers, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Hospital University Valle d'Hebron, Barcelona, Spain [3]Dept. of Gastroenterology and Hepatology, Maastricht University Medical Center, Maastricht, [4]Dept. of Gastroenterology and Hepatology, Erasmus MC, University Medical Center, Rotterdam, [5]Dept. of Gastroenterology and Hepatology, King's college Hospital, Londen, United Kingdom, [6]Dept. of Infectious Diseases, Amsterdam University Medical Centers, Amsterdam, [7]Dept. of Infectious Diseases, Utrecht UMC, Utrecht, [8]Dept. of Gastroenterology and Hepatology, Utrecht UMC, [9]Dept. of Infectious Diseases, Rijnstate Hospital, Arnhem, [10]Dept. of Infectious Diseases, Stichting HIV Monitoring, Amsterdam, The Netherlands, [11]Institute of Liver Studies, King's college Hospital, Londen, United Kingdom

14.38 Blown-out myotomy after achalasia treatment; prevalence and associated symptoms (p. 101)

T. Kuipers[1], F.A. Ponds[1], P. Fockens[1], B.A.J. Bastiaansen[1], J.E. Pandolfino[2], A.J. Bredenoord[1], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Feinberg School of Medicine, Northwestern University, Chicago, United States

14.46 Faecal immunochemical test to guide colonoscopy interval in lynch syndrome – a pro spective multicentre study (p. 102)

E.L.S.A. van Liere[1], N.K.H. de Boer[1], M.E. van Leerdam[2], M. Dakkak[1], E. Dekker[1], M.A.J.M. Jacobs[1], J.J. Koornstra[3], J.P. Kuijvenhoven[4], M. Lemmens[5], G.A. Meijer[5], M.C.W. Spaander[6], B. Carvalho[5], D. Ramsoekh[1], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [2]Dept. of Gastrointestinal Oncology, Netherlands Cancer Institute, Amsterdam, [3]Dept. of Gastroenterology and Hepatology, University Medical Centre Groningen, Groningen, [4]Dept. of Gastroenterology and Hepatology, Spaarne Gasthuis, Hoofddorp, [5]Dept. of Pathology, Netherlands Cancer Institute, Amsterdam, [6]Dept. of Gastroenterology and Hepatology, Erasmus University Medical Center, Rotterdam, The Netherlands

14.54 Endoscopic Sphincterotomy to Prevent Pancreatitis after Self-expandable Metal Stent Placement in Extrahepatic Malignant Biliary Obstruction (SPHINX): interim-results of a multicenter, randomized controlled trial (p. 103)

A.M. Onnekink[6], M. Gorris[1], J.E. van Hooft[6], N.C. van Huijgevoort[1], P.R. Bos[2], P. Didden[3], J.E. Dominguez-Muñoz[4], P. Friederich[5], E.E. van Halsema[1], A. Inderson[6], M.A.J.M. Jacobs[1], J.J. Koornstra[7], S.D. Kuiken[8], B.C.H. Scheffer[9], E. van Soest[10], N.G. Venneman[11], R.C. Verdonk[12], R.P. Voermans[1], R.L. van Wanrooij[1], T.R. de Wijkerslooth[13], J. Wonders[14], S.J.L.B. Zweers[15], P. Fockens[1], [1]Dept. of Gastroenterology and Metabolism, Amsterdam UMC, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, ZGV, Ede, [3]Dept. of Gastroenterology and Hepatology, UMC Utrecht, Utrecht, [4]Dept. of Gastroenterology, University Hospital of Santiago de

Compostela, Spain [5]Dept. of Gastroenterology and Hepatology, Catharina Ziekenhuis, Eindhoven, [6]Dept. of Gastroenterology and Hepatology, LUMC, Leiden, [7]Dept. of Gastroenterology and Hepatology, UMCG, Groningen, [8]Dept. of Gastroenterology and Hepatology, OLVG, Amsterdam, [9]Dept. of Gastroenterology and Hepatology, JBZ, Den Bosch, [10]Dept. of Gastroenterology and Hepatology, Spaarne Gasthuis, Hoofddorp, [11]Dept. of Gastroenterology and Hepatology, Medisch Spectrum Twente, Twente, [12]Dept. of Gastroenterology and Hepatology, St. Antonius Ziekenhuis, Nieuwegein, [13]Dept. of Gastroenterology and Hepatology, Antoni van Leeuwenhoek Ziekenhuis, Amsterdam, [14]Dept. of Gastroenterology and Hepatology, HAGA ziekenhuis, Den Haag, [15]Dept. of Gastroenterology and Hepatology, Maasstad Ziekenhuis, Rotterdam, The Netherlands

15.02 A Novel Role of ATP8B1 in the establishment of Intestinal Epithelial Barrier Integrity in Ulcerative Colitis (p. 104)
P.J. Koelink[1], V.E. Gómez-Mellado[1], S. Duijst[1], P.J. Bosma[2], R.P.J. Oude-ELferink[2], M.E. Wildenberg[2], C.C. Paulusma[3], [1]Tytgat Institute for Liver and Intestinal Research, Amsterdam UMC, Amsterdam, [2]Tytgat Institute for Liver and Intestinal Research, Amsterdam UMC, Amsterdam UMC, [3]Tytgat Institute for Liver and Intestinal Research, Amsterdam UMC, Amsterdam, The Netherlands

15.10 Discussie

15.15 Einde van deze sessie

Symposium Sectie Gastrointestinale Endoscopie — Auditorium

Voorzitters: W.B. Nagengast en E.J. Schoon

Thema: Historie van de endoscopie

15.15 Interventie-endoscopie in Nederland en de rol van de NVMDL
Prof. dr. P. Fockens, MDL-arts, Amsterdam UMC

15.55 De endoscopie Lustrum (BaBa) Quiz
Dr. B.A.J. Bastiaansen, MDL-arts, Amsterdam UMC
Prof. J.F.W.M. Bartelsman, MDL-arts, DC Klinieken Lairesse, Amsterdam

16.15 Einde van deze sessie

DONDERDAG 14 SEPTEMBER

Symposium PhD netwerk — Baroniezaal

Voorzitter: *E.H. Visser*

08.30 Groen onderzoek, hoe staan we ervoor en hoe kan jij dit doen?
Dr. M. Duijvestein, MDL-arts, Radboudumc, Nijmegen
Dr. T. Stobernack, postdoc onderzoeker, Radboudumc, Nijmegen

Symposium MLDS - Microbioom — Baroniezaal

Voorzitters: *E.J. Kuijper*

09.30 Inleiding over het Buikbelang-initiatief
Dr. M. Bouwens, Senior advisor research and health, Maag Lever Darm Stichting, Utrecht

09.48 Can fecal metagenomics predict colorectal cancer?
Dr. G. Zeller, Teamleader, EMBL, Heidelberg, Duitsland

10.06 De rol van het microbioom bij immune checkpoint inhibitor therapie bij kanker
Dr. M.R. de Zoete, Associate professor, UMC Utrecht

10.24 Microbioom interventies bij neuro-psychiatrische aandoeningen
Dr. J. Borkent, PhD candidate, UMC Groningen

10.42 Discussie

11.00 Koffie-/theepauze in de expositiehal en gemodereerde postersessies

Symposium Motiliteit — Baroniezaal

Voorzitters: *C.H.M. Clemens en D. Keszthelyi*

Thema: **Prikkelbare Darmsyndroom: de nieuwe behandelrichtlijn**

11.30 Dietary management of IBS - beyond the low FODMAP diet
Dr. I. Aziz, Senior Clinical Lecturer in Gastroenterology,
Royal Hallamshire Hospital, Sheffield, UK

12.00 Diagnostiek en behandeling van PDS anno 2023
Prof. dr. D. Keszthelyi, MDL-arts, MUMC+, Maastricht

12.30 Lunch in de expositiehal en gemodereerde postersessies

Abstractsessie Oncologie II — Baroniezaal

Voorzitters: *K. Grooteman en L. van Vlerken*

Voordrachten in het Nederlands, 5 minuten presentatie en 3 minuten discussie

13.30 Less CRC recurrence in screen-detected compared to non-screen-detected colorectal cancer patients (p. 105)
J.K.F. Pluimers, P.H.A. Wisse, M.C.W. Spaander, C.M. Den Hoed, Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, The Netherlands

13.38 Development and validation of a colorectal cancer risk prediction tool for risk-strati fied screening: an application of machine-learning to national screening data (p. 106)
D.T. Mülder, R. Van den Puttelaar, R.S.G. Meester, J.F. O'Mahony, I. Lansdorp-Vogelaar, Dept. of Public Health, Erasmus MC, Rotterdam, The Netherlands

13.46 Differences in treatment of stage I CRCs: a population-based study of CRCs detected within and outside screening (p. 107)
E.. Toes-Zoutendijk[3], E.C.H. Breekveldt[3], L.. van der Schee[1], M.A.G. Elferink[2], I. Lansdorp-Vogelaar[3], L.M.G. Moons[1], M.E. van Leerdam[4], [1]Dept. of Gastroenterology and Hepatology, University Medical Center Utrecht, Utrecht, [2]Dept. of Research & Development, Netherlands Comprehensive Cancer Organization, Utrecht, [3]Dept. of Public Health, Erasmus University Medical Center, Rotterdam, [4]Dept. of Gastrointestinal Oncology, Netherlands Cancer Institute, Amsterdam, The Netherlands

13.54 Oesophageal cancer awareness and anticipated time to help-seeking: results from a population-based survey (p. 108)
J. Sijben[1], L. Huibertse[1], L. Rainey[2], M.J.M. Broeders[2], Y. Peters[1], P.D. Siersema[1], [1]Dept. of Gastroenterology and Hepatology, Radboudumc, Nijmegen [2]Dept. of Health Evidence, Radboudumc, Nijmegen, The Netherlands

14.02 Profiling the tumor immune microenvironment of peritoneal metastasized colorectal cancer in humanized immune system mice (p. 109)
J. Saris[1,2], S.Bootsma[3,4*], J. Verhoeff[2,5], J.B. Tuynman[6], M.E. Wildenberg[1,2], K.J. Lenos[3,4], J.J. Garcia Vallejo[5], L. Vermeulen[3,4*], J. Grootjans[1,2*] [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, University of Amsterdam, Amsterdam; [2]Tytgat Institute for Liver and Intestinal Research, Amsterdam UMC, University of Amsterdam, Amsterdam; [3]Center for Experimental and Molecular Medicine, Amsterdam UMC, University of Amsterdam, Amsterdam; [4]Oncode Institute, Amsterdam, Netherlands; [5]Dept. Of Molecular Cell Biology & Immunology, Amsterdam UMC, Vrije Universiteit Amsterdam, Amsterdam; [6]Dept. Of Surgery, Amsterdam UMC, Vrije Universiteit Amsterdam, Amsterdam, The Netherlands. *These authors contributed equally.*

14.10 The human tumor immune microenvironment of peritoneal metastasized colorectal cancer delineated using single-cell RNA sequencing: new therapeutic targets uncovered (p. 110)
J. Saris[1,2], A.Y.F. Li Yim[1,2,3,4], S. Bootsma[5,6*], J. Verhoeff[2,7], J.B. Tuynman[8], M.E. Wildenberg[1,2], G.R.A.M. D'Haens[2,9], R.J.C. Franco Fernandez[2], H.N. Khan[2], K.J. Lenos[5,6], J.J. Garcia Vallejo[7], L. Vermeulen[5,6,10], J. Grootjans[1,2] [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, University of Amsterdam, Amsterdam; [2]Tytgat Institute for Liver and Intestinal Research Amsterdam UMC, University of Amsterdam, Amsterdam; [3]Dept. of Human Genetics, Amsterdam*

*UMC, University of Amsterdam, Amsterdam; [4]Dept. of Reproduction & Development, Amsterdam UMC, University of Amsterdam, Amsterdam; [5]Center for Experimental and Molecular Medicine, Amsterdam UMC, University of Amsterdam,; [6]Oncode Institute, Amsterdam; [7]Dept. of Molecular Cell Biology & Immunology, Amsterdam UMC, Vrije Universiteit Amsterdam, Amsterdam; [8]Dept. of Surgery, Amsterdam UMC, Amsterdam. [9]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, University of Amsterdam, Amsterdam; [10]Dept. of Medical Oncology, Amsterdam UMC, University of Amsterdam, Amsterdam, The Netherlands. *These authors contributed equally.*

14.18 Breath testing for the detection of colorectal cancer in patients with a positive fecal immunochemical test – a multicenter prospective cross-sectional validation study (p. 111)
M.L.M. van Riswijk[1], K.E. van Keulen[1], A.C.I.T.L. Tan[2], R.W.M. Schrauwen[3], W.H. de Vos tot Nederveen Cappel[4], P.D. Siersema[1], [1]Dept. of Gastroenterology and Hepatology, Radboudumc, Nijmegen, [2]Dept. of Gastroenterology and Hepatology, Canisius Wilhelmina Ziekenhuis, Nijmegen, [3]Dept. of Gastroenterology and Hepatology, Bernhoven, Uden, [4]Dept. of Gastroenterology and Hepatology, Isala, Zwolle, The Netherlands

14.26 Discussie

14.30 Einde van deze sessie

Research Netwerken — Baroniezaal

Voorzitter: *D. Leemreis-van Noord*

14.30 **DMIS (Dutch Mesenteric Ischemia Study-group)**
L. Terlouw, aios MDL, Erasmus MC, Rotterdam
F. Metz, arts-onderzoeker en anios chirurgie, Medisch Spectrum Twente, Enschede

Voorzitter: *T.J.G. Gevers*

14.50 **AIH research werkgroep**
Dr. T.J.G. Gevers, MDL-arts, Maastricht University Medical Center
Dr. Y.S. de Boer, MDL-arts, Amsterdam UMC
A.E.C. Stoelinga, promovendus, Leids Universitair Medisch Centrum
R.J.A.L.M. Snijders, promovendus, Radboudumc, Nijmegen

15.15 Einde van deze sessie

DONDERDAG 14 SEPTEMBER

Meet the Expert — Parkzaal

Thema: **Management of functional gastrointestinal disorders in clinical practice**

Voor deze sessie moet van tevoren worden ingeschreven.

Moderator: *Prof. dr. D. Keszthelyi, MDL-arts, MUMC+, Maastricht*

13.30 *Deze sessie - waarvoor tevoren moet worden ingeschreven - wordt verzorgd door:*
Dr. I. Aziz, Senior Clinical Lecturer in Gastroenterology,
Royal Hallamshire Hospital, Sheffield, UK

Symposium Werkgroep Bariatrie — Parkzaal

Voorzitters: *F.M.H. Dielen en P. Koehestanie*

14.30 Duodenum interventies bij diabetes mellitus type 2
Prof. dr. J.J.G.H.M. Bergman, MDL-arts, Amsterdam UMC

14.50 Endoscopische sleeve
Dr. S. Heyman, bariatrisch chirurg, ZNA, Antwerpen, België

15.15 Einde van deze sessie

ALV NVMDL — Zalen 80 en 81

08.00 Algemene Ledenvergadering NVMDL

Meet the Expert PhD Netwerk — Zaal 80

Thema: **Hoe doe je groener onderzoek?**

11.30 *Deze sessie - waarvoor tevoren moet worden ingeschreven - wordt verzorgd door:*
M. Leisink, Green Care Academy

12.30 Einde van deze sessie
Lunch in de expositiehal en gemodereerde postersessies

Research Netwerk **Zaal 80**

14.30 **Nederlandse Barrett Expertise Centra**

Voorzitter: *W.B. Nagengast*

Introductie netwerk, training en doelstelling
Dr. R.E. Pouw, MDL-arts, Amsterdam UMC, Amsterdam

Belangrijke publicaties met belangrijkste bevindingen en daarna lopende studies
Drs. E.P.D. Verheij, PhD-fellow, Amsterdam UMC

14.50 **Quest**

Voorzitter: *R. Quispel*

Verleden-heden en toekomst van EUS geleide weefseldiagnostiek van solide pancreas-lesies
Dr. L.M.J.W. van Driel, MDL-arts, Erasmus MC, Rotterdam

Kwaliteit van diagnostiek van Sub-Epitheliale lesies
C.A. Verloop, arts-onderzoeker, Erasmus MC, Rotterdam

15.15 Einde van deze sessie

DONDERDAG 14 SEPTEMBER

V&VN MDL Plenair programma — Brabantzaal

Beroepsvereniging van zorgprofessionals
Maag Darm Lever

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

09.30 Welkomstwoord - terugblik 100 jaar endoscopieverpleegkundigen
M. van der Ende-van Loon, verpleegkundig specialist, Catharina Ziekenhuis, Eindhoven en voorzitter V&VN MDL

09.45 Artificial intelligence op de MDL
Drs. A. Thijssen, arts-onderzoeker, Maastricht UMC, Maastricht

10.10 Wat kan een tarwekorrel uitrichten met onze darmen?
Dr. J.W. Kruimel, MDL-arts, Maastricht UMC, Maastricht

10.35 Less is More
Dr. M.P. Schwartz, MDL-arts, Meander Medisch Centrum, Amersfoort

11.00 Koffie-/thee pauze in de expositiehal en gemodereerde postersessies

V&VN MDL Endoscopie — Brabantzaal

Beroepsvereniging van zorgprofessionals
Maag Darm Lever

Voorzitters: *P. Terpstra*

11.30 Kinderen op de endoscopie
Dr. W. de Vries, kinderarts-MDL, Ziekenhuis Rijnstate, Arnhem

12.00 Duurzaamheid
Dr. E. van der Zanden, MDL-arts, Ziekenhuis Amstelland, Amstelveen
N. Kooten, endoscopieverpleegkundige, Ziekenhuis Amstelland, Amstelveen

12.30 Lunch in de expositiehal en gemodereerde postersessies

DONDERDAG 14 SEPTEMBER

V&VN MDL Kwaliteitsverbeteringen en verpleegkundig onderzoek Brabantzaal

Beroepsvereniging van zorgprofessionals
Maag Darm Lever

Voorzitters: *T. Korpershoek*

13.30 Introductie door de voorzitter

13.35 Leiderschap in scholing
H. Baarda, docent Hogeschool Arnhem en Nijmegen

13.55 Best practice: Escaperoom.
M. van Breugel, endoscopieverpleegkundige, Catharina Ziekenhuis, Eindhoven
J. van Liempd, endoscopieverpleegkundige, Catharina Ziekenhuis, Eindhoven

14.05 Verpleegkundig onderzoek en kwaliteitsverbeteringen in de praktijk
T.A. Korpershoek, verpleegkundig specialist, Albert Schweitzer Ziekenhuis, Dordrecht
M. van der Ende-van Loon, verpleegkundig specialist, Catharina Ziekenhuis, Eindhoven

14.30 Einde van deze sessie

V&VN MDL Endoscopie II Brabantzaal

Beroepsvereniging van zorgprofessionals
Maag Darm Lever

Voorzitters: *P. Terpstra*

14.30 Colitis na immunotherapie
Dr. F.D.M. van Schaik, MDL-arts, UMC Utrecht

15.00 Endosponge
Dr. R. Pouw, MDL-arts, Amsterdam UMC

15.30 Onderzoek na bariatrie LA-ERCP
Drs. M.I.E. Appels, MDL-arts, Rode Kruis Ziekenhuis, Beverwijk
Dr. A. Demirkiran, chirurg. Rode Kruis Ziekenhuis, Beverwijk

16.00 Einde van deze sessie

DONDERDAG 14 SEPTEMBER

V&VN MDL Chirurgie en Oncologie — Parkzaal

Beroepsvereniging van zorgprofessionals
Maag Darm Lever

Voorzitters: *M. Schilders*

11.30 T1 carcinomen van de slokdarm
Drs. M.W. Chan, arts-onderzoeker, Amsterdam UMC

12.00 Slechtnieuws gesprek
M.M.J. ten Veldhuis, gezondheidszorgpsycholoog, Noordwest Ziekenhuisgroep, Alkmaar

12.30 Lunch in de expositiehal en gemodereerde postersessies

V&VN MDL Lever en Voeding — Zaal 81

Beroepsvereniging van zorgprofessionals
Maag Darm Lever

Voorzitters: *C.J.R. Verstraete*

11.30 De Lever app gaat viraal
Dr. T.J.G. Gevers, MDL-arts, Maastricht University Medical Center
Dr. G. Veldhuijzen, MDL-arts, Gelre Ziekenhuizen, Apeldoorn

12.00 Leefstijladviezen
P. Lottman, Slimfit leefstijl coach

12.30 Lunch in de expositiehal en gemodereerde postersessies

V&VN MDL IBD — Zaal 81

Beroepsvereniging van zorgprofessionals
Maag Darm Lever

Voorzitters: *M. Heida*

14.30	IBD en reumatologie *Dr. M.G. van de Sande, reumatoloog, Amsterdam UMC*
15.00	IBD en dermatologie *Prof. dr. T Rustemeyer, dermatoloog, Amsterdam UMC*
15.30	IBD en hepatitis *Dr. M.M.C. Hirdes, MDL-arts, UMC Utrecht*
16.00	Einde van deze sessie

Postersessie III — Expositiehal

Moderatoren: A. Rezazadeh

11.10 Prevalence of autoimmune gastritis and incomplete intestinal metaplasia in patients with premalignant gastric lesions. (p. 112)
F.E. Marijnissen[1], J.K.F. Pluimers[1], J. Honing[1], X. Guo[1], L.G. Capelle[2], I.L. Holster[3], G. Fuhler[1], P.J.F. de Jonge[1], M. Doukas[4], M.C.W. Spaander[1], [1]Dept. of Gastroenterology and Hepatology, Erasmus University Medical Center, Rotterdam, [2]Dept. of Gastroenterology and Hepatology, Meander Medical Center, Amersfoort, [3]Dept. of Gastroenterology and Hepatology, Maasstad Hospital, Rotterdam, [4]Dept. of Hepatology, Erasmus University Medical Center, Rotterdam, The Netherlands

11.15 Anti-reflux mucosectomy for gastroesophageal reflux disease: efficacy and mechanism of action (p. 113)
T. Kuipers, R.A.B. Oude Nijhuis, R.E. Pouw, A.J. Bredenoord, Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, The Netherlands

11.20 Adverse events of endoscopic ultrasound-guided fine-needle aspiration and fine-needle biopsy in pancreatic neuroendocrine tumors: a systematic review (p. 114)
J.W. Chen[1], A.V.D. Verschuur[6], A.H. Abdelmonem[1], K.M.A. Dreijerink[2], A.F. Engelsman[1], C. Luchini[3], R.L.J. Van Wanrooij[4], K.A. Ziesemer[5], L.A.A. Brosens[6], E.J.M. Nieveen van Dijkum[1], [1]Dept. of Surgery, Amsterdam UMC, Amsterdam, [2]Dept. of Internal Medicine, Amsterdam UMC, Amsterdam, [3]Dept. of Pathology, University Hospital of Verona, Verona, Italië [4]Dept. of Gastroenterology, Amsterdam UMC, Amsterdam, [5]Medical Library, Amsterdam UMC, Amsterdam, [6]Dept. of Pathology, UMC Utrecht, Utrecht, The Netherlands

Postersessie IV — Expositiehal

Moderatoren: N.G.M. Rossen

12.35 Prophylactic Clipping prevents Delayed Bleeding after Endoscopic Mucosal Resection of large non-ampullary duodenal lateral spreading lesions (p. 115)
G. Kemper[2], C. Gerges[1], A. Jonkers[2], T. Beyna[3], P.D. Siersema[2], [1]Dept. of Gastroenterology and Interventional Endoscopy, Evangelical Hospital Düsseldorf, Düsseldorf, Duitsland [2]Dept. of Gastroenterology and Hepatology, Radboudumc, Nijmegen, [3]Dept. of Gastroenterology and Hepatology, Evangelical Hospital Düsseldorf, Düsseldorf, Duitsland

12.40 Outcome of bilairy drainage in daily clinical practice: a multicenter, retrospective analysis. (p. 116)
A. Aznou[2], D. Berkhout[2], B.W. van der Spek[1], G.D. Heine[1], M.A.J.M. Jacobs[2], J.E. van Hooft[3], P. Fockens[2], R. Voermans[2], R.L.J. van Wanrooij[2], [1]Dept. of Gastroenterology and Hepatology, NoordWest Ziekenhuisgroep, Alkmaar, [2]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, location VUmc, Amsterdam, [3]Dept. of Gastroenterology and Hepatology, Leiden University Medical Center, Leiden, The Netherlands

12.45 Unravelling the role of the lymphatic system in the development of immunogenicity to biologics in Inflammatory Bowel Disease patients (p. 117)
D. Nikolakis[2], M.J. Pruijt[1], M.G.H. Sande[2], J. Grootjans[1], G.R.A.M. D'Haens[1], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [2]Dept. of Rheumatology, Amsterdam UMC, Amsterdam, The Netherlands

12.50 The feasibility and safety of the motorized spiral enteroscope for endoscopic balloon dilatation of strictures in Crohn's disease: A case series (p. 118)
W.F.W. Kappelle[1], P.G.A. Van Boeckel[1], J. Tenthof van Noorden[1], H.H. Fidder[2], N. Mahmmod[1], A. Al-Toma[1], [1]Dept. of Gastroenterology, Antonius Ziekenhuis, Nieuwegein, [2]Dept. of Gastroenterology, UMC Utrecht, The Netherlands

Postersessie V — Expositiehal

Moderatoren: Y.J. van Herwaarden

12.55 Intended uptake and preferences for oesophageal adenocarcinoma screening: a population-based survey (p. 119)
J. Sijben[1], L. Rainey[2], F. Maas[1], M.J.M. Broeders[2], P.D. Siersema[1], Y. Peters[1], [1]Dept. of Gastroenterology and Hepatology, Radboudumc, Nijmegen, [2]Dept. of Health Evidence, Radboudumc, Nijmegen, Nederland

13.00 The impact of a complete biochemical response on health-related quality of life in patients with autoimmune hepatitis: an international prospective cross-sectional study (p. 120)
R.J.A.L.M. Snijders[6], M.K. Janik[1], M. Mund[2], A. Gerussi[3], F. Bolis[3], L. Cristoferi[3], P. Invernizzi[3], P. Kovats[4], M. Papp[4], L. Grønbæk[5], H. Grønbæk[5], E.T.T.L. Tjwa[6], L. Aamann[7], H. Ytting[7], V. Ronca[8], K. Olsen[9], Y.H. Oo[9], A.J. van der Meer[10], J. Madaleno[11], B. Canhão[11], B. Engel[12], A. Campos-Murguia[12], R. Taubert[12], O. Koc[13], M. Kramer[13], J.A. Willemse[14], B. Löwe[15], A.W. Lohse[16], J.P.H. Drenth[6], C. Schramm[16], P. Milkiewicz[1], T.J.G. Gevers[13], [1]Dept. of Gastroenterology and Hepatology, Medical University of Warsaw, Warsaw, Polen, [2]Dept. of Gastroenterology and Hepatology, Martin Zeitz Centre for Rare Diseases, Hamburg, Duitsland, [3]Dept. of Gastroenterology and Hepatology, University of Milano-Bicocca, Monza, Italië, [4]Dept. of Gastroenterology and Hepatology, University of Debrecen, Debrecen, Hongarije, [5]Dept. of Gastroenterology and Hepatology, Aarhus University Hospital, Aarhus, Denemarken, [6]Dept. of Gastroenterology and Hepatology, Radboudumc, Nijmegen, [7]Dept. of Gastroenterology and Hepatology, Hvidovre University Hospital and Rigshospitalet, Copenhagen, Denemarken, [8]Laboratory for Experimental Oncology and Radiobiology (LEXOR), Queen Elizabeth Hospital, Birmingham, Verenigd Koninkrijk, [9]Liver Unit, Cambridge University Hospitals NHS Foundation Trust, Queen Elizabeth Hospital, Birmingham, Verenigd Koninkrijk, [10]Dept. of Gastroenterology and Hepatology, Erasmus University Medical Center, Rotterdam, [11]Dept. of Gastroenterology and Hepatology, Centro Hospitalar e Universitário de Coimbra, Coimbra, Portugal,[12]Dept. of Gastroenterology and Hepatology, Hannover Medical School, Hannover, Duitsland, [13]Dept. of Gastroenterology and Hepatology, Maastricht University Medical Center, Maastricht, [14]Dept. of Gastroenterology and Hepatology, Dutch Liver Patients Association, Hoogland, [15]Dept. of Psychiatry, University Medical Center Hamburg-Eppendorf, Hamburg, Duitsland [16]Dept. of Gastroenterology and Hepatology, University Medical Center Hamburg-Eppendorf, Hamburg, Duitsland

13.05 Decoding donor and recipient cell dynamics in the small bowel graft within six months post-transplantation (p. 121)

N. Karmi, W.T.C. Uniken Venema, R. Oelen, E. Bigaeva, M.G.P. van der Wijst, M.X.L. Dijkema, S. de Jong, J.W. Haveman, F. van der Heide, R.K. Weersma, E.A.M. Festen, G. Dijkstra, Dept. of Gastroenterology and Hepatology, UMCG, Groningen, The Netherlands

13.10 Do we need to re-evaluate the role of fine-needle aspiration in infected necrotizing pancreatitis in the post-POINTER era? (p. 122)

H.S. Pauw[1], H.C. Timmerhuis[1], L. Boxhoorn[2], M.G. Besselink[3], M.A. Boermeester[3], M.J. Bruno[4], A.C.I.L. Tan[5], P. van Duijvendijk[6], T. Römkens[7], M.P. Schwartz[8], N.G. Venneman[9], J. M. Jansen[10], M.W.J. Stommel[11], R. Quispel[12], B.J. Witteman[13], W.L. Curvers[14], T.C. Seerden[15], W.L. Hazen[16], S.A. Bouwense[17], M.B.W. Spanier[18], R. Verdonk[19], R.P. Voermans[2], H.C. van Santvoort[1], F.F. van den Berg[20], [1]Dept. of Surgery, St. Antonius Ziekenhuis, Nieuwegein, [2]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, location AMC, [3]Dept. of Surgery, Amsterdam UMC, location AMC, [4]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, [5]Dept. of Gastroenterology, Canisius Wilhelmina Ziekenhuis, Nijmegen, [6]Dept. of Surgery, Gelre Ziekenhuizen, Apeldoorn, [7]Dept. of Gastroenterology, Jeroen Bosch Ziekenhuis, [8]Dept. of Gastroenterology, Meander Medisch Centrum, Amersfoort, [9]Dept. of Gastroenterology, Medisch Spectrum Twente, Enschede, [10]Dept. of Gastroenterology, OLVG, Amsterdam, [11]Dept. of Surgery, Radboudumc, Nijmegen, [12]Dept. of Gastroenterology, Reinier de Graaf Gasthuis, Delft, [13]Dept. of Gastroenterology, Ziekenhuis Gelderse Valei, Ede, [14]Dept. of Gastroenterology, Catharina Hospital, Eindhoven, [15]Dept. of Gastroenterology, Amphia Hospital, Breda, [16]Dept. of Gastroenterology, Elizabeth TweeSteden Hospital, Tilburg, [17]Dept. of Surgery, Maastricht UMC+, [18]Dept. of Gastroenterology, Rijnstate Hospital, Arnhem, [19]Dept. of Gastroenterology and Hepatology, St. Antonius Ziekenhuis, Nieuwegein, [20]Dept. of Microbiology and Immunology, Amsterdam UMC, location University of Amsterdam, Amsterdam, The Netherlands

Risk of synchronous lymph node metastasis in patients with T2 colon cancer in The Netherlands – pushing the boundaries of local treatment?

J. Hanevelt[2], L.M.G. Moons[1], F.P. Vleggaar[1], W.H. de Vos Tot Nederveen Cappel[2], L. van Westreenen[3], [1]Dept. of Gastroenterology, UMC Utrecht, Utrecht, [2]Dept. of Gastroenterology, Isala, Zwolle, [3]Dept. of Surgery, Isala, Zwolle, The Netherlands

Background: The identification of histological risk features for lymph node metastases (LNM) has resulted in a shift towards organ-preserving minimally invasive treatment of pT1 colorectal carcinomas (CRC) by advanced local resection techniques. In pT2 CRC, international guidelines recommend oncologic surgery with lymph node dissection, known to be associated with major complications in 1 out of 4 patients and a mortality rate of 2%, independent of the T-stage. The primary aim of this study was to evaluate the morbidity of segmental colonic surgery and the incidence of LNM in patients with pT2 colon cancer. Secondly, we aimed to identify risk features for LNM. These risk factors could guide future decisions on the extent of treatment in patients with T2 colon carcinoma.
Methods: Retrospective nationwide population-based cohort study (Dutch ColoRectal Audit (DCRA)) including all consecutive patients with pT2 colon carcinoma who underwent a surgical resection with lymph node dissection between 2010 and 2020 in The Netherlands. Exclusion criteria were: (1) neoadjuvant therapy, (2) synchronous CRC, (3) missing or unknown (Nx) lymph node status, (4) local resections, and (5) rectal surgery. Potential clinical and histological risk features were evaluated in univariate and multivariate logistic regression analyses.
Results: In total, 12184 patients were identified. The overall 90-day complication and mortality rates were 25.2% and 2.2%, respectively. In elderly patients (age ≥74), complications occurred in 30.8% and the mortality rate was 3.9%. Tumor-positive lymph nodes were found in 2384 patients (19.6%). The median lymph node yield did not differ between patients with or without LNM. Multivariate analysis showed that younger age (OR 0.98, 95% CI 0.978-0.990), left-sided colon cancer (OR 1.5, 95% CI 1.3-1.6), presence of LVI (OR 1.5, 95% CI 1.3-1.7), and poor differentiation (2.2, 95% CI 1.7-2.7) were independent risk factors for LNM. The predicted probability of LNM in the lower risk group (age ≥ 74, right-sided CRC, LVI absent, good/moderate tumor differentiation) was 11.7%.
Conclusion: Considering the low incidence of LNM in pT2 colon carcinoma (19.6%) and high morbidity and mortality of a segmental colonic resection, recognizing a group of patients who are at lower risk for LNM and may suffice with a local treatment is of essence. Especially in the elderly it is questionable whether major surgery is of benefit and clinicians should discuss the option of a local resection technique instead. Further research on additional histological risk factors for LNM is needed to balance this out against the risk of major surgery with patients prior to a shared decision.

Colonoscopic-Assisted Laparoscopic Wedge Resection versus Segmental Colon Resection for Colonic lesions: A Comparative Cost Analysis

J. Hanevelt[2], L.W. Leicher[1], L.M.G. Moons[1], F.P. Vleggaar[1], J.F. Huisman[2], H.L. van Westreenen[3], W.H. de Vos Tot Nederveen Cappel[2], [1]Dept. of Gastroenterology, UMC Utrecht, Utrecht, [2]Dept. of Gastroenterology, Isala, Zwolle, [3]Dept. of Surgery, Isala, Zwolle, The Netherlands

Background: Not all colonic polyps are eligible for endoscopic removal, In this situation, a segmental colon resection (SCR) is performed, which is associated with significant morbidity and mortality. The colonoscopic-assisted laparoscopic wedge resection (CAL-WR) is an effective and safe treatment for the removal of these polyps. However, data regarding its cost were not published before.
Methods: A single-center 90-day 'in-hospital' comparative cost analysis was performed of patients undergoing CAL-WR or SCR for complex benign polyps between 2016 and 2020, The CAL-WR group consisted of 44 patients who participated in a prospective multicenter study (the LIMERIC study). Inclusion criteria were (1) endoscopically unresectable benign polyps, (2) residual or recurrence after previous polypectomy, or (3) irradically resected low-risk pT1 colon carcinoma. The comparison group, which was retrospectively identified, included 32 patients who underwent an elective SCR in the same period.
Results: CAL-WR was associated with significantly fewer complications (7% in the CAL-WR group *versus* 45% in the SCR group, p <,001), shorter operation time (50 minutes in the CAL-WR group *versus* 119 minutes in the SCR group, p <,001), shorter length of hospital stay (median LOS of 2 days in the CAL-WR group *versus* 4 days in the SCR group, p =<,001), and less use of surgical resources (reduction in costs of 32% per patient), resulting in a cost savings of €2372 (US $2533) per patient (p <,001).
Conclusion: CAL-WR has clinical and financial benefits and should therefore be recommended for complex benign polyps that are not eligible for endoscopic resection before major surgery is considered.

Incidence and outcomes of deficient mismatch repair (dMMR) in patients treated for rectal cancer in a national cohort study

E.G.M. van Geffen[2], C.R.C. Hogewoning[1], S.J.A. Hazen[2], T.C. Sluckin[2], M.M. Lange[3], P. Snaebjornsson[4], R.G.H. Beets-Tan[5], C.A.M. Marijnen[6], C. Verhoef[7], M. Chalabi[8], P.J. Tanis[7], M. Kusters[2], T. Aukema[9], [1]Dept. of Surgery, St. Antonius Ziekenhuis, Nieuwegein, [2]Dept. of Surgery, Amsterdam UMC, Amsterdam, [3]Dept. of Pathology, Amsterdam UMC, Amsterdam, [4]Dept. of Pathology, Antoni van Leeuwenhoek, Amsterdam, [5]Dept. of Radiology, Antoni van Leeuwenhoek, Amsterdam, [6]Dept. of Radiotherapy, Antoni van Leeuwenhoek, Amsterdam, [7]Dept. of Surgery, Erasmus MC, Rotterdam, [8]Dept. of Gastrointestinal Oncology, Antoni van Leeuwenhoek, Amsterdam, [9]Dept. of Surgery, Haga Ziekenhuis, Den Haag, The Netherlands

Background: In colorectal cancer, 15-20% of the tumours can be subtyped as deficient mismatch repair (dMMR). dMMR cancers in the colon are associated with a poor response to (neo)adjuvant therapy and there is growing interest in personalized treatment with immunotherapy for these specific tumours. In rectal cancer however, dMMR tumours are thought to be rare and distinct clinical features of this group, response to neoadjuvant therapy and oncological outcomes have scarcely been reported.
Methods: From a retrospective population-based cohort study conducted in the Netherlands with all rectal cancer patients operated in 2016 and a 4-year follow up period, MMR status was validated. dMMR rectal tumours were characterized and response to neoadjuvant (chemo)radiation ((C)RT), surgical and oncological outcomes were compared to patients with pMMR tumours.
Results: MMR-status was determined in 1645 (54.9%) of 3001 patients and was deficient in 46 patients (1.5%). Median follow up of those with a determined MMR-status was 50 months (IQR 38-55). MMR-status was determined more frequently in younger patients ($p<0.001$). dMMR tumors were more advanced (cT4 23.9% vs 8.8%, $p=0.010$), and more distally located (mean distance to anorectal junction 3.6cm vs 5.3cm, $p=0.004$) than pMMR tumors. Radiological response was similar, but pCR was seen more often in dMMR tumors (24.0% vs 10.0%, $p=0.039$). There was no difference in 4-year local recurrence, distant metastases or overall survival rate between patients with dMMR or pMMR tumors after correction for confounders.
Conclusion: In this population based cohort, 1.5% of the rectal tumours were subtyped as dMMR. MMR status was associated with higher pathological complete response rate to neoadjuvant (C)RT. This study did not find an association between MMR status and oncological outcomes in patients with rectal cancer.

Nationwide standardization of the minimally invasive right hemicolectomy and development of video-based competency assessment tool: a Delphi study (phase 2 of Right Study)

A.A.J. Grüter[1], Y. Derraze[1], U.K. Coblijn[2], E. Belgersq[3], E. Belt[4], P. Van Duijvendijk[5], C. Hoff[6], R. Hompes[1], A. Smits[7], A. Van de Ven [8], H. Westreenen[9], B.R. Toorenvliet[10], P.J. Tanis[11], J.B. Tuynman[1], [1]Dept. of Surgery, Amsterdam UMC, Amsterdam, [2]Dept. of Surgery, Antoni van Leeuwenhoek, Amsterdam, [3]Dept. of Surgery, Zuyderland MC, Heerlen, [4]Dept. of Surgery, Albert Schweitzer Ziekenhuis, Dordrecht, [5]Dept. of Surgery, Gelre Ziekenhuizen, Apeldoorn, [6]Dept. of Surgery, Medisch Centrum Leeuwarden, Leeuwarden, [7]Dept. of Surgery, St Antonius Ziekenhuis, Nieuwegein, [8]Dept. of Surgery, Flevoziekenhuis, Almere, [9]Dept. of Surgery, Isala Ziekenhuizen, Zwolle, [10]Dept. of Surgery, Ikazia Ziekenhuis, Rotterdam, [11]Dept. of Surgery, Erasmus MC, Rotterdam, The Netherlands

Background: Currently, substantial variation is present in the surgical performance of a minimally invasive right hemicolectomy (MIRH), both between centers and surgeons. The aim of this study is to reach national consensus about the most optimal and standardized stepwise surgical technique for right-sided colon cancer which will subsequently be implemented.
Methods: To obtain high level consensus, the Delphi method was used, aiming towards 80% agreement. The Delphi method consisted of content surveys, first involving two online stages of anonymous responses to statements on the steps of MIRH to gain consensus. The last and third round was a physical meeting of all participating surgeons to agree or disagree on the statements for which less than 80% agreement was reached. The statements were based upon an extensive literature search for all relevant topics to gather the best evidence per key step. In addition, if possible, referral was made to international guidelines.
Results: After 3 rounds, at least 80% consensus has been reached on 23 of the 24 statements. Two surgeons per participating hospital were invited to participate and a total of 76 colorectal surgeons with experience in MIRH took part. Consensus was reached among the experts on the following key aspects within MIRH, among others: the use of low-pressure pneumoperitoneum, the performance of a complete mesocolic excision with D2 lymphadenectomy, the creation of an intracorporeal anastomosis, and the extraction of the specimen through a Pfannenstiel incision. Based on the results of the Delphi and by having some videos rated, a video-based procedure-specific competency assessment tool (CAT) was developed to assess MIRH for quality.
Conclusion: A large group of 76 experts reached consensus on the essential steps to perform a MIRH for right-sided colon cancer. This standardized technique will be trained and implemented in a national quality improvement project in the Netherlands by the participating centers of the Right study with the goal to improve clinical outcomes. In addition, the CAT will be used to assess these procedures for surgical quality.

Gastric and duodenal cancer risk in Lynch syndrome: a nationwide cohort study

I.A. Caspers[1], E.L. Eikenboom[2], M. Lopez-Yurda[3], N.C.T. Van Grieken[4], T.M. Bisseling[5], E. Dekker[6], B.A.J. Bastiaansen[6], A. Cats[1], M.E. Van Leerdam[1], , [1]Dept. of Gastrointestinal Oncology, NKI Antoni van Leeuwenhoek, Amsterdam, [2]Dept. of Clinical Genetics, Erasmus MC, Rotterdam, [3]Dept. of Biometrics, NKI Antoni van Leeuwenhoek, Amsterdam, [4]Dept. of Pathology, Amsterdam UMC, Amsterdam, [5]Dept. of Gastroenterology, Radboud UMC, Nijmegen, [6]Dept. of Gastroenterology, Amsterdam UMC, Amsterdam, The Netherlands

Background: Lynch syndrome (LS) increases the risk of gastric cancer (GC) and duodenal cancer (DC), particularly in individuals with *MLH1* and *MSH2* pathogenic variants (PVs). Lack of consensus exists whether individuals with LS benefit from esophagogastroduodenoscopy (EGD) surveillance. To provide further insight on whether, and if so from what age, EGD surveillance may be beneficial, we evaluated the cumulative incidence and tumor characteristics of GC and DC in a large cohort of Dutch individuals with LS.

Methods: Clinical data of LS individuals registered between 1985-2021 at the Dutch Hereditary Cancer Registry (StOET) was retrospectively matched with pathology reports filed between 1989-2021 by the Dutch Pathology Registry. All pathology reports describing results of gastric or duodenal tissue specimens were reviewed for presence of GC and DC. Cumulative incidences of GC and DC were estimated for individuals with high-risk (*MLH1, MSH2* and *EpCAM)* and low-risk (*MSH6 and PMS2)* PVs using a competing risk model with death as competing risk. Standardized incidence ratios (SIRs) were determined by dividing the observed number of carcinomas in the study cohort by the expected number of carcinomas per age group based on the GC and DC incidence in the general Dutch population.

Results: Among 1002 individuals with high-risk and 765 individuals with low-risk PVs, 29 GCs (1.6%) and 39 DCs (2.2%) were diagnosed. Cumulative incidence of GC and DC were higher in individuals with high-risk PVs compared to low-risk PVs. Cumulative risk of GC and DC under the age of 50 was very low (≤1%) for both high-risk and low-risk individuals. At age 70 and lifetime, cumulative incidences for high-risk PVs were 3% and 5% for GC, and 5% and 6% for DC, respectively. For low-risk PVs cumulative incidences at age 70 and lifetime were 1% and 1% of GC, and 1% and 2% of DC, respectively. Primary tumor resection was performed in 62% of GC and 77% of DC cases. Early stage GC (UICC 8th version TNM stage I) was found in 56% of resected GCs. Early stage DC (TNM stage I-IIa) was found in 52% of resected DCs. SIR was 4.9 (95% CI 3.3–7.0) for GC and 250 (95% CI 178-290) for DC in LS individuals.

Conclusion: This nationwide cohort study shows that individuals with *MLH1, MSH2* and *EpCAM* mutations have a substantial risk of developing GC and DC at the age of 70 years. This risk is negligible before the age of 50 years. The majority of GC and DC were diagnosed at an early stage. Yield of GC, DC and their precursor lesions during surveillance EGD and cost-effectiveness of surveillance should be determined in future studies.

Tumour positive peritoneal cytology in patients with gastric cancer is associated with poor outcome: a large nationwide study.

K. van der Sluis[1], S. Taylor[1], L. Kodach[2], J.M. van Dieren[1], I.H.J.T. de Hingh[3], B.P.L. Wijnhoven[4], R.H.A. Verhoeven[5], M.A. Vollebergh[6], J.W. van Sandick[1], [1]Dept. of Gastrointestinal Surgery, s Kanker Instituut - Antoni Van Leeuwenhoek, Amsterdam, [2]Dept. of Pathology, s Kanker Instituut - Antoni Van Leeuwenhoek, Amsterdam, [3]Dept. of Surgery, Catharina Ziekenhuis, Eindhoven, [4]Dept. of Surgery, Erasmus Medisch Centrum, Rotterdam, [5]Integraal Kankercentrum (IKNL), Integraal Kankercentrum , Utrecht, [6]Dept. of Gastrointestinal Oncology, s Kanker Instituut - Antoni Van Leeuwenhoek, Amsterdam, The Netherlands

Background: The clinical significance of tumour positive peritoneal cytology (CYT+) in patients with gastric cancer (GC) is unclear and therefore managed differently worldwide. The objectives of this study using nationwide data from the Netherlands Cancer Registry (NCR) were 1. to assess the frequency of cytological analysis at staging laparoscopy in GC patients, 2. to estimate the prevalence of CYT+ GC and 3. to compare overall survival of patients with CYT+ versus those with (PM+) and without (PM-) macroscopic peritoneal disease. Survival of patients with CYT+ was additionally analysed per treatment category.
Methods: All adult patients diagnosed with a cT1-4, cN0-2 and M0 or synchronous M1 (peritoneal metastases) gastric cancer in the period 2016-2021 were identified in the NCR database. The data were linked to the nationwide pathology database (PALGA) to determine the CYT and PM status.
Results: Cytological assessment was performed in 54% of the patients who underwent staging laparoscopy in the study period. The prevalence of CYT+ in GC patients who underwent cytology during staging laparoscopy was 8%. Among the 4397 included patients, 69 (2%) patients had CYT+ disease, 740 (17%) PM+ and 3588 (82%) PM- disease. In multivariable analysis, the hazard ratio for overall survival in CYT+ versus PM- patients was 2.1 (95%CI 1.5-2.9) (p-value <0.001), and in PM+ versus PM- patients 2.5 (95%CI 2.0-3.1) (p-value<0.001). No difference in overall survival was found between CYT+ patients in the systemic chemotherapy group versus those who underwent surgical resection.
Conclusion: In this large nationwide cohort study, overall survival of gastric cancer patients with tumour positive peritoneal cytology was similar to those with macroscopic PM disease and significantly worse as compared to patients without PM disease. These results indicate that tumour positive peritoneal cytology in gastric cancer patients should be regarded as M1 disease. The optimal treatment strategy for these patients is yet to be established.

Tumour-guided cell free tumour DNA analysis in peritoneal fluids of gastric cancer patients can detect occult peritoneal metastases.

K. van der Sluis[1], J.W. van Sandick[1], M.A. Vollebergh[2], J.M. van Dieren[2], N. Hugen[1], K.J. Hartemink[1], A.A.F.A. Veenhof[1], E. Verhoeven[3], J. van der Berg[3], P. Snaebjornsson[3], T. van Wezel[3], M.C. Boelens[3], L. Kodach[3], [1]Dept. of Surgery, s Kanker Instituut - Antoni Van Leeuwenhoek, Amsterdam, [2]Dept. of Gastrointestinal Oncology, s Kanker Instituut - Antoni Van Leeuwenhoek, Amsterdam, [3]Dept. of Pathology, s Kanker Instituut - Antoni Van Leeuwenhoek, Amsterdam, The Netherlands

Background: With current diagnostic tools, adequate detection of limited peritoneal dissemination (PD) in gastric cancer (GC) patients is a challenge. In this study, the feasibility of tumour-guided cell free DNA detection in peritoneal fluid of GC patents was investigated and its accuracy in the detection of PD was compared to conventional cytology.
Methods: Peritoneal fluids consisting of ascites or peritoneal washing (PW) were prospectively collected in 27 GC patients (2021-2022). In addition to standard diagnostic workup, next generation sequencing was performed on the primary tumour and on cell free DNA of peritoneal fluids. Retrospective analysis divided the patients in 4 groups: 1) negative control: patients with tumournegative PW and no evidence of PD (within 6 months after sampling) on histology and cytology; 2) positive control: patients with tumourpositive ascites or PW and proven PD during sampling on histology or cytology; 3) patients with tumournegative PW despite proven PD during sampling (histology), and 4) a patient with tumournegative PW and no PD during sampling who developed PD within 6 months.
Results: In eighteen of the 27 (67%) study patients mutations were detected in the primary tumour. No cell free tumour DNA was detected in the negative control group (group 1, 6/6, 100%). Cell free tumour DNA was detected in all peritoneal fluid samples in the positive control group (group 2, 7/7, 100%). Importantly, in 5 of 6 patients (83%) with tumournegative PW on cytology but histologic proof of PD (group 3), cell free tumour DNA was detected in PW fluid. Lastly, cell free tumour DNA was also detected in PW fluid of the patient with tumournegative PW and no evidence of PD during sampling, but who developed PD within 6 months. Sensitivity of detecting PD by cell free tumour DNA analysis was 92%, compared to 58% by conventional cytology.
Conclusion: In this study, tumour-guided detection of cell free tumour DNA in peritoneal fluids of patients with gastric cancer was feasible and more sensitive than conventional cytology. Ongoing research is needed to validate these findings and to determine the prognostic value of this diagnostic tool. Detection of cell free tumour DNA may guide personalized treatment of patients with gastric cancer.

Rapid liver regeneration following PVE/HVE improves overall survival compared to PVE alone – a midterm analysis of the multicentric multicenter DRAGON 0 cohort

R. Korenblik[1], J. Heil[4], S. James[1], J. Smits[1], M. Dewulf[2], C. van der Leij[3], E. Schadde[4], R.M. van Dam[1], [1]Dept. of Surgery, Maastricht University, Maastricht, [2]Dept. of Surgery, Maastricht University Medical Center+, Maastricht, [3]Dept. of Radiology, Maastricht University Medical Center+ , Maastricht, The Netherlands, [4]Dept. of Physiology, University of Zurich, Zurich, Zwitserland

Background: Insufficient Future Liver Remnant (FLR) limits eligibility for surgery in patients with liver cancer. The DRAGON 0 study found that simultaneous embolization of the portal vein and hepatic vein (PVE/HVE) increases FLR hypertrophy and resectability compared with PVE alone. Currently, there are limited oncologic studies on PVE/HVE. The purpose of this study is to compare the 3-year overall survival after PVE/HVE versus PVE alone in the DRAGON 0 cohort.
Methods: In this multicenter international retrospective study, 3-year follow-up data of PVE/HVE and PVE were collected. Primary and secondary liver tumors were included. Kaplan-Meier analysis was performed to assess 3-year recurrence-free and overall survival. Factors impacting survival were analysed using multivariable analysis.
Results: 199 patients from 7 centers were included, of which 39 underwent PVE/HVE and 160 PVE alone. One PVE-patient was lost to follow-up. The groups differed in age (PVE/HVE 63 vs. PVE 67, p=0.008). The median time to follow-up were 32 (PVE/HVE) and 13 months (PVE) (p=0.26). There was a significant difference in median overall survival (PVE/HVE: 44 months vs. PVE: 22 months, p=0.017), but no difference in median progression-free survival (PVE/HVE:19 months vs. PVE:11 months, p=0.23). Multivariable analysis revealed PVE/HVE as an independent predictor of survival (odds ratio: 3.92, c.i.1.64-9.35, p=0.002).
Conclusion: This study shows an improved overall survival after PVE/HVE compared to PVE alone. The worldwide multicenter DRAGON 2 randomized clinical trial is powered to investigate resectability and 5-year overall survival after and PVE/HVE and PVE (NCT05428735).

Mycophenolate mofetil is superior to azathioprine for the induction of remission in treatment-naive autoimmune hepatitis [CAMARO trial]

R.J.A.L.M. Snijders[3], A.E.C. Stoelinga[1], T.J.G. Gevers[2], S. Pape[3], M. Biewenga[1], M.E. Tushuizen[1], R.C. Verdonk[4], H.J.M. de Jonge[5], J.M. Vrolijk[6], S.F. Bakker[7], T. Vanwolleghem[8], Y.S. de Boer[9], A.M.C. Baven[10], U.H.W. Beuers[11], A.J. van der Meer[12], N.M.F. van Gerven[13], M.G.M. Sijtsma[14], B.C. van Eijck[15], M.C. van IJzendoorn[16], M. van Herwaarden[17], F.F. van den Brand[18], K. Sebib Korkmaz [19], A.P. van den Berg[20], M.J. Guichelaar[21], A.D. Levens[22], B. van Hoek[1], J.P.H. Drenth[3], [1]Dept. of Gastroenterology and Hepatology, Leiden University Medical Center, [2]Dept. of Gastroenterology and Hepatology, Maastricht University Medical Center, [3]Dept. of Gastroenterology and Hepatology, Radboudumc, Nijmegen, [4]Dept. of Gastroenterology and Hepatology, St. Antonius Hospital, Utrecht, [5]Dept. of Gastroenterology and Hepatology, Jeroen Bosch Hospital, 's Hertogenbosch, [6]Dept. of Gastroenterology and Hepatology, Rijnstate Hospital, Arnhem, [7]Dept. of Gastroenterology and Hepatology, Elisabeth-Tweesteden Hospital, Tilburg, [8]Dept. of Gastroenterology and Hepatology, Antwerp University Hospital, Edegem, België [9]Dept. of Gastroenterology and Hepatology, Amsterdam University Medical Centers, location VU Medical Center, Amsterdam, [10]Dept. of Gastroenterology and Hepatology, Groene Hart Hospital, Gouda, [11]Dept. of Gastroenterology and Hepatology, Amsterdam University Medical Centers, location Academic Medical Center, Amsterdam, [12]Dept. of Gastroenterology and Hepatology, Erasmus University Medical Center, Rotterdam, [13]Dept. of Gastroenterology and Hepatology, Rode Kruis Hospital, Beverwijk, [14]Dept. of Gastroenterology and Hepatology, St. Jansdal Hospital, Harderwijk, [15]Dept. of Gastroenterology and Hepatology, Spaarne Gasthuis, Haarlem, [16]Dept. of Gastroenterology and Hepatology, Hospital Bernhoven, Uden, [17]Dept. of Gastroenterology and Hepatology, Deventer Hospital, [18]Dept. of Gastroenterology and Hepatology, OLVG Oost, Amsterdam, [19]Dept. of Gastroenterology and Hepatology, IJselland Hospital, Capelle aan den IJssel, [20]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, Groningen, [21]Dept. of Gastroenterology and Hepatology, Medisch Spectrum Twente, Enschede, [22]Dept. of Clinical Pharmacy and Toxicology, Leiden University Medical Center, Leiden, The Netherlands

Background: In patients with autoimmune hepatitis (AIH), the classical predniso(lo)ne/azathioprine regimen to induce complete remission is recommended in all present guidelines. Cessation of azathioprine is, however, necessary in approximately 15% of patients due to side effects. In uncontrolled studies, mycophenolate mofetil (MMF) has demonstrated a potent effect in achieving complete remission in the majority of patients with AIH and seems to have fewer adverse events. The aim of this study was to compare the potential benefits of first-line MMF over azathioprine, both used in combination with predniso(lo)ne, as induction therapy in patients with treatment-naive AIH.
Methods: In this 24-week, prospective, randomized, open-label, multicenter superiority trial, we enrolled 70 patients with AIH. Treatment was started with predniso(lo)ne at 40 or 60 mg daily (depending on weight) and subsequently tapered to a minimum of 5 mg daily according to a dosing scheme. After 4 weeks, patients were randomly allocated (1:1) to either MMF (max. daily dose 2000 mg) or azathioprine (max. daily dose 100 mg). The primary endpoint was biochemical remission at 24 weeks, defined as serum levels of alanine aminotransferase and immunoglobulin G below the upper limit of normal (intention-to-treat population). Secondary endpoints included the safety and tolerability of MMF and azathioprine, time to remission, and adverse events. Safety was assessed in all patients who had taken at least one dose of the study drug. The trial was registered with ClinicalTrials.gov,#NCT02900443.
Results: Seventy patients (mean 57.9 years (standard deviation (SD) 14.0); 72.9% female) were randomly assigned to MMF plus predniso(lo)ne (n=39) or azathioprine plus predniso(lo)ne (n=31). The primary endpoint was met in 56.4% of patients assigned to MMF and in 25.8% assigned to azathioprine (difference, 30.6 percentage points; 95% confidence interval, 7.3 to 49.3; p=0.010). Severe adverse events were reported in one patient assigned to the MMF group (2.6%) and four patients assigned to the azathioprine group (12.9%) (p=0.082). In the azathioprine group, there was a higher discontinuation rate due to adverse events compared to the MMF group (25.8% vs. 5.1%, respectively, p=0.018). There was no difference in the mean cumulative predniso(lo)ne dose between the azathioprine group and the MMF group (1834 mg (SD 544) vs. 1944 mg (SD 475), respectively, p=0.369).
Conclusion: In this prospective, randomized trial, MMF was superior to azathioprine for the induction of remission in treatment-naive patients with AIH. Adverse events led to cessation of the immunomodulator more often with azathioprine than with MMF.

Interobserver agreement of the modified Rutgeerts' score and new proposed scores for endoscopic postoperative recurrence in Crohn's disease after ileocolic resection

M.T.J. Bak[1], O. van Ruler[1], G. Dijkstra[2], M. Romberg-Camps[3], N.S. Erler[4], K.H.N. de Boer[5], S.V. Jansen[6], S. van der Marel[7], C.S. Horjus[8], M.C. Visschedijk[2], R.L. Goetgebuer[5], W.A. van Dop[9], J. Hoekstra[10], A.G.L. Bodelier[10], I.M. Molendijk[11], L.A.A.P. Derikx[11], F.D.M. van Schaik[12], R.L. West[13], M. Duijvestein[9], C.J. van der Woude[11], A.C. de Vries[11], [1]Dept. of Surgery, IJsselland Hospital, Capelle aan den IJssel, [2]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, [3]Dept. Gastroenterology- Geriatrics- Internal and Intensive Care Medicine Co-MIK, Zuyderland Medical Center, Heerlen, [4]Dept. of Biostatistics, Erasmus MC, Rotterdam, [5]Dept. of Gastroenterology and Hepatology, Amsterdam University Medical Center, Amsterdam, [6]Dept. of Gastroenterology and Hepatology, Reinier de Graaf Gasthuis, Delft, [7]Dept. of Gastroenterology and Hepatology, Haaglanden MC, Den Haag, [8]Dept. of Gastroenterology and Hepatology, Rijnstate Hospital, Arnhem, [9]Dept. of Gastroenterology and Hepatology, Radboud University Medical Center, Nijmegen, [10]Dept. of Gastroenterology and Hepatology, Amphia Hospital, Breda, [11]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, [12]Dept. of Gastroenterology and Hepatology, University Medical Center Utrecht, [13]Dept. of Gastroenterology and Hepatology, Sint Franciscus Gasthuis & Vlietland, Rotterdam, The Netherlands

Background: Although commonly used in clinical practice as well as research, the modified Rutgeerts' score (mRS) has important limitations with regard to lack of prospective validation and ignorance of additional anatomotic locations such as the ileal and colonic blind loop. Two new endoscopic scores for the diagnosis of endoscopic postoperative recurrence (ePOR) have been proposed. In this study we assessed the interobserver agreement of the current (mRS) and new proposed scores for ePOR in Crohn's disease (CD) after ileocolic resection

Methods: Sixteen (academic and non-academic) gastroenterologist with IBD expertise assessed endoscopic videos (n=71) of postoperative CD patients (n=64) retrieved from nine Dutch centers. Each video was assessed by four gastroenterologists using the mRS, REMIND score (anastomotic and neoterminal ileum lesions) and anatomic score (lesions on the anastomotic line, ileal body, ileal inlet, neoterminal ileum, colonic and ileal blind loop). Interobserver agreement was assessed using (un)weighted kappa.

Results: The majority of the endoscopists was female (75.0%, n=12) with a mean endoscopy experience of 9.6 years (SD: 6.9). Weighted kappa for the mRS was 0.67 (95% confidence interval [CI] 0.60–0.74). The weighted kappa for anastomotic and neoterminal lesions, according to the REMIND score, were 0.46 (95% CI 0.35–0.58) and 0.73 (95% CI 0.65–0.80). The weighted kappa for lesions on the anastomotic line, ileal body, ileal inlet, neoterminal ileum, colonic and ileal blind loop were 0.44 (95% CI 0.32–0.55), 0.61 (95% CI 0.49–0.73), 0.63 (95% CI 0.54–0.72), 0.61 (95% CI 0.49–0.74), 0.83 (95% CI 0.62–1.00) and 0.68 (95% CI 0.46–0.89).

Conclusion: The interobserver agreement of the mRS is substantial. The new proposed endoscopic scores reveal a substantial agreement on scoring inflammation in the neoterminal ileum including the ileal body and ileal inlet, whereas agreement on lesions on the anastomotic line is moderate. Further improvement of interobserver agreement is required in these cases since the indication to start medication remains a matter of debate in patients with inflammation on the anastomotic line. Consensus meetings followed by education may be considered to improve interobserver agreement.

High all-cause 5 years mortality among patients with a T1 colorectal cancer can be adequately predicted by the Charlson Co-morbidity Index

M.R. Naber[1], L. van der Schee[1], A.U.G. van Lent[2], M.M. Laclé[3], L.M.G. Moons[1], [1]Dept. of Gastroenterology, UMCU, Utrecht, [2]Dept. of Gastroenterology, OLVG, Amsterdam, [3]Dept. of Pathology, UMCU, Utrecht, The Netherlands

Background: Completion surgery aims to lower the risk of pT1 colorectal cancer (CRC) related mortality, and thereby improve overall survival (OS). However, the true effect of reduced CRC-related mortality on OS depends on the risk of competing mortality. This study aimed to evaluate the impact of non-CRC related mortality among patients with T1 CRC and to compare their mortality risk to that of the general Dutch population. Additionally, the discriminative performance of the ASA score and Charlson comorbidity index (CCI) to predict mortality was evaluated.
Methods: The Dutch T1 CRC Working Group cohort, which included patients diagnosed with a T1 CRC between 2000 and 2022 in 23 Dutch hospitals, was used for this study. The 5-year OS was calculated by the Kaplan-Meier method. Standardized Mortality Ratios (SMR) were calculated for comparison of mortality with the general Dutch population stratified for age and gender. Univariate Cox regression was used to assess associations between clinical and tumor specific variables, and all-cause mortality. C-statistics were used to evaluate the diagnostic performance of ASA and CCI in predicting OS.
Results: A total of 4,331 patients were included (median follow-up of 4.02 years [IQR 1.92-5.33], median age 69 years [IQR 63-75], 40.8% female). The 5-year OS of the cohort was 83.0% [95%CI 81.5-84.4]. CRC related death accounted for 3.1% (N=135), while non-CRC related death accounted for 9.7% (N=422). For 3.2% (N=139) cause of death could not be retrieved. Univariate Cox regression identified age [HR 1.11; 95%CI 1.10-1.12], ASA score [ASA I versus III HR 7.37; 95%CI 5.70-9.52], CCI [HR 1.35 per point increase; 95%CI 1.32-1.39], and detection through population-based screening [HR 0.49; 95%CI 0.40-0.60] as significant predictors for all-cause mortality, while tumor specifications were not. The total SMR was 0.97 [95%CI 0.90-1.05], indicating similar mortality rates for the cohort and the general Dutch population. Median CCI score was 4 [IQR 2-5], and ASA scores III and IV were present in 15.9% and 0.8% of all patients, respectively. The C-statistics of the ASA score and CCI for all-cause mortality were 0.67 [95%CI 0.66-0.71] and 0.76 [95%CI 0.74-0.78] respectively.
Conclusion: Non-CRC related mortality is an important determinant of OS in pT1 CRCs, and mortality rates among T1 CRC patients are similar to those of the general Dutch population. The CCI adequately predicts all-cause mortality among patients with T1 CRC. Using CCI in clinical practice could help to estimate survival in individual patients and guide treatment decisions, especially when completion surgery is considered.

Current guidelines for the treatment and follow-up of gallbladder polyps lead to a high number of unwarranted cholecystectomies: results of the POLYP study.

E.A.J. de Savornin Lohman[1], M. van Dooren[2], P.R. de Reuver[2], [1]Dept. of Surgery, Radboudumc, Amsterdam, [2]Dept. of Surgery, Radboudumc, Nijmegen, The Netherlands

Background: Although gallbladder polyps (GP) are common, risk of malignancy remains low. Guidelines on indication for surgery and frequency of follow-up remain controversial. This study evaluates outcomes of the current management of GPs in the Netherlands.
Methods: All patients with an indication for active follow-up or surgery for GPs between 2018-2020 in participating centres were included. Data on demographics, imaging characteristics, surgery and histopathology was gathered. Given indications for cholecystectomy were compared between 2017 and 2021 European guidelines.
Results: In total, 320 patients were included. The median size of polyps was 7mm and 42% of polyps were detected incidentally. The average duration of follow-up was 47 months, during which an average of six visits with ultrasonography were conducted. In total, 96 patients (30%) underwent cholecystectomy. In 78 (81%) of patients who underwent cholecystectomy, the GP was a valid indication for cholecystectomy according to 2017 guidelines, compared to 75 (78%) according to 2021 guidelines. Four patients had a surgery indication according to guidelines, but the GPs were radiologically characterised as cholesterol polyps. Specifically, surgery indication was a size of 10mm or more of the biggest polyp in 36 (46%), size of 10mm ánd growth of 2mm or more in 24 patients (31%), a smaller size but growth of 2mm or more in six patients (8%) and polyp size of 6 to 9 mm with risk factors in 12 patients (15%). Of these 78 patients, cholesterol polyps were described in 36 (46%), adenomyomatosis or hyperplasia in 13 (17%) and other non-neoplastic (pseudo)polyps in three (4%). In 28 patients (36%), no polypoid laesions were found in pathology. Cholelithiasis was present in 34 patients (44%). An adenoma was found in five patients (6%), two without dysplasia, two with low grade dysplasia and one with high grade dysplasia.
Conclusion: Current guidelines for the treatment of GPs lead to a high number of unnecessary cholecystectomies. Improved patient selection and follow-up protocols are necessary in order to reduce both costs and the number of futile cholecystectomies. In literature, MRI and endo-US have proven to be of insufficient discriminatory capacity and are associated with high cost and patient burden. Alternatively, the analysis of specific polyp traits suggestive for malignancy on transabdominal ultrasonography may both be cost-effective and of sufficient discriminatory capacity to provide an adequate standard for determining indication for cholecystectomy.

Laparoscopic cholecystectomy is associated with Textbook Outcome for the treatment of patients with abdominal pain and uncomplicated symptomatic gallstone disease

D.J. Comes [1], P.R. de Reuver[3], F.M. Thunnissen[1], C.S.S. Latenstein[2], C.J.H.M. Van Laarhoven[3], J.P.H. Drenth[4], F. Atsma[5], M.A. Lantinga[6], [1]Dept. of Gastrointestinal Surgery, Radboudumc, Nijmegen, [2]Dept. of Surgery, Rijnstate Hospital, Arnhem, [3]Dept. of Surgery, Radboudumc, Nijmegen, [4]Dept. of Gastroenterology and Hepatology, Radboudumc, Nijmegen, [5]IQ Healthcare, Radboudumc, Nijmegen, [6]Dept. of Gastroenterology and Hepatology, AmsterdamUMC location AMC, Amsterdam, The Netherlands

Background: Textbook outcome (TO) is a comprehensive outcome measure for the surgical or conservative treatment of patients with uncomplicated cholecystolithiasis. Textbook outcome includes persistent abdominal pain, surgical and biliary complications. The aim of this study was to identify factors associated with TO after treatment.
Methods: Patients with uncomplicated symptomatic gallstone disease included between 2014 and 2019 in two Dutch multicenter prospective trials (SECURE and SUCCESS-trial) were analyzed. The primary outcome was the proportion of patients with TO after treatment (laparoscopic cholecystectomy or conservative treatment). Secondly, factors associated with TO were determined by multivariable regression analysis.
Results: A total of 1561 patients (72.7% female) were included. At 6 months' follow-up 1196 patients (76.6%) were pain-free. TO was achieved in 64.2% of patients, in 76.1% after surgery and in 23.9% after conservative treatment (p<0.001). Persisting pain was the main compromising factor not to achieve TO in both groups. Patients failed to achieve TO more often reported difficult defecation (16.5% vs 21.3%, p=0.018) and pain frequency ≥1/month (35.8% vs. 46.3%, P=.001) at baseline. A multivariate analysis identified three independent positive predictive factors to achieve TO: Older age (OR=1.010, 95% confidence interval [CI]: 1.002-1.017, p=0.018), the presence of biliary colic at baseline (OR= 1.299, 95% CI: 1.002-1.685, p=0.048), and laparoscopic cholecystectomy (OR= 1.850, 95% CI: 1.442-2.373, p <0.001).
Conclusion: Laparoscopic cholecystectomy is associated with a higher rate of TO in patients with abdominal pain and uncomplicated cholecystolithiasis. Improved patient selection for surgery will lead to less patients with persistent abdominal pain.

Feasibility of bedside endoscopic assessment of colorectal anastomoses in the early post-operative course: a pilot study

D.J. Nijssen[1], W. Lameris[1], J.B. Tuynman[1], R. Hompes[2], [1]Dept. of Surgery, Amsterdam UMC, location VUmc, Amsterdam, [2]Dept. of Surgery, Amsterdam UMC, location AMC, Amsterdam, The Netherlands

Background: Anastomotic leakage (AL) is a major complication following colorectal surgery. There is a lack of global consensus on standardized pathways for the early detection of AL. Proactively monitoring the occurrence of AL is essential to allow for timely and appropriate intervention. This pilot evaluates the feasibility of bedside endoscopic anastomosis inspection (BAI) in the early postoperative course after partial (PME) or total mesorectal excision (TME) and ileal pouch-anal anastomosis (IPAA) procedures.
Methods: In this pilot, BAI was performed using a handheld digital rectoscope at postoperative day 4 or 5 in 22 patients admitted after TME (n=19), PME (n=1) and IPAA (n=2) surgery. All endoscopic examinations were recorded in a standardized (e)CRF containing predefined morphologic features. Perioperative patient characteristics, surgical outcome, 90-days AL incidence and days until diagnosis of AL were recorded. Feasibility was defined as uncomplicated and complete endoscopic anastomosis inspection potentially aiding in the early detection of AL.
Results: Out of 22 patients, AL occurred in 5 (23%) within 90-days follow-up. The median (IQR) time until diagnosis of AL within 90 days postoperative was 5 (4-16) days. AL was first detected by BAI in 3 (50%), through a CT-scan with rectal contrast in 2 (33.3%) and through flexible sigmoidoscopy in 1 (16.7%). In 2 patients with a diverting ileostomy, AL was detected through BAI prior to discharge at postoperative day 4 and 5 in absence of other clinical or biochemical signs. Comparative flexible sigmoidoscopy was available in 9 patients showing substantial agreement with BAI with regard to detection of AL (88.9%, *Cohen's k*: 0.727). There were no adverse events related to endoscopic inspection of the anastomosis. AL was managed by endoscopic vacuum-assisted surgical closure (EVASC) in all patients. There was no ICU-admission or mortality in the series.
Conclusion: Bedside endoscopic anastomosis inspection in the early postoperative course is feasible and might aid in the early detection of AL. Further larger clinical trials are needed to standardize the approach and to evaluate its utility in relation to alternate modalities.

Long-term follow-up study of necrotising pancreatitis: interventions, complications, and quality of life.

R.A. Hollemans[1], H.C. Timmerhuis[1], M.G. Besselink[2], M.J. Bruno[3], R.C. Verdonk[4], H.C. Santvoort[5], [1]Dept. of Research & Development, St. Antonius Hospital, Nieuwegein, [2]Dept. of Surgery, AUMC, Amsterdam, [3]Dept. of Gastroenterology, ErasmusMC, Rotterdam, [4]Dept. of Gastroenterology, St. Antonius Hospital, Nieuwegein, [5]Dept. of Surgery, St. Antonius Hospital, Nieuwegein, The Netherlands

Background: To describe the long term consequences of necrotising pancreatitis, including complications, the need for interventions, and the quality of life.
Methods: Long-term follow-up of a prospective multicentre cohort of 373 necrotising pancreatitis patients (2005-2008) was performed. Patients were prospectively evaluated and received questionnaires. Readmissions (i.e. for recurrent or chronic pancreatitis), interventions, pancreatic insufficiency, and quality of life were compared between initial treatment groups: conservative, endoscopic/percutaneous drainage alone, and necrosectomy. Associations of patient and disease characteristics during index admission with outcomes during follow-up were assessed.
Results: During a median follow-up of 13.5 years (±12 months), 97/373 patients (26%) were readmitted for recurrent pancreatitis. Endoscopic or percutaneous drainage was performed in 47/373 patients (13%), of whom 21/47 patients (45%) were initially treated conservatively. Pancreatic necrosectomy or pancreatic surgery was performed in 31/373 patients (8%), without differences between treatment groups. Endocrine insufficiency (126/373 patients; 34%) and exocrine insufficiency (90/373 patients; 38%), developed less often following conservative treatment ($p<0.001$ and $p=0.016$, respectively). Quality of life scores did not differ between groups. Pancreatic gland necrosis >50% during initial admission was associated with percutaneous/endoscopic drainage (OR4.3 [95%CI 1.5-12.2]), pancreatic surgery (OR3.2 [95%CI 1.1-9.5], and development of endocrine insufficiency (OR13.1 [95%CI 5.3-32.0] and exocrine insufficiency (OR6.1 [95%CI 2.4-15.5] during follow-up.
Conclusion: Acute necrotising pancreatitis carries a substantial disease burden during long-term follow-up in terms of recurrent disease, the necessity for interventions and development of pancreatic insufficiency, also if treated conservatively during the index admission. Extensive (>50%) pancreatic parenchymal necrosis seems to be an important predictor of interventions and complications during follow-up.

Minimally invasive versus open distal pancreatectomy for resectable pancreatic cancer: an international randomized trial

M. Korrel[1], L. Jones[1], J. Van Hilst[2], O. Busch[1], A. Emmen[1], B. Groot Koerkamp[3], R. De Kleine[4], D. Lips[5], M. Luyer[6], M. Besselink[1], M. Abu Hilal[7], [1]Dept. of Surgery, Amsterdam UMC, Amsterdam, [2]Dept. of Surgery, OLVG, Amsterdam, [3]Dept. of Surgery, Erasmus MC, Rotterdam, [4]Dept. of Surgery, UMC Groningen, Groningen, [5]Dept. of Surgery, Medisch Spectrum Twente, Enschede, [6]Dept. of Surgery, Catharina Ziekenhuis, Eindhoven, [7]Dept. of Surgery, Poliambulanza Hospital Brescia , Brescia, Italy

Background: The oncological safety of minimally invasive surgery has been questioned for several abdominal cancers. Concerns also exist regarding the use of minimally invasive distal pancreatectomy (MIDP) in patients with resectable pancreatic cancer as randomised trials are lacking.
Methods: In this international randomised non-inferiority trial, we recruited adults with resectable pancreatic cancer from 35 centres in 12 countries. Patients were randomly assigned to either MIDP (laparoscopic or robotic) or open distal pancreatectomy (ODP). Both patients and pathologists were blinded to the assigned approach. Primary endpoint was radical resection (R0, ³1mm free margin) in patients who had ultimately undergone resection. Analyses for the primary endpoint were by modified intention-to-treat, excluding patients with missing data on primary endpoint. The pre-defined non-inferiority margin of -7% was compared with the lower limit of the two-sided 90% confidence interval (CI) of absolute difference in the primary endpoint. This trial is registered with the ISRCTN registry (ISRCTN44897265).
Results: Between May 8, 2018 and May 7, 2021, 258 patients were randomly assigned to MIDP (131 patients) or ODP (127 patients). Modified intention-to-treat analysis included 114 patients in the MIDP group and 110 patients in the ODP group. An R0 resection occurred in 83 (73%) patients in the MIDP group and in 76 (69%) patients in the ODP group (difference 3·7%, 90% CI -6·2 to 13·6%; pnon-inferiority=0·039). Median lymph node yield was comparable (22·0 [16·0-30·0] vs 23·0 [14·0-32·0] nodes, p=0.86), as was the rate of intraperitoneal recurrence (41% vs 38%, p=0·45). Median follow-up was 23·5 (interquartile range 17·0-30·0) months. Other postoperative outcomes were comparable, including median time to functional recovery (5 [95% CI 4·5-5·5] vs 5 [95% CI 4·7-5·3] days; p=0·22) and overall survival (HR 0·99, 95% CI 0·67-1·46, p=0·94). Serious adverse events were reported in 23 (18%) of 131 patients in the MIDP group versus 28 (22%) of 127 patients in the ODP group.
Conclusion: This trial provides evidence on the non-inferiority of MIDP compared to ODP regarding radical resection rates in patients with resectable pancreatic cancer. The present findings support the applicability of minimally invasive surgery in patients with resectable left-sided pancreatic cancer.

Reactivation leakages following stoma reversal after rectal cancer surgery; an underestimated problem

K.R. Wienholts[1], S. Sharabiany[1], J.H.W. de Wilt[2], R. Hompes[1], P.J. Tanis[1], [1]Dept. of Surgery, Amsterdam UMC, location AMC, Amsterdam, [2]Dept. of Surgery, Radboud UMC, Nijmegen, The Netherlands

Background: To reduce the devastating consequences of anastomotic leakage, diverting stomas are often placed during index rectal cancer surgery. The diverting stoma is closed after assessment of anastomotic integrity. However, some patients develop a symptomatic anastomotic leakage within weeks to even years thereafter. This study aimed to better characterize these co-called reactivation leakages among a cohort of tertiary referred patients with pelvic sepsis, and to compare treatment and outcomes with a control group without prior stoma closure.
Methods: From January 2010 until January 2020, all patients referred to our hospital for treatment of acute or chronic pelvic sepsis after prior low anterior resection for rectal cancer were prospectively registered and retrospectively reviewed in a database. Patients were stratified according to closure of a diverting stoma in the period between index surgery and referral.
Results: Out of 120 patients, 55 (46%) had a reactivation leakage before referral. Median time to first symptoms after stoma closure was 16 months (IQR: 4-43). Treatment of reactivation leakage significantly differed from the control group with more patients requiring non-restorative salvage surgery (58% vs. 29%) leading to a higher stoma rate (76% vs. 55%) at the end of follow-up (mean follow-up = 92 months). Complete healing of pelvic sepsis took a median of 55 months after index surgery, while this was 18 months in the control group.
Conclusion: Among patients with pelvic sepsis after low anterior resection, reactivation leakage is a common phenomenon that requires more intensive treatment and has worse outcome than leakages in the control group, probably due to relatively late diagnosis and disturbed or inefficient wound healing mechanisms in those patients.

Economic burden of pelvic sepsis after anastomotic leakage following rectal cancer surgery: a retrospective cost-of-illness analysis

K.R. Wienholts[1], D.J. Nijssen[1], S. Sharabiany[1], P.J. Tanis[1], M.J. Postma[2], W. Laméris[1], R. Hompes[1], [1]Dept. of Surgery, Amsterdam UMC, location AMC, Amsterdam, [2]Dept. of Health Evidence, University Medical Center Groningen, University of Groningen, Groningen, The Netherlands

Background: Anastomotic leakage (AL) following rectal surgery remains a challenging complication. Approximately half of these leakages persist after a year and can turn into pelvic sepsis. These patients are often referred to specialized hospitals for treatment of their pelvic sepsis, which includes salvage surgery, with or without restoration of the anastomosis, endosponge treatment and drainage of the cavity. This requires additional admissions, interventions and operations, and imposes a high economic burden on the health care system. This study aimed to give a detailed analysis of the financial burden of the treatment of prolonged anastomotic leakage and subsequent pelvic sepsis in a tertiary hospital up to a mean of 5 years follow-up.
Methods: From January 2010 until January 2020, all patients referred to our hospital for treatment of acute or chronic pelvic sepsis after prior low anterior resection for rectal cancer were prospectively registered and retrospectively reviewed in a database. This database was analyzed in accordance with the guidelines for health economic analyses published by the Dutch National Healthcare Institute. The analysis was set up as a cost-of-illness study and comprised medical costs as imposed to the hospital starting at the first appointment in our hospital. Costs were inflation-adjusted to 2022 euros and were stratified according to type of salvage surgery for secondary endpoints in which the amount of re-interventions and re-admissions were also analyzed.
Results: In total 126 patients were included in this analysis of which the mean total costs were €29.830 per patient, consisting of €20.276 for the primary salvage surgery along with admission and additionally €9.554 for re-interventions and re-admissions. In 61 (48%) patients, primary salvage surgery consisted of an intersphincteric resection while restorative salvage surgery was performed in the remaining patients. Patients were hospitalized at the general ward for a mean of 8.9 days, with 0.7 days (mean) at the intensive care unit, after primary salvage surgery. Most performed re-interventions consisted of endosponge switches (n = 166), stoma closures (n = 59), and abscess drainages (n = 51).
Conclusion: Pelvic sepsis imposes a substantial economic burden on the health care system costing almost €30.000 per patient for tertiary hospital care. This information is useful for quantifying the potential economic value and impact of innovations in surgical care that reduce the incidence and burden of pelvic sepsis.

Relationship between presence of metabolic dysfunction associated fatty liver disease and change in liver stiffness in individuals with chronic hepatitis B

L.A. Patmore[3], M.J. Sonneveld[3], K.M.A. van Eekhout[1], O.M. Koc[2], R.J. de Knegt[3], H.L.A. Janssen[3], W.P. Brouwer[3], M. Kramer[2], P. Honkoop[4], J. de Bruijne[5], G.J. Boland[6], R.A. de Man[3], R.B. Takkenberg[1], [1]Dept. of Gastroenterology and Hepatology, Amsterdam University Medical Centers, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Maastricht University Medical Center, Maastricht, [3]Dept. of Gastroenterology and Hepatology, Erasmus MC, University Medical Center, Rotterdam, [4]Dept. of Gastroenterology and Hepatology, Albert Schweitzer Hospital, Dordrecht, [5]Dept. of Gastroenterology and Hepatology, Utrecht UMC, Utrecht, [6]Dept. of Medical Microbiology, Utrecht UMC, Utrecht, The Netherlands

Background: Studies suggest that metabolic dysfunction associated fatty liver disease (MAFLD) is associated with an increased risk for liver-related events in individuals with chronic hepatitis B (CHB). This might be due to more rapid progression of liver fibrosis in individuals co-affected by CHB and MAFLD. Therefore, we studied the association between MAFLD and change in liver stiffness over time in individuals with CHB.
Methods: We conducted a multicenter retrospective study of mono-infected individuals with CHB who underwent at least two liver stiffness measurements (LSM) with FibroScan. MALFD was defined as hepatic steatosis (based on histology, controlled attenuation parameter or ultrasound) in combination with metabolic dysfunction (diabetes, overweight or hypercholesterolemia and hypertension). We studied the change in LSM from the first LSM to the most recent LSM and defined a significant increase as an increase of ≥1 kPa from baseline, and a significant decrease as a decrease ≥1 kPa.
Results: We analyzed 1376 individuals out of which 26.1% had MAFLD. The median LSM at baseline and at last follow-up was 5.6 kPa (IQR 4.4–7.4) and 5.1 kPa (IQR 4.1–6.5); with a median follow-up time of 4.7 years (IQR 2.6–7.7). Individuals with MAFLD had a significantly higher LSM compared to individuals without MAFLD (8.0 kPa vs. 6.6 kPa p=0.003). An increase in LSM was observed in 283 (20.5%) individuals, with a higher proportion among individuals with MAFLD (25% vs. 18% p=0.008). 682 (49.6%) individuals initiated antiviral therapy, of whom 181 (26.5%) had MAFLD (p=0.707). Antiviral therapy was associated with a significant decrease in LSM (72.1% vs. 53.1% p<0.001). Individuals with MAFLD were significantly less likely to achieve a decrease in LSM (57.9% vs 67.8% p=0.001). An increase in LSM was observed in 128 individuals (18.7%) who initiated antiviral therapy. MAFLD was associated with a significantly higher risk of LSM increase (27% vs. 15% p<0.001), and the absolute increase in LSM was also higher among individuals with MAFLD (4.9 vs. 3.5 kPa p=0.01). In logistic regression analysis, adjusting for follow-up duration, HBV DNA and ALT levels, older age (odds ratio [OR] 1.02 p=0.008), higher LSM at baseline (OR 1.302 p<0.001) and MAFLD (OR 1.516 p=0.010) were associated with an increased risk of LSM progression.
Conclusion: Individuals with CHB and MAFLD are more likely to experience an increase in LSM. While initiation of antiviral therapy was associated with a decline in LSM in the overall population, such decrease was less frequently observed among individuals with CHB and MAFLD, and MAFLD was an independent risk factor for liver stiffness increase despite initiation of antiviral therapy.

Low HBV DNA and HBsAg levels at 24 weeks off-treatment predict sustained response and HBsAg loss in patients who discontinued antiviral therapy

M.J. Sonneveld[1], [1]Dept. of Gastroenterology and Hepatology, Erasmus MC, University Medical Center, Rotterdam, The Netherlands

Background: Patients who discontinue nucleo(s)tide analogue (NUC) therapy are at risk of severe viral rebound and hepatitis flares, necessitating intensive off-treatment follow-up. We studied the association between HBsAg and HBV DNA levels at 6 months after therapy cessation (FU W24) with subsequent outcomes.
Methods: Chronic hepatitis B patients who discontinued NUC therapy and who were still HBsAg positive and without clinical relapse or retreatment at FU W24 were identified in an existing multicenter database. The association between HBsAg and HBV DNA levels at off-treatment FU W24 with subsequent clinical relapse (defined as HBV DNA >2,000 IU/mL + ALT > 2x ULN or retreatment) and HBsAg loss was studied through univariable analyses using the Kaplan-Meier method, as well as multivariable Cox regression analysis adjusting for other potential predictors.
Results: We enrolled 641 patients, 86% Asian, 26% pretreatment HBeAg positive, and 59% treated with entecavir. At FU w24, we observed a weak correlation between HBV DNA and HBsAg levels (Pearson's r=0.254, p<0.001). Patients with higher HBV DNA levels at FU W24 had a higher risk of clinical relapse (hazard ratio [HR] 1.617, p<0.001) and a lower chance of HBsAg loss (HR 0.496, p<0.001). Similarly, patients with higher HBsAg levels at FU W24 had a higher risk of clinical relapse (HR 1.616, p<0.001) and a lower chance of HBsAg loss (HR 0.247, p<0.001). A combination of both HBsAg <100 IU/mL and HBV DNA <100 IU/mL at FU w24 identified patients with excellent outcomes (8.5% clinical relapse and 56% HBsAg loss at 192 weeks of subsequent follow-up). Conversely, patients with both HBV DNA >100 IU/mL and HBsAg >100 IU/mL had a very high risk of clinical relapse (68% at 192 weeks), and virtually no chance of HBsAg loss (<1% at 192 weeks). Findings were consistent in multivariable analysis.
Conclusion: Serum levels of HBV DNA and HBsAg at FU W24 can be used to predict subsequent clinical relapse and HBsAg clearance in patients who discontinued NUC therapy. A combination of HBsAg <100 IU/mL with HBV DNA <100 IU/mL identifies patients with very low risk of relapse and excellent chances of HBsAg loss, and could potentially be used as an early surrogate endpoint for studies aiming at finite therapy in HBV. Patients with both high HBsAg and HBV DNA levels have a very high risk of relapse and virtually no chance of HBsAg loss, and should be closely monitored and/or retreated.

Predictors of hepatic flares after nucleos(t)ide analogue cessation - Results of a global cohort study (RETRACT-B study)

E.J. Dongelmans[10], G. Hirode[1], B.E. Hansen[2], C.H. Chen[3], T.H. Su[4], W.K. Seto[5], A. Furquim d'Almeida[6], S. van Hees[6], M. Papatheodoridi[7], S. Lens[8], G.L.H. Wong[9], S.M. Brakenhoff[10], R.N. Chien[11], J.J. Feld[1], H.L.Y. Chan[12], X. Forns[8], G.V. Papatheodoridis[7], T. Vanwolleghem[6], M.F. Yuen[5], Y.C. Hsu[13], J.H. Kao[4], M. Cornberg[14], M.J. Sonneveld[10], W.J. Jeng[11], H.L.A. Janssen[10], [1]Toronto Center for Liver Disease, Toronto General Hospital, University Health Network, Toronto, Canada [2]Dept. of Epidemiology and Biostatistics, Erasmus MC, Rotterdam, [3]Dept. of Internal Medicine , Kaohsiung Chang Gung Memorial Hospital, Kaohsiung City, Taiwan, [4]Dept. of Internal Medicine , National Taiwan University Hospital, Taipei, Taiwan [5]Dept. of Medicine, The University of Hong Kong, Hong Kong, Hongkong [6]Dept. of Gastroenterology and Hepatology, Antwerp University Hospital, Antwerp, Belgium [7]Dept. of Gastroenterology, Medical School of National and Kapodistrian University of Athens, Athens, Griekenland [8]Dept. of Hepatology, University of Barcelona, Barcelona, Spain, [9]Dept. of Analytical Sciences, The Chinese University of Hong Kong, Hong Kong, Hongkong [10]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, [11]Dept. of Gastroenterology and Hepatology, Chang Gung Memorial Hospital Linkou Medical Center, Chang Gung University, Taoyuan, Taiwan [12]Dept. of Medicine, The Chinese University of Hong Kong, Hong Kong, Hongkong [13]Dept. of Gastroenterology and Hepatology, Center for Liver Diseases, E-Da Hospital/I-Shou University, Kaohsiung, Taiwan[14]Dept. of Gastroenterology, Hepatology and Endocrinoligy, Hannover Medical School; Centre for Individualized Infection Medicine (CiiM), Hannover, Germany

Background: Flares after nucleos(t)ide analogue (NA) cessation are common and potentially harmful. Predictors of these flares are required for risk stratification and to guide off-treatment follow-up.
Methods: This is a retrospective, multicenter cohort study including patients with chronic hepatitis B (CHB) who were virally suppressed and hepatitis B e antigen (HBeAg) negative at the time of NA cessation. Flares after NA withdrawal were defined as mild, moderate or severe based on a ALT level of 5-, 10- or 20 times or more the upper limit of normal (ULN). Multivariable cox regression analyses were performed censoring at re-treatment and loss-to-follow-up. A sub-group analysis was performed to investigate the association between HBV DNA levels at 12 weeks after withdrawal and subsequent flare risk, excluding patients with a flare before or at 12 weeks.
Results: Among 1557 included patients, 356 (22.9%) developed a mild flare during follow up of which 70% occurred within the first year after withdrawal and with a 5-year cumulative incidence of 31.9%. One-year cumulative incidences for ALT flares ≥5x, ≥10x, ≥20x ULN were 18.6%, 10.0% and 3.4%, respectively. Fifteen (4.2%) patients decompensated after a mild flare of which 9 subsequently developed a severe flare resulting in 1 death.
Multivariable analyses showed that older age (aHR 1.02, 95%CI 1.01 – 1.03), male sex (aHR 1.49 95%CI 1.11 – 1.99), higher HBsAg levels at NA withdrawal (100-1.000 IU/ml; aHR 2.15, 95%CI 1.47 – 3.16, > 1.000 IU/ml; aHR 2.79, 95% CI 1.85 – 4.22) and Tenofovir (TDF) vs. Entecavir (aHR 2.23, 95%CI 1.76 – 2.83) were predictive for any flare (≥5x ULN). TDF therapy (aHR 2.50, 95%CI 1.78 – 3.49), NA switch (aHR 1.53, 95%CI 1.04 – 2.25) and a HBsAg level > 1.000 IU/ml at withdrawal (aHR 2.41, 95%CI 1.38 – 4.19) were predictive for moderate flares. Only TDF therapy was associated with an increased risk of severe flares (aHR 4.06, 1.92 – 8.58). When focusing on available HBV DNA data from 12 weeks after NA-cessation (n = 685), only levels between 2.000-10.000 IU/ml (aHR 2.15, 95%CI 1.00 – 4.61) and > 10.000 IU/ml (aHR 4.63, 95%CI 2.42 – 8.86) were associated with an increased risk of mild flares (HBV-DNA <100 IU/ml as reference).
Conclusion: Flares are common after NA cessation and were predominantly observed in the first year and could result in liver decompensation or death. Older age, male sex, increased HBsAg levels at end of treatment and TDF therapy before drug withdrawal were associated with a higher risk of flares. HBV DNA kinetics after stopping NA may be used to stratify the risk of flares, with an increased risk observed among patients with an HBV DNA level > 2.000 and >10.000 IU/ml 12 weeks after NA withdrawal.

A multi-center randomized controlled study of Primary preventiOn of esophageal vaRiceal bleeding in cirrhotic patients Treated with HVPG-guided therapy Or Standard heart rate-guided therapy: an interim analysis of the PORTHOS trial

A.G.C. Broekhoven[1], J.S. Schaapman[1], A.J.C. Kerbert[1], H.W. Verspaget[1], B. van Hoek[1], S.C. Cannegieter[2], A.R. Erkel[3], W.B. van den Hout[4], B.J.A. Mertens[5], R.A. Veenendaal[1], U.R. Beuers[6], R.B. Takkenberg[6], C.M.J. van Nieuwkerk[6], J.P.H. Kuyvenhoven[7], T. van Wolleghem[8], M.J. Coenraad[1], [1]Dept. of Gastroenterology and Hepatology, Leids Universitair Medisch Centrum, Leiden, [2]Dept. of Clinical Epidemiology, Leids Universitair Medisch Centrum, Leiden, [3]Dept. of Radiology, Leids Universitair Medisch Centrum, Leiden, [4]Dept. of Medical Decision Analysis, Leids Universitair Medisch Centrum, Leiden, [5]Dept. of Medical Statistics, Leids Universitair Medisch Centrum, Leiden, [6]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [7]Dept. of Gastroenterology and Hepatology, Spaarne Gasthuis, Hoofddorp, [8]Dept. of Gastroenterology and Hepatology, UZ Antwerpen, Antwerpen, Belgium

Background: Nonselective beta-blockers (NSBB) are the standard of care for primary prevention of esophageal variceal bleeding in patients with liver cirrhosis. However, about 50% of these patients do not reach target hemodynamic response. These nonresponders have significantly higher rate of first variceal hemorrhage as compared to NSBB responders. In clinical practice, NSBB therapy is evaluated according to heart rate. However, the reduction in heart rate due to NSBB does not correlate with the reduction in portal venous pressure. We aimed to compare the effectiveness of hepatic venous pressure gradient (HVPG)-guided NSBB therapy to standard heart rate-guided NSBB therapy.
Methods: Randomized controlled multi-center trial comparing NSBB therapy guided HVPG-measurements before and after start of NSBB therapy, to standard heart rate-guided NSBB therapy in patients with liver cirrhosis and large (≥5 mm) esophageal varices without a history of variceal hemorrhage. Follow-up period was 2 years. In patients randomized to the HVPG group, a HVPG-measurement was performed before and 4 weeks after the start of propranolol to determine the hemodynamic response. In hemodynamic responders, NSBB's were continued. In hemodynamic nonresponders, NSBB's were also continued and additional repeated endoscopic band ligation was performed until complete obliteration of large varices. In the control group propranolol was started, and NSBB's were continued throughout the whole study period, no routine gastroscopy was required. This study constitutes the planned interim analysis according to the protocol.
Results: In total 64 patients were included in this interim analysis; 33 were randomized to the HVPG group, 31 to the control group. Within the HVPG group, 5 (15.2%) patients experienced a variceal hemorrhage versus 4 (12.9%) within the control group (NS). Within the HVPG group 20 (60.6%) patients were non-responders to propranolol, 7 (21.2%) patients were responders and 6 (18.2%) patients had an unknown respons. There was no significant difference between the incidence of variceal hemorrhage between responders and non-responders (10% vs 15%, NS).
Conclusion: In this randomized controlled study, around 60% of the patients were hemodynamic non-responders to NSBB treatment as primary prophylaxis of variceal bleeding. However, this did not result in a higher rate of variceal hemorrhage. Overall, no clinical benefit from HVPG guided NSBB therapy could be demonstrated.

Deep tissue exposure of antibiotics at the target site of infection in patients with cystic liver disease: a randomized pharmacokinetic trial

M.A. Lantinga[4], L.H.P. Bernts[1], R.J.M. Brüggemann[2], A.M.E. Jansen[2], N.G.L. Jager[2], H.F.L. Wertheim[3], J.P.H. Drenth[1], [1]Dept. of Gastroenterology and Hepatology, Radboudumc, Nijmegen, [2]Dept. of Clinical Pharmacy, Radboudumc, Nijmegen, [3]Dept. of Medical Microbiology, Radboudumc, Nijmegen, [4]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, The Netherlands

Background: Successful antibiotic (AB) therapy for liver cyst infection depends on adequate exposure of ABs at the infection site. Pharmacokinetic (PK) data of AB in liver cyst fluid is limited, but is critical to manage cyst infection. We aimed to analyse AB deep tissue exposure (DTE) using an in vivo human liver cyst model.
Methods: We performed an explorative, randomized, PK study. Adults with intact renal function eligible for liver cyst drainage were randomized between iv ciprofloxacin and piperacillin/tazobactam (group 1), or trimethoprim/sulfamethoxazole (group 2). ABs were administered as a single iv dose prior to cyst drainage. Blood was drawn at 3 time-points <12hrs following AB administration. Cyst fluid was collected during cyst drainage. AB concentrations were measured with liquid chromatography-tandem mass spectrometry using a validated assay for plasma and liver cyst fluid. Primary outcome was deep tissue exposure (DTE), expressed as liver cyst to plasma concentration ratio (%). Individual plasma exposure was described by area under the concentration-time curve (AUC). AUC and maximum plasma concentration (Cmax) were calculated by post hoc estimation based on existing population PK models using non-linear mixed effect modelling. DTE estimates were calculated as cyst concentration to AUC or Cmax ratio. For exploratory analyses, we used linear regression to assess whether the time interval between AB administration and cyst drainage (minutes), cyst location (left vs. right liver lobe) or cyst volume (ml) were correlated with DTE.
Results: We included 20 patients (10% male, median age 61yrs). Twenty-one liver cysts were drained (group 1: n=11 cysts, left lobe: n=5, right lobe: n=6 and group 2: n=10 cysts, left lobe: n=3, right lobe: n=7). Median drained volume was 700 ml [375-1200ml]. DTE for ciprofloxacin was 4.2% [1.6-8.9%], piperacillin 0.3% [0.1-1.3%], tazobactam 0.2% [0.0–1.3%], trimethoprim 12.2% [6.3–16.1%] and sulfamethoxazole 0.4% [0.2-3.8%], respectively. Cyst concentration to AUC and Cmax ratios showed comparable distributions. Time between iv administration and cyst drainage increased DTE for trimethoprim (R^2 0.63 $p<0.01$). DTE was numerically higher in left lobe located cysts, except for sulfamethoxazole. Cyst volume did not correlate with DTE.
Conclusion: Deep tissue exposure of antibiotics in liver cysts was overall low after a single iv dose. Highest exposure was seen for trimethoprim. Due to low sulfamethoxazole penetration, a synergistic combination with trimethoprim (cotrim) might be less effective. Exploratory analyses show that complex time-dependent PK and hepatic lobar differences could influence AB exposure at target sites of infection.

Antibodies against multiple post-translationally modified proteins aid in diagnosis of autoimmune hepatitis and associate with complete biochemical response to treatment

A.E.C. Stoelinga[3], M.D. van den Beukel[2], A. van der Meer[1], S. van der Meulen[2], L. Zhang[2], M.E. Tushuizen[3], L.A. Trouw[2], B. van Hoek[3], [1]Dept. of Gastroenterology and Hepatology, Erasmus Medical Center, Rotterdam, [2]Dept. of Immunology, Leiden University Medical Center, Leiden, [3]Dept. of Gastroenterology and Hepatology, Leiden University Medical Center, Leiden, The Netherlands

Background: (Auto)immune mediated and cholestatic liver disease (AILD) includes autoimmune hepatitis (AIH), primary biliary cholangitis (PBC) and primary sclerosing cholangitis (PSC). Especially AIH is characterized by the presence of autoantibodies and elevated serum immunoglobulins. In rheumatoid arthritis, autoantibodies against post-translational modifications (PTMs) such as citrullination (Cit) and carbamylation (CarP) are used as diagnostic and prognostic markers, respectively. We studied the presence of six anti-PTM antibodies in patients with the three AILDs and non-AILD.
Methods: Antibodies against six PTMs (malondialdehyde–acetaldehyde adducts (MAA), advanced glycation end-products (AGE), CarP, acetylation (AL), Cit, and nitration (NT)) were tested in sera of patients with AILD (n=106), non-AILD (n=101) and compared with healthy controls (HC) (n=100). Levels and positivity were correlated with clinical and biochemical features in a well-defined cohort of untreated AIH patients. Differences in levels of anti-PTM antibodies between HCs, AILD and non-AILD were assessed. Analyses of correlation between anti-PTM antibody levels and clinical variables were done.
Results: Anti-PTM IgG antibody levels were measured in 106 patients with AILD, 101 patients with non-AILD and 100 HCs in two academic hospitals in the Netherlands. Anti-PTM antibodies were more often detectable in sera from AILD patients compared with HCs (anti-MAA: 67.9% vs 2.0%, anti-AGE: 36.8% vs 4.0%, anti-CarP: 47.2% vs 5.0% and anti-AL: 18.9% vs 5.0%). Patients with AILD more frequently harboured at least one type of anti-PTM antibody compared to non-AILD and HCs (AILD: 81.2%, non-AILD: 58.4% and HCs: 20%). The AILD group was dissected into AIH, PBC and PSC. Patients with AIH harboured significantly more anti-MAA, anti-AGE and anti-CarP antibodies compared to non-AILD patients (anti-MAA: 77.3% vs 26.7%, anti-AGE: 48.5% vs 17.5% and anti-CarP: 63.6% vs 27.7%, all $p<0.001$, respectively). Patients with AIH harboured anti-PTM antibodies more often compared to other subgroups of AILD.
In untreated AIH, time to complete biochemical response (CBR) was associated with anti-MAA, anti-AGE, anti-CarP and anti-AL antibodies. Significantly more patients with at least three anti-PTM antibodies attained CBR at 12 months of treatment (13 vs 3 $p=0.01$).
Conclusion: Anti-PTM antibodies are frequently present in AILD. The presence of anti-MAA, anti-AGE and anti-CarP antibodies correlates with the presence of AIH within this cohort. In AIH, harboring at least three anti-PTM antibody responses is positively associated with CBR. Determination of anti-PTM antibodies in liver disease may have diagnostic and prognostic value.

Real-world experience with fibrates in patients with primary biliary cholangitis

M.C. van Hooff[27], R.C. de Veer[27], A.J. van der Meer[27], E. Werner[27], U.H.W. Beuers[1], J.P.H. Drenth[2], F.J.C. Cuperus[3], B. van Hoek[4], J.T. Brouwer[5], M. Klemt-Kropp[6], S. van Meer[7], R.C. Verdonk[8], H.J. Flink[9], J.M. Vrolijk[10], T.J. Gevers[11], C.Y. Ponsioen[1], J.E. van Rooij[12], M.J. Kerbert-Dreteler [13], J. Sint Nicolaas[14], J.M. de Vree[15], A.C. Poen[16], P.W. Friederich[17], M.M. Tielemans[18], H. Aktas[19], D.M. Hotho[20], U. de Wit[21], J.P. Kuyvenhoven[22], S. Abraham[23], E. Kuiper[24], S. Schmittgens[25], Y.A. Alderlieste[26], H.L.A. Janssen[27], B.E. Hansen[28], N.S. Erler[28], [1]Dept. of Gastroenterology and Hepatology, Amsterdam University Medical Center, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Radboud University Medical Center, Nijmegen, [3]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, Groningen, [4]Dept. of Gastroenterology and Hepatology, Leiden University Medical Center, Leiden, [5]Dept. of Gastroenterology and Hepatology, Reinier de Graaf Gasthuis, Delft, [6]Dept. of Gastroenterology and Hepatology, Noordwest Hospital Group, Alkmaar, [7]Dept. of Gastroenterology and Hepatology, University Medical Center Utrecht, Utrecht, [8]Dept. of Gastroenterology and Hepatology, Antonius Hospital, Nieuwegein, [9]Dept. of Gastroenterology and Hepatology, Catharina Hospital, Eindhoven, [10]Dept. of Gastroenterology and Hepatology, Rijnstate Hospital, Arnhem, [11]Dept. of Gastroenterology and Hepatology, Maastricht University Medical Center, Maastricht, [12]Dept. of Gastroenterology and Hepatology, Tjongerschans Hospital, Heerenveen, [13]Dept. of Gastroenterology and Hepatology, Medisch Spectrum Twente, Enschede, [14]Dept. of Gastroenterology and Hepatology, Amphia Hospital, Breda, [15]Dept. of Gastroenterology and Hepatology, Treant Hospital, Emmen/Hoogeveen, [16]Dept. of Gastroenterology and Hepatology, Isala Hospital, Zwolle, [17]Dept. of Gastroenterology and Hepatology, Meander Medical Center, Amersfoort, [18]Dept. of Gastroenterology and Hepatology, Bravis Hospital, Roosendaal, [19]Dept. of Gastroenterology and Hepatology, Hospital Group Twente (ZGT), Hengelo, [20]Dept. of Gastroenterology and Hepatology, St Jansdal Hospital, Harderwijk, [21]Dept. of Gastroenterology and Hepatology, Elisabeth – Tweesteden Hospital (ETZ), Tilburg, Tilburg, [22]Dept. of Gastroenterology and Hepatology, Spaarne Gasthuis Hospital, Haarlem, [23]Dept. of Gastroenterology and Hepatology, Alrijne Hospital, Leiden, [24]Dept. of Gastroenterology and Hepatology, Maasstad Hospital, Rotterdam, [25]Dept. of Gastroenterology and Hepatology, Nij Smellinghe Hospital, Drachten, [26]Dept. of Gastroenterology and Hepatology, Beatrix Hospital, Gorinchem, [27]Dept. of Gastroenterology and Hepatology, Erasmus MC, University Medical Center Rotterdam, Rotterdam, [28]Dept. of Biostatistics, Erasmus MC, University Medical Center Rotterdam, Rotterdam, The Netherlands

Background: At present, fibrates can be used off-label among patients with primary biliary cholangitis (PBC). We aimed to evaluate the real-world use and effectiveness of fibrates in a nationwide cohort.
Methods: For this analyses all patients in the Dutch PBC cohort study, a retrospective study in all Dutch hospitals including every identifiable patient with PBC from 1990 onwards, who initiated fibrates during follow-up were included. Biochemical measurements before the start of fibrates and those closest to 12 months (minimum nine months, maximum 18 months) were used. Fibrate-induced biochemical changes during the first year were assessed by median (IQR) changes (Δ) in the upper limit of normal (ULN) and dichotomously (normal ALP or bilirubin ≤0.6xULN).
Results: In total, 318 patients (female *n=291*; 91.5%) with PBC who initiated fibrates during follow up were included, of which 4 (1.2%) did not use ursodeoxycholic acid. Fibrates of use were bezafibrate (*n=311;* 97.8%), ciprofibrate (*n=5;* 1.6%) and gemfibrozil (*n=2;* 0.6%). At start of fibrate therapy, median age was 55.3 (IQR 48.4–64.4) years, 45 (14.2%) had cirrhosis, median ALP was 2.42xULN (IQR 1.58-3.51), and median bilirubin was 0.55xULN (IQR 0.41-0.94). Fibrate therapy was discontinued within the first year in 67 (21.1%) patients, 63 (19.8%) patients had not (yet) reached nine months of treatment. The change in ALP and bilirubin could be assessed in 165 and 148 patients, respectively. Overall, the median ΔALP and Δbilirubin were -1.03 (IQR -0.60 to -1.77) and -0.08 (IQR -0.20 to 0.06), respectively. The median ΔALP was -0.58 (IQR -0.79 to -0.14) for patients with an ALP≤1.67xULN at baseline versus -1.33 (IQR -2.14 to -0.81) for those >1.67xULN (p<0.01). The median Δbilirubin was 0.00 (IQR -0.10 to 0.06) for patients ≤0.6xULN at baseline, versus -0.17 (IQR -0.35 to 0.00) for those >0.6xULN (p<0.01). At 12 months, 49/158 (31.0%) patients with elevated baseline ALP reached normalization and 20/72 (27.4%) with a baseline bilirubin >0.6xULN were below this threshold.
Conclusion: In this nation-wide real-world study, fibrate use was associated with statistically significant reductions in cholestatic surrogate markers after one year of therapy, with about a third of patients reaching the most stringent biochemical treatment goals. However, discontinuation rate was high, indicating the need to optimize fibrate treatment strategies.

Immune and Molecular profiling of the dysplasia to carcinoma sequence in IBD and IBD/PSC using novel spatial transcriptomics.

S. Frigerio[1], H.N. Khan[1], E.A. Neefjes-Borst[2], B. Mol[1], C.I.J. Ponsioen[1], G.R.A.M. D'Haens[1], J. Grootjans[1], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, location AMC, Amsterdam, [2]Dept. of Pathology, Amsterdam UMC, location AMC, Amsterdam, The Netherlands

Background: Chronic colonic inflammation in patients with inflammatory bowel disease (IBD) increases the risk of colorectal cancer (CRC). This risk is further increased in patients with concomitant primary sclerosing cholangitis (PSC). The biological processes underlying increased risk of cancer in IBD and IBD/PSC patients are incompletely understood. Here, we aimed to decipher the molecular and immunological alterations that lead to malignant transformation in IBD and IBD/PSC.
Methods: We collected FFPE tissue of 7 IBD- and 7 IBD/PSC patients with either IBD-associated dysplasia, IBD-associated cancer, or both. A dedicated IBD pathologist scored the slides to define 4 regions of interest: non-inflamed tissue, inflamed tissue, dysplasia or cancer. We used a novel spatial profiling platform, Nanostring digital spatial profiling (DSP), to determine the transcriptome in these regions specifically in epithelial cells (PanCK+) and immune cells (CD45+). All data analysis was performed in R.
Results: Differential gene expression analysis in the epithelial compartment identified genes related to restrain the inflammatory response and protect the epithelium in IBD inflamed regions, including IRF2BP2, COMMD6 and BCL2L14, whereas genes related to early tumorigenesis process and DNA repair were upregulated in the dysplastic epithelium in IBD such as PTP4A1 and ERCC1. Fewer differentially expressed genes where found in IBD/PSC epithelium across regions. Pathway analyses in the immune compartment showed differences in the immune response within consecutive regions in both IBD and IBD/PSC. Interestingly, a clear segregation between inflamed and dysplastic regions was observed in IBD/PSC patients, with a variety of pro-inflammatory pathways upregulated in dysplasia, including Cytokine and Chemokine Signalling, TLR Signalling and Interferon Signalling. This may indicate a possible dysregulation of the immune response in dysplasia regions in IBD/PSC. When comparing dysplasia and tumor regions, innate-immune-like pathways, including Neutrophil Degranulation, Complement System or type I Interferon Signalling were upregulated in dysplasia in IBD/PSC. Conversely, MHC class II antigen presentation pathway was enriched in dysplasia in IBD, suggesting an activation of the adaptive immune response against transformed cells.
Conclusion: Spatial profiling exposed differential expressed genes as well as biological pathways that stand out in the dysplasia to carcinoma sequence in IBD and IBD/PSC. In particular, IBD/PSC may harbour an altered immune response in dysplasia characterized by a shift towards innate immunity. Overall, this study provides new insights into the biology behind IBD-associated cancer.

Methotrexate Polyglutamates in Paediatric Inflammatory Bowel Disease: Novel Tool for Therapeutic Drug Monitoring?

E. Vermeer[3], E.A. Struijs[1], K.H.N. de Boer[2], R. de Jonge[1], T.G.J. de Meij[3], [1]Dept. of Clinical Chemistry, Amsterdam UMC, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [3]Dept. of Pediatric Gastroenterology Hepatology and Nutrition, Amsterdam UMC, Amsterdam, The Netherlands

Background: Methotrexate (MTX) is increasingly prescribed in paediatric inflammatory bowel disease (IBD), but therapeutic drug monitoring (TDM) is currently not feasible due to its characteristic pharmacokinetics and short half-life, which amounts to approximately 2.5-6.5 hours. Because of this, MTX is no longer detectable in plasma shortly after administration, and MTX polyglutamates (PG_{1-5}) are formed intracellularly which accumulate over time. Consequently, MTX serum concentration measurement is not suitable for TDM. Recently, we developed a technique for targeted erythrocyte MTX-PG analysis with the potential for TDM. Data in paediatric IBD with this technique are lacking so far. Here, we aimed to identify the potential of erythrocyte MTX-PG analysis to measure MTX levels and to identify factors influencing outcome in paediatric IBD.
Methods: In this observational cross-sectional study, we determined MTX-PG concentrations in erythrocytes retrieved from blood samples of paediatric IBD patients on MTX maintenance therapy, defined as exposure to a stable dose of MTX for at least twelve consecutive weeks. MTX-PG concentrations were determined by stable-isotope dilution LC-MS/MS. Furthermore, we evaluated the effects of route of administration (oral versus subcutaneous), MTX dosage, and anthropometric data on MTX-PG concentrations.
Results: Seventeen paediatric IBD patients on MTX maintenance therapy were included. The predominant subspecies was MTX-PG_3 (mean 42.9 nmol/L, SD ± 22.5) and the mean MTX-PG_{total} concentration was 121.3 nmol/L (SD ± 64.8). A higher dose was linearly associated with significantly higher MTX-PG_3 (rho = 0.74), MTX-PG_4 (rho = 0.79), MTX-PG_5 (rho = 0.74) and MTX-PG_{total} (rho = 0.64) levels. When adjusted for body surface area, MTX dose was also linearly associated with significantly higher MTX-PG_3 (rho = 0.72), MTX-PG_4 (rho = 0.71), MTX-PG_5 (rho = 0.56) and MTX-PG_{total} (rho = 0.65) concentrations. A reliable comparison regarding route of administration was not possible in this cohort, due to the small number of patients receiving subcutaneous MTX (n=2).
Conclusion: We observed that MTX dosage itself, but also when adjusted for body surface area, showed a linear relationship with measured MTX-PG concentrations in children with IBD. The linearity of the correlation shows that higher dosages result in higher MTX-PG concentrations, which is a prerequisite for TDM and provides a strong basis for further research into the relation between TDM of MTX, effectivity and toxicity.

PRediction Tool for Early Identification of Patients at Risk of Crohn's Disease in Perianal Fistulas and Abscesses (PREFAB): a Prospective Pilot Study at a Non-academic, IBD-expert Centre in The Netherlands

L.J. Munster[1], E.J. de Groof[1], S. van Dieren[2], M.W. Mundt[3], G.R.A.M. D'Haens[4], W.A. Bemelman[2], C.J. Buskens[2], J.D.W. van der Bilt[1], [1]Dept. of Surgery, Flevoziekenhuis/Amsterdam UMC, location AMC, Amsterdam, [2]Dept. of Surgery, Amsterdam UMC, location AMC, Amsterdam, [3]Dept. of Gastroenterology, Flevoziekenhuis, Almere, [4]Dept. of Gastroenterology, Amsterdam UMC, location AMC, Amsterdam, The Netherlands

Background: Perianal abscesses (PAA) and perianal fistulas (PAF) can be associated with Crohn's disease (CD). Delay in CD diagnosis is common and negatively influences outcomes. The aim of this study was to identify patients at risk of CD when presenting with perianal disease using a simple prediction tool.
Methods: All consecutive patients ≥16 years presenting with PAA or PAF in 2022 were prospectively included. Patients were screened for Red Flags with a 'perianal Red Flag Index Questionnaire' (pRFI) and standard faecal calprotectin (FCP) measurement. Colonoscopy was performed when patients gave ≥5 positive answers on the pRFI and/or FCP values were ≥150mcg/g.
Results: Overall, 107 patients were included (median age 41 years, IQR 31-54, 52% PAA and 48% PAF). Seven patients (6.5%), all with a PAF, were eventually diagnosed with CD (14% of all PAF patients). Red Flags associated with CD were: younger age (<40 years), presence of PAF (versus PAA alone), abdominal pain (childhood), rectal bleeding, multiple previous perianal surgical interventions, multiple internal fistula openings, fissures, proctitis (all $p<0.05$). In patients <40 years with a PAF, CD was diagnosed in 20.8%. Median FCP values were 552 mcg/g (IQR 271-1870) in CD patients and 22 mcg/g (IQR 10-76) in non-CD patients ($p<0.001$).
Conclusion: This prospective pilot study revealed several Red Flags associated with CD in patients presenting with a PAA or PAF. In patients with perianal disease, physicians should be vigilant and attentive to Red Flags that may be indicative of underlying CD. Implementing a straightforward and simple screening tool for CD that includes clinical Red Flags and standardized calprotectin testing in patients with PAA or PAF is highly recommended, especially in individuals below the age of 40 presenting with a PAF.

Platelet-rich stroma during surgery for treatment-refractory perianal fistulizing Crohn's disease is a promising therapy for beneficial long-term outcomes

M.T.J. Bak[3], C.D.M. Witjes[1], R.S. Dwarkasing[2], J.H.C. Arkenbosch[3], G.M. Fuhler[3], C.J. van der Woude[3], A.C. de Vries[3], O. van Ruler[1], [1]Dept. of Surgery, IJsselland Hospital, Capelle aan den IJssel, [2]Dept. of Radiology, Erasmus MC , Rotterdam, [3]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, The Netherlands

Background: Platelet-rich stroma (PRS), a combination of stromal vascular fraction and platelet-rich plasma, proved to be safe and feasible for the treatment of treatment-refractory perianal fistulizing Crohn's disease (pCD). This study assessed the long-term outcomes of PRS treatment in patients with pCD.
Methods: Adult patients with pCD, who underwent fistula curettage, closure of the internal opening and additional PRS injection, were included from an earlier conducted pilot study (n=25) which reported outcomes up to 1 year follow-up. Long-term follow-up outcomes were assessed up to May 2023. The primary outcome was complete clinical closure at long-term follow-up (closure of all treated external opening[s]). Secondary outcomes comprised partial clinical closure (closure of ≥ 1 treated external opening[s]), complete radiologic healing (absence of fluid-containing tracts on MRI), and the need for unplanned re-interventions (≥1 year following initial PRS injection).
Results: The majority of the patients was female (56.0%)(n=14) with a mean age of 34.4 (SD: 0.9) years at time of surgery. Mean follow-up was 3.6 (SD: 0.6) years. 68.0% of the patients was treated with a biological (anti-TNF 65%, ustekinumab 29%, vedolizumab 6%) during long-term follow-up. Clinical closure rate at long-term follow-up was 84.0%. Partial clinical closure was reached in all patients. Complete radiologic healing rate was 54.2%. All patients with radiologic healing achieved clinical closure. Vice versa, patients with clinical closure achieved radiologic healing in 65.0% of the cases. At least one unplanned re-intervention was necessary in 48.0% of the patients and in 47.6% of patients who achieved prior to achieving clinical closure. All unplanned re-interventions were minor (e.g. incision and drainage).
Conclusion: PRS injection during surgery is a promising as clinical closure is achieved in the vast majority of the patients at long-term follow-up despite the fact that minor unplanned re-interventions are common. In addition, partial clinical closure was achieved in all patients. Complete radiologic healing was reached in more than half of the patients and seems a valuable prognostic parameter for long-term success for fistula closure.

Early fecal calprotectin levels predict postoperative recurrence of Crohn's Disease: data from the REPREVIO trial

L. Oldenburg[11], C. Taxonera[1], A. Lopez-Sanroman[2], P. Nos[3], S. Danese[4], A. Armuzzi[5], X. Roblin[6], L. Peyrin-Biroulet[7], R. West[8], B. Witteman[9], M. Duijvestein[10], K. Gecse[11], M. Hulshoff[11], N. Mostafavi[11], E. Clasquin[11], Y. Bouhnik[12], D. Laharie[13], G.R.A.M. D'Haens[11], [1]Dept. of Gastroenterology and Hepatology, Hospital Clinico San Carlos, Madrid, Spain [2]Dept. of Gastroenterology, Hospital Ramon Y Cajal, Madrid, Spain [3]Dept. of Gastroenterology, Hospital Universitario y Politecnico La Fe de Valencia, Valencia, Spain [4]Dept. of Gastroenterology, Instituto Clinico Humanitas, Rozzano, Italy [5]Dept. of Gastroenterology, IRCCS Humanitas Research Hospital, Rozzano, Italy [6]Dept. of Gastroenterology, CHU Saint-Etienne, Saint Priest, France [7]Dept. of Gastroenterology, CHRU de Nancy, Brabois, France [8]Dept. of Gastroenterology and Hepatology, Franciscus Gasthuis & Vlietland, Rotterdam, [9]Dept. of Gastroenterology, Ziekenhuis Gelderse Vallei, Ede, [10]Dept. of Gastroenterology and Hepatology, RadboudUMC, Nijmegen, [11]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [12]Dept. of Gastroenterology, Hopital Beaujon, Clichy, France [13]Dept. of Gastroenterology, Hopital du Haut-Leveque, Pessac, France

Background: An important proportion of patients with Crohn's disease (CD) and ileitis or ileocolitis, require bowel resection during the course of their disease. Although ileocolonic resection (ICR) induces clinical and endoscopic remission, more than half of patients develop postoperative recurrence in the first years following surgery. In the recent REPREVIO trial, we showed that vedolizumab treatment (VDZ) is effective to prevent the incidence and severity of recurrence. The gold standard to diagnose postoperative CD recurrence is through ileocolonoscopy using the modified Rutgeerts scoring system. A score ≥i2b predicts early clinical recurrence. We investigated the value of fecal calprotectin (FC) in a prospective cohort of patients enrolled in the REPREVIO trial.

Methods: CD patients were randomized to blinded treatment with 8-weekly IV VDZ 300 mg or placebo for 26 weeks within 1 month following ICR. FC and serum CRP were measured at baseline, week 8, 16 and 24. At week 26 ileocolonoscopy was performed to evaluate CD recurrence and scored by blinded investigators. Predictors for endoscopic recurrence (ER, Rutgeerts ≥i2b) were examined by univariable and multivariable logistic regression analysis. ROC curves were used to assess accuracy of FC in predicting ER.

Results: Eighty patients (median age 36 [27-52]) participated in REPREVIO, all having at least 1 risk factor for postoperative recurrence (smoking 16.3%,>1 prior resection 35%,perforating complications 36.3%, previous exposure to TNF inhibitors 48.8%). Median FC at baseline (BL) was 157.2 µg/g [68-310] for all patients. In patients *without* week 26 ER, FC decreased from BL to week 8 (from 139 to 81 µg/g, p<0.001). Conversely, FC remained stable or increased in patients who had week 26 ER independently from allocation (VDZ or PLC). Week 8 FC levels were significantly higher in patients with week 26 ER (158 µg/g [54-397]) than in patients without ER (80.5 µg/g [19-182], p= 0.011). After correction for treatment (PLC or VDZ), the predictive power of FC was only significant for patients in the PLC group (Rutgeerts ≤i2a 46 µg/g [19-139] versus Rutgeerts ≥i2b 200 µg/g [43-425], p=0.018). ROC analysis revealed that FC had an area under the curve of 0.703 for a cut-off FC value of 45 µg/g at week 8, with a sensitivity of 85% and a specificity of 40% to predict ER. Further analysis of the predictive value of week 16 and 24 FC was hampered due to missing data. Serum CRP was not predictive of ER.

Conclusion: In the REPREVIO study, week 8 FC levels were predictive of clinically relevant ER at week 26. A FC >45 µg/g 8 weeks post-surgery has a sensitivity of 85% to predict significant ER and treatment escalation should be considered in these patients.

Response to tofacitinib in ulcerative colitis predicted by a machine-learning algorithm; a multi-omics approach

D.C. De Jong[2], B. Voermans[1], S. van Gennep[2], V.W. Joustra[2], J.M.G. van Oostrom[2], A.Y.F. Li Yim[3], I.C.N. Fung[4], R.K. Ramkisoen[2], E. Clasquin[2], J. de Jong[2], L.C.S. de Vries[2], M. Davids[1], W.J. de Jonge[4], E. Levin[5], K.B. Gecse[2], M. Löwenberg[2], J. Woolcott[6], G.R.A.M. D'Haens[2], [1]Dept. of Vascular Medicine, Amsterdam University Medical Center, University of Amsterdam, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Amsterdam University Medical Center, University of Amsterdam, Amsterdam, [3]Dept. of Human Genetics, Amsterdam University Medical Center, University of Amsterdam, Amsterdam, [4]Tytgat Institute for Liver and Intestinal Research, Amsterdam University Medical Center, University of Amsterdam, Amsterdam, [5]HORAIZON Technology BV, Delft, [6]Dept. of Gastroenterology, Pfizer Inc., Collegeville, PA, United States

Background: Tofacitinib is an oral small molecule Janus kinase inhibitor for the treatment of ulcerative colitis (UC). We investigated baseline transcriptomic, proteomic and microbiome markers associated with response and created a multi-omic machine based-learning model to predict response in UC patients treated with tofacitinib.
Methods: Moderate to severely active UC patients were included in this prospective, open-label study and treated with tofacitinib 10mg BID for eight weeks. Clinical, biochemical, endoscopic and histological data at baseline and at week 8 were recorded. Histo-endoscopic mucosal improvement (HEMI) was defined as an endoscopic Mayo score (EMS) ≤1 combined with histologic remission (Robarts Histopathology Index ≤3 without mucosal neutrophils). Baseline mucosal biopsies were used for transcriptomic analysis (bulk RNA sequencing), proteomic analysis (Olink Explore 384 panel) and faecal microbial composition (16S). Baseline blood samples were used for transcriptomic analysis (bulk RNA sequencing). All data were integrated in a comprehensive dataset. Using HEMI at week 8 as primary outcome measure, we generated a predictive model by using an extra-trees machine learning algorithm. A two-step approach was used for feature selection using variance thresholding and univariate selection based on ANOVA f-score. The settings for feature selection were optimized on each individual omic layer separately. The multi-omics model was trained with a leave-one-out cross-validation approach and performance was measured on the combined left-out samples by calculating the area under the receiver operating characteristics curve (AUROC). The individual importance of separate multi-omics features was calculated using permutation feature importance.
Results: Forty patients were included, the majority of which (65%) had severe endoscopic disease (EMS 3) at inclusion, involving at least the left colon (E2: 53%, E3: 43%). Fifteen patients (38%) achieved HEMI at week 8. Complete omic sampling was available in 27 patients, which included fourteen responders (52%) and thirteen non-responders (48%) according to HEMI. Our multi-omics model included 50 features, mainly consisting of transcriptomic features in tissue and blood, as these were the most important in predicting response. Our model predicted HEMI with tofacitinib with an AUROC of 0.744 (± 0.034).
Conclusion: Histo-endoscopic mucosal improvement was achieved in 38% of UC patients after eight weeks of tofacitinib. Transcriptomic features in tissue and blood were the most important to predict HEMI after 8 weeks of treatment. A multi-omics machine learning algorithm was able to predict response to tofacitinib in UC patients with good performance.

Major variation in endoscopic recurrence rates after ileocolic resection for Crohn's disease – a systematic review and meta-analysis

E.M.L. Van der Does de Willebois[3], V. Bellato[1], M. Duijvestein[2], S. Van Dieren[3], S. Danese[1], P. Sileri[1], C.J. Buskens[3], A. Vignali[1], W.A. Bemelman[3], [1]Dept. of Surgery, Coloproctology and Inflammatory Bowel Disease Unit, HSR, Milan, Italy [2]Dept. of Gastroenterology and Hepatology, Radboud UMC, Nijmegen, [3]Dept. of Surgery, Amsterdam UMC, Amsterdam, The Netherlands

Background: Adequate scoring of endoscopic recurrence (ER) in Crohn's disease (CD) patients is of utmost importance, as it is used to diagnose recurrent disease, to predict disease outcomes and to (re)initiate or optimise therapy. This study aims to assess the variation in ER in patients after ileocolic resection (ICR) for CD using the most common classification systems, the Rutgeerts (RS) and modified Rutgeerts (mRS) classification.
Methods: A systematic literature search using MEDLINE, Embase and the Cochrane Library was performed. All RCTs and cohort studies describing ER after an ICR for CD were included. Main outcome was the range of ER rates within twelve months postoperatively, defined as RS≥i2 and/or mRS≥i2b. A proportional meta-analysis was performed.
Results: Seventy-six studies comprising 7751 patients were included. The weighted mean of the ER rates, defined as either RS≥i2 and/or mRS≥i2b, was 43.9% (95 per cent CI 43.56 – 44.43), ranging from 5.0% – 93.0%. For RS≥i2 and mRS≥i2b the weighted means were 44.0% (range 5.0% – 93.0%) and 41.1% (range 19.8% – 62.9%) respectively. Within studies reporting both RS and mRS the weighted means for ER were 61.3% (range 39.1% – 84.7%) and 40.6% (range 19.8% – 62.0%) respectively.
Conclusion: This study demonstrates a major variation in endoscopic recurrence rates after ICR for CD, suggesting a high likelihood of inadequate diagnosis of disease recurrence, with potentially impact on QoL and health-care consumption. Therefore, there is an important need to improve endoscopic scoring of recurrent disease.

Quality of life in IBD: what is the role of age?

M.M. ter Avest[1], Q.M. Bredero[2], P.W.A. Thomas[3], E.M.B. Hendrix[4], M.G.V.M. Russel[5], M. Duijvestein[6], M.J.L. Romberg-Camps[7], R.L. West[8], M.J. Pierik[4], J.M. Jansen[9], T. Römkens[10], G. Dijkstra[11], L.H.C. Nissen[1], [1]Dept. of Gastroenterology and Hepatology, Jeroen Bosch Hospital, 's-Hertogenbosch, [2]Dept. of Health Psychology, University Medical Centre Groningen, University of Groningen, Groningen, [3]Dept. of Gastroenterology and Hepatology, Radboud University Medical Centre, Nijmegen, [4]Dept. of Internal Medicine, Division of Gastroenterology and Hepatology, Maastricht University Medical Centre, Maastricht, [5]Dept. of Gastroenterology and Hepatology, Medisch Spectrum Twente, Enschede, [6]Dept. of Gastroenterology and Hepatology, Radboud UMC, Nijmegen, [7]Dept. Gastroenterology- Geriatrics- Internal and Intensive Care Medicine Co-MIK, Zuyderland Medical Centre, Sittard-Geleen, [8]Dept. of Gastroenterology and Hepatology, Franciscus Gasthuis en Vlietland, Rotterdam, [9]Dept. of Gastroenterology and Hepatology, Onze Lieve Vrouwe Gasthuis, Amsterdam, [10]Dept. of Gastroenterology, Jeroen Bosch Ziekenhuis, Den Bosch, [11]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, Groningen, The Netherlands

Background: The worldwide rising incidence of inflammatory bowel disease (IBD) and the ageing population leads to an increase in late-onset IBD patients (60 years and older) and elderly with IBD. Insight in differences in patient-reported outcomes such as quality of life (QoL) between both early- and late-onset IBD, and younger and elderly IBD patients is lacking, but warranted in order to provide appropriate care.

Methods: This retrospective cross-sectional study was based on data captured in routine care with two healthcare information platforms. Adult IBD patients from Dutch academic (n=3) and general (n=5) hospitals who completed a health-related QoL questionnaire (EuroQoL5D (EQ5D), Short-Form Health Survey 36 (SF-36) and/or Short-Form Health Survey 12 (SF-12)) in 2017 or 2018 were included. EQ5D index value (range 0-1, 1 means full health) was used to compare patients' health state, consisting of mobility, self-care, usual activity, pain and anxiety/depression. SF-36 transformed scale scores (range 0-100, with higher scores representing better QoL) were used to compare QoL on physical functioning, social functioning, mental health, general health, vitality, bodily pain, role in physical functioning and role in emotional functioning. Differences in patients' QoL were examined based on age at disease-onset and current age, both classified in <60 years and 60+ years.

Results: A total of 1,554 patients were included: 57% female, 64% Crohn's disease, 4% late-onset IBD, 18% 60+ years (including late-onset IBD). Patients reported a comparable health state, both based on age at disease-onset (EQ5D index value 0.822 ± 0.195 vs. 0.818 ± 0.154, ns) and current age (EQ5D index value 0.821 ± 0.199 vs. 0.824 ± 0.166, ns). In either comparison, elderly patients reported decreased physical functioning (early-onset 82.57 ± 20.22 vs. late-onset 72.50 ± 22.03, p<0.001; younger 83.49 ± 20.19 vs. older 75.69 ± 20.27, p<0.001). In contrast, vitality and mental health were more often reduced in younger IBD patients (vitality: 50.53 ± 20.61 vs. 58.54 ± 18.91, p<0.001; mental health: 71.61 ± 19.04 vs. 74.94 ± 16.22, p=0.018).

Conclusion: Although the general QoL appears comparable, elderly IBD patients seem to be more often limited on physical functioning, while vitality and mental health seems to play a more important role in younger IBD patients. Understanding how levels of QoL in various domains differ between age groups of IBD patients provides an opportunity to meet the specific needs of these patients and to improve health well-being in these groups more effectively.

Prevalence, Treatment Response, and Survival in NTRK Gene Fusion- Positive Microsatellite-Instability-High Metastatic Colorectal Cancer

S.J. Schraa[1], M.M. Laclé[2], K. Zwart[1], E.H. Gort[1], W.W. De Leng[3], M. Koopman[1], G.R. Vink[4], G.M. Bol[1], [1]Dept. of Medical Oncology, UMC Utrecht, Utrecht, [2]Dept. of Pathology, University Medical Center Utrecht, Utrecht, [3]Dept. of Pathology, UMC Utrecht, Utrecht, [4]Dept. of Research & Development, IKNL, Utrecht, The Netherlands

Background: TRK inhibitors are approved for patients with neurotropic tropomyosin receptor kinase (*NTRK)* fusion-positive solid tumors, but clinical benefit in metastatic colorectal cancer (mCRC) is uncertain. We aimed to determine prevalence, treatment response, and overall survival of *NTRK* fusion-positive, microsatellite-instability-high (MSI-H) or mismatch repair-deficient (dMMR) mCRC in a population-based cohort.
Methods: Tumor tissue was collected for all patients diagnosed with MSI-H/dMMR mCRC between 2015 and 2021 in the Netherlands. Pan-TRK immunohistochemistry was performed and positive cases were assessed for *NTRK* fusions by RNA-based NGS. Clinical data on treatment duration and overall survival was obtained from the Netherlands Cancer Registry.
Results: In total, 9 out of 268 MSI-H/dMMR colorectal tumors (3.4%) harbored an *NTRK* fusion. All *NTRK* fusion-positive tumors were *RAS*/*BRAF*^{V600E} wild-type. In the subgroup of *RAS*/*BRAF*^{V600E} wild-type MSI-H/dMMR patients, prevalence of *NTRK* fusions was 22%. Benefit of chemotherapy (2/7) and anti-EGFR therapy (0/2) in *NTRK* fusion-positive patients was limited, but all four patients treated with PD-(L)1 inhibitors had sustained responses and a minimum overall survival of 36 months.
Conclusion: In this population-based cohort study, *NTRK* fusions are most prevalent in *RAS*/*BRAF*^{V600E} wild-type MSI-H/dMMR mCRC patients. This is the first study to suggest resistance to chemotherapy and anti-EGFR therapy in *NTRK* fusion-positive tumors, leading to impaired overall survival. In contrast, PD-(L)1 inhibitors seem to be effective in this population. Therapeutic strategies regarding TRK inhibitors versus PD-(L)1 inhibitors need investigation. We recommend early testing for *NTRK* fusions in *RAS* and *BRAF*^{V600E} wild-type MSI-H/dMMR mCRC patients.

Risk Factors for Crohn's Disease in Patients Presenting with Perianal Abscesses and Fistulas: a Retrospective Matched Cohort Study at a Non-academic, IBD-expert Centre in The Netherlands

L.J. Munster[1], J. Schuitema[2], E.J. de Groof[2], S. Van Dieren[3], M.W. Mundt[4], G.R.A.M. D'Haens[5], W.A. Bemelman[6], C.J. Buskens[3], J.D.W. van der Bilt[2], [1]Dept. of Surgery, Flevoziekenhuis/Amsterdam UMC, location AMC, Almere, [2]Dept. of Surgery, Flevoziekenhuis/Amsterdam UMC, location AMC, Amsterdam, [3]Dept. of Surgery, Amsterdam UMC, Amsterdam, [4]Dept. of Gastroenterology, Flevoziekenhuis, Almere, [5]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [6]Dept. of Surgery, Amsterdam UMC, location AMC, Amsterdam, The Netherlands

Background: Discriminating Crohn's from cryptoglandular perianal fistulas (PAF's) can be challenging. The aim of this study was to identify clinical characteristics ("Red Flags") for Crohn's disease (CD) in patients presenting with a PAF compared to patients presenting with a cryptoglandular PAF.
Methods: All adult patients presenting with PAF and subsequently diagnosed with CD between 2012 and 2022 were identified from an administrative database and retrospectively reviewed. Patients were matched 1:3 with cryptoglandular PAF, who served as controls. All patients were prospectively asked to fill in a 'perianal Red Flag Index Questionnaire' (pRFI) in which patients were asked to recall the CD associated symptoms that they experienced during their first PAF.
Results: Twenty-five CD patients matched with 75 non-CD patients (1:3) were included. Median time to CD diagnosis decreased from 33 (IQR 23-64) in 2007-2016 to 3 months (IQR 0-5) in 2017-2021 ($p<0.001$) with the proportion of patients diagnosed within one year increasing from 20% to 79% respectively ($p<0.001$). Multivariate regression analyses showed an association between CD diagnosis and age <40 years (OR 3.47, 95% CI 1.04-11.52, $p=0.042$), weight loss (OR 14.35, 95% CI 3.71-55.57, $p<0.001$) and abdominal pain (OR 9.81, 95% CI 1.93-49.75, $p=0.006$) with a cumulative risk of CD of 16.3% in case of one Red Flag, 84.6% in case of two Red Flags and 100% in case of three Red Flags ($p<0.001$). ROC analysis showed an area under the curve (AUC) of 0.809 (95% CI 0.69-0.92).
Conclusion: Several Red Flags for CD in patients initially presenting with PAF's compared to patients presenting with cryptoglandular PAF's were identified. Being alert to these symptoms helps to differentiate cryptoglandular from CD fistulas and should be standard practice in all patients presenting with perianal disease to prevent a long delay in diagnosis.

Development and validation of the new Autoimmune Hepatitis Fibrosis Score for use during follow up of autoimmune hepatitis

A.M.C. Baven-Pronk[1], C.M.J. Marijnissen[2], M. Biewenga[2], A.F. Stättermayer[3], M.E. Tushuizen[4], B. van Hoek[4], [1]Dept. of Hepatology, Groene Hart Ziekenhuis, Gouda, [2]Dept. of Hepatology, LUMC, Leiden, The Netherlands, [3]Dept. of Hepatology, Medical University Vienna, Wenen, Austria, [4]Dept. of Gastroenterology and Hepatology, Leiden University Medical Center, Leiden, The Netherlands

Background: Monitoring progression to severe liver fibrosis and cirrhosis in patients with autoimmune hepatitis (AIH) is important. Present non-invasive fibrosis scores and markers have been shown to be associated with fibrosis stage in patients with AIH at diagnosis only.
Aim: To assess performance of established non-invasive liver fibrosis scores and markers for severe fibrosis and cirrhosis in treated patients with AIH and to develop and validate a non-invasive, readily available AIH fibrosis score (AIHFS) for use during treatment.
Methods: All AIH and variant patients from Leiden (derivation cohort) and Vienna (validation cohort) with transient elastography (TE) and routine blood tests were included. The performance of established liver fibrosis scores and markers was determined with TE as standard and the AIHFS was developed and validated.
Results: In de derivation cohort 73 patients were included and in the validation cohort 81 patients.
Aspartate aminotransferase to platelet index (APRI) and Fibrosis-4 score significantly detected severe fibrosis/cirrhosis (F3 and F4) and APRI and RDW significantly detected cirrhosis (F4) in treated patients with AIH. In the derivation cohort AIHFS was calculated based on APRI, serum albumin level and use of glucocorticoids and had a negative predictive value of 90% for F3 and F4 and 95% for F4. The AIHFS was successfully validated with a negative predictive value of 95% for F3 and F4 and 99% for F4.
Conclusion: The AIHFS, in contrast to established non-invasive liver fibrosis scores, excellently excludes severe fibrosis and cirrhosis during the follow up of treated patients with AIH.

The clinical relevance of an affected appendix in Crohn's disease

E.M.L. Van der Does de Willebois[1], C. Sari[1], A. Mookhoek[2], W.A. Bemelman[3], C.J. Buskens[1], [1]Dept. of Surgery, Amsterdam UMC, Amsterdam, The Netherlands, [2]Dept. of Pathology, University of Bern, Bern, Switzerland, [3]Dept. of Surgery, Amsterdam UMC, location AMC, Amsterdam, The Netherlands

Background: An appendectomy for appendiceal inflammation has been suggested to play a therapeutic role in the clinical course of patients with ulcerative colitis (UC). In contrast, for Crohn's disease (CD) an inverse association has been suggested with a higher incidence of CD after appendectomy and a higher recurrence rate in CD patients with an affected appendix. The aim of this study was to analyse the clinical relevance of an inflamed appendix in CD patients undergoing an ileocoecal resection (ICR). The prognosis of CD patients with previous appendectomy that underwent subsequent ICR was compared to outcomes in patients with and without an inflamed appendix in the resection specimen.
Methods: Consecutive patients undergoing an ICR between 2007 and 2018 were identified from a prospectively maintained database (n=337). Microscopic data of the available appendices (n=99) in resection specimen in patients undergoing a primary ICR were revised based on pathology reports and scored as inflamed or unaffected (normal). Patients with appendectomy prior to ICR were identified (n=18). Pathological findings were correlated with postoperative outcomes and recurrence rates (clinical, endoscopic and/or surgical recurrence).
Results: Some 117 patients, with a median follow-up was 102 months (IQR 76-141), were included: 18 patients with an appendectomy prior to ICR, 38/99 patients (39.4%) had an inflamed appendix, and in 61 patients the appendix was unaffected. When comparing patients with L1 and L3 disease, there were no significant differences in histopathological data of the appendix. In total, postoperative recurrence was reported in 75/117 patients (64.1%). A trend was seen towards a stronger association with postoperative recurrence in the group who underwent appendectomy prior to ICR, however not statistically significant (hazard ratio (HR), 1.71; 95% CI, 0.9 – 3.2; p = 0.092).
Conclusion: These data suggest that the prognosis for patients with an inflamed appendix in CD at the time of ICR is no worse than when the appendix is unaffected. In contrast, there is a trend towards a stronger association between previous appendectomy and postoperative recurrence, suggesting a worse prognosis.

Detection and treatment of recurrent pancreatic cancer – a European prospective, snapshot study

P.C.M. Andel[1], I.W.J.M. van Goor[1], M.G. Besselink[2], P. Ghorbani[3], B. Groot Koerkamp[4], M. Liem[5], M. Maglione[6], E. Pando Rau[7], I.Q. Molenaar[1], L.A. Daamen[1], H.C. van Santvoort[1], [1]Dept. of Gastrointestinal Surgery, Regional Academic Cancer Center Utrecht, Utrecht, [2]Dept. of Gastrointestinal Surgery, Amsterdam UMC, location University of Amsterdam, Amsterdam, The Netherlands, [3]Dept. of Gastrointestinal Surgery, Karolinska Institutet at Karolinska University hospital, Stockholm, Sweden, [4]Dept. of Gastrointestinal Surgery, Erasmus Medical Center, Rotterdam, [5]Dept. of Gastrointestinal Surgery, Medical Spectrum Twente, Enschede, The Netherlands, [6]Dept. of Gastrointestinal Surgery, Medical University Innsbruck, Innsbruck, Austria, [7]Dept. of Gastrointestinal Surgery, Hospital Vall d'Hebron, Barcelona, Spain

Background: The impact of routine postoperative surveillance with serum tumour markers and imaging on treatment and survival of pancreatic ductal adenocarcinoma (PDAC) recurrence remains unclear. This lack of evidence is illustrated by the European Society for Medical Oncology guidelines which do not recommend routine diagnostic testing. This collaborative European-African Hepato-Pancreato-Biliary Association (E-AHPBA) study assessed surveillance strategies, treatment and survival in patients with PDAC recurrence.
Methods: This prospective, multicentre 'snapshot' study included patients who underwent primary PDAC resection and were diagnosed with local and/or distant disease recurrence between September 2020 and September 2021 in 33 E-AHPBA centres from 13 countries. We excluded patients with incomplete data on postoperative surveillance. Patients were stratified according to surveillance strategy in the first year after resection: symptomatic surveillance (i.e. diagnostic testing on indication), or routine surveillance (i.e. diagnostic testing at regular intervals). Diagnostic testing included serum CA 19-9 testing and/or imaging. Differences in treatment strategies for recurrent PDAC (i.e. systemic treatment, radiotherapy, surgery) were compared using the Chi-square test. Overall survival (OS) (i.e. time between the date of initial resection and death or last follow-up) was estimated with Kaplan-Meier curves and compared using the log-rank test.
Results: Overall, 319 patients with PDAC recurrence were included with median follow-up of 30 (IQR 20-42) months. Of these, 69 patients (22%) received symptomatic surveillance and 250 patients (78%) routine surveillance. Recurrence treatment was performed in 30 patients (43%) and 179 patients (72%), respectively (P<0.001). In this preliminary analysis, survival status was known for 68 patients (99%) in the symptomatic surveillance group with OS of 20 (95% CI 15-27) months and for 210 patients (84%) in the routine surveillance group with OS of 23 (95% CI 20-27) months (P=0.046).
Conclusion: This international E-AHPBA snapshot study demonstrates that most patients receive routine surveillance with diagnostic testing after PDAC resection, even though this is not recommended in European guidelines. Preliminary analysis suggest that patients with routine surveillance more frequently undergo recurrence treatment and have prolonged OS following the initial resection. This should be confirmed by a randomized trial.

The impact of inflammatory bowel disease on sexual distress

A.S. Huberts[1], L.B. Koppert[2], H. Pastoor[3], J.M.W. Hazes[1], C.J. van der Woude[4], [1]Dept. of Quality and patientcare, Erasmus MC, Rotterdam, [2]Dept. of Surgery, Erasmus MC, Rotterdam, [3]Dept. of Obstetrics and Gynecology, Erasmus MC, Rotterdam, [4]Dept. of Gastroenterology and Hepatology, Erasmus MC , Rotterdam, The Netherlands

Background: Sexual distress has an impact on health related quality of life (HRQoL) and should therefore be considered when aiming to improve HRQoL in patients with inflammatory bowel disease (IBD). This study therefore aimed to assess the effect of IBD on sexual distress. Further, it aimed to identify factors associated with sexual distress in patients with IBD.
Methods: The Sexual Distress Scale was send out via social media and the website of the patient organization Crohn & Colitis NL. The results of IBD patients were compared to the sexual distress of the Dutch norm population via a Mann-Whitney U test and via a multiple linear regression. Multivariable linear regression with backward selection was used to analyze the association between body image, demographic and disease specific variables and sexual distress.
Results: Overall, 349 patients with IBD completed the survey with a median 35 (IQR 26.0 ; 47.5). Patients with IBD showed a significantly higher SDS compared to the Dutch population (P<0.001), with higher body concerns significantly associated with higher SDS score (IBD β: 0.995, 95% CI [0.82 ; 1.17]). Moreover, being married or living together, compared to single patients, active disease and presence of fistulas was significantly associated with higher SDS scores.
Conclusion: This study shows that IBD patients experience higher sexual distress than the normative Dutch population. Within IBD patients, active disease and presence of fistulas were associated with higher SDS scores. The findings highlight the importance of addressing sexual health concerns in patients with IBD.

Increasing incidence of primary biliary cholangitis in The Netherlands

R.C. de Veer[1], M.C. van Hooff[1], E. Werner[1], A. van der Meer[31], U.H.W. Beuers[2], J.P.H. Drenth[3], F.J.C. Cuperus[4], B. van Hoek[5], J.T. Brouwer[6], M. Klemt-Kropp[7], S. van Meer[8], R.C. Verdonk[9], H.J. Flink[10], J.M. Vrolijk[11], T.J.G. Gevers[12], C.Y. Ponsioen[2], M. ter Borg[13], K. Soufidi[14], F. Boersma[15], H.J.M. de Jonge[16], F.H.J. Wolfhagen[17], L.C. Baak[18], S.L. Onderwater[19], J.D. van Bergeijk[20], P.G. van Putten[21], G.J. de Bruin[22], R.P.R. Adang[23], M.N. Aparicio-Pages[24], W. de Boer[25], F. ter Borg[26], H. van Soest[27], H.L.A. Janssen[28], B.E. Hansen[29], N.S. Erler[30], [1]Dept. of Gastroenterology and Hepatology, Erasmus MC, University Medical Center, Rotterdam, [2]Dept. of Gastroenterology and Hepatology, Amsterdam University Medical Center, Amsterdam, [3]Dept. of Gastroenterology and Hepatology, Radboudumc, Nijmegen, [4]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, Groningen, [5]Dept. of Gastroenterology and Hepatology, Leiden University Medical Center, Leiden, [6]Dept. of Gastroenterology and Hepatology, Reinier de Graaf Gasthuis, Delft, [7]Dept. of Gastroenterology and Hepatology, Noordwest ziekenhuisgroep, Alkmaar, [8]Dept. of Gastroenterology and Hepatology, University Medical Center Utrecht, Utrecht, [9]Dept. of Gastroenterology, St. Antonius Hospital, Nieuwegein, [10]Dept. of Gastroenterology and Hepatology, Catharina Hospital, Eindhoven, [11]Dept. of Gastroenterology and Hepatology, Rijnstate Hospital, Arnhem, [12]Dept. of Gastroenterology and Hepatology, Maastricht University Medical Center, Maastricht, [13]Dept. of Gastroenterology and Hepatology, Maxima Medical Center, Eindhoven, [14]Dept. of Gastroenterology and Hepatology, Zuyderland Medical Center, Heerlen, [15]Dept. of Gastroenterology and Hepatology, Gelre Hospitals, Apeldoorn, [16]Dept. of Gastroenterology and Hepatology, Jeroen Bosch Hospital, 's Hertogenbosch, [17]Dept. of Gastroenterology and Hepatology, Albert Schweitzer Hospital, Dordrecht, [18]Dept. of Gastroenterology and Hepatology, OLVG, Amsterdam, [19]Dept. of Gastroenterology and Hepatology, Diakonessenhuis,, Utrecht, [20]Dept. of Gastroenterology and Hepatology, Hospital De Gelderse Vallei, Ede, [21]Dept. of Gastroenterology and Hepatology, Medical Center Leeuwarden, Leeuwarden, [22]Dept. Of Gastroenterology and Hepatology, Tergooi MC, Hilversum, [23]Dept. of Gastroenterology and Hepatology, VieCurie Hospital, Venlo, [24]Dept. of Gastroenterology and Hepatology, Canisius/Wilhemina Hospital, Nijmegen, [25]Dept. of Gastroenterology and Hepatology, Bernhoven, Uden, [26]Dept. of Gastroenterology, Deventer Hospital, Deventer, [27]Dept. Of Gastroenterology and Hepatology, Medical Center Haaglanden, Den Haag, [28]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, [29]Dept. of Biostatistics, Erasmus MC, University Medical Center Rotterdam, Rotterdam, [30]Dept. of Biostatistics, Erasmus MC , Rotterdam, [31]Dept. of Gastroenterology and Hepatology, Erasmus Medical Center, Rotterdam, The Netherlands

Background: Large population-based studies are needed to gain more insight in the epidemiology of primary biliary cholangitis (PBC). We assessed the incidence of PBC in the Netherlands over time through the nationwide Dutch PBC Cohort Study (DPCS).
Methods: The DPCS is a retrospective registry in all Dutch hospitals to include every identifiable patient with an established PBC-diagnosis in the Netherlands from 1990 onwards. Comprehensive and systematic case identification was performed by two dedicated investigators of the research team according to local possibilities. This included a search based on diagnosis and treatment codes, antimitochondrial antibodies test results, and locally available registers based on liver disease diagnosis or outcome. The current incidence assessment was restricted to the time period between January 2008 (general introduction of electronic patient records) and December 2018 (the year prior to the start of data collection). Incidence proportions (per 100.000 inhabitants) and annual changes were estimated using Poisson regression. Incidence differences in gender and age groups were calculated with rate ratios. The yearly size of the general population was retrieved from the Dutch Central Bureau of Statistics.
Results: In total, 4370 patients with a confirmed PBC diagnosis were identified in all 71 hospitals in the Netherlands, of which 2187 were diagnosed between 2008 and 2019. Mean age at diagnosis was 58.68 (SD 12.61) years and 1925 (88%) patients were female. The median yearly incidence rate of PBC was 1.33 (IQR 1.29-1.58) per 100.000 inhabitants. The incidence rate ratio (IRR), adjusted for age categories and year of diagnosis, was 8.81 (95%CI 7.74-10.03, p<0.001) for female patients compared to male patients. When the different age categories were compared, patients between 45-65 years and ≥65 years showed an adjusted IRR of 3.90 (95%CI 3.43-4.42, p<0.001) and 3.86 (95%CI 3.38-4.42, p<0.001) compared to patients between 20-45 years. Over time, the adjusted annual IRR was 1.025 (95%CI

1.01-1.04, p<0.001). Similarly annual IRRs were seen for all age categories except for patients between 20-45 years (IRR 0.97, 95%CI 0.93-1.00, p=0.07).
Conclusion: Based on this nationwide registry including every identifiable patient with PBC in the Netherlands, the overall yearly incidence of PBC has been slowly increasing during the previous decade. Among Dutch inhabitants <45 years of age, the incidence of PBC remained rather stable.

Permanent stoma rate and long-term stoma complications in laparoscopic, robot-assisted, and transanal total mesorectal excisions: a retrospective cohort study.

T.A. Burghgraef[1], R.T.J. Geitenbeek[1], M. Broekman[1], J.C. Hol[2], R. Hompes[3], E.C.J. Consten[1], [1]Dept. of Surgery, University Medical Centre Groningen, Groningen, [2]Dept. of Surgery, Isala Ziekenhuis, Zwolle, [3]Dept. of Surgery, Amsterdam UMC, Amsterdam, The Netherlands

Background: The surgical resection of rectal carcinoma is associated with a high risk of permanent stoma rate. The influence of minimally invasive approaches on permanent stoma rate is unknown.
Methods: Patients undergoing total mesorectal excision for MRI-defined rectal cancer between 2015 and 2017 in 11 centers highly experienced in laparoscopic, robot-assisted or transanal total mesorectal excision were included in this retrospective study. Permanent stoma rate, stoma-related complications, readmissions and reoperations were registered. A multivariable regression analysis was performed for permanent stoma rate, stoma-related complications and stoma-related reoperations.
Results: In total, 1248 patients were included. Permanent stoma rate after total mesorectal excision was 65.4% in patients undergoing laparoscopic surgery, 47.0% in patients undergoing robot-assisted surgery and 39.0% in patients undergoing transanal surgery. Permanent stoma rate after a restorative low anterior resection was 17.3%, 11.8% and 15.1%, respectively. Robot-assisted total mesorectal excision and transanal total mesorectal excision were independently associated with a reduction in permanent stoma rate in all patients (OR 0.49 [0.35, 0.69] and OR 0.19 [0.13, 0.27]), while this was not seen patients who underwent a restorative low anterior resection. 45.4% of the patients who had a stoma experienced stoma-related complications, 4.0% were at least once readmitted and 8.9% underwent at least one re-operation.
Conclusion: The robot-assisted and transanal total mesorectal excision techniques are associated with a lower permanent stoma rate.

Intravenous lidocaine for pain associated with pancreatic cancer and chronic pancreatitis (LIDOPAN): a multicenter prospective non-randomized phase II study

S. Augustinus[1], M. Bieze[2], C.L. Van Veldhuisen[1], M.A. Boermeester[1], B.A. Bonsing[3], S.A.W. Bouwense[4], M.J. Bruno[5], O. Busch[6], W. Ten Hoope[7], J.W. Kallewaard[2], H.J. van Kranen[8], M. Niesters[9], N.C.J. Schellekens[2], M.A.H. Steegers[2], R.P. Voermans[10], J. de Vos-Geelen[11], J.W. Wilmink[12], J. Zundert[13], C.H.J. van Eijk[14], M.G. Besselink[15], M.W. Hollmann[2], [1]Dept. of Surgery, Amsterdam UMC, location University of Amsterdam, Amsterdam, [2]Dept. of Anesthesiology, Amsterdam UMC, location University of Amsterdam, Amsterdam, [3]Dept. of Surgery, LUMC, Leiden, [4]Dept. of Surgery, Maastricht UMC+, Maastricht, [5]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, [6]Dept. of Surgery, Amsterdam UMC, Amsterdam, [7]Dept. of Anesthesiology, Rijnstate Ziekenhuis, Arnhem, [8]Dept. of Medicine, Inspire2live, Amsterdam, [9]Dept. of Anesthesiology, Leiden University Medical Center, Leiden, [10]Dept. of Gastroenterology and Metabolism, Amsterdam UMC, Amsterdam,[11]Dept. of Medical Oncology, Maastricht UMC+, Maastricht, [12]Dept. of Medical Oncology, Amsterdam UMC, location University of Amsterdam, Amsterdam, [13]Dept. of Anesthesiology, Maastricht UMC+, Maastricht, [14]Dept. of Surgery, Erasmus MC, University Medical Center Rotterdam, Rotterdam, [15]Dept. of Gastrointestinal Surgery, Amsterdam UMC, location University of Amsterdam, Amsterdam, The Netherlands

Background: Pain is a major clinical problem for patients with pancreatic ductal adenocarcinoma (PDAC) and chronic pancreatitis (CP). Although pain is typically addressed using the WHO analgesic ladder, more invasive therapies are often necessary, highlighting the need for innovative approaches. The aim of this study is to investigate the safety and efficacy of monitored single intravenous (IV) infusion of lidocaine in patients with PDAC and CP.
Methods: In a prospective phase II multicentre non-randomized feasibility trial, patients with moderate or severe pain (NRS ≥ 4) associated with PDAC and CP (July 2021 - November 2022) were included. Administration of lidocaine IV comprised a bolus of 1.5mg/kg, followed by a continuous infusion of 1.5 mg/kg/hour. The dose was raised every 15 minutes until a clinically relevant pain response was reached (up to a maximum of 2.5 mg/kg/hour) and administered for two hours continuously. Primary outcome was the mean difference in pain severity one day after treatment (Brief Pain Inventory, scale 1-10). A mean difference of ≥2 in pain severity was considered clinically relevant. Secondary outcomes included the global perceived effect (scale 1-7) and complications.
Results: Overall, 30 patients were included from five centers, 19 with PDAC (63%) and 11 with CP (37%). Doses of lidocaine administered varied between 75-200 mg/hour. No major complications occurred, and minor complications occurred in three patients (10%, i.e. vertigo, nausea, tingling of mouth and lips). On the first day after treatment, patients reported a mean pain severity reduction of 0.8 (SD±1.5), respectively 1.1 (SD±1.3) for patients with PDAC and 0.5 (SD±1.7) for CP. The global perceived effect was reported as a mean of 3.4 (SD±0.9) corresponding to *"a little improvement"* of complaints, and 2.7 (SD±1.4) corresponding to *"somewhat satisfied"* with the treatment on day one. Eight patients (27%) received an additional infusion during six months follow-up. The mean pain severity reduction varied between 0.8 and 1.2 (two weeks and one-three-six months) over time.
Conclusion: Monitored single IV infusion of lidocaine in patients with pain associated with PDAC and CP appears safe, but has no clinically relevant lasting effect on pain.

Implementation of a smartphone app to guide outpatient clinic patients in discontinuing inappropriate PPI use: an open randomized superiority trial

L.M. Koggel[2], T. Timmers[1], M.A. Lantinga[2], R.B. Kool[1], C. Kramers[3], N. van Herwaarden[4], D. Siersema[2], [1]IQ Healthcare, Radboudumc, Nijmegen, [2]Dept. of Gastroenterology and Hepatology, Radboudumc, Nijmegen, [3]Dept. of Clinical Pharmacy and Toxicology, Radboudumc, Nijmegen, [4]Dept. of Rheumatology, Sint Maartenskliniek, Nijmegen, The Netherlands

Background: Proton pump inhibitors (PPIs) are frequently used in daily clinical practice, but often without a valid indication. Strategies to identify inappropriate PPI use are widely available, although the true challenge is to discontinue PPIs in these patients without developing rebound symptoms. There is therefore a need for a tool to guide patients during this process. We aimed to evaluate the effect of a smartphone app that provides an individualized educational approach as a tool to achieve sustained PPI discontinuation.
Methods: This multicenter randomized controlled trial included adult patients on daily PPI for at least four weeks without chronic PPI indication from the outpatient clinics of Internal Medicine, Gastroenterology, Rheumatology and Nephrology in two community hospitals and one university hospital in the Netherlands. Patients were excluded in case they could not understand the study (procedures) or in case of a limited life span. Patients were randomly assigned to either the smartphone app providing timely information on PPI discontinuation (intervention group) or usual care which consisted of patients receiving a brochure explaining how to stop PPI and manage symptoms providing all information at once (control group). Primary endpoint was the discontinuation rate at 2-months follow-up, defined as self-declared intake of a maximum of one tablet in the previous 14 days. Patient recruitment has ended and we anticipate final results in August 2023. We now only present preliminary numerical data.
Results: Preliminary follow-up results are based on 129 (2-months) and 99 (4-months) of 165 included patients (median age 55 y/o [IQR 46-64 y/o], 61 males [47%]). More patients succeeded to discontinue PPI use at 2-months follow-up in the intervention group: 54/62 (87%) vs. 44/67 (66%). This was also seen after 4-months follow-up: 44/55 (80%) patients in the intervention group vs. 41/61 (67%) patients in the control group.
Conclusion: A smartphone app intervention providing timely guidance in discontinuing inappropriate PPI use seems to be an effective tool to improve the discontinuation rate of inappropriate PPI use compared with a one-time information folder. These preliminary data suggest that patients are able to successfully discontinue inappropriate use of medication without the time-consuming support of a healthcare worker. (Clinical trial registration number: NCT05348252)

Treatment or a wait-and-see policy for Dientamoeba fragilis in General Practice in the Netherlands: a prospective, observational cohort study (DEFER)

E.J. van Soest[3], H. Hazenberg[3], T.G. Mank[2], C. Band[1], S.M. Euser[2], [1]Dept. of Clinical Research Office, Spaarne Gasthuis, Haarlem, [2]Dept. of Medical Microbiology, Streeklab Haarlem voor Medische Microbiologie, Haarlem [3]Dept. of Gastroenterology, Spaarne Gasthuis, Haarlem, The Netherlands

Background: *Dientamoeba fragilis* is a protozoan frequently encountered in stool samples globally. It is debated whether *Dientamoeba fragilis* carries pathogenic capacities or if it should be considered a commensal, due to reported inconsistencies in clinical complaints of carriers and a lack of prospective studies on this subject. A survey among Dutch gastroenterologists showed previously that the management of *D. fragilis* is completely non-uniform.This study prospectively analyses clinical and parasitological outcomes after treatment or a wait-and-see approach of *Dientamoeba fragilis* infection in an adult population.

Methods: In this prospective observational cohort study 87 adult patients with a positive Polymerase Chain Reaction (PCR) test result for D. fragilis (T0) in a primary care setting, were followed-up longitudinally with a control PCR-test and microscopic stool examination 30 days (T1) and 3 months (T2) after inclusion. Standardized patient-reported questionnaires including treatment details and the adjusted Irritable Bowel Syndrome-Severity Score (IBS-SS) were retrieved at T0, T1 and T2.

Results: Stool samples and questionnaires were collected from 87 participants at T1, and from 74 at T2. The majority of patients (n=64) was treated for *Dientamoeba fragilis* (treatment group), and in 23 patients a wait-and-see policy was followed by the general practioner (non-treatment group). Metronidazole was more often prescribed (n=35) than clioquinol (n=27); 2 patients received another treatment. Treated patients more often tested PCR negative compared to untreated patients at T1 (64% vs 17%; $p<0.001$) and at T2 (67% vs 4%; $P<0.001$). No significant difference in decline in IBS-SS was shown however, comparing the treatment and non-treatment group at T1 (mean IBS-SS 292 at baseline and 220 at T1 in the treated group, compared with 244 at baseline and 193 at T1 for untreated patients, $p=0.240$). For both the treatment and non-treatment groups, IBS-SS declined significantly at T1 compared with T0 regardless of parasitological status (IBS-SS 219 at T1 in PCR negative patients vs 220 in PCR positive patients at T1 in the treatment group).

Conclusion: A short and long term increased parasitological clearance is shown with treatment of *Dientamoeba fragilis* with clioquinol or metronidazole compared with no treatment. A clear and significant correlation between parasitological cure and decline of clinical complaints as reported by the participants could not be established in this real life study.

Safety profile of the motorized power spiral enteroscope: data from 250 procedures from a single center

W.F.W. Kappelle, P.G.A. Van Boeckel, J. Tenthof van Noorden, A. Al-Toma, Dept. of Gastroenterology, Antonius Ziekenhuis, Nieuwegein, The Netherlands

Background: Motorized Spiral Enteroscopy (MSE) reduces procedure time and increases insertion depth into the small bowel. Previous studies have shown that MSE is safe and effective for deep enteroscopy, when performed at expert centers. Here we present our first 250 MSE procedures, focusing on safety of MSE for various diagnostic and therapeutic small bowel examinations.
Methods: Data on safety were collected retrospectively on patients who underwent MSE for deep small bowel enteroscopy. Adverse events (AEs) were recorded during and after the procedure within a 30-day follow-up period. Minor AEs included: mucosal abrasions or superficial lacerations; a sore throat for <72 hours; abdominal discomfort <48 hours, and mild nausea or vomiting not requiring hospital admission. Serious AEs (SAEs) included perforation, significant bleeding requiring blood products, pancreatitis, or unplanned hospital admission related to the procedure.
Results: 240 patients (150 M/90 F; median age 66 years, range 23–91) were included, these patients underwent a total of 250 procedures in a single center between 2020-2023. 20% of patients had previous abdominal operations or surgically-altered GI anatomy. ASA score was: ASA 1 [33 (14%)], ASA 2 [159 (66%)], ASA 3 [48 (20%)]. All procedures were performed under propofol sedation without endotracheal intubation. Enteroscopy procedures were either antegrade only (80), retrograde only (20), or bidirectional in one session (150). In other words, a total of 230 and 170 procedures via antegrade and retrograde routes were performed, respectively. Total (pan)-enteroscopy in one session was achieved in 70% of intended procedures, either exclusively antegrade or bi-directional. The following interventions were performed: hemostasis using APC and/or hemoclips (90; 36%), balloon dilatation of strictures (13; 5%), EMR polypectomies (4; 1.6%), and VCE retrieval (3; 1.2%). 44 (17.6%) adverse events were documented; 40 (16%) were minor, SAEs occurred in 3 (1.2%) patients. No significant hemodynamic changes were observed. Except for those 3 SAE, no other patient required hospital admission, blood transfusion, or other interventions. No special care was needed for the mucosal damages observed during MSE. Previous operations or altered GI anatomy did not increase the risk of complications.
Conclusion: This study shows that MSE is safe in a large cohort of patients. Previous abdominal operations and an altered GI anatomy did not increase the risk of complications. Although progress of the enteroscope may be slower in postoperative situations, this did not translate into an increased risk of adverse events.

Comparing low-volume and intermediate volume bowel preparation on cost-effectiveness and quality of life: An open-label, non-inferiority, randomized controlled trial

M.L.M. van Riswijk[3], F.A. Indemans[1], K. Hawinkels[2], R.M. Schreuder[2], L. Wildeman[3], A.C.I.T.L. Tan[4], P.S. Siersema[3], [1]Dept. of Gastroenterology and Hepatology, Maasziekenhuis Pantein, Boxmeer, [2]Dept. of Gastroenterology and Hepatology, Catharina ziekenhuis, Eindhoven, [3]Dept. of Gastroenterology and Hepatology, Radboudumc, Nijmegen, [4]Dept. of Gastroenterology and Hepatology, Canisius Wilhelmina Ziekenhuis, Nijmegen, The Netherlands

Background: Bowel preparation (BP) is essential for colonoscopy. Patients often experience BP as the most deterrent factor for undergoing colonoscopy. To alleviate burden for patients, intermediate (2L) and low-volume (1L) BP solutions have been developed. Little is known on the effect of low-volume BP on patient reported outcomes. In this trial, we assessed the impact of BP on quality of life and work productivity.
Methods: We performed an open-label, non-inferiority, randomized trial in 4 centers in the Netherlands. Patients scheduled for screening, surveillance, or diagnostic colonoscopy were 1:1 randomized between a split-dose 2L Polyethylene Glycol with ascorbate (PEG+Asc, intermediate volume) laxative or a split-dose 1L PEG+Asc laxative with added sodium sulfate (low-volume). Before and after BP, patients filled out the *Institute for Medical Technology Assessment Productivity Costs Questionnaire* (iPCQ), *Mayo Florida bowel preparation tolerability questionnaire* (MBTQ), *Short form 36* (SF-36), and *Euroqol group 5 Dimensions 5 Levels* (EQ-5D-5L) questionnaires. Primary outcome was non-inferiority of low-volume to intermediate volume bowel preparation, defined as the rate of adequately prepared colonoscopies with a non-inferiority margin of 5%. Secondary outcomes included change in SF-36 and EQ-5D-5L scores after BP and between groups, tolerability, and impact on working productivity.
Results: We included 467 patients (intermediate-volume, n=229 and low-volume, n=238). Questionnaire response rates were 86.3% and 88.7%, respectively (p=0.378). Low-volume BP was non-inferior to intermediate volume BP, with adequate cleaning rates of 96.8% (95% confidence interval [CI] 93.5-98.6) and 96.1% (95%CI 92.6-98.0), respectively (p=0.801). Low-volume BP had a higher high-quality cleaning rate (i.e., Boston bowel preparation score 3-3-3) with 72.7% vs 63.4% in the intermediate-volume group (P=0.032). No clinically significant changes were found on the EQ-5D-5L and SF-36 questionnaire. Patients in the low-volume group were more willing to repeat the BP with 60.1% vs 47.8% in the intermediate volume group (p=0.034), but nausea/vomiting and a bad taste were more frequent in the low-volume group (p=0.007 and p=0.006, respectively). Absenteeism and impaired working productivity were present in 15.1% and 23.0% of patients, respectively, but this was not significantly different between groups or before and after BP.
Conclusion: Low-volume BP is non-inferior to intermediate volume BP. Patients have a higher willingness to repeat low-volume BP compared to intermediate volume BP, at the expense of more non-serious side-effects. This data can help patients to select their preferred bowel preparation.

Re-Cellularization via Electroporation Therapy (ReCET) of the Duodenum combined with GLP-1RA to replace insulin therapy in patients with type 2 diabetes; 12 months results of the eminent study

C.B.E. Busch[1], S. Meiring[1], A.C.G. Van Baar[1], F. Holleman[2], M. Nieuwdorp[2], J.J.G.H.M. Bergman[1], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [2]Dept. of Internal Medicine, Amsterdam UMC, Amsterdam, The Netherlands

Background: Exogenous insulin is the final treatment for controlling hyperglycemia in patients with type 2 diabetes (T2D) but contributes to weight gain and deterioration of metabolic health. Earlier studies have shown that duodenal mucosal ablation and the subsequent regeneration (DMR) results in better glycemic control by improving insulin resistance, the root cause of T2D and the metabolic syndrome. Re-Cellularization via Electroporation Therapy (ReCET), is a novel endoscopic procedure that uses electroporation to elicit cell apoptosis in the duodenal mucosa after which re-cellularization occurs. In this study we aimed to eliminate insulin treatment in T2D patients with a single ReCET procedure combined with a GLP-1 receptor agonist (GLP-1RA). Safety, feasibility, and (dose) efficacy of ReCET were assessed.
Methods: First in human study in 14 T2D patients on basal insulin (28-75 years old; BMI 24-40kg/m^2; HbA1c ≤64 mmol/mol; C-peptide ≥0.2nmol/l). All patients underwent ReCET, followed by a 2 week post-procedural isocaloric liquid diet, after which semaglutide (GLP-1RA) was titrated up to 1 mg/week. Primary endpoints were: feasibility (technical success rate, procedure time [catheter in–out], % GLP-1RA tolerance); safety ((S)AE, hypoglycemic events); efficacy (patients off insulin at 6 months, with HbA1c ≤58 mmol/mol). Baseline, 6 and 12 months follow-up data were assessed with Wilcoxon paired signed-rank test.
Results: Median age was 62 (IQR 54–67) years, 57% was male and mean units of daily insulin were 27 (IQR 22–33). ReCET showed a technical success rate of 100% with a median axial treatment length of 12 cm. Procedure time was 58 (IQR 49–73) minutes. Maximum semaglutide dosage was tolerated by 13 (93%) patients. No device related SAEs were observed. One patient experienced a hypoglycemic event without need for third party assistance. At both 6 and 12 months, 12 (86%) patients were off insulin, yet showed a significant improvement in glycemic control; a significant decrease in HbA1c (55 mmol/mol (IQR 53–57) at baseline to 47 mmol/mol (IQR 43–53) at 12 months; p=0.010). Also fasting plasma glucose, time in range of glucose values and metabolic parameters (weight and liver fat fraction) improved significantly. The 2 (14%) patients, who were back on insulin at 6 months, received the lowest voltage of electroporation.
Conclusion: These results suggest that ReCET with the Endogenex system is safe and feasible. ReCET in combination with semaglutide is a promising new therapeutic option that may effectively eliminate insulin therapy in selected T2D patients, while improving glycemic control and overall metabolic health. Upward dose titration had a more extensive effect on glycemic control.

Gliadin specific CD4+ T-cells analyzed with gliadin peptide loaded dextramers persist after introduction of a gluten-free diet and may improve less-invasive celiac disease diagnosis

D.A.R. Castelijn, K. de Buck, J. Hollander, G. Bouma, H.J. Bontkes, Dept. of Clinical Chemistry, Amsterdam UMC, Amsterdam, The Netherlands

Background: Standard diagnostic tests may fail in CD patients that present atypically or in patients that self-initiated a gluten free diet (GFD) prior to diagnosis. Gluten challenge (GC) may induce reappearance of (auto)antibodies and duodenal abnormalities but in a substantial proportion of CD patients a GC is burdensome or insufficient. Previously it was shown by tetramer based enrichment strategies that gliadin specific T-cells are detectable in blood of CD patients, even after prolonged GFD, but undetectable in gluten consuming controls. We set out to simplify this method by directly analyzing gliadin specific T-cells in peripheral blood mononuclear cells (PBMC) using Dextramers (Dm).
Methods: PBMC were isolated from 36 ml of heparinized blood from active CD patients (n=5), CD patients on GFD (n=14) and disease controls (n=8). Gliadin specific T-cells were analyzed by alpha-1 and alpha-2 gliadin peptide loaded dextramers, and antibodies directed against integrin-beta7, CD62L, CD45RA, CD3, CD4 and CD38. CLIP loaded dextramers were used as background controls. At least 1 million CD4+ T-cells (mean 2, range 1-3.3 million) were acquired using a flowcytometer with acoustic focusing allowing high event rates during acquisition.
Results: Spiking experiments with clonal gliadin specific T-cells showed a detection threshold of 10 alpha-1 gliadin specific T-cells per 1 million $CD4^+$ T-cells. Background signal for CLIP-Dm was lowest for the effector memory (EM; CD45RA-CD62L-) T-cells as compared to the central memory and naïve T-cell population. Therefore, the number of gliadin peptide loaded Dm+ CD45RA-CD62L- events per million CD4+ T-cells was divided by the number of CLIP loaded Dm+ CD45RA-CD62L- events per million CD4+. This was significantly higher in active CD patients and CD patients on GFD as compared to disease controls ($p = 0.0001$). In disease controls, the median of this ratio was 1.1 and 2.0 for alpha-1 and alpha-2 loaded Dm respectively. For active CD patients, these ratios were 5.4 and 8.3 and for the CD on GFD group 3.2 and 7.4 respectively.
Conclusion: Using dextramer and acoustic focusing flowcytometry technologies, gliadin specific T-cell are detected in PBMC of CD patients irrespective of their diet. This simplified method will pave the way for use in routine diagnostics.

Medium-term oncological outcomes following endoscopic full-thickness resection for T1 colorectal cancer: results from the Dutch prospective colorectal eFTR registry

S.C. Albers[1], L.W. Zwager[1], B.W. van der Spek[2], R.M. Schreuder[3], L.E. Perk[4], B.L.A.M. Weusten[5], J.J. Boonstra[6], H. van der Sluis[7], M.P. Schwartz[8], M.S. Vlug[9], C. Wientjes [10], F.J. Rando Munoz[11], W.B. Nagengast[12], F.C. Bekkering [13], W.R. ten Hove[14], J. Terhaar sive Droste[15], M.H.M.G. Houben[16], T.C.J. Seerden[17], T.R. de Wijkerslooth[18], E.A.R. Gielisse[19], A. Fariña Sarasqueta[20], P. Fockens[1], E. Dekker[1], B.A.J. Bastiaansen[1], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Noordwest Ziekenhuisgroep, Alkmaar, [3]Dept. of Gastroenterology and Hepatology, Catharina Ziekenhuis, Eindhoven, [4]Dept. of Gastroenterology and Hepatology, Haaglanden Medisch Centrum, Den Haag, [5]Dept. of Gastroenterology and Hepatology, St. Antonius Ziekenhuis, Nieuwegein, [6]Dept. of Gastroenterology and Hepatology, LUMC, Leiden, [7]Dept. of Gastroenterology and Hepatology, Isala, Zwolle, [8]Dept. of Gastroenterology and Hepatology, Meander Medisch Centrum, Amersfoort, [9]Dept. of Gastroenterology and Hepatology, Dijklander Ziekenhuis, Hoorn, [10]Dept. of Gastroenterology and Hepatology, OLVG, Amsterdam, [11]Dept. of Gastroenterology and Hepatology, Nij Smellinghe Ziekenhuis, Drachten, [12]Dept. of Gastroenterology and Hepatology, UMCG, Groningen, [13]Dept. of Gastroenterology and Hepatology, IJsselland Ziekenhuis, Capelle aan de IJssel, [14]Dept. of Gastroenterology and Hepatology, Alrijne Zorggroep, Leiden, [15]Dept. of Gastroenterology and Hepatology, Jeroen Bosch Ziekenhuis, Den Bosch, [16]Dept. of Gastroenterology and Hepatology, HagaZiekenhuis, Den Haag, [17]Dept. of Gastroenterology and Hepatology, Amphia Ziekenhuis, Breda, [18]Dept. of Gastrointestinal Oncology, Nederlands Kanker Instituut / Antoni van Leeuwenhoek Ziekenhuis, Amsterdam, [19]Dept. of Gastroenterology and Hepatology, Rode Kruis Ziekenhuis, Beverwijk, [20]Dept. of Pathology, Amsterdam UMC, Amsterdam, The Netherlands

Background: Endoscopic full thickness resection(eFTR) has emerged as minimally invasive diagnostic and potential therapeutic approach for T1 colorectal cancer(CRC) ≤2cm. Transmural resection allows optimal histologic assessment and complete(R0) resection even in deep submucosal invasive cancer(D-SMIC). However, longer-term oncological outcomes following eFTR for T1 CRC have not been described

Methods: All consecutive eFTR procedures for suspect T1CRC with adenocarcinoma at histology included in the Dutch prospective eFTR registry between November 2015 and January 2023 were analyzed. Superficial submucosal invasive cancer(S-SMIC) was defined as sm1, D-SMIC as sm2-3. T1CRC was considered high risk if lymphovascular invasion, budding grade 2-3, poor differentiation or tumor-positive resection margins(<0.1mm) were present. Oncologic follow-up(FU) was based on endoscopy and/or cross-sectional imaging as per guideline/local protocol, depending on histology. Outcomes included R0 resection, cancer recurrence, 3-year disease-free survival(DFS) and 3-year overall survival(OS).

Results: A total of 320 patients were included from 19 centers(median age 70 years, 62% male, median lesion and specimen size 14.7mm and 27.0mm). Histology showed pT1 in 241(75.3%), pT2 in 53(16.6%), pT3 in 11(3.4%), inconclusive in 15(4.7%). Of the 241 pT1's, 60(24.9%) were S-SMIC, 171(71.0%) were D-SMIC, 10(4.2%) inconclusive. R0 resection for S-SMIC and D-SMIC was 92.9% and 87.0%. R0 resection for T1 CRC ≤15mm and 16-20mm was similar(89.3% vs 86.7%; p=0.820). High-risk features were found in 23(38.3%) S-SMIC and 109(63.7%) D-SMIC. Of these, 51(40.4%) received completion surgery(CS) and 6(11.8%) had nodal metastases, all with ≥2 risk factors FU was available for 174/241(72.1%) T1CRC patients with a median FU of 39.5 months(IQR 27). During FU, a median of 2 endoscopies(0-6) and 1 cross-sectional imaging(0-6) were performed. The cohort was divided into: high-risk FU(n=66), low-risk FU(n=72) and CS(n=36). During high-risk FU, cancer recurred in 4/66(6.1%); 2 locoregional recurrences (salvage surgery) and 2 distant metastases without curative options. During low-risk FU, 2/72(2.8%) recurrences occurred; 1/30(3.3%) S-SMIC with distant metastases and 1/42(2.4%) D-SMIC with local nodal recurrence (salvage surgery). After CS, distant metastases occurred in 2/36(5.6%) with no curative options. 3-year DFS and 3-year OS were 95.6% and 83.4% for high-risk FU, 97.2% and 92.6% for low-risk FU, and 98.2% and 100% after CS.

Conclusion: EFTR is an effective treatment for T1CRC ≤2cm, showing high R0 resection for S-SMIC and D-SMIC. EFTR allows organ preservation in a large subset of patients, with low cancer recurrence over a median FU of 39.5 months.

1 mm of preserved muscularis propria on MRI accurately identifies rectal cancers suitable for local excision in the intermuscular plane

L. van der Schee[9], R. Carten[1], S.C. Albers[2], J. van den Bergh[3], M.N.G. Braat[4], A. Goede[1], S. Kol[3], M.M. Laclé[5], B. Mearadji[3], S.I. Moos[3], I.M. Nota[3], N.H.G.M. Peters[6], J.F. Prince[4], J. Reimerink[7], A. Fariña Sarasqueta[8], J. van Vooren[4], J.H.T.M. Waesberghe[3], B.A.J. Bastiaansen[2], F.P. Vleggaar[9], L.M.G. Moons[9], K. Horsthuis[3], G. Brown[10], [1]Dept. of Surgery, Buckinghamshire Healthcare NHS Trust, London, Verenigd Koninkrijk [2]Dept. of Gastroenterology and Hepatology, Amsterdam University Medical Centers, Amsterdam, [3]Dept. of Radiology, Amsterdam University Medical Centers, Amsterdam, [4]Dept. of Radiology, University Medical Center Utrecht, Utrecht, [5]Dept. of Pathology, University Medical Center Utrecht, Utrecht, [6]Dept. of Radiology, Maastricht University Medical Center, Maastricht, [7]Dept. of Gastroenterology, Amsterdam University Medical Centers, Amsterdam, [8]Dept. of Pathology, Amsterdam University Medical Centers, Amsterdam, [9]Dept. of Gastroenterology and Hepatology, University Medical Center Utrecht, Utrecht, [10]Dept. of Radiology, Imperial College London, London, United Kingdom

Background: Adequate case selection for intermuscular local excision (LE) of early rectal cancer (RC) using optical diagnosis and radiological imaging remains challenging and may lead to both unnecessary radical surgery, as well as incomplete LE of ≥pT2 RC. We aimed to investigate whether preservation of at least 1 mm of muscularis propria on MRI, evaluated using a systematic reporting approach, can identify RC suitable for LE in the intermuscular plane.
Methods: Twelve abdominal radiologists from the Netherlands underwent a one-day training session by an expert radiologist (GB), After training, all radiologists reassessed a retrospective cases series of pseudonymized MRI scans, blinded to original reports and final histology. Scans were obtained from consecutive patients suspected of having (at least) deep submucosal invasive RC at optical diagnosis between 2018 and 2022, from 2 academic centers in the Netherlands. The primary outcome was the accuracy, sensitivity, specificity, positive predictive value (PPV), and negative predictive value (NPV) of the 1 mm preservation of muscularis propria criterion on MRI in identifying tumours suitable for LE based on expert radiologist, study radiologist, and consensus diagnosis. Tumours suitable for LE were defined as RC not invading beyond the circular m, propria (≤$pT2_{Circ}$). Consensus diagnosis was based on the agreement of both study radiologists, with the expert diagnosis being decisive in case of disagreement.
Results: 246 patients were included (median age 67 years [IQR 13], 71% male, 87% ASA I/II). The original MRI report showed cT0 in 2 (0,8%), cT1 in 7 (3%), cT1-T2 in 140 (57%), cT2 in 41 (17%), cT3 in 42 (17%), and cT4 in 1 (0,4%) patient (not assessable in 5 (2%)), Histology showed 19 (8%) non-invasive polyps, 114 (46%) pT1 RC, 53 (21%) $pT2_{circ}$ RC, 21 (9%) $pT2_{long}$ RC, 38 (15%) pT3 RC, and 1 (0,4%) pT4 RC. Overall accuracy of MRI in identifying RC suitable for intermuscular LE was 82% (95%CI 76-86) for expert radiologist diagnosis and 78% (95%CI 73-84) for trained study radiologists (range individual radiologists: 64%-95%). Sensitivity, specificity, PPV, and NPV were 86%, 68%, 89%, and 61% for expert diagnosis, and 80%, 72%, 90%, and 55% for trained study radiologists, respectively. Through consensus diagnosis, accuracy at the level of the expert radiologist was achieved (accuracy: 82%, sensitivity: 85%, specificity: 70%, PPV: 90%, NPV: 62%).
Conclusion: Preservation of at least 1 mm of the muscularis propria on rectal MRI is an accurate criterion which is easily trained and that can support adequate case selection for rectal-preserving intermuscular LE of RC.

Endoscopic eradication therapy with multifocal cryoballoon ablation for Barrett's esophagus related neoplasia

C.N. Frederiks[1], A. Overwater[1], M. Barret[2], R. Maselli[3], J.J.G.H.M. Bergman[4], R.E. Pouw[4], R. Bisschops[5], R. Haidry[6], V. Sehgal[6], T. Beyna[7], H. Neuhaus[7], B.L.A.M. Weusten[8], [1]Dept. of Gastroenterology and Hepatology, UMC Utrecht, Utrecht, [2]Dept. of Gastroenterology, Cochin Hospital, Paris, France [3]Dept. of Gastroenterology, Humanitas Research Hospital, Milan, Italië [4]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [5]Dept. of Gastroenterology, UZ Leuven, Leuven, Belgium, [6]Dept. of Gastroenterology, University College London Hospitals, Londen, United Kingdom, [7]Dept. of Internal Medicine, Evangelical Hospital Dusseldorf, Dusseldorf, Germany, [8]Dept. of Gastroenterology and Hepatology, St. Antonius Ziekenhuis, Nieuwegein, The Netherlands

Background: Focal cryoballoon ablation (FCBA) is a relatively new ablation modality for the treatment of Barrett's esophagus (BE) related neoplasia, This prospective, European multicenter study (Euro-Coldplay, NTR NL7253) aimed to evaluate the efficacy and safety of FCBA for the treatment of limited BE.
Methods: In eight European Barrett referral centers, patients with C≤2M≤5 BE with an indication for ablation therapy were eligible for inclusion. FCBA was performed by experienced and trained endoscopists at 3 month intervals until complete endoscopic eradication of BE (max, 5 sessions). During every session, the esophagogastric junction was treated circumferentially followed by all visible BE using side-by-side ablations with a dose of 8 seconds per ablation. After at least two FCBA sessions, add-on treatment was allowed with either argon plasma coagulation (APC; max, 2 sessions) or a single endoscopic mucosal resection. Outcomes included complete eradication of intestinal metaplasia (CE-IM) and dysplasia (CE-D), and adverse event rate.
Results: 107 patients (91 males; mean age 65) with a median BE length of C0M2 were included, containing low-grade dysplasia (32%), high-grade dysplasia (32%) or early cancer (39%) as worst baseline histology. Currently, 5/107 patients are still under treatment and therefore excluded from further analysis. Of the remaining patients, 97 (97/102; 95%) patients have finished the treatment phase per protocol, while four (4/102; 4%) patients left the study prematurely, Only one (1/102; 1%) patient could not be treated with FCBA due to a device malfunction. Overall, 65/102 (64%) patients underwent endoscopic resection at entry followed by a median of 2 (IQR 2-2) FCBA treatments with a median of 7 (IQR 5-9) ablations per treatment session. During the treatment phase, 3/102 (3%) patients developed a new visible, neoplastic lesion amenable for endoscopic resection (high-grade dysplasia n = 2, low-risk T1 cancer n = 1). Add-on treatment after at least two FCBA sessions was performed in 38/102 (37%) patients, of whom the most were treated with APC (37/38; 97%), CE-D was achieved in 95% (97/102) and CE-IM in 91% (93/102), per intention-to-treat analysis. Per-protocol analysis, CE-D and CE-IM were achieved in 100% (97/97) and 96% (93/97), respectively. Esophageal stricture was the most common adverse event in 13/102 (13%) patients, which resolved after a median of 2 (IQR 1-4) dilations.
Conclusion: In expert hands, endoscopic eradication therapy with FCBA seems to be highly effective with an acceptable safety profile for patients with limited BE. Long-term follow-up is warranted to evaluate the durability of the treatment response.

Effect of octreotide on delayed bleeding after EMR of large non-ampullary duodenal adenomas: a propensity score matching analysis

P. Didden, F.P. Vleggaar, L.M.G. Moons, Dept. of Gastroenterology and Hepatology, University Medical Center Utrecht, Utrecht, The Netherlands

Background: Delayed bleeding (DB) is the most frequent adverse event (up to 40%) after endoscopic mucosal resection (EMR) of large non-ampullary duodenal adenomas. Effective prophylactic measures are lacking. Octreotide reduces portal venous pressure and splanchnic blood flow. It also has inhibitory effects on pancreatic and bile secretion which might be toxic on a duodenal post-EMR site. The current pilot study aimed to investigate the effect of octreotide on DB using propensity score matching.
Methods: This retrospective study analyzed consecutive patients undergoing EMR for large (≥10 mm) non-ampullary duodenal adenomas in one referral center (2015-2023). Primary outcome was DB defined as any bleeding after EMR necessitating hospitalization, re-intervention or emergency department visit. Since 2022 octreotide therapy was routinely initiated directly after EMR at 50 ug/hour intravenously. A propensity score matching (1:1) analysis was performed using polyp size, anticoagulant use and complete post-EMR defect clip closure as variables.
Results: 98 duodenal adenomas were removed by EMR in 83 patients. After propensity score matching 42 resections were matched and 21 followed by octreotide therapy were compared to 21 controls. There were no differences in median adenoma size (35 mm (IQR 20-60) vs 30 mm (IQR 15-35)), anticoagulant use (both 7/21) and complete closure (6/21 vs 7/21). Median octreotide therapy duration was 1 day (IQR 1-5). DB occurred less frequently in the octreotide group (2/21, 9,5%) compared to the control group (7/21, 33,3%) with a relative risk of 0,29 (95% CI 0,07-1,22), although this did not reach statistical significance (p=0,09). All patients with DB in the control group and 1 of 2 patients in the octreotide group required repeated endoscopy.
Conclusion: The results of this pilot study indicate that octreotide has the potential to reduce DB after EMR of large non-ampullary duodenal adenomas. A randomized controlled trial is warranted to confirm these beneficial effects.

EUS-guided Hepaticogastrostomy in Patients with Malignant Biliary Obstruction (EPSILON); a prospective cohort study

J.A. Fritzsche[1], P. Fockens[1], M.G. Besselink[2], O.M. van Delden[3], J.I. Erdmann[2], H.J. Klümpen[4], R.P. Voermans[1], R.L.J. van Wanrooij[5], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, location University of Amsterdam, Amsterdam, [2]Dept. of Surgery, Amsterdam UMC, location University of Amsterdam, Amsterdam, [3]Dept. of Radiology and Nuclear Medicine, Amsterdam UMC, location University of Amsterdam, Amsterdam, [4]Dept. of Medical Oncology, Amsterdam UMC, location University of Amsterdam, Amsterdam, [5]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, location VUmc, Amsterdam, The Netherlands

Background: EUS-guided hepaticogastrostomy (EUS-HGS) is a novel technique that allows internal drainage of the biliary system via the stomach. This approach may be of value in patients with duodenal obstruction or surgically altered anatomy, or in hilar strictures with inadequate drainage of the left hepatic duct by other techniques. Prospective data on EUS-HGS are still sparse. Aim of this study was to assess the safety and feasibility of EUS-HGS in our first cohort of 15 patients.
Methods: Prospective single center study including patients with inoperable malignant biliary obstruction and dilatation of the left hepatic duct who were scheduled to undergo EUS-HGS. Patients were excluded in case of uncontrolled coagulopathy, tumor infiltration in the gastric wall, intervening blood vessels, or extensive amount of ascites. Procedure was performed with a partially covered self-expanding metal stent (Niti-S™ Biliary Covered Stent [Giobor stent], Taewoong Medical). Primary outcome was safety, defined as rate of procedural related adverse events and mortality (<30 days). Secondary outcomes were technical and clinical success, defined as at least 50% decrease of bilirubin and/or relieve of symptoms <30 days.
Results: Between January 2022 and April 2023, 15 consecutive patients (8 male [53%], median age 63 years [IQR 54,5-70,5]) were included, Indication for EUS-HGS was either duodenal obstruction (n=6), altered anatomy (n=4), or failed drainage of the left hepatic duct by endoscopic retrograde cholangiopancreatography (ERCP) (n=5). Patients had a median bilirubin level of 150 µmol/L (IQR 104,25-231,75) prior to the intervention. In 12/15 patients EUS-HGS was technically successful (80%), In one patient the procedure was aborted due to a self-limiting bleeding after puncture of the bile duct, in the other two patients the cholangiogram showed previously unidentified intrahepatic strictures that precluded adequate biliary drainage by EUS-HGS. No per procedural adverse events occurred. Patients were admitted for median of 1 day (IQR 0-2,25) after the procedure. Clinical success was achieved in all patients (100%). Two patients (16%) were re-admitted with presumed cholangitis <30 days after the procedure due to contamination or early stent migration. No other serious adverse events occurred <30 days. One patient died within 30 days due to fulminant disease progression.
Conclusion: This prospective study shows that EUS-HGS is feasible and safe. Larger series and longer follow-up are needed to further asses safety and stent patency.

Linear endo-ultrasonographic assessment of tumor fixation to the muscularis propria layer – a strong signal of T2 rectal cancer

F. ter Borg[1], K.M. Gijsbers[1], A. Guitink[1], J. Faber[2], [1]Dept. of Gastroenterology, Deventer Hospital, Deventer, [2]Dept. of Epidemiology and Biostatistics, Deventer Hospital, Deventer, The Netherlands

Background: Local resection of submucosally invasive rectal cancer (T1 stage) is increasingly used. For tumors that extend into or through the muscularis propria layer (T2+ stage), the risk of lymph node metastasis is too high to consider a local resection as the optimal oncological treatment. Discrimination between T1 and T2+ rectal cancer is thus important before embarking on a local procedure. However, there is no reliable imaging method to exclude deep infiltration. Advanced endoscopic imaging has a low sensitivity. MRI and radial (static) endoscopic ultrasound are often overstaging; in addition, for ultrasound there is a lot of intra- observer variation. Linear endoscopic ultrasound (L-EUS) can dynamically assess fixation of the tumor to the muscularis propria layer by testing shiftability. We hypothesize that impaired shiftability could be a predictor of T2+ stage.
Methods: In this single-center pilot study, L-EUS media, optical and pathological data were prospectively collected from patients referred for local resection of early rectal cancer. Fixation to the muscularis propria layer was visualized by moving the lesion with a biopsy forceps or with the tip of the echoendoscope (shiftability). Impaired shiftability was defined as joined and fixed movement of the tumor and the muscularis propria layer. Shiftability was considered unimpaired when the tumor moved freely over de muscularis propria layer.
Results: We included 91 patients. The sensitivity of advanced endoscopic imaging for T2+ stage tumor was 61,3% and the specificity 86,7%, with a false-negative (understaging) and false-positive (overstaging) rate of 18,8% and 29,6%. Shiftability was assessed in 66 patients; Post-hoc analysis showed no evidence of selection bias in patients in whom shiftability testing was not performed, except for deeply ulcerating lesions (n = 6) in which shiftability testing was often not done for obvious reasons (5 cases not tested). The sensitivity of impaired shiftability for T2+ stage tumor was 94,4%, the specificity was 97,9%, with a false negative rate of 4,2% and a false-positive rate of 5,6% ($p < 0,005$). No optical feature or other ultrsonographic static feature (various forms of iso- echogenic extensions from the tumor to muscularis propria layer) could improve this prediction in multivariate logistic regression analysis.
Conclusion: We found excellent sensitivity and specificity of this feature for muscularis propria infiltration, with a sensitivity of 94,4 and a specificity of 97,9%. Although this should be considered a pilot study, these results are promising and deserve further appraisal in other centers.

Oncological outcome of ESD for treating pT1 colorectal cancer is dependent on predicted depth of invasion

R. van Eijck van Heslinga[1], P. Didden[1], A.D. Koch[2], A. Lemmers[3], M. Figueiredo Ferreira [4], J. Santos-Antunes[5], W. de Graaf[2], J. Hardwick[6], S.E. Elias[7], M.M. Lacle[8], J.J. Boonstra[6], L.M.G. Moons[1], [1]Dept. of Gastroenterology and Hepatology, UMC Utrecht, Utrecht, [2]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, [3]Dept. of Gastroenterology and Hepatology, Erasme Hospital, Hôpital Universitaire de Bruxelles (HUB), Brussel, Belgium [4]Dept. of Gastroenterology and Hepatology, Erasme Hospital, Hôpital Universitaire de Bruxelles (HUB), Brussels, Belgium [5]Dept. of Gastroenterology and Hepatology, 5 Pedro Hispano Hospital, Advanced Endoscopy Center Carlos Moreira da Silva, Porto, Portugal [6]Dept. of Gastroenterology and Hepatology, LUMC, Leiden, [7]Dept. Julius Center for Health Sciences and Primary Care, Julius Center, Utrecht,[8]Dept. of Pathology, UMC Utrecht, Utrecht, The Netherlands

Background: Colorectal ESD is advocated to be performed on polyps which harbor a risk of submucosal invasive cancer (SMIC) either based on size, location and morphological features or the presence of an invasive pit-, or vascular pattern at enhanced imaging. It is however unknown how the selection of cases for ESD influences technical success and vertical resection margin (VM) R0 rates for pT1 colorectal cancer (CRC) specifically.
Methods: In total, 936 colorectal ESDs were included in 3 Dutch ESD referral centers between 2011-2022 based on a suspicion of a T1 CRC in treatment naïve lesion. Pre-resection optical reassessment in the referral center was used to recategorize the polyps into suspected deep SMIC, suspected superficial SMIC, and suspected covert SMIC. Technical success and VM R0 resection rates were evaluated in the whole intention-to-treat group, and the individual subgroups. The subgroups were compared to two European ESD cohorts from Portugal (n=225) and Belgium (n=174) on the proportion of pT1 CRCs and success rates. Poisson regression analyses was used to calculate the risk ratio for a VM R1 resection adjusted for location, size, and presence of a depression.
Results: A total of 936 cases were selected for the intention-to-treat cohort (59,6% male, mean age 67 yrs (± 9,3), 10% ASA III/IV, median polyp size of 30 mm (IQR 20-50), 54,8% located in the rectum. Technical success, VM R0 rate and proportion of pT1 CRC was 82% (95% CI 76-88%), 82% (95% CI 76-88%), and 276/936 (30%). After reassessment, 139 were re-categorized as suspected deep SMIC, 307 as superficial SMIC, and 351 as covert SMIC, and 139 unclassified due to missing data on optical features. The VM R0 rate for pT1Sm1 cases was persistently high in all three subgroups; 22/24 (92%) vs 42/47 (89%) vs 10/11 (91%) respectively. However, the VM R0 rate for pT1Sm2-3 was lower in the deep SMIC group than in the suspected superficial and suspected covert SMIC group (34/61 (55,7%) versus 46/60 (78%)), pT1Sm2-3 invasion was an independent risk factor for VM R1 resection (adjusted RR 4,18; 95%CI 2,8-6,2). Compared to the Belgian and Portuguese cohort, the proportion of pT1 and pT2 CRCs was much higher in de Dutch cohort (11%, 16% and 30%), and especially by the inclusion of pT1Sm2-3 cases (2%, 8% and 16%). This influenced the outcomes especially in the suspected deep SMIC group.
Conclusion: ESD has a high VM R0 rate, even for pT1Sm2-Sm3 cases within the suspected superficial and suspected covert SMIC subgroup. But in the presence of features of deep submucosal invasion, other techniques such as EID, eFTR, TAMIS or CELS should be preferred.

High sensitivity of biliary brush cytology after optimization of protocol in patients with suspected perihilar or intrahepatic cholangiocarcinoma: a prospective cohort study with historical control

J.A. Fritzsche[1], E. Smit[1], O.M. van Delden[2], F. Dijk[3], J.I. Erdmann[4], P. Fockens[1], A. Farina Sarasqueta[3], G. Kazemier[5], H.J. Klümpen[6], S.L. Meijer[3], C.Y. Ponsioen[1], A. Uyterlinde[7], R.L.J. van Wanrooij[8], M.C.B. Wielenga[1], I.J.A.J. Zijlstra[2], J. Verheij[3], R.P. Voermans[1], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, location University of Amsterdam, Amsterdam, [2]Dept. of Radiology and Nuclear Medicine, Amsterdam UMC, location University of Amsterdam, Amsterdam, [3]Dept. of Pathology, Amsterdam UMC, location University of Amsterdam, Amsterdam, [4]Dept. of Surgery, Amsterdam UMC, location University of Amsterdam, Amsterdam, [5]Dept. of Surgery, Amsterdam UMC, location VUmc, Amsterdam, [6]Dept. of Medical Oncology, Amsterdam UMC, location University of Amsterdam, Amsterdam, [7]Dept. of Pathology, Amsterdam UMC, location VUmc, Amsterdam, [8]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, location VUmc, Amsterdam, The Netherlands

Background: Bile duct brushing is often performed as first step to differentiate between benign and malignant biliary strictures. Although brush cytology has a high specificity (95-100%), the sensitivity for detection of malignancy has been reported to be poor (41-67%). Aim of this study was to evaluate a change in protocol for brush cytology with optimization of handling and rating. Next Generation Sequencing (NGS), and the use of two brushes plus intraductal biopsies in patients with suspected perihilar or intrahepatic cholangiocarcinoma (pCCA/iCCA).
Methods: Patients with suspicion of pCCA or iCCA were prospectively included between June 2021 and December 2022. Preferably two brushes and intraductal biopsies were taken during the initial procedure. Cells were dislodged in a Cytolyt container within 30 seconds of which two "thin prep" slides were prepared and assessed by at least two expert cytopathologists. NGS was performed in samples with an uncertain diagnosis of atypia. A historical cohort (January 2017-June 2021) was used as control. In this cohort a single brush was performed without intraductal biopsies. The obtained cells were preserved in a Roswell Park Memorial Institute (RPMI) 1640 medium of which 4 cytospins were done. Primary endpoint was the sensitivity before and after implementation of the protocol; secondary endpoints were the sensitivity of the individual steps of the modified protocol in the prospective cohort.
Results: In this study, a total of 166 patients were evaluated (51 prospectively and 115 historical controls). The final diagnosis was malignant disease in 156 patients (94%). After implementation of the protocol, the sensitivity rose to 86% (95%CI, 72,6-93,7%) versus 50,9% (95%CI, 41,1-60,7%) prior to implementation (difference 35,1%; 95%CI, 20,1-50,1%), Specificity was 100% in both groups (1/1 vs 9/9). Sensitivity of the first brush in the prospective cohort was 76% (95%CI, 61,5-86,8%). NGS was of additional diagnostic value in 3 patients with uncertain brush cytology results, increasing the sensitivity to 82% (95%CI, 68,1-91%). A second brush was performed in 37 patients; in one of these patients, the second brush had additional diagnostic value over the first brush. Intraductal biopsies were performed in 27 patients (4 benign, 10 suspicious, 13 malignant), leading to a malignant diagnosis in 2 out of 12 patients with false-negative brush cytology.
Conclusion: A modification in the handling of cytopathology, led to a significant improvement in the sensitivity of bile duct brushes to 76% for patients with suspected pCCA or iCCA. Furthermore, adding NGS, use of two brushes, and intraductal biopsies in the initial procedure could further increase sensitivity to 86%.

Hepatocellular carcinoma risk in sub-Saharan African and Afro-Surinamese individuals living with chronic hepatitis B in Europe: an international multicenter retrospective cohort study

L.A. Patmore[4], R.B. Takkenberg[1], I. Carey[11], M.J. Sonneveld[4], K.M.A. van Eekhout[1], M. Buti[2], O.M. Koc[3], R.J. de Knegt[4], H.L.A. Janssen[4], K. Agarwal[5], M. van der Valk[6], F.I. Lieveld[7], M. Kramer[3], J. de Bruijne[8], M. Claassen[9], C. Smit[10], R.A. de Man[4], [1]Dept. of Gastroenterology and Hepatology, Amsterdam University Medical Centers, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Hospital University Valle d'Hebron, Barcelona, Spain [3]Dept. of Gastroenterology and Hepatology, Maastricht University Medical Center, Maastricht, [4]Dept. of Gastroenterology and Hepatology, Erasmus MC, University Medical Center, Rotterdam, [5]Dept. of Gastroenterology and Hepatology, King's college Hospital, Londen, United Kingdom, [6]Dept. of Infectious Diseases, Amsterdam University Medical Centers, Amsterdam, [7]Dept. of Infectious Diseases, Utrecht UMC, Utrecht, [8]Dept. of Gastroenterology and Hepatology, Utrecht UMC, [9]Dept. of Infectious Diseases, Rijnstate Hospital, Arnhem, [10]Dept. of Infectious Diseases, Stichting HIV Monitoring, Amsterdam, The Netherlands, [11]Institute of Liver Studies, King's college Hospital, Londen, United Kingdom

Background: Cross-sectional studies have identified individuals from sub-Saharan Africa with (SSA) chronic hepatitis B (CHB) as a potential risk group for hepatocellular carcinoma (HCC) and advocate enrolment in an HCC surveillance program even in the absence of cirrhosis. However, the incidence of HCC and performance of HCC risk scores in this population are unknown.
Methods: We conducted an international multicenter retrospective cohort study of hepatitis B virus (HBV) mono-infected individuals with SSA or Afro-Surinamese (AS) ethnicity managed at sites in the Netherlands, the United Kingdom and Spain. We assessed the 5 and 10 year cumulative incidence of HCC in the overall study population and in clinically relevant subgroups. We also studied potential other predictors of HCC development using Cox regression. Finally, we assessed the performance of the (m)PAGE-B score for stratifying HCC risk.
Results: We analyzed 1473 individuals; the majority of whom were male (59.7%) with a median age of 38 years (interquartile range [IQR] 29-46) at enrolment. At baseline 12.7% had advanced fibrosis (METAVIR ≥F3 based on biopsy or FibroScan). During a median follow-up of 8 years (IQR 3.9 – 11.4) 34 individuals developed HCC. The 5 and 10 year cumulative incidence of HCC was 1% (95% confidence interval [CI] 0.99 – 1.01) and 2.5% (95% CI 2.39–2.41), with no difference observed across ethnicities (p=0.238). Among individuals without advanced fibrosis at baseline, the 5 and 10 year cumulative incidence of HCC was 0% and 0.7%, compared to 7.1% and 12.1% among individuals with advanced fibrosis (p<0.001). In addition to baseline fibrosis grade univariate analysis revealed that older age (hazard ratio [HR] 1.07, 95% CI 1.04–1.10), male sex (HR 2.59, 95% CI 1.13–5.94), platelet count (HR 0.98, 95% CI 0.97–0.98) albumin (HR 0.89, 95% CI 0.83–0.94) and HBV DNA (HR 1.4, 95% CI 1.16-1.60) were significantly associated with HCC development. The 10 year cumulative incidence of HCC was 0.5% among individuals with a low PAGE-B score (52.3% of cohort), compared to 2.9% in the intermediate risk group (38.6% of cohort) and 15.9% in the high risk group (5.8% of cohort; p<0.001). Similar results were obtained for the modified PAGE-B score.
Conclusion: This unique international multicenter cohort of SSA and AS individuals with CHB shows a limited 5 and 10 year cumulative risk of HCC. The risk of HCC was negligible for individuals without advanced fibrosis at baseline, and among individuals with low baseline (m)PAGE-B scores. Based on these findings, the majority of these patients can potentially be excluded from HCC surveillance based on absence of advanced fibrosis and/or low HCC risk scores.

Blown-out myotomy after achalasia treatment; prevalence and associated symptoms

T. Kuipers[1], F.A. Ponds[1], P. Fockens[1], B.A.J. Bastiaansen[1], J.E. Pandolfino[2], A.J. Bredenoord[1], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, Feinberg School of Medicine, Northwestern University, Chicago, United States

Background: Peroral endoscopic myotomy (POEM) may result in a distended distal esophagus, referred to as a blown-out myotomy (BOM). A BOM may have functional and symptomatic consequences. The aim of this study was to investigate the prevalence, risk factors and associated symptoms of BOM after achalasia treatment using a clinical trial dataset (POEMA trial).
Methods: We analyzed data of newly diagnosed symptomatic achalasia patients in our center who participated in a previous randomized controlled trial in which they were allocated to undergo treatment with POEM or pneumatic dilation (PD). Follow-up was done at 3 months, 1, 2 and 5 years after treatment and included an esophagram, endoscopy, HRM and symptom questionnaires. We defined a BOM as a >50% increase in esophageal diameter at its widest point in the distal esophagus between the lower esophageal sphincter and 5 cm above.
Results: In total 74 patients were treated in our center, of which 5-year follow-up data was available in 55 patients. During follow-up a part of the patients received retreatment which resulted in 15 (27%) patients that were treated with PD only and 40 (73%) patients treated with POEM or PD + POEM. In the group initially treated with POEM the incidence of BOM increased from 11.5% (4/38) at three months, 21.1% (8/38) at 1-year, 27.8% (10/36) at 2-years and 31.3% (10/32). Achalasia subtype type did seem to be a risk factor for the occurrence of a BOM in our cohort, as BOM occurred in 25% (2/8) of type I, 27% (7/26) of type II and 67% (4/6) of type III achalasia (p=0.152). Patients that developed a BOM had higher total Eckardt score and Eckardt regurgitation component compared to patients that underwent POEM without BOM development (3 (2.75-3.25) vs 2 (1.75-3) p=0.032) and (1 (0.75-1 vs 0 (0-1) p=0.041). The barium column surface (barium height * width) was not significantly different at 5 minutes (10.8 (2.7-18.9) cm^2 vs 7.2 (0-12.8) cm^2, p=0.197) in patients with or without a BOM. In addition, at 5-year follow-up no significant difference was seen in IRP-4 (13.4 (9.1-18.8) mmHg vs 12.1 (8.5-16.7) mmHg, p=0.377) and LES-resting rate (18.1 (14.3-26.0) mmHg vs 22.3 (13.7-29.8) mmHg, p=0.642) in patients with or without a BOM. POEM patients more often report reflux symptoms (based on GERDQ > 8) when a BOM is present compared to when no BOM is present (85% (11/13) vs 46% (2/16), p=0.023)). Acid exposure time (measured at 1-year) was significantly higher in patients with a BOM compared to no BOM ((24.5% (8-47)) vs 6% (1.2-18.7), p=0.027).
Conclusion: a BOM was seen in one third of patients treated with POEM regardless of achalasia subtype, resulting in a higher acid exposure, more reflux symptoms and symptoms of regurgitation.

Faecal immunochemical test to guide colonoscopy interval in lynch syndrome – a prospective multicentre study

E.L.S.A. van Liere[1], N.K.H. de Boer[1], M.E. van Leerdam[2], M. Dakkak[1], E. Dekker[1], M.A.J.M. Jacobs[1], J.J. Koornstra[3], J.P. Kuijvenhoven[4], M. Lemmens[5], G.A. Meijer[5], M.C.W. Spaander[6], B. Carvalho[5], D. Ramsoekh[1], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [2]Dept. of Gastrointestinal Oncology, Netherlands Cancer Institute, Amsterdam, [3]Dept. of Gastroenterology and Hepatology, University Medical Centre Groningen, Groningen, [4]Dept. of Gastroenterology and Hepatology, Spaarne Gasthuis, Hoofddorp, [5]Dept. of Pathology, Netherlands Cancer Institute, Amsterdam, [6]Dept. of Gastroenterology and Hepatology, Erasmus University Medical Center, Rotterdam, The Netherlands

Background: In Lynch syndrome, biennial colonoscopy surveillance is recommended. However, colonoscopy is invasive, resource-intensive and burdensome. The non-invasive faecal immunochemical test (FIT) might guide the timing of colonoscopy.
Methods: Prospective study performed from February 2021 to November 2022 at five centres in the Netherlands. Consecutive individuals with Lynch syndrome (aged ≥18 years) with a pathogenic germline mutation collected a FIT <3 months prior to surveillance colonoscopy. Exclusion criteria were (sub-)total colectomy, Boston Bowel Preparation Score <6, incomplete colonoscopy or insufficient sample mass for analysis. We assessed diagnostic accuracy of FIT for relevant neoplasia, which included advanced neoplasia (i.e. CRC, advanced adenomas and advanced serrated lesions) and all non-advanced adenomas. Controls had either no neoplasia or non-advanced serrated lesions (i.e. serrated polyps <10 mm without dysplasia) only. FIT performance was evaluated at different thresholds for a positive test: 3 μg Hb/g feces (lower limit of detection) and 20 μg Hb/g feces (threshold in most CRC screening programs worldwide).
Results: In total, 218 individuals (60% female, median age 53 years [IQR 41 – 61]) were included. The most advanced neoplasia at colonoscopy was CRC in 4/218 (1.8%), advanced adenoma in 5/218 (2.3%), advanced serrated lesion in 3/218 (1.4%; all ≥10 mm, none had dysplasia) and non-advanced adenoma in 55/218 (25.2%). Of these neoplasia, 57% were right-sided.
With FIT threshold set at 3 μg Hb/g, 31/218 individuals (14%) had a positive test. Relevant neoplasia detected were 4/4 CRCs, 4/5 advanced adenomas, 1/3 advanced serrated lesions and 9/55 non-advanced adenomas. As a result, sensitivity and specificity for all relevant neoplasia was 27% and 91%, respectively, whereas for advanced neoplasia sensitivity increased to 75% and specificity to 93%, with 98% negative predictive value and 41% positive predictive value.
Using the higher threshold of 20 μg Hb/g, 9/218 individuals (4%) had a positive FIT. Relevant neoplasia detected were 3/4 CRCs, 2/5 advanced adenomas, 0/3 advanced serrated lesions and 0/55 non-advanced adenomas, resulting in 8% sensitivity, 97% specificity, 70% negative predictive value and 56% positive predictive value for all relevant neoplasia.
Conclusion: The non-invasive FIT set at the lowest threshold seems to accurately detect CRC and advanced adenomas in Lynch syndrome. In low-risk mutation carriers, FIT might select those individuals qualifying for a longer surveillance interval, thereby preventing colonoscopy overuse and harms.

Endoscopic Sphincterotomy to Prevent Pancreatitis after Self-expandable Metal Stent Placement in Extrahepatic Malignant Biliary Obstruction (SPHINX): interim-results of a multicenter, randomized controlled trial

A.M. Onnekink[6], M. Gorris[1], J.E. van Hooft[6], N.C. van Huijgevoort[1], P.R. Bos[2], P. Didden[3], J.E. Dominguez-Muñoz[4], P. Friederich[5], E.E. van Halsema[1], A. Inderson[6], M.A.J.M. Jacobs[1], J.J. Koornstra[7], S.D. Kuiken[8], B.C.H. Scheffer[9], E. van Soest[10], N.G. Venneman[11], R.C. Verdonk[12], R.P. Voermans[1], R.L. van Wanrooij[1], T.R. de Wijkerslooth[13], J. Wonders[14], S.J.L.B. Zweers[15], P. Fockens[1], [1]Dept. of Gastroenterology and Metabolism, Amsterdam UMC, Amsterdam, [2]Dept. of Gastroenterology and Hepatology, ZGV, Ede, [3]Dept. of Gastroenterology and Hepatology, UMC Utrecht, Utrecht, [4]Dept. of Gastroenterology, University Hospital of Santiago de Compostela, Spain [5]Dept. of Gastroenterology and Hepatology, Catharina Ziekenhuis, Eindhoven, [6]Dept. of Gastroenterology and Hepatology, LUMC, Leiden, [7]Dept. of Gastroenterology and Hepatology, UMCG, Groningen, [8]Dept. of Gastroenterology and Hepatology, OLVG, Amsterdam, [9]Dept. of Gastroenterology and Hepatology, JBZ, Den Bosch, [10]Dept. of Gastroenterology and Hepatology, Spaarne Gasthuis, Hoofddorp, [11]Dept. of Gastroenterology and Hepatology, Medisch Spectrum Twente, Twente, [12]Dept. of Gastroenterology and Hepatology, St. Antonius Ziekenhuis, Nieuwegein, [13]Dept. of Gastroenterology and Hepatology, Antoni van Leeuwenhoek Ziekenhuis, Amsterdam, [14]Dept. of Gastroenterology and Hepatology, HAGA ziekenhuis, Den Haag, [15]Dept. of Gastroenterology and Hepatology, Maasstad Ziekenhuis, Rotterdam, The Netherlands

Background: Endoscopic retrograde cholangiopancreatography (ERCP) with self-expandable metal stent (SEMS) placement has become the treatment of choice for biliary drainage in patients with distal malignant biliary obstruction. However, biliary SEMS placement has been associated with an increased incidence of post-ERCP pancreatitis (PEP). Endoscopic sphincterotomy (ES) may reduce the risk of this potentially serious complication by alleviating pancreatic duct pressure. In this study, we evaluated whether endoscopic sphincterotomy was superior in reducing PEP in patients with malignant biliary obstruction.

Methods: This multicenter, randomized, controlled trial was conducted in 19 hospitals. We included consecutive patients with suspected malignant biliary obstruction in need for biliary drainage. Patients were randomized during ERCP to receive either endoscopic sphincterotomy (ES group) or no endoscopic sphincterotomy (control group) prior to fully covered SEMS placement. Patients were blinded to treatment allocation. The primary endpoint was PEP within 30 days. Secondary endpoints included pancreatitis severity grade, 30-day mortality, and other procedure-related severe adverse events (i.e. gastrointestinal bleeding, perforation, cholangitis, and cholecystitis) within 30 days. An interim analysis was performed after 50% of patients (n=259) had completed follow-up.

Results: Between May 2015 and March 2022, a total of 259 patients were randomized, with 125 patients (48%) in the ES group and 134 (52%) patients in the control group. Overall, 141 patients (54%) were male and the mean age was 69 (SD±10) years. Most patients were diagnosed with pancreatic cancer (72% in the ES group vs. 76% in the control group).

PEP occurred in 23 patients (17%) in the ES group and in 26 patients (21%) in the control group (relative risk [RR] 0.83, 95% confidence interval [CI] 0.50 – 1.37, P=0.46). In both groups, most patients experienced mild pancreatitis (83% vs. 81%, respectively). No cases of gastrointestinal bleeding or perforation were observed. Cholangitis (2% vs. 2%) and cholecystitis (6% vs. 6%) rates were similar between groups.

Conclusion: This multicenter, randomized, controlled trial found no difference in PEP between patients with and without endoscopic sphincterotomy prior to fully covered SEMS placement. Therefore, we could not prove superiority of an endoscopic sphincterotomy in this specific setting.

A Novel Role of ATP8B1 in the establishment of Intestinal Epithelial Barrier Integrity in Ulcerative Colitis

P.J. Koelink[1], V.E. Gómez-Mellado[1], S. Duijst[1], P.J. Bosma[2], R.P.J. Oude-ELferink[2], M.E. Wildenberg[2], C.C. Paulusma[3], [1]Tytgat Institute for Liver and Intestinal Research, Amsterdam UMC, Amsterdam, [2]Tytgat Institute for Liver and Intestinal Research, Amsterdam UMC, Amsterdam UMC, [3]Tytgat Institute for Liver and Intestinal Research, Amsterdam UMC, Amsterdam, The Netherlands

Background: Individuals with germline mutations in *ATP8B1* develop Progressive Familial Intrahepatic Cholestasis 1 (PFIC1), for which they require an early life-saving liver transplantation. These patients continue to suffer from gastrointestinal dysfunction, with signs of chronic intestinal inflammation, after liver transplantation. Here we investigate the intestinal expression pattern and function of ATP8B1 in relation to inflammatory bowel diseases.
Methods: Intestinal expression of *ATP8B1* was investigated in intestinal samples of both patients with Crohn's Disease (CD) or Ulcerative Colitis (UC), and murine models of intestinal inflammation by investigating public available gene expression databases, quantitative RT-PCR (qPCR), immunoblot, *in situ* hybridization and immunohistochemistry (IHC). We induced colitis in *Atp8b1*-deficient mice with Dextran Sodium Sulphate (DSS) and investigated intestinal permeability by 4kD-FITC-Dextran (4FD) oral gavage. Epithelial barrier function was assessed in ATP8B1 knock-down (KD) Caco2-BBE cells cultured on transwells by Trans Epithelial Electrical Resistance (TEER) measurements and 4FD passage. Expression of tight junction proteins was investigated by immunoblot and IHC. For ATP8B1 co-localization and co-immunoprecipitation experiments Caco2-BBE cells overexpressing ATP8B1-eGFP were used. Paraffin imbedded intestinal biopsies of a PFIC1 patient were used for IHC.
Results: ATP8B1 is expressed in intestinal epithelial cells and both mRNA and protein levels are decreased in UC and DSS-treated mice. Gene set enrichment analysis of publically available UC patient cohort data revealed a close correlation between tight junction pathway-associated gene expressions and *ATP8B1* expression. Indeed, ATP8B1 knockdown in Caco2-BBE cells caused loss of intestinal barrier function that associated with a diminished Claudin-4 (CLDN4) pattern. Recovery kinetics of barrier function after barrier disruption was ~50% reduced in ATP8B1 KD cells, suggesting a role for ATP8B1 in barrier establishment. ATP8B1 co-stained with CLDN4 at the cell membrane and co-immunoprecipitated with ATP8B1. CLDN4 IHC showed a tight-junctional staining in control tissue, whereas in UC samples and in intestinal biopsies of a PFIC1 patient CLDN4 was not properly localized. Compared to wildtype mice, *Atp8b1*-deficient mice showed exacerbated DSS-induced colitis, which correlated with increased intestinal barrier leakage of 4FD.
Conclusion: ATP8B1 is important in the establishment of the intestinal barrier through interaction with CLDN4. Downregulation of epithelial ATP8B1 levels in UC, and subsequent altered CLDN4 localization might therefore be an important mechanism in UC pathophysiology.

Less CRC recurrence in screen-detected compared to non-screen-detected colorectal cancer patients

J.K.F. Pluimers, P.H.A. Wisse, M.C.W. Spaander, C.M. Den Hoed, Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, The Netherlands

Background: Patients with screen-detected colorectal cancer (CRC) have a better overall survival, compared to patients with non-screen detected CRC. Importantly, also the stage-specific survival is higher.[1] We hypothesize that screen-detected CRCs have more indolent tumor characteristics, leading to less CRC recurrence and thus improved survival. However, the recurrence rates of screen-detected and non-screen detected CRCs are unknown. Therefore, the aim of the current study is to compare recurrence rates in screen-detected and non-screen detected CRCs and their relation to overall survival.
Methods: Patients diagnosed with stage I, II or III CRC in the first six months of 2015 were included. Data on stage, location, treatment, recurrence and survival was retrieved from the Netherlands Cancer Registry (NCR). Screen-detected CRCs were identified in the Dutch FIT-based CRC screening program. Non-screen-detected CRCs were clinically detected CRCs. Overall and stage-specific recurrence rates in screen-detected and non-screen detected CRCs were analyzed with Kaplan Meijer curves. The effect of recurrence on overall survival was evaluated with a Cox-regression model, adjusted for tumor characteristics, patient characteristics and treatment.
Results: 3813 patients with were included, 2144 (56.2%) were non-screen-detected and 1669 (43.8%) were screen-detected. The four-year CRC recurrence rate in screen-detected CRCs was significantly lower compared non-screen-detected CRCs (13% versus 21%, p <0.001). Stage-specific recurrence of CRCs after four years for screen-detected CRCs vs. non-screen-detected cases were 5% vs. 6% for stage I (p=0.82); 14% vs. 17% for stage II (p=0.23) and 23% vs 33% (p<0.001) for stage III, respectively. The HR for recurrence for screen-detected CRC versus non-screen detected CRC was 0.68 (CI: 0.57 – 0.81, p <0.001) when adjusted for tumor location, stage, gender, age and treatment. When evaluated for each stage separately, the HR for recurrence was 0.98 (CI: 0.56-1.69, p = 0.93]) in stage I; 0.79 (CI: 0.56-1.13, p = 0.198) in stage II and 0.61 (CI 0.49-0.77, p <0.001) in stage III, respectively. Recurrence was an independent predictor for the 5-year overall survival, with a HR of 7.65 in screen-detected cases [p<0.001] and HR 6.60 in non-screen-detected cases [p <0.001];
Conclusion: The four-year CRC recurrence rate in screen-detected CRCs was significantly lower compared to non-screen-detected CRCs. Specifically in stage III CRC's the screen detected patients had significantly lower recurrence rates which had a significant effect on survival. This result remained after adjustment for patient, tumor and treatment factors and could be explained by a different tumor biology.

Development and validation of a colorectal cancer risk prediction tool for risk-stratified screening: an application of machine-learning to national screening data

D.T. Mülder, R. Van den Puttelaar, R.S.G. Meester, J.F. O'Mahony, I. Lansdorp-Vogelaar, Dept. of Public Health, Erasmus MC, Rotterdam, The Netherlands

Background: Estimates of individual cancer risk can improve screening programmes by permitting risk-adjusted screening intensities. Our aim was to develop a prognostic model for colorectal cancer (CRC) and advanced neoplasia (AN) based on previous faecal immunochemical test (FIT) results.
Methods: We trained and compared a logistic regression and a machine learning (random forest) model to predict the risk of AN and CRC using sex, age and two preceding faecal haemoglobin (f-Hb) concentrations, using data from 219,257 third-round participants of the Dutch CRC screening programme between 2014 and 2018. For both models, we performed two separate out-of-sample validations using 1,137,599 third-round participants between 2019 and 2021 and 192,793 fourth-round participants between 2020 and 2021. We evaluated the discriminatory performance of the models based on the c-statistic and compared predicted and observed relative risks for AN and CRC by quantile of predicted risk.
Results: For third-round participants, both prognostic models effectively predicted risk of AN (c-statistic: 0.77). Although predictive performance declined marginally, both models also effectively predicted risk for future screening rounds (c-statistic: 0.73). Both models successfully identified a high-risk minority subgroup from a low-risk majority of participants. Inviting individuals with an absolute model-predicted risk exceeding 10% one year earlier, could potentially early detect 2,180 AN cases at the cost of 15,405 additional screens in round 3 and 223 cases at the cost of 1,539 screens in round 4.
Conclusion: Prediction models based on age, sex and two prior f-Hb concentrations can accurately discriminate high-risk from low-risk patients, also for future screening rounds. This makes the findings also useful to programmes for which the number of screening rounds is still accumulating. Implementation of these models into risk-stratified FIT screening should therefore be considered as it may offer more effective population cancer prevention with a good balance between harms and benefits.

Differences in treatment of stage I CRCs: a population-based study of CRCs detected within and outside screening

E.. Toes-Zoutendijk[3], E.C.H. Breekveldt[3], L.. van der Schee[1], M.A.G. Elferink[2], I. Lansdorp-Vogelaar[3], L.M.G. Moons[1], M.E. van Leerdam[4], [1]Dept. of Gastroenterology and Hepatology, University Medical Center Utrecht, Utrecht, [2]Dept. of Research & Development, Netherlands Comprehensive Cancer Organization, Utrecht, [3]Dept. of Public Health, Erasmus University Medical Center, Rotterdam, [4]Dept. of Gastrointestinal Oncology, Netherlands Cancer Institute, Amsterdam, The Netherlands

Background: Screen-detected colorectal cancers (CRCs) are often treated less invasively than stage-matched non-screen-detected CRCs, but the reasons for this are not fully understood. This study aimed to describe the treatment of stage I CRCs detected within and outside the CRC screening program in the Netherlands and to identify factors associated with treatment on population level.
Methods: Data from the Netherlands Cancer Registry of all stage I CRCs diagnosed between January 1, 2008 and December 31, 2020 were analyzed, comparing patient, tumor and treatment characteristics of screen-detected and non-screen-detected stage I CRCs. Multivariable logistic regression analyses were used to assess the association between treatment (local excision only vs. surgical oncologic resection) and patient and tumor characteristics, stratified for T-stage and tumor location.
Results: Screen-detected stage I CRCs were relatively more often T1 than T2 compared to non-screen detected stage I CRCs (66.9% versus 53.3%, p <0.0001). When only considering T1 tumors, both screen-detected colon and rectal cancers were more often treated with local excision only than non-screen detected T1 cancers (OR 2.19, 95%CI 1.93-2.49 and OR 1.29, 95%CI 1.05-1.59, respectively), adjusted for sex, tumor location, lymphovascular invasion (LVI) status and tumor differentiation.
Conclusion: Less invasive treatment of screen-detected stage I CRC is partly explained by the higher rate of T1 compared with non-screen-detected stage I CRC. Those with T1 stage I CRCs were also more likely to undergo less invasive treatment if they were detected by screening, after adjusting for risk factors such as LVI and tumor differentiation.

Oesophageal cancer awareness and anticipated time to help-seeking: results from a population-based survey

J. Sijben[1], L. Huibertse[1], L. Rainey[2], M.J.M. Broeders[2], Y. Peters[1], P.D. Siersema[1], [1]Dept. of Gastroenterology and Hepatology, Radboudumc, Nijmegen [2]Dept. of Health Evidence, Radboudumc, Nijmegen, The Netherlands

Background: The time between first noticing a symptom to consultation in primary care is the most delaying factor in the diagnostic pathway of oesophageal cancer. Non-recognition of symptom severity is the predominant factor in delayed help-seeking and can be modified through education. Understanding the general public's awareness of oesophageal cancer symptoms and the differences among population subgroups is important for developing targeted education campaigns.
Methods: We performed a population-wide survey assessing awareness of oesophageal cancer symptoms and anticipated time to help-seeking for dysphagia. Individuals aged 18-75 years were selected from the Dutch population registry using simple random sampling (n=3270 respondents). Items adapted from the Awareness and Beliefs about Cancer measure were administered. Disparities in oesophageal cancer symptom awareness among socio-demographic subgroups (e.g., based on age, gender, education, migration background, civil status, and socio-economic status) were examined using chi-square analyses.
Results: When open (unprompted) questions were used, only 11% of the participants listed dysphagia as an oesophageal cancer symptom and the majority (60%) did not list any correct symptom. The proportion that recognized dysphagia as a potential cancer symptom was higher (48%) with closed (prompted) questions but remained poor compared with symptoms of other cancer types (change in bowel or bladder habits: 78%; change in the appearance of a mole: 94%; unexplained breast lump or swelling: 93%). Low oesophageal cancer symptom awareness was significantly associated with male gender ($p<0.001$), lower education ($p<0.001$), living in a deprived neighbourhood ($p=0.010$), and non-western migration background ($p=0.002$). Knowing someone with oesophageal cancer was associated with higher awareness ($p<0.001$). No associations were found between oesophageal cancer awareness and age or civil status. Anticipated delayed help-seeking for dysphagia was more common among participants who did not associate the symptom with cancer (15% would consult after 1 month) than those who did (11% would consult after 1 month) ($p<0.001$).
Conclusion: Our findings demonstrate a disconcertingly low public awareness of oesophageal cancer symptoms. Targeted education campaigns to improve recognition of dysphagia as a potential symptom of oesophageal cancer may improve earlier help-seeking.

Profiling the tumor immune microenvironment of peritoneal metastasized colorectal cancer in humanized immune system mice

J. Saris[1,2], S.Bootsma[3,4*], J. Verhoeff[2,5], J.B. Tuynman[6], M.E. Wildenberg[1,2], K.J. Lenos[3,4], J.J. Garcia Vallejo[5], L. Vermeulen[3,4*], J. Grootjans[1,2*] [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, University of Amsterdam, Amsterdam; [2]Tytgat Institute for Liver and Intestinal Research, Amsterdam UMC, University of Amsterdam, Amsterdam; [3]Center for Experimental and Molecular Medicine, Amsterdam UMC, University of Amsterdam, Amsterdam; [4]Oncode Institute, Amsterdam, Netherlands; [5]Dept. Of Molecular Cell Biology & Immunology, Amsterdam UMC, Vrije Universiteit Amsterdam, Amsterdam; [6]Dept. Of Surgery, Amsterdam UMC, Vrije Universiteit Amsterdam, Amsterdam, The Netherlands. *These authors contributed equally.*

Background: Colorectal cancer (CRC) is a complex and diverse disease, characterized by variable molecular tumor characteristics and treatment response. Peritoneal metastasis (PM) significantly reduces patient survival. While T cell focused immune checkpoint blockade (ICB) has revolutionized the treatment of microsatellite instable (MSI) non-metastasized CRC, PM-CRC are often classified as microsatellite stable (MSS), where ICB has limited effect. To gain a better understanding of the interaction between the tumor immune microenvironment (TIME) and surrounding peritoneal immune system (PerIS), *in vivo* models such as humanized immune system (HIS) mice mimicking both the complexity of *human* cancer cells and the human immune system are required.
The aim of this study was to characterize the PerIS and TIME of HIS mice with PM-CRC, and explore the pre-clinical potential of this model.
Methods: HIS mice were generated by injecting human hematopoietic stem cells (HSCs) into NSG mice. Intraperitoneal injection of either of human MSI CRC cell line HCT116 (n=5), or MSS CRC cell lines Hutu80 (n=6) or MDST8 (n=4) was performed to generate a HIS mouse PM-CRC model. Four to five weeks after tumor cell injection, peritoneal fluid (PF; n=15) and peritoneal tumors (PM-Tx; n=5) were collected. PF of HIS mice without tumors served as control (n=3). Human PM-CRC PF (MSS; n=11) was collected perioperative during abdominal surgery. Immune cells were isolated and analyzed using cytometry by time of flight (CyTOF) using a panel that enabled identification of T-, B-, NK cell and myeloid populations.
Results: All relevant T cell subsets observed in humans were found in both the PerIS and PM-Tx of HIS mice. Compared to the PF of control mice, we observed a significant increase in CD4 T central memory (TCM), CD4 regulatory T cells (Tregs) and CD8 T effector memory (TEM) cells within the T cell lineage in PM-CRC. Interestingly, only MSS PM-CRC showed a notable increase of CD4 Tregs in the PF. In contrast, the PerIS of MSI PM-CRC is dominated by CD8 TEMs. These CD8 TEMs show clear expression levels of known immune activation/exhaustion markers like PD-1, CTLA-4, LAG-3 and CD69. All T cell subsets were identified within the PM-Tx of HIS mice, with CD4 TCM, CD8 TCM and CD4 Tregs being the most abundant.
Conclusion: This study employs a humanized immune system *in vivo* model to investigate the PerIS and TIME of PM-CRC, revealing distinct immunological responses to MSS/MSI cell lines. The MSS tumor-driven PerIS is characterized by increased CD4 Tregs, while CD8 TEMs define the MSI tumor-driven PerIS. As T cell targeting therapies gain interest, this model could prove valuable in pre-clinical research on T cell immunology in PM-CRC.

The human tumor immune microenvironment of peritoneal metastasized colorectal cancer delineated using single-cell RNA sequencing: new therapeutic targets uncovered

J. Saris[1,2], A.Y.F. Li Yim[1,2,3,4], S. Bootsma[5,6*], J. Verhoeff[2,7], J.B. Tuynman[8], M.E. Wildenberg[1,2], G.R.A.M. D'Haens[2,9], R.J.C. Franco Fernandez[2], H.N. Khan[2], K.J. Lenos[5,6], J.J. Garcia Vallejo[7], L. Vermeulen[5,6,10], J. Grootjans[1,2] [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, University of Amsterdam, Amsterdam; [2]Tytgat Institute for Liver and Intestinal Research Amsterdam UMC, University of Amsterdam, Amsterdam; [3]Dept. of Human Genetics, Amsterdam UMC, University of Amsterdam, Amsterdam; [4]Dept. of Reproduction & Development, Amsterdam UMC, University of Amsterdam, Amsterdam; [5]Center for Experimental and Molecular Medicine, Amsterdam UMC, University of Amsterdam,; [6]Oncode Institute, Amsterdam; [7]Dept. of Molecular Cell Biology & Immunology, Amsterdam UMC, Vrije Universiteit Amsterdam, Amsterdam; [8]Dept. of Surgery, Amsterdam UMC, Amsterdam. [9]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, University of Amsterdam, Amsterdam; [10]Dept. of Medical Oncology, Amsterdam UMC, University of Amsterdam, Amsterdam, The Netherlands. *These authors contributed equally.*

Background: The presence of peritoneal metastases (PM) in patients with colorectal cancer (CRC) significantly worsens overall survival, particularly because of the lack of treatment options. Immune checkpoint blockade (ICB) has demonstrated unprecedented results in metastasized cancers, yet only a minority of CRC responds to ICB. To overcome this resistance to therapy, it is critical to understand the tumor immune microenvironment (TIME). In the setting of peritoneal metastasized cancer, the TIME is likely formed by the peritoneal immune system (PerIS), an immune compartment that has not been characterized in detail yet.

The aim of this study was to characterize the cellular and phenotypical features of the human PerIS and TIME in homeostasis and in patients with peritoneal metastasized colorectal cancer (PM-CRC) to explore potential targets for therapy.

Methods: Patients undergoing scheduled abdominal surgery, which allowed for access to the peritoneal cavity, were included prospectively (n=18). The study population comprised patients with PM-CRC (n=13) and patients with achalasia (n=5), who served as healthy controls (HC). Peritoneal fluid (PF; n=18) and peritoneal tumor (PM-Tx; n=8) samples were obtained perioperative and immune cells were isolated. Characterizing the PF in HC was performed using cellular indexing of transcriptomes and epitopes sequencing (CITE-seq). Single cell RNA-sequencing (scRNA-seq) and immunohistochemistry (IHC) analyses were performed on PM-CRC only.

Results: The PerIS in HC patients harbored significantly more immunosuppressive C1Q$^+$ macrophages (Mϕ, 11.7%) compared to public liver (1.5%) and colon (1.2%) datasets. Furthermore, these C1Q$^+$ Mϕ were increased in the PerIS of PM-CRC patients (15.1%). In PM-Tx, that were almost exclusively microsatellite stable (92.3%), scRNA-seq revealed that the three most abundant subsets were CD8 T effector memory cells, CD4 regulatory T cells and immunosuppressive C1Q$^+$ Mϕ (12%, 10% and 9% respectively). Importantly, IHC demonstrated infiltration of CD163$^+$ immunosuppressive macrophages, but not CD8$^+$ T cells, into the center of PM-Tx.

Conclusion: With this study, we provide an in-depth atlas of the human PerIS and TIME in homeostasis and PM-CRC. The PerIS during homeostasis is a distinct and unique immune system and is characterized by a large amount of immunosuppressive C1Q$^+$ Mϕ. These C1Q$^+$ Mϕ increase within the PerIS upon PM-CRC, dominate the PM-Tx and thus should be considered as key players shaping the TIME in PM-CRC patients. Future studies are aimed at targeting peritoneal Mϕ as an immunotherapeutic strategy to overcome therapy resistance in PM-CRC.

Breath testing for the detection of colorectal cancer in patients with a positive fecal immunochemical test – a multicenter prospective cross-sectional validation study

M.L.M. van Riswijk[1], K.E. van Keulen[1], A.C.I.T.L. Tan[2], R.W.M. Schrauwen[3], W.H. de Vos tot Nederveen Cappel[4], P.D. Siersema[1], [1]Dept. of Gastroenterology and Hepatology, Radboudumc, Nijmegen, [2]Dept. of Gastroenterology and Hepatology, Canisius Wilhelmina Ziekenhuis, Nijmegen, [3]Dept. of Gastroenterology and Hepatology, Bernhoven, Uden, [4]Dept. of Gastroenterology and Hepatology, Isala, Zwolle, The Netherlands

Background: The accuracy of fecal immunochemical testing (FIT) for colorectal cancer (CRC) screening is suboptimal, leading to missed cancers but also unnecessary colonoscopies. Various studies have demonstrated high diagnostic accuracy of volatile organic compound (VOC) analysis for detecting CRC. However, since large scale validation studies are lacking, the true clinical performance is unclear. We therefore validated a previously developed breath test using an electronic nose (e-nose).
Methods: This multicenter cross-sectional study was conducted in 12 Dutch hospitals and included FIT-positive patients aged 55-75 years referred for screening colonoscopy. Exclusion criteria were (partial) colectomy, history of any type of malignancy (not including non-melanoma skin cancer), active colitis, and polyposis syndrome. We used previous study data to build a cross-validated model for CRC, using machine learning algorithms including multilayer perceptron, random forest, and convolutional neural networks. The prediction model was externally validated using current study data from several study devices that were not used in prior studies. If needed, data were partially de-blinded and used to improve model training. Additionally, we used simulation data to assess the effect of varying the number of study devices, sample size, and disease prevalence on model performance. Main outcomes were accuracy in terms of area under the receiver operating characteristics curve (AUC), sensitivity (Sn), specificity (Sp). Secondary outcomes included simulation model evaluation.
Results: Breath testing was performed in 3540 patients with a positive FIT test, of which 255 were secondarily withdrawn due to an incomplete colonoscopy (n=67) or failed or suboptimal breath test (n=188). In 193 patients (5.6%), CRC was diagnosed, 1180 patients (34.0%) had advanced adenoma, 1093 patients (31.5%) had non-advanced adenoma, 137 (4.0%) had hyperplastic polyps, and 864 patients (24.9%) had a normal colonoscopy and served as control group. Based on a threshold that was optimized for ruling out CRC, a Sn of 37.8% and Sp of 69.2% was calculated with an AUC of 0.537 (95% confidence interval 0.491-0.582). Deblinding 2876 (72.6%) patients did not further improve AUC. Simulation data revealed that with a 5% prevalence, 5-8 devices with approximately 100 CRC patients per device are required to build a robust model that is not affected by inter-device or environmental variations.
Conclusion: Exhaled breath VOC testing using e-nose technology currently does not have adequate performance for use in clinical practice. Future studies designs need to include a minimum number of cases per device to be able to predict the presence of malignancy.

Prevalence of autoimmune gastritis and incomplete intestinal metaplasia in patients with premalignant gastric lesions.

F.E. Marijnissen[1], J.K.F. Pluimers[1], J. Honing[1], X. Guo[1], L.G. Capelle[2], I.L. Holster[3], G. Fuhler[1], P.J.F. de Jonge[1], M. Doukas[4], M.C.W. Spaander[1], [1]Dept. of Gastroenterology and Hepatology, Erasmus University Medical Center, Rotterdam, [2]Dept. of Gastroenterology and Hepatology, Meander Medical Center, Amersfoort, [3]Dept. of Gastroenterology and Hepatology, Maasstad Hospital, Rotterdam, [4]Dept. of Hepatology, Erasmus University Medical Center, Rotterdam, The Netherlands

Background: Patients with gastric intestinal metaplasia (GIM) have an increased risk of developing gastric cancer (GC), the presence of additional risk factors may increase this risk. The presence of incomplete intestinal metaplasia (IIM) although included as a risk factor in the European guideline is still a topic of debate and is not routinely carried out in many Western countries. In addition, accurately diagnosing autoimmune gastritis (AIG) and the severity of GIM (operative link for gastric intestinal metaplasia (OLGIM)), two other risk factors, can be challenging. As a result, the prevalence of these three risk factors in GIM patients remains unclear, especially in Western countries with a low prevalence of GC. Therefore, our aim was to assess the presence of OLGIM stages, IIM and AIG in GIM patients and compare the findings with the initial pathology report.
Methods: We included GIM patients, recruited within the PROREGAL study, with pathology slides available. All participants received an upper endoscopy with biopsies according to the updated Sydney protocol. All biopsies were reassessed for OLGIM score, IIM, AIG, and compared to the initial pathology report. Participants were categorized into high and low-risk based on histopathological risk factors, including OLGIM ≥ III, IIM, AIG or GIM involvement of antrum and corpus.
Results: A total of 113 participants with GIM were included. The median age at endoscopy was 61 years (49-70), with 52.2% being male. After reassessment, the distribution of OLGIM stages was as follows: OLGIM I 55,8%, OLGIM II 31.0%, OLGIM III 9.7%, OLGIM IV 3.5%. IIM was identified in 11 (9.7%) participants, while initial or pathology reports did not mention OLGIM stage or IIM. A histopathological diagnosis of AIG was made in 23 participants (20.4%) after reassessment, compared to 10 (8.8%) reported in the initial pathology report ($p<0.001$). The number of patients classified as high-risk significantly increased when OLGIM, IIM and AIG were reassessed, 61.1% versus 48.7% ($p<0.001$) respectively.
Conclusion: In our study performed in a Western country with low GC risk, the prevalence of OLGIM ≥ III, IIM, and AIG among patients with GIM, after histopathological reassessment, was 13.2%, 9.7%, and 20.4% respectively. OLGIM, IIM and AIG were significantly underdiagnosed at initial endoscopy, leading to a substantial underestimation of the proportion of high-risk patients. These findings highlight the difficulties in accurately diagnosing these conditions and the possible challenges in integrating these factors in surveillance. Further research is needed to investigate the impact especially of AIG -based on the high prevalence- on long-term disease progression.

Anti-reflux mucosectomy for gastroesophageal reflux disease: efficacy and mechanism of action

T. Kuipers, R.A.B. Oude Nijhuis, R.E. Pouw, A.J. Bredenoord, Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, The Netherlands

Background: A substantial part of patients with gastroesophageal reflux disease (GERD) responds insufficiently to pharmacological therapy. Therefore, a novel anti-reflux endoscopic procedure - anti-reflux mucosectomy (ARMS) - has been developed. Previous studies suggest that ARMS is effective in reducing reflux symptoms and total acid exposure, although the mechanisms through which reflux is reduced is unknown.
Methods: GERD patients with insufficient symptom control despite twice daily PPI underwent a piecemeal multiband mucosectomy of 50% of the circumference of the esophago-gastric-junction (EGJ), extending 2cm into the cardia. The main study parameter was the total number of reflux episodes assessed during 24-h pH-impedance studies. Secondary endpoints were: acid exposure time, number of reflux episodes, prevalence of transient lower esophageal sphincter relaxations (TLESRs), EGJ morphology and distensibility, symptoms and quality of life and occurrence of complications.
Results: 11 patients were treated, of which follow-up is complete in 9 patients (6 men, median age 37 (36-61) years, mean BMI 28.7 (±3.1) kg/m2). ARMS reduced the total number of reflux episodes from 71 (59.5-82.5) to 39 (28-67)(p=0.018), resulting in a reduction of both acidic (63 (50-73) vs 36 (23-55), p=0.012) and weakly acidic reflux episodes (8 (4-17) vs 4 (4-5), p=0.093). The total acid exposure was reduced from 9% (6.5-13.8) to 5.3% (4.0-6.4) (p=0.036). The 90-minute post-prandial measurement showed an acid exposure time of 16.6% (3.1-30.2) after treatment compared to 11.2% (4.6-33) at baseline (p=0.767). Number of acidic (6 (3-10) vs 8 (1.5-13), p=0.953) and weakly acidic reflux episodes (0 (0-1) vs 0 (0-0.5), p=0.680) were not significantly reduced. Treatment reduced the number of TLESRs after treatment (from 4 (1-7.5) to 2 (0.5-4.5), p=0.048). Reflux symptoms were reduced substantially (RDQ from 3.8 (3.1-4.0) to 1.4 (0.6-2.8), p=0.008) and GERD-health related quality of life improved substantially as well (28 (21-32) to 15 (6-24), p=0.012). There was no effect of treatment on dysphagia symptoms (Brief Esophageal Dysphagia Questionnaire (BEDQ) of 8.9 (±7.4) vs 9.2 (±6.5) (p=0.880). Impedance planimetry showed no changes in distensibility after treatment (3.6 (±1.2) mm^2/mmHg vs 4.4 (±1.2) mm^2/mmHg), p=0.375). One delayed post-procedural bleeding (11%, (1/9)) occurred requiring repeat endoscopy.
Conclusion: Preliminary results show that ARMS is a successful treatment option in PPI refractory GERD patients reducing both reflux episodes and symptoms. While the mechanism could not be explained by a difference in distensibility, a reduction in TSLERs might play a role.

Adverse events of endoscopic ultrasound-guided fine-needle aspiration and fine-needle biopsy in pancreatic neuroendocrine tumors: a systematic review

J.W. Chen[1], A.V.D. Verschuur[6], A.H. Abdelmonem[1], K.M.A. Dreijerink[2], A.F. Engelsman[1], C. Luchini[3], R.L.J. Van Wanrooij[4], K.A. Ziesemer[5], L.A.A. Brosens[6], E.J.M. Nieveen van Dijkum[1], [1]Dept. of Surgery, Amsterdam UMC, Amsterdam, [2]Dept. of Internal Medicine, Amsterdam UMC, Amsterdam, [3]Dept. of Pathology, University Hospital of Verona, Verona, Italy, [4]Dept. of Gastroenterology, Amsterdam UMC, Amsterdam, [5]Medical Library, Amsterdam UMC, Amsterdam, [6]Dept. of Pathology, UMC Utrecht, Utrecht, The Netherlands

Background: Pancreatic neuro-endocrine tumors (pNET) are diagnosed using imaging techniques such as CT and/or MRI scans combined with ^{68}Ga-DOTATATE PET/CT. Imaging is suitable for the diagnosis, however tissue examination is essential for determining tumor grade, which helps predict tumor behavior, recurrence risk and guide patient management. Guidelines recommend endoscopic ultrasound-guided tissue retrieval through fine-needle aspiration (EUS-FNA) or fine-needle biopsy (EUS-FNB). Currently, EUS-FNA is used more, but their cellularity is usually limited and insufficient for additional analyses. Whereas EUS-FNB has a higher diagnostic yield, diagnostic accuracy and succesfull grading. However, the hypervascular nature of pNET gives rise to concerns regarding increased risks for adverse events after EUS-FNB and might be impeding the implementation of this modality as standard care. This systematic review aimed to provide an overview of the adverse events reported in literature for EUS-FNA and EUS-FNB in pNET.
Methods: Embase, OVID/Medline and Web of Science were searched up to May 2023 for studies that reported the rate of adverse events after EUS-FNA and/or EUS-FNB in solid pNET. This study followed PRISMA and CHARMS guidelines. Quality of studies was assessed using the Newcastle-Ottowa Scale.
Results: Twenty-five studies with 1663 pNET patients were included; 18 studies on EUS-FNA, 5 on EUS-FNB and 2 on both. The median sample size was 33 (IQR 13–65) for FNA studies and 15 (IQR 11–31) for EUS-FNB. The adverse event rate after EUS-FNA was 2.6% (34/1331), of which acute pancreatitis was most prevalent (1.4%, 18/1331), followed by mild bleeding (1.1%, 14/1331) and abdominal pain (0.2%, 2/1331). After EUS-FNB, adverse events occurred in 0.9% (3/341), one case of acute pancreatitis (0.3%) and two cases of mild bleeding (0.6%). The relative risk of adverse events after EUS-FNB compared to EUS-FNA was 0.34 (95% CI 0.11–1.11, p=0.075).
Conclusion: This systematic review supports EUS-FNB to be a safe procedure for pNET with a lower adverse event rate than EUS-FNA (2.6% vs 0.9%). Given the limited number of studies on EUS-FNB, their small sample sizes and the overall low event rate, there is a potential of missing adverse events associated with this diagnostic modality. EUS-FNB holds clinical significance beyond just grading, particularly with regards to molecular biology testing, and therefore warrants implementation. Studies with substantial cohorts investigating adverse event rates in EUS-FNB are needed. In conclusion, considering the high diagnostic efficacy and the low adverse event rate of EUS-FNB, implementation into standard diagnostic care for pNET is recommended.

Prophylactic Clipping prevents Delayed Bleeding after Endoscopic Mucosal Resection of large non-ampullary duodenal lateral spreading lesions

G. Kemper[2], C. Gerges[1], A. Jonkers[2], T. Beyna[3], P.D. Siersema[2], [1]Dept. of Gastroenterology and Interventional Endoscopy, Evangelical Hospital Düsseldorf, Düsseldorf, Germany, [2]Dept. of Gastroenterology and Hepatology, Radboudumc, Nijmegen, The Netherlands, [3]Dept. of Gastroenterology and Hepatology, Evangelical Hospital Düsseldorf, Düsseldorf, Germany

Background: Non-ampullary duodenal polyps account for a group of rare tumors of the gastrointestinal tract. Although small lesions are relatively easy to remove, resection of larger lesions require more advanced techniques like endoscopic mucosal resection (EMR). Although this technique is considered safe, the most prevalent complication is delayed bleeding (DB) with considerable incidence rates of up to 26%. In this study, we aimed to assess whether prophylactic clipping (PC) reduces DB rates after EMR of large duodenal non-ampullary lateral spreading lesions.
Methods: We retrospectively collected data from consecutive duodenal EMRs of non-ampullary lateral spreading lesions ≥15mm performed between 2019 and 2022 at two medical centers in the Netherlands and Germany.
Results: A total of 186 polyps with a mean size of 25mm were included in this study. Most were tubular adenomas (55%) and contained low-grade dysplasia (84%). PC of the resection site was performed in 84 patients (45%). The overall DB rate was 13% (24/186). DB occurred after 3/84 cases with PC versus 21/102 cases without PC (4% versus 21%, $p<0.01$). With an odds ratio of 0.22, multivariate analysis identified PC as a statistically significant predictor for preventing DB (95% CI 0.06–0.85; $p=0.03$).
Conclusion: PC of the resection site significantly reduced DB after EMR of large non-ampullary duodenal lateral spreading lesions.

Outcome of bilairy drainage in daily clinical practice: a multicenter, retrospective analysis.

A. Aznou[2], D. Berkhout[2], B.W. van der Spek[1], G.D. Heine[1], M.A.J.M. Jacobs[2], J.E. van Hooft[3], P. Fockens[2], R. Voermans[2], R.L.J. van Wanrooij[2], [1]Dept. of Gastroenterology and Hepatology, NoordWest Ziekenhuisgroep, Alkmaar, [2]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, location VUmc, Amsterdam, [3]Dept. of Gastroenterology and Hepatology, Leiden University Medical Center, Leiden, The Netherlands

Background: Endoscopic retrograde cholangiopancreatography (ERCP) is the primary drainage strategy for obstructive biliary disease. However, ERCP fails in 3-16% of patients. Biliary drainage may then be achieved by repeat ERCP by an expert endoscopist, percutaneous transhepatic biliary drainage (PTBD) or endosonography-guided biliary drainage (EUS-BD). We aimed to analyze (1) technical failures of ERCP in patients with a naïve papilla, and (2) outcome of alternative techniques used to achieve biliary drainage.
Methods: This study is a multicenter, retrospective analysis of all consecutive patients with a naïve papilla undergoing an ERCP between 2016 and 2020 in a large teaching hospital and a tertiary care center. Patients with hilar stricture(s) and altered anatomy were excluded. Primary outcome was technical success of ERCP or alternative technique. Risk factors for failure were evaluated. Secondary outcomes included adverse events and re-interventions. Patients were followed-up until adequate and permanent biliary drainage was achieved, surgery was performed, or the patient deceased.
Results: A total of 1380 ERCP's were performed in patients with a naïve papilla of which 827 (59.9%) were treated in an academic setting. Overall technical success was 87.5% and was significantly higher in benign biliary disease than in malignant biliary disease (93.4% vs 77.2% p<0.01). Risk factor for failure were malignant biliary obstruction (OR = 4.79, 95%CI: 3.34;6.88, p <0.01), a history of previous failed ERCP (OR = 4.73, 95%CI: 2.83;7.90, p < 0.01) and teaching hospital (OR = 1.96, 95%CI: 1.33;2.87, p < 0.01). In 173 patients primary ERCP failed and rescue strategy included repeat ERCP (n=93; 53.8%), PTBD (n=44; 25.4%), EUS-BD (n=12; 6.9%), surgery (n=2; 1.1%) or no reintervention (n=22; 12.7%). Technical success of repeat ERCP, PTBD and EUS-BD were 75.3%, 84.1% and 83.3% (p=0.24), respectively. Procedure-related adverse event rates were 15.0% vs 24.8% vs 8.3% (p=0.08). Total number of reinterventions was higher after PTBD when compared to repeat ERCP 2.0 (1.0-3.0) vs 1.0 (1.0-2.0; p <0.01).
Conclusion: Technical success of ERCP was high in benign biliary disease but failed in a substantial group of patients with malignant disease. Repeat ERCP and PTBD showed similar technical success rates, while repeat ERCP was associated with fewer reinterventions. Early experience with EUS- showed promising results.

Unravelling the role of the lymphatic system in the development of immunogenicity to biologics in Inflammatory Bowel Disease patients

D. Nikolakis[2], M.J. Pruijt[1], M.G.H. Sande[2], J. Grootjans[1], G.R.A.M. D'Haens[1], [1]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, Amsterdam, [2]Dept. of Rheumatology, Amsterdam UMC, Amsterdam, The Netherlands

Background: Therapeutic progress in inflammatory bowel disease (IBD) is limited by the lack of understanding of the pathophysiology and the mechanisms involved in response or lack/loss of response to treatments. IBD patients are treated with anti-inflammatory drugs, including biologics such as anti-tumor necrosis factor (TNF) agents, which have been crucial in achieving steroid-free remission and prevention of long-term complications. However, a significant subgroup of patients becomes refractory to these biologicals due to the development of immunogenicity, characterized by the presence of anti-drug antibodies (ADAs). The antibody production and peripheral tolerance are initiated and maintained within lymphoid organs, such as the peripheral lymph nodes, but the exact role of immune cells in these lymphoid structures and whether they are involved in anti-drug antibody (ADA) formation is unknown.
Methods: We aimed to unravel the pathophysiology behind the development of anti-drug antibodies. Therefore, we performed ultrasound-guided inguinal lymph node needle biopsies from which we isolated leukocytes along with PBMCs from the same patients. Leukocyte populations were analyzed at single cell level via high dimensional phenotyping through mass cytometry (CyTOF).
Results: Using this unique approach, we have so far results from 4 Crohn's Disease (CD) patients with ADAs (75% females, 50% active disease) and 4 without ADAs (50% females, 75% active disease). Active disease was defined, as an observation of an elevated CRP (c-reactive protein) (>5 mg/L) and/or calprotectin >250 (mg/kg), including symptoms (Harvey-Bradshaw index score > 4 or disease activity index score-CDAI >150).The proportion of $CD4^+$ TEMRA (terminally differentiated effector memory T-cells) (p-value=0.02), $CD4^+$ effector (p-value=0.049) and central memory T-cells were increased in the peripheral lymph nodes of patients that developed immunogenicity. Mature NK cells, classical and non-classical monocytes were also increased (p-value=0.03). Furthermore, the levels of the alpha-4 integrin expression were higher in the lymph node T-lymphocytes, as well as, in the lymph node naïve and memory B-cell subsets in the patient group with ADAs (p-value=0.03).
Conclusion: Lymph node T-helper cells, monocytes and NK cells potentially play a role in the development ADAs in IBD patients treated with biologics. Although, there was no significant difference in the proportion of naïve and memory B-cells, our findings concerning the alpha-4 integrin expression levels also indicate that both lymph node T and B-lymphocytes, are possibly characterized by a higher migratory potential during immunogenicity conditions.

The feasibility and safety of the motorized spiral enteroscope for endoscopic balloon dilatation of strictures in Crohn's disease: A case series

W.F.W. Kappelle[1], P.G.A. Van Boeckel[1], J. Tenthof van Noorden[1], H.H. Fidder[2], N. Mahmmod[1], A. Al-Toma[1], [1]Dept. of Gastroenterology, Antonius Ziekenhuis, Nieuwegein, [2]Dept. of Gastroenterology, UMC Utrecht, The Netherlands

Background: Motorized spiral enteroscopy (MSE) has shown to be safe and effective for deep small bowel enteroscopy in patients with and without prior abdominal surgery, including patients with Crohn's disease. This case series reports our first experience regarding the feasibility and safety of the MSE with endoscopic balloon dilatation in patients with small bowel strictures due to Crohn's disease.
Methods: Data were collected retrospectively on patients who underwent MSE for endoscopic balloon dilatation of small bowel strictures due to Crohn's disease. Strictures were either postoperative (P.O.) or post-inflammatory (P.I.).
Results: Ten consecutive patients with Crohn's disease underwent 13 procedures. Propofol sedation without endotracheal intubation was used in all procedures. The procedure was technically successful in 12/13 of procedures. In one case, dilatation was not performed because of a longer than anticipated and sharply angulated stricture. The number of treated strictures ranged from one to five per procedure.One patient underwent three procedures with 3–4 month intervals; during the third procedure triamcinolone acetonide was injected at four quadrants of the stricture. Fluorescence imaging was used during six procedures. Dilatation of multiple strictures in two patients was achieved within a relatively short procedure duration of 55 and 70 minutes. Two retained video capsules were retrieved. Besides the anticipated mild abdominal discomfort and/or sore throat in three patients, no adverse events occurred.
Conclusion: These retrospective data show that MSE with CRE dilatation is feasible and safe in a cohort of patients with strictures due to Crohn's disease, both post-operatively and post-inflammatory. The fact that the distal 16 cm of the endoscope are not covered by the spiral overtube makes cautious introduction of the endoscope beyond a recently dilated stricture feasible and safe. Therefore, dilatation of multiple strictures in one session is possible, provided that they are at a short distance from each other. Fluorescence imaging guidance may be helpful in severe stenosis, multiple strictures, or sharp angulations.

Intended uptake and preferences for oesophageal adenocarcinoma screening: a population-based survey

J. Sijben[1], L. Rainey[2], F. Maas[1], M.J.M. Broeders[2], P.D. Siersema[1], Y. Peters[1], [1]Dept. of Gastroenterology and Hepatology, Radboudumc, Nijmegen, [2]Dept. of Health Evidence, Radboudumc, Nijmegen, The Netherlands

Background: Screening for early oesophageal adenocarcinoma (OAC) has the potential to reduce OAC-related mortality and morbidity. However, it is unknown which screening method and/or eligibility criteria the target population would find acceptable for a potential future screening program.
Methods: In this ongoing online population-based survey, we aim to identify Dutch individuals' perceived barriers and facilitators to the uptake of OAC screening and their preferences regarding screening method and organization. We aim to include 2088 Dutch adults aged 45-75 years, who will be randomly assigned to three screening test scenarios (i.e., transnasal endoscopy, ingestible cell-collection device, or breath analysis). The primary outcome is intended participation. Secondary outcomes include anticipated discomfort, acceptability of test performance and eligibility criteria (on a Likert scale: 1 = not acceptable, 7 = extremely acceptable), and preferences regarding invitation, counselling, and diagnostic follow-up. Enrolment will end in June 2023.
Results: As per 12 April, 1653 participants have been included (49% male, 96% white, 22% with upper endoscopy experience). Preliminary analyses show that intended uptake of screening was highest in the breath analysis scenario (97%), followed by ingestible cell-collection devices (76%), and transnasal endoscopy (68%) ($p<0.001$). Having symptoms of gastro-oesophageal reflux disease (GORD) and having a high perceived risk of OAC are both associated with a positive intention to participate in screening. High anticipated discomfort and having negative beliefs about cancer screening are associated with negative intent. Inviting only men was less acceptable to women (mean score of 3.9 [±2.0]) than to men (5.2 [± 1.9]). Using a risk algorithm was generally accepted, and most individuals were willing to provide personal information (e.g., on smoking: 6.3 [±1.1], skin colour: 6.2 [±1.2], family history: 6.1 [±1.2], waist circumference: 5.9 [±1.4], access to medical file: 5.7 [±1.5]), and a blood sample (6.1 [±1.2]). The majority (61%) preferred to be invited by a public health organization and 34% of the participants preferred to discuss their decision to participate in screening with a health care professional.
Conclusion: These preliminary results suggest that Dutch individuals generally intend to participate in OAC screening, with a preference for the breath analysis test/non-invasive screening methods over cell-collection devices and transnasal endoscopy. Determining screening eligibility based on age, GORD, or personal information, would be acceptable to most individuals. Male gender appears to be the least acceptable eligibility criterion.

The impact of a complete biochemical response on health-related quality of life in patients with autoimmune hepatitis: an international prospective cross-sectional study

R.J.A.L.M. Snijders[1], M.K. Janik[2], M. Mund[3], A. Gerussi[4], F. Bolis[4], L. Cristoferi[4], P. Invernizzi[4], P. Kovats[5], M. Papp[5], L. Grønbæk[6], H. Grønbæk[6], E.T.T.L. Tjwa[1], L. Aamann[7], H. Ytting[7], V. Ronca[8], K. Olsen[9], Y.H. Oo[9], A. van der Meer[10], J. Madaleno[11], B. Canhão[11], B. Engel[12], A. Campos-Murguia[12], R. Taubert[12], O.M. Koc[13], M. Kramer[13], J.A. Willemse[14], B. Löwe[15], A.W. Lohse[16], J.P.H. Drenth[1], C. Schramm[16], P. Milkiewicz[2], T.J.G. Gevers[13], [1]Dept. of Gastroenterology and Hepatology, Radboudumc, Nijmegen, The Netherlands, [2]Dept. of Gastroenterology and Hepatology, Medical University of Warsaw, Warsaw, Poland, [3]Dept. of Gastroenterology and Hepatology, Martin Zeitz Centre for Rare Diseases, Hamburg, Germany, [4]Dept. of Gastroenterology and Hepatology, University of Milano-Bicocca, Monza, Italy, [5]Dept. of Gastroenterology and Hepatology, University of Debrecen , Debrecen, Hungary, [6]Dept. of Gastroenterology and Hepatology, Aarhus University Hospital, Aarhus, Denmark, [7]Dept. of Gastroenterology and Hepatology, Hvidovre University Hospital and Rigshospitalet, Copenhagen, Denmark, [8]Laboratory for Experimental Oncology and Radiobiology (LEXOR), Queen Elizabeth Hospital, Birmingham, United Kingdom, [9]Liver Unit, Cambridge University Hospitals NHS Foundation Trust, Queen Elizabeth Hospital, Birmingham, United Kingdom, [10]Dept. of Gastroenterology and Hepatology, Erasmus Medical Center, Rotterdam, The Netherlands, [11]Dept. of Gastroenterology and Hepatology, Centro Hospitalar e Universitário de Coimbra, Coimbra, Portugal, [12]Dept. of Gastroenterology and Hepatology, Hannover Medical School, Hannover, Germany, [13]Dept. of Gastroenterology and Hepatology, Maastricht University Medical Center, Maastricht, The Netherlands, *[14]Dept. of Gastroenterology and Hepatology, Dutch Liver Patients Association, Hoogland, The Netherlands, [15]Dept. of Psychiatry, University Medical Center Hamburg-Eppendorf, Hamburg, Germany, [16]Dept. of Gastroenterology and Hepatology, University Medical Center Hamburg-Eppendorf, Hamburg, Germany*

Background: Autoimmune hepatitis (AIH) is a rare, chronic liver disease. A complete biochemical response (CBR) is a desired endpoint in the treatment of AIH. Data suggest that CBR improves the prognosis, but the impact on health-related quality of life (HRQoL) in AIH patients is unclear. The aim of this study is to characterise the relationship between CBR and HRQoL in an international multicentre cohort.

Methods: A cross-sectional cohort study was performed in adult patients with AIH who were recruited between July 2020 and December 2022 from 12 European tertiary centres. Patients with a history of liver transplantation or hepatocellular carcinoma were excluded. HRQoL was evaluated using the EQ-5D visual analogue scale (VAS), ranging from 0 (worst imaginable health) to 100 (best imaginable health). The cohort was divided into two groups according to their CBR, which was defined as normal alanine aminotransferase, aspartate aminotransferase, and immunoglobulin G levels. Clinical data were obtained from patient records at the time of HRQoL evaluation. A linear mixed regression analysis was used to explore the relationship between CBR and EQ-5D VAS score.

Results: A total of 980 patients with AIH (mean age: 50 years (standard deviation (SD) 17); 73.8% female) were evaluated. A total of 25.7% had cirrhosis. The median disease duration was six years (interquartile range (IQR) 2-11). In this cohort, 427 (43.7%) had a CBR at the time of HRQoL evaluation. The median EQ-5D VAS score was 80 (IQR 65-90) in the patients with a CBR and 75 (IQR 60-85) in the patients without a CBR. Patients with a CBR were less likely to have cirrhosis (21.5% vs. 28.9%, p=0.009), used fewer corticosteroids (47.5% vs. 63.8%, p <0.001), and were older (mean (SD) 52 (17) vs. 48 (17), p = 0.002). After controlling for age, sex, cirrhosis, variant syndrome, and corticosteroid use, patients with a CBR reported significantly higher mean EQ-5D VAS scores than those without a CBR (β = 4.05; 95% CI 1.65, 6.44). We did not observe any association between corticosteroid use and the EQ-5D VAS score.

Conclusion: Achieving CBR in patients with AIH is an important independent factor associated with improved HRQoL.

Decoding donor and recipient cell dynamics in the small bowel graft within six months post-transplantation

N. Karmi[1], W.T.C. Uniken Venema[2], R. Oelen[1], E. Bigaeva[1], M.G.P. van der Wijst[1], M.X.L. Dijkema[1], S. de Jong[1], J.W. Haveman[1], F. van der Heide[1], R.K. Weersma[1], E.A.M. Festen[1], G. Dijkstra[3], [1]Dept. of Gastroenterology and Hepatology, UMCG, Groningen, [2]Dept. of Gastroenterology and Hepatology, UMCG, Groningen, [3]Dept. of Gastroenterology and Hepatology, University Medical Center Groningen, Groningen, The Netherlands

Background: Small bowel transplantation is the treatment for irreversible intestinal failure when total parenteral nutrition leads to complications. However, rejection rates remain high with ten-year graft survival of 50%. This may be due to the complexity of gut immunology, being the largest immune cell reservoir with constant antigen exposure. An understanding of the repopulation and regulation of these cells in the donor graft and its association with rejection and therapy is lacking. Here we present an explorative case study of the cellular landscape over time in three small bowel transplanted patients with and without rejection.
Methods: All patients received standard medical care. Clinical events were collected. 28 biopsies of the ileal graft were sampled from transplantation up to six months post-transplantation. All biopsies were scored by a pathologist for signs of rejection. Samples were dissociated and profiled using single-cell RNA sequencing. Afterwards, we applied the package Souporcell to distinguish donor from recipient cells and used the Seurat package for gene expression analyses.
Results: All patients received thymoglobulin and methylprednisolone as induction therapy. Patient 1 experienced grade I rejection and patient 2 faced grade II rejection and recovered successfully. Upon grade III rejection patient 3 received infliximab and alemtuzumab and underwent explantation. We recovered 83205 donor and 7077 recipient cells and annotated 41 cell types. We found no consistent growth of the recipient immune cell population over time. In successful transplantation, we observe an increase in recipient and a decrease in donor T and myeloid cells over time. Moreover, B cells stabilize, epithelial cells normalize to baseline levels and stromal cells increase over time. In mass rejection, we find total depletion of epithelial cells. After treatment with thymoglobulin, donor T cells decreased in patients 1 and 3. Administration of methylprednisolone in grade II rejection showed initial suppression of T cells in patient 2 and thereafter enhanced T cell presence. In this pilot study, we see a larger T cell population in thymoglobulin non-response, however, this was not accompanied by Th17 cell persistence as previously reported in literature.
Conclusion: Despite immunosuppression donor immune cells are still present at 6 months post-transplantation. The effect of immunosuppressive medication on clinical outcomes and cell type composition is variable between patients. In successful transplantation, an expected increase in recipient immune cells and a decrease in donor immune cells is observed. Lack of recovery and the ongoing depletion of epithelial cells marks therapy-resistant rejection.

Do we need to re-evaluate the role of fine-needle aspiration in infected necrotizing pancreatitis in the post-POINTER era?

H.S. Pauw[1], H.C. Timmerhuis[1], L. Boxhoorn[2], M.G. Besselink[3], M.A. Boermeester[4], M.J. Bruno[5], A.C.I.T.L. Tan[6], P. van Duijvendijk[7], T. Römkens[8], M.P. Schwartz[9], N.G. Venneman[10], J.M. Jansen[11], M.W.J. Stommel[12], R. Quispel[13], B.J. Witteman[14], W.L. Curvers[15], T.C. Seerden[16], W.L. Hazen[17], S.A.W. Bouwense[18], M.B.W. Spanier[19], R.C. Verdonk[20], R.P. Voermans[21], H.C. van Santvoort[1], F.F. van den Berg[22], [1]Dept. of Surgery, St. Antonius Ziekenhuis, Nieuwegein, [2]Dept. of Gastroenterology and Hepatology, Amsterdam UMC, location University of Amsterdam, Amsterdam, [3]Dept. of Gastrointestinal Surgery, Amsterdam UMC, location University of Amsterdam, Amsterdam, [4]Dept. of Surgery, Amsterdam UMC, location University of Amsterdam, Amsterdam, [5]Dept. of Gastroenterology and Hepatology, Erasmus MC, Rotterdam, [6]Dept. of Gastroenterology and Hepatology, Canisius Wilhelmina Ziekenhuis, Nijmegen, [7]Dept. of Surgery, Gelre Ziekenhuizen, Apeldoorn, [8]Dept. of Gastroenterology, Jeroen Bosch Ziekenhuis, Den Bosch, [9]Dept. of Gastroenterology and Hepatology, Meander Medisch Centrum, Amersfoort, [10]Dept. of Gastroenterology and Hepatology, Medisch Spectrum Twente, Twente, [11]Dept. of Gastroenterology and Hepatology, Onze Lieve Vrouwe Gasthuis, Amsterdam, [12]Dept. of Surgery, Radboud Medical Center, Nijmegen, [13]Dept. of Gastroenterology, Reinier de Graaf Gasthuis, Delft, [14]Dept. of Gastroenterology, Ziekenhuis Gelderse Valei, Ede, [15]Dept. of Gastroenterology, Catharina Hospital, Eindhoven, [16]Dept. of Gastroenterology, Amphia Hospital, Breda, [17]Dept. of Gastroenterology, Elizabeth TweeSteden Hospital, Tilburg, [18]Dept. of Surgery, Maastricht UMC+, Maastricht, [19]Dept. of Gastroenterology, Rijnstate Hospital, Arnhem, [20]Dept. of Gastroenterology, St. Antonius Hospital, Nieuwegein, [21]Dept. of Gastroenterology and Metabolism, Amsterdam UMC, Amsterdam,
[22]Dept. of Microbiology and Immunology , Amsterdam UMC, location University of Amsterdam, Amsterdam, The Netherlands

Background: Percutaneous fine needle aspiration (FNA) is not routinely performed to diagnose infected necrosis in necrotizing pancreatitis. The recent POINTER trial showed that antibiotic treatment while delaying the drainage of infected necrosis can potentially prevent the need for drainage procedures in one-third of patients. A disadvantage of delaying drainage is the lack of cultures to guide antibiotic treatment. FNA may contribute to the determination of the appropriate antibiotic regime. Our aim was to assess the potential impact of FNA on antibiotic treatment in a large cohort of necrotizing pancreatitis.

Methods: A post-hoc analysis of the subgroup of patients included in the Dutch prospective registry with necrotizing pancreatitis (CTSI score ≥3) registry who underwent FNA between 2010 and 2020. A fisher exact test was used for the descriptive analysis.

Results: From a total of 607 patients with necrotizing pancreatitis , FNA was performed in 72 patients (12%). In 58/72 patients (81%) FNA was positive for bacteria and/or yeast. An endoscopic ultrasound FNA (EUS-FNA) was obtained in 11/72 patients (15%). Nine out of 11 patients who underwent EUS-FNA had positive culture results and all were polymicrobial, as compared to 14/49 (29%) with percutaneous FNA ($p<0.001$). *Candida* species were also more frequently cultured following EUS-FNA (55%) compared to percutaneous (10%, $p=0.005$). The most cultured species from percutaneous FNA were E. coli (n=14), *E. faecalis/faecium* (n=13), and *C. albicans/glabrata* (n=7).

Out of the 55 patients with data available on antibiotic use (76%), 28 patients (51%) received antibiotics at the time of FNA. Based on the percutaneous FNA, 5/23 patients (22%) received antibiotics with insufficient coverage. Of the 72 patients undergoing FNA, 54 patients (75%) underwent subsequent drainage of a (peri-)pancreatic collection. and 48 of those samples were sent for culturing. The median time between the FNA and drainage culture was 13 days (range 0 – 83). The level of agreement between percutaneous FNA and drainage cultures in terms of species identification was on average 40% (IQR 100).

Conclusion: In 22% of patients with necrotizing pancreatitis who underwent FNA and were treated with antibiotics at that time, the antibiotics had insufficient coverage. Bacterial species that are poorly covered by empirical antibiotics, such as *Enterococcus* and *Candida* species, were frequently found by FNA. Cultures from EUS-FNA have a high risk for oral and gastric contamination. The long-time interval and in-between antibiotic administration seems to heavily impact the level of agreement between the FNA and drainage cultures.