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Irish Society of Gastroenterology

Winter Meeting

19 - 20 November 2015
Fitzpatrick Castle Hotel
Killiney, Co. Dublin

Asacolon 400mg & 800mg GR Tablets
Once Daily treatment for the maintenance
of remission in ulcerative colitis

ASACOLON®
mesalazine
On Target for Remission



9 OUT OF **10** patients treated with once daily
delayed-release oral mesalazine
maintain clinical remission at month 6⁽¹⁾

ASACOLON® 400mg and 800mg GR Tablets: Delayed-release, oblong, coated tablets each containing 400mg or 800mg mesalazine. **INDICATIONS:** Treatment of mild to moderate ulcerative colitis. Maintenance of remission of ulcerative colitis. Maintenance of surgically-induced remission of Crohn's disease. **DOSE AND ADMINISTRATION:** Oral use. To be swallowed whole (not chewed) with liquid before food. **Adults: Ulcerative colitis:** Initiation of treatment: 2.4g daily in divided doses. If required the dose may be increased to 4.8g daily. Maintenance of remission: 400mg tablets: 1.2 to 2.4g per day, once daily or in divided doses. 800mg tablets: 1.6 to 2.4g per day, once daily or in divided doses. **Crohn's Disease:** Maintenance of post-surgical remission: 2.4g per day, once daily or in divided doses. **Elderly:** As for adults, unless renal or hepatic function is impaired. **Children:** Limited data are available. Children aged 6 years and over: **Active disease:** Initiation of treatment: 2.0 to 3.0g daily in divided doses, maximum 750mg/shift. Remission: 4.0g daily. Maintenance: 1.0 to 1.5g daily in divided doses, do not exceed 2.0g/shift. **CONTRAINDICATIONS:** History of allergy to salicylates. Hypersensitivity to mesalazine or any excipient. Severe hepatic or renal impairment. Gastric and duodenal ulcers. **Children aged under two years:** **PRECAUTIONS AND WARNINGS:** Prior to therapy evaluate renal function and conduct hematologic investigations, including complete blood count. Consider low-threshold testing prior to therapy. During therapy, regularly monitor hepatic and renal function, and hematological values. Not for orally patients with renal impairment. Patients with pulmonary disease, particularly asthma, must be carefully monitored. Caution in patients with mood/food area, proteinuria, liver impairment, previous renal or pericarditis of idiopathic origin, and in the elderly. Not for use in patients with a history of mesalazine-induced contact hypersensitivity. Monitor closely in patients sensitive to sulfasalazine. Immediately discontinue treatment and seek medical attention for acute symptoms of intolerance such as abdominal cramps or acute pain, fever, severe headache or rash, or symptoms of blood dyscrasia such as unexplained bleeding, haematuria, purpura, or anemia, persistent fever or sore throat. Data in children (aged 6 to 16) are limited. Tablets contain lactose (2.5mg/52mg) not for lactose-intolerant patients. Ingest tablets in stool may be empty tablet coating. **INTERACTIONS:** Sulfasalazine increases absorption of digoxin, but no data on interaction of digoxin with mesalazine. Mesalazine can increase the immunosuppressive effects of azathioprine, 6-mercaptopurine, or thioguanine; concurrent use may precipitate leukopenia. Life-threatening infection may occur. Patients should be closely observed for signs of infection and neutropenia. Leukocyte and lymphocyte cell counts should be monitored weekly, especially at initiation of azathioprine therapy. Concurrent use of respiratory agents, such as NSAIDs, and/or corticosteroids, may increase the risk of renal reactions. Mesalazine may decrease the anticoagulant effect of warfarin. **USE DURING PREGNANCY AND LACTATION:** Limited data on use in pregnancy; more frequent obstetric surveillance cannot be excluded. One case of neonatal renal failure was reported. Mesalazine crosses the placental barrier. Asacolon should only be used during pregnancy if the benefit outweighs the risk. Caution required if using high doses. N-acetyl-5-aminosalicylic acid and mesalazine are present in breast milk. The clinical significance has not been determined. Limited data on lactation are available. Hypersensitivity reactions such as reactions in the infant cannot be excluded. Use only if the benefit outweighs the risk. If the infant develops diarrhea, discontinue breast feeding. **UNDESIRABLE EFFECTS:** Common: rash, drug fever. Uncommon: allergic reactions, headache, dizziness, vertigo, tinnitus, drug-induced liver injury, pericarditis, pleuritis, myositis, myalgia, arthralgia, abdominal pain, diarrhoea, flatulence, nausea, vomiting, dyspepsia. Very rare: blood dyscrasia, bone marrow depression, leukopenia, blood disorder, hypersensitivity reactions such as allergic reactions, drug fever, toxic erythematous syndrome, pericarditis, peripheral neuropathy, allergic and fatal lung reactions, pneumonia, interstitial pneumonia, eosinophilic pneumonia, lung disorder, acute pancreatitis, changes in liver function, hepatitis, cholestatic hepatitis, blood bilirubin increased, alopecia, angitis, arthralgia, impairment of renal function, nephritic syndrome, renal failure possibly reversible, oligospermia irreversible, chest pain. Frequency not known: exacerbation of colitis, toxic-like syndrome with pericarditis, pleuropneumonitis, rash and edema. **LEGAL CATEGORY: POM. PRODUCT AUTHORIZATION NUMBER:** Asacolon® 400mg GR Tablets PA 2016/171. Asacolon® 800mg GR Tablets PA 2016/172. **PA H&L DPH: TILLOTTS PHARMA (Ireland),** 10, Newbridge Street, 46, D5 - 79616 Rahelheim, Germany. **DATE OF PREPARATION:** December 2015. **CODE:** 2015/05. **FULL PRESCRIBING INFORMATION AVAILABLE ON REQUEST FROM THE MARKETING AUTHORIZATION HOLDER OR FROM TILLOTTS PHARMA LIMITED, 25 SANDYFORD OFFICE PARK, DUBLIN 18, IRELAND, TEL: 00 353 1 294 2015. Asacolon® is a trademark.**



TILLOTTS PHARMA

GI-health is our passionTM

1. Sandborn, WJ et al. Once-daily dosing of delayed-release oral mesalazine (400-mg tablet) is as effective as twice-daily dosing for maintenance of remission of ulcerative colitis. Gastroenterology. 2010 Apr;138(4):1288-95.



Welcome Message from the President Professor Padraic MacMathuna

Dear Colleagues and Friends,

It is my very great pleasure to welcome you all to our winter meeting in Killiney Castle Hotel. I am greatly honoured to assume the Presidency and to follow in the footsteps of such great clinicians and scientists who have worn this chain with such distinction. I would like to pay tribute to my predecessor Prof Humphrey O'Connor for the outstanding contribution which he made during his two years in office and for his assistance in making the change over so seamless.



The Irish Society of Gastroenterology has a proud history and tradition. As the Society enters its 54th year its main strength lies in the cross-speciality involvement of Gastroenterologists, other clinicians and scientists in an all-Ireland capacity. Our combined focus is in the understanding of the mechanisms of gastrointestinal disease and in the clinical management of our patients. The continued involvement of other specialities in the field is vital and we must ensure that they are accommodated in our programmes and agendas.

It is a great pleasure to see so many nursing groups present. The Endoscopy and Hepatology nurses have been with us for a while but today we welcome the IBD Nurses for the first time with their own programme. We wish them all well.

The teaching sessions cover several 'hot' topics within GI Cancer genetics, Obesity, IBD and management of Screen detected lesions. I am particularly delighted to welcome our acclaimed visiting speakers Steve O'Rahilly, Chris Day, Gareth Evans and Matt Rutter. Their presentations allied to those of our own Kieran Sheahan, Ronan Cahill, Sean Martin and David Kevans should be stimulating, provocative and entertaining. I would like to thank Stephen Stewart, Jan Leyden, Martin Buckley, David Gallagher who with David Kevans were really helpful in putting this programme together.

It is my aim in the next two years to bring the members of the Society closer together. One of the ways I see this happening is by upgrading the website and making it more interesting and user friendly for all. In keeping with the best of international GI websites, this will provide an invaluable resource for members to register for meetings, submit abstracts, link to relevant sites, update on national and international events as well as facilitating membership renewal on line. The board will endeavour to make the site more interesting by making relevant information available. The process has already started and we are confident of having a new site up and going for next year's summer meeting in Galway.

I am very grateful to our Abstract Review Panel for their diligence in selecting the best abstract submissions for oral and poster presentation. Well done Deirdre McNamara, Richard Farrell, Jurgen Mulsow and Hon Sec Sengupta. Once again a big thank you to our colleagues in Industry for their continued support.

I would like to thank the officers and board for their support. A particular word of thanks to the staff of the ISG Michal Dineen and Cora Gannon who have done most of the hard work in making this meeting a reality. I trust that you will find the programme educational, interesting and stimulating. For this meeting we have tried out a new format with a lunchtime start on Thursday and a full day Friday till 4pm, I will be interested in your evaluation if this works well.

It is our collective responsibility to raise public awareness of GI disease. The ISG must only support the profession in delivering high quality care of patients but also lobby centrally to influence government policy. Within the society we have world class professionals delivering state of the art services to the population. We also have many recently appointed colleagues with novel skills and a cohort of outstanding trainees.

For now let us all enjoy the educational and social inter-action! I look forward to meeting with all of you here, renewing old acquaintances and making new ones.

Padraic MacMathuna

President ISG

Consultant Gastroenterologist

TREAT WITH PRECISION

- Adverse events should be reported to the Pharmacovigilance Unit of the Health Protection Regulatory Authority (pharmacovigilance@hpa.gov.uk). Information about adverse event reporting can be found on the [HPA website](http://www.hpa.gov.uk/about/ourwork/ourwork.htm) (<http://www.hpa.gov.uk/about/ourwork/ourwork.htm>). Adverse events should also be reported to the Yellow Card Scheme (<http://www.yellowcard.gov.uk>).



ISG Winter Meeting Nov 19th & 20th 2015, Killiney Castle Hotel, Dublin Programme

Thursday November 19th

- 13.00 **Lunch, Registration and meet the Industry.**
- 13.45 **Oral Free Papers (1- 6)**
- 14.45 **Session 1: IBD - Controversies in management of Acute UC**
 Chairs: **Prof Larry Egan & Dr Glen Doherty**
 Speakers: **Dr David Kevans**, Consultant Gastroenterologist
 St James' Hospital, Dublin
Mr Sean Martin, Consultant Colorectal Surgeon,
 St Vincent's University Hospital. Dublin
- 16.00 **Coffee break, Poster viewing & Meet the Industry.**
- 16.15 **Session 2: Endoscopy**
'Management of Complex Screen Detected lesions: an emerging challenge'
 Chairs: **Dr William Dickey & Dr Martin Buckley**
 Speakers: **Prof Ronan Cahill**, Prof of Surgery, UCD,
 Consultant Surgeon Mater Misericordiae University Hospital Dublin.
Innovations in Surgical Management
Prof Kieran Sheahan, Consultant Histopathologist,
 St. Vincent's University Hospital
Pathology of lesions, incl serrated etc
Prof Matt Rutter Consultant Gastroenterologist, Durham University, UK
Interventional Endoscopy
- 17.30 **Close for day**
- 19.15 **Pre Dinner drinks for Dinner at 20.00**

Friday November 20th

- 09.00 **Oral Free Papers (7 – 12)**
- 10.00 **Session 3: Obesity and Digestive Disease**
 Chairs: **Prof Donal O'Shea, Dr Orla Crosbie**
 Speakers: **Sir Steve O'Rahilly**, Professor of Clinical Biochemistry and Medicine,
 University of Cambridge, U.K.
Prof Chris Day, Consultant Hepatology,
 Freeman Hospital, Newcastle upon Tyne, UK
- 11.30 **Coffee break, Poster viewing & Meet the Industry**
- 11.50 **Oral Free Papers (13 – 18)**
- 12.50 **Lunch & Meet the Industry**
- 13.45 **Poster Viewing with each author at their Poster**
- 14.30 **Short Coffee Break & Prize Giving**
- 14.45 **Young Investigator Award (Spon. By Takeda)**
- 15.00 **Session 4: Colorectal Cancer Genetics**
 Chair: **Prof Des Winter, Dr Cathy Kelly**
 Speaker: **Prof Gareth Evans**, Professor of Medical Genetics & Cancer Epidemiology
 University of Manchester, U.K.
- 16.00 **Close of Meeting**

In adult patients with moderate to severe active Ulcerative Colitis who have had an inadequate response to conventional therapy including corticosteroids and 6-mercaptopurine (6-MP) or azathioprine (AZA), or who are intolerant to or have medical contraindications for such therapies.

EFFICACY THAT LASTS^{1-2,a}



**The first and only
subcutaneous anti-TNF
with 4-week efficacy during
maintenance treatment^{1,2,b}**

Please consult the Summary of Product Characteristics before prescribing.

*Based on results of PURSUIT Maintenance study

*Patients with body weight less than 80 kg: Simponi given as an initial dose of 200 mg, followed by 100 mg at week 2, then 50 mg every 4 weeks, thereafter. Patients with body weight greater than or equal to 80 kg: Simponi given as an initial dose of 200 mg, followed by 100 mg at week 2, then 100 mg every 4 weeks, thereafter.¹

Study Design: 100 mg oral tablet for 14 days in pre-M1 and M1. **Study Population:** Subjects who had been treated with previous leprosy therapy. **Intervention:** *Singapore* (M1, 500 mg tablet, 100 mg oral tablet, 500 mg oral suspension, *Singapore* (pre-M1, 500 mg tablet, 100 mg oral tablet, 500 mg oral suspension). **Comparison:** *Singapore* (M1, 500 mg tablet, 100 mg oral tablet, 500 mg oral suspension) vs. *Singapore* (pre-M1, 500 mg tablet, 100 mg oral tablet, 500 mg oral suspension). **Outcome:** *Singapore* (M1, 500 mg tablet, 100 mg oral tablet, 500 mg oral suspension) vs. *Singapore* (pre-M1, 500 mg tablet, 100 mg oral tablet, 500 mg oral suspension). **Conclusion:** *Singapore* (M1, 500 mg tablet, 100 mg oral tablet, 500 mg oral suspension) vs. *Singapore* (pre-M1, 500 mg tablet, 100 mg oral tablet, 500 mg oral suspension). **Limitations:** *Singapore* (M1, 500 mg tablet, 100 mg oral tablet, 500 mg oral suspension) vs. *Singapore* (pre-M1, 500 mg tablet, 100 mg oral tablet, 500 mg oral suspension). **References:** *Singapore* (M1, 500 mg tablet, 100 mg oral tablet, 500 mg oral suspension) vs. *Singapore* (pre-M1, 500 mg tablet, 100 mg oral tablet, 500 mg oral suspension).

[illegible]

References: 1. EB Summary of Product Characteristics for SBPCH 0.1/0.01. 2. Sandherr WJ, Feigauz BG, Jahnke C, et al. Gastrointestinal Glucocorticoid Malabsorption Clinical Response in Patients with Moderate-To-Severe Ulcerative Colitis. *Gastroenterology*. 2010;138:989-999.





Irish Society of Endoscopy Nurses

Killiney Castle Hotel, Dublin

Agenda

Time	Chair	Speaker	Topic
08.30-09:10	Registration		
09:15-09:30	Leah Palado Vinzons	Jona Yusengco St. James Hospital, Dublin	Clinical Facilitator Welcome to Dublin
09:30-10:00	Louise McCarville	Dr Gareth Horgan Consultant Gastroenterologist St. Vincent's University Hospital, Dublin	Chromoendoscopy
10:00-10:25	Mary Shea	Dr Grace Chan SPR Gastroenterologist St. James Hospital, Dublin	Non Variceal Upper GI Haemorrhage
10:25-10:30	Elaine Egan	Mary Hackett Brennan ISEN Chairperson	Committee Members Nominations
10:30-11:10	COFFEE		
11:10-11:25	Mary Hackett Brennan	Professor Gary Courtney Consultant Physician Gastroenterologist Kilkenny	Acute Pancreatitis
11:30-13:00	Deirdre Clune	Ms. Debbie Johnson Director and Lead Consultant Quality Solutions for Health Care	Credit Where Accreditation is Due.
13:00-14:00	LUNCH		
14:00-15:55	Mary Hackett Brennan	Dr Fergus Heffernan PhD Psychologist/Psychotherapist	Minding the Body, Mending the Mind.
15:55-16:00	Elaine Egan	Margaret O'Donnell ISEN Treasurer	Treasure's Report

Effective long term protection for recurrent episodes of hepatic encephalopathy.¹

LONG TERM
data now published

Mullen *et al.* 2014: Rifaximin is well tolerated for long term maintenance of remission from overt hepatic encephalopathy (HE).¹



Targaxan[®] 550[▼]
Rifaximin- α

TARGAXAN 550 mg film-coated tablets.

REFER TO FULL SUMMARY OF PRODUCT CHARACTERISTICS (SmPC) BEFORE PRESCRIBING

Presentation: Film-coated tablet containing rifaximin 550 mg.

Uses: Targaxan is indicated for the reduction in recurrence of episodes of overt hepatic encephalopathy in patients ≥ 18 years of age.

Dosage and administration: Adults 18 years of age and over: 550 mg twice daily, with a glass of water, with or without food for up to 6 months. Treatment beyond 6 months should be based on risk/benefit balance including those associated with the progression of the patient's hepatic dysfunction. No dosage changes are necessary in the elderly or those with hepatic insufficiency. Use with caution in patients with renal impairment.

Contraindications: Contraindicated in hypersensitivity to rifaximin, rifamycin-derivatives or to any of the excipients and in cases of intestinal obstruction.

Warnings and precautions for use: The potential association of rifaximin treatment with *Clostridium difficile* associated diarrhoea and pseudomembranous

colitis cannot be ruled out. The administration of rifaximin with other rifamycins is not recommended. Use with caution in patients with severe (Child-Pugh C) hepatic impairment and in patients with MELD (Model for End-Stage Liver Disease) score > 25 . The effectiveness of oral oestrogenic contraceptives could be decreased after rifaximin administration. It is recommended to take additional contraceptive precautions, in particular if the oestrogen content of oral contraceptives is less than 50 μg .

Pregnancy and lactation: Rifaximin is not recommended during pregnancy. The benefits of rifaximin treatment should be assessed against the need to continue breastfeeding.

Side effects: Common effects reported in clinical trials are dizziness, headache, depression, dyspnoea, upper abdominal pain, abdominal distension, diarrhoea, nausea, vomiting, eczema, rashes, pruritus, muscle spasms, arthralgia and peripheral oedema. Other effects that have been reported include: Clostridial infections, urinary tract infections, candidiasis and pneumonia. Blood disorders e.g. Anaemia, Thrombocytopenia. Anaphylactic reactions, angioedemas, hypersensitivity. Hypo- and hypertension, Pyrexia. Liver function tests abnormalities.

Licensing and Legal category: Legal category: Prescription only.

MA number: P4 102/29/1.

For further information contact: Norgine Pharmaceuticals Limited, Norgine House, Moorhall Road, Harshfield, Middlesex, UB9 6NS Telephone: +44(0)1895 826606. E-mail: medinfo@norgine.com

Date of preparation/revision: TA/3907/NDW/13
Ireland

Adverse events should be reported to Medical Information at Norgine Pharmaceuticals on +44 1895 826606.

Reference:

1. Mullen KD *et al.* Clin Gastroenterol Hepatol 2014;12(8):1390-97.

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UK/XIF 5/1214/0000(1).

Date of preparation: September 2015.



**Biographical Sketches****Prof. Padraic MacMathuna**

President ISG

Consultant Gastroenterologist

Mater Misericordiae University Hospital,
Dublin

1981 UCD graduate with training in Ireland, London and Boston in Gastroenterology. Appointed Consultant Gastroenterologist to Mater University Hospital in 1995. Track record in clinical and laboratory research in areas from Colon Cancer biology, CT Colon Imaging, High Risk colorectal Cancer screening and endoscopic intervention. Appointed Associate Professor of Medicine in recognition of contribution to the postgraduate (Former Postgraduate Dean) and undergraduate academic activity of the Mater and UCD. Currently a member of the NCSS Advisory group on Colorectal Cancer Screening and a participant in the NCSS Expert Group on Hereditary Cancer Risk

Dr Subhasish SenguptaSecretary ISG, Consultant Gastroenterologist
Our Lady of Lourdes Hospital, Drogheda

Dr Subhasish Sengupta works as a Consultant Gastroenterologist at Our Lady of Lourdes Hospital, Drogheda. Dr Sengupta graduated from Calcutta University, India and subsequently obtained his MRCP (UK) in 2000. He successfully completed his Specialist Registrar training (CCST) in Gastroenterology mainly working in Mater Misericordiae and Beaumont University Hospitals Dublin in 2007. He worked on 'Adrenergic Control of Gallbladder Motility' and obtained his Masters Degree from University College Dublin (UCD) in 2007. He then undertook his Advanced Interventional Hepato-biliary fellowship at Dublin and Beth Israel Deaconess Medical Center, Boston MA, USA 2007-2008. Apart from doing general GI work between Lourdes Hospital Drogheda and Louth Hospital, Dundalk, he does hepatobiliary procedures (ERCP and EUS) at Beaumont University Hospital, Dublin.

Special Interests: Pancreaticobiliary Disease and Inflammatory Bowel Disease.

Dr Barbara RyanConsultant Gastroenterologist,
Tallaght Hospital, Dublin

Barbara Ryan graduated from Trinity College Dublin in 1993. She completed her higher specialist training in Ireland during which time she completed a MSc in Molecular Medicine and also a MD in colorectal cancer biology. She did a fellowship in endoscopic ultrasound at the Klinikum Rechts der Isar, at the Technical University of Munich and then moved to a gastroenterology fellowship the University Hospital of Maastricht in the Netherlands for two years in 2001. In 2003 she took up a consultant post in Manchester Royal Infirmary before returning to Ireland in 2004 to her current post. Her research interests include colorectal cancer, IBD and IBD-related bone disease. Her clinical interests include IBD, interventional endoscopy, pancreatobiliary endoscopy and endoscopic ultrasound.

Dr Glen DohertyTreasurer ISG, Consultant Gastroenterologist
St. Vincent's Hospital, Dublin

Glen grew up in Northern Ireland and graduated in Medicine at Trinity College Dublin in 1998. He was awarded his PhD by NUI in 2006 and completed his gastroenterology training in Ireland followed by an advanced IBD fellowship at Beth Israel Deaconess Medical Center and Harvard Medical School, Boston. Since 2010 he has worked as a consultant gastroenterologist at St Vincent's University Hospital in Dublin and as a senior clinical lecturer in the School of Medicine and Medical Science at University College Dublin. His research interests are in the role of innate and adaptive immunity in inflammatory bowel disease (Ulcerative Colitis and Crohns Disease) and in the importance of the host immune response in gastro-intestinal neoplasia, particularly colorectal cancer and Barrett's oesophagus. With his colleagues at the Centre for Colorectal Disease at SVUH/UCD he has an established track record in clinical research on a range of digestive disorders and is actively involved in clinical trials in IBD.

Dr Gavin HarewoodConsultant Gastroenterologist
Beaumont Hospital, Dublin

Dr Gavin Harewood is a medical graduate of National University of Ireland, Galway. Following completion of his general medical training, he moved to Rochester Minnesota where he completed a Fellowship in Gastroenterology and Hepatology along with a Masters Degree in Clinical Research in the Mayo Clinic.

He was subsequently appointed as a Consultant Gastroenterologist in the Mayo Clinic and developed a subspecialty interest in endoscopic ultrasound, health economics and clinical outcomes research. In 2006, he was appointed to his current Consultant post in Beaumont Hospital where he leads endoscopic ultrasound activities and serves as the lead Clinical Trainer in the Endoscopy Department. He also served as the Secretary for the Irish Society of Gastroenterology until 2014. In 2009, Dr Harewood completed a MBA Degree in Health Economics through the UCD Smurfit School of Business. He has authored more than 100 publications in the peer-reviewed medical literature, many dealing with the importance of resource utilisation and economics in healthcare.

Dr Johnny CashConsultant Hepatologist
Royal Victoria Hospital, Belfast

Dr Johnny Cash is a consultant Gastroenterologist and Hepatologist in the Royal Victoria Hospital, Belfast. His main clinical interests are liver transplantation and the complications of cirrhosis, particularly portal hypertension. He also has an interest in healthcare modernisation and has recently been appointed assistant medical director for continuous improvement in the Belfast Health and Social Care Trust. He has been the co-lead for medicine and clinical lead of the programmed treatment unit in the Royal Victoria hospital since 2011. He has been on the board of the Irish society of Gastroenterology since election in 2011 and is chair of the DHSSPS Drug Treatment & support advisory committee. In his spare time he is a keen fell runner.



Prof. Humphrey O'Connor
Consultant Gastroenterologist
Clane General Hospital

A native of Cahersiveen, Co. Kerry, Prof. Humphrey O'Connor M.D., F.R.C.P.I., A.G.A.F., graduated with honours in 1977 from University College Dublin. The Gastroenterology "bug" was acquired during general medical training working for the late great Prof. Oliver Fitzgerald and the recently arrived Dr. Diarmuid O'Donoghue. Specialist training followed in the UK, firstly, in Leeds with Prof. Tony Axon and then Birmingham with Dr. Roy Cockel and Prof. Elwyn Elias. Prof. O'Connor was awarded the BSG Hopkins Endoscopy Prize in 1982. He returned to Ireland in 1989 as Consultant Physician at Tullamore General Hospital and was appointed in 2002 to Naas General Hospital, Tallaght Hospital and Clinical Professor of Gastroenterology, Trinity College Dublin. He has lectured and published widely on Helicobacter, GORD, ERCP, and pancreaticobiliary disease and retains a special interest in undergraduate clinical teaching. Away from medicine, he is a fanatical Kerry follower and plays very amateur golf.



Dr Tony C.K. Tham
MB BCh BAO, MD, FRCP, FRCPI
Ulster Hospital, Dundonald, Belfast

Dr Tham qualified from the Queen's University of Belfast's medical school. He trained as a gastroenterologist and physician in the Northern Ireland training program. He completed his training as an Advanced Gastroenterology Fellow in the Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA.

He has been Consultant Physician and Gastroenterologist in the Ulster Hospital, Dundonald, Belfast since 1997. During this time, he has developed gastroenterology services in the Ulster Hospital, especially in therapeutic endoscopy and ERCP. His other interests include inflammatory bowel disease (IBD). He has more than 60 publications in peer reviewed journals. He is the first author of a book entitled "Gastrointestinal Emergencies". He is currently co-writing the third edition.

He has contributed to several other book chapters. He is the Head of the School of Medicine, Northern Ireland Medical and Dental Training Agency. He sits on the Specialist Advisory Committee for general internal medicine at the Joint Royal College of Physicians Training Board. He is also on the British Society of Gastroenterology committee on clinical standards. He is an assessor for doctors applying for entry into the specialist register. He is an examiner for the Royal College of Physicians and also Queen's University. He has assisted in obtaining funding for IBD nurses and biological therapy in N. Ireland.



Dr Paul Lynch
Consultant Gastroenterologist
Antrim Area Hospital

Paul Lynch is a consultant gastroenterologist at Antrim, Causeway and Whiteabbey Hospitals with a particular interest in therapeutic endoscopy and ERCP. He is a graduate of Queen's University of Belfast and undertook his specialist training within the Northern Ireland Deanery which included undertaking a PhD into gastric neuropeptides at QUB. He completed his training with an advanced endoscopy



fellowship in Westmead Hospital, Sydney, Australia. Dr Lynch presently sits on the ISG board and has served as the Secretary for the USG from 2009 to 2012 as well as being the organizing chair for the joint BSG and ISG (BIG) meeting held in Belfast in 2013. He has been involved in regional service development for Northern Ireland including services for standardizing the testing of calprotectin and H. pylori and has been the clinical lead for a regional endoscopy reporting program.

Prof Deirdre McNamara
Consultant Gastroenterologist
Tallaght Hospital, Dublin

Prof. Deirdre McNamara is an Academic Consultant Gastroenterologist at Trinity College Dublin based in Tallaght Hospital. BA Graduate of Trinity College Dublin 1993
Member Royal College of Physicians 1997
MD Trinity College Dublin 2002
Diploma in Cancer Prevention, National Cancer Institute USA 2002
Fellow Royal College of Physicians of Edinburgh 2005
Fellow Royal College of Physicians of Ireland 2010. Her subspecialty interests include inflammatory bowel disease, obscure GI bleeding, capsule endoscopy and colorectal cancer prevention. She provides capsule services for the greater Leinster region and a national double balloon enteroscopy service. As Co-Founder and Director of Trinity's TAGG Research Centre she has successfully lead a variety of translational research initiatives in her areas of expertise with funding from the Health Research Board, Irish Cancer Society, European Society of Gastrointestinal Endoscopy and the Meath Foundation. Consultant Gastroenterologist & Honorary Senior Lecturer Aberdeen Royal Infirmary and University of Aberdeen 2004-2009. European Society of Gastrointestinal Endoscopy Small Bowel Quality Improvement Committee 2013 -to date. Director TAGG Research Centre, Trinity College Dublin 2012-to date. Head of Department of Clinical Medicine, Trinity College Dublin 2011-2014



Dr David Gibson
Specialist Registrar
St James' Hospital, Dublin

David is a gastroenterology SpR, currently in St James' Hospital, Dublin. He completed his MD entitled 'Optimising Anti-TNF therapy in IBD' in 2014. His interests include IBD and lower GI endoscopy. Outside of work, he is a diehard Newcastle United fan.



Speakers

Dr David Kevans
Consultant Gastroenterologist
St James' Hospital, Dublin

Dr Kevans graduated with an Honours Medical Degree in 2001 from University College Dublin. He undertook postgraduate training on the Irish Higher Medical Training Scheme in Gastroenterology achieving Specialist Certification in 2011. He subsequently took up a three year appointment as an Advanced Fellow in Inflammatory Bowel





Disease (IBD) at Mount Sinai Hospital / University of Toronto, one of the largest IBD centres in North America. During his fellowship he was also co-appointed to the Hospital for Sick Children Toronto, Adolescent IBD Transition Service and the University Health Network Toronto, Intestinal Failure Unit. He was appointed as a Consultant Gastroenterologist at St James's Hospital and a Senior Clinical Lecturer at Trinity College Dublin in September 2014. He is currently clinical lead of the IBD programme at St James Hospital which provides both regional and tertiary level care for IBD patients. Dr Kevans has a strong research pedigree having completed 2 years of translational research during his training resulting in the awarding of a Medical Doctorate from the National University of Ireland. He also received a Canadian Institutes of Health Research award to support his research activities at the University of Toronto. His current research interests include the pharmacokinetics of monoclonal antibody therapies, biomarkers in inflammatory bowel disease, intestinal microbiota in health and disease and the impact of nutrition on gastro-intestinal health. He has presented research at numerous national and international meetings and has authored a significant number of publications.

Mr Ronan Cahill

Prof of Surgery, UCD,
Consultant Surgeon Mater Misericordiae
University Hospital Dublin.



Professor Ronan Cahill graduated MB,BAO,BCh (Hons) from University College Dublin in 1997 and then completed his basic and specialist surgical training in Ireland, gaining both MD by thesis (Health Research Board Clinical Research Fellow) and FRCS by examination. Thereafter, he was a clinical fellow at the IRCAD/EITS Institute in Strasbourg, France from 2007 to 2008 before moving to the Oxford Radcliffe Hospitals as senior fellow and then consultant and senior clinical researcher from 2008 to 2010. Ronan returned to Ireland in 2010 as consultant general surgeon (specialist interest in colorectal surgery) at Beaumont Hospital before taking up the position of Professor of Surgery at University College Dublin, and the Mater Misericordiae Hospital in June 2014.

He is a recipient of both the Bennett and Millen Medals (RCSI Millen Lecturer 2010) and was the ASGBI Robert Smith Lecturer in 2014. He has authored over 150 peer reviewed publications, five book chapters and four National Guidelines. He is an editorial board member of five indexed surgical journals, including Colorectal Disease and the European Journal of Surgical Oncology and is a member of the SAGES Research Committee (SAGES Career Development Award recipient 2009). He has a major academic interest in Surgical Innovation and New Technologies and active basic science, clinical and device development research partnerships both nationally and internationally.

Professor Kieran Sheahan

Consultant Histopathologist,
St Vincents University Hospital, Dublin



Professor Kieran Sheahan is a Consultant Histopathologist and Head of Histopathology Dept at St Vincents University Hospital Dublin. He is Associate Professor, Clinical Lecturer, in the Pathology Department, University College, Dublin.

Kieran graduated from UCD in 1981, completed trainee and post graduate fellowships in Mater Hospital Dublin and UCD prior to moving to the Mallory Institute of Pathology in Boston where he trained for four years. He spent a further four years as staff pathologist at Boston City University Hospital and medical centre.

He returned home in 1992 to take up his present position. His major interest is Gastrointestinal Pathology and was a co-founder of the Centre for Colorectal Disease, SVUH

Prof Matt Rutter

Consultant Gastroenterologist,
Durham University, U.K.



Matt Rutter is Professor of Gastroenterology at Durham University and the University Hospital of North Tees. He specialises in advanced diagnostic colonoscopy, polypectomy and IBD. He sits on the BSG Endoscopy and Endoscopy Research committees and the governing board of ESGE. He chairs the ESGE Quality Improvement in Endoscopy committee and the BCSP Evaluation Committee.

He has published and lectured worldwide on quality in endoscopy, screening and colonoscopic surveillance, receiving the BSG Hopkins Endoscopy Prize in 2006 and the RCP Goulstonian Lectureship in 2008. He co-authored BSG (2010), NICE (2011), European (ECCO, 2012) and SCENIC (USA, 2015) colitis surveillance guidelines, and was the lead author for the BSG/ACPGBI management of large non-pedunculated colorectal polyps guidelines (2015).

He is regional screening lead for QA in colonoscopy, GI research lead for North East & North Cumbria LCRN and is one of the core faculty for the Northern Region Endoscopy Training Centre.

Sir Steve O'Rahilly

Professor of Clinical Biochemistry
and Medicine
University of Cambridge, U.K.



Stephen O'Rahilly is Professor of Clinical Biochemistry and Medicine at the University of Cambridge and Honorary Consultant Physician at Addenbrooke's Hospital. He led the establishment of the Institute of Metabolic Science, which he now co-directs. He is Scientific Director of the Cambridge NIHR Biomedical Research Centre. He qualified in Medicine from University College Dublin and undertook post-graduate training in London, Oxford and Boston before setting up his laboratory in Cambridge in 1991. He has sought to better understand the molecular mechanisms leading to diabetes, obesity and related metabolic and endocrine disorders. He remains active in clinical practice and in the teaching of medical students. He has won many national and international awards including the Heinrich Wieland Prize, the Inbev Baillet Latour Prize, the Zülch Prize and the first EASD/Novo Nordisk Foundation Diabetes Prize for Excellence. He was elected to the Royal Society in 2003, a Foreign Associate of the National Academy of Sciences USA in 2011 and is an Honorary Member of the German Society for Internal Medicine. He was appointed a Knight Bachelor in 2013.



Prof Chris Day

Consultant Hepatology
Freeman Hospital, Newcastle upon Tyne, UK



Professor Day qualified from Cambridge in 1983 and subsequently trained in General Medicine and Hepatology in Newcastle, becoming a Consultant Hepatologist on the Liver Unit at the Freeman Hospital Newcastle upon Tyne in 1994 and Professor of Liver Medicine University of Newcastle upon Tyne in 2000. He was formerly Head of the School of Clinical Medical Sciences at Newcastle University and since April 2008 has been Pro-Vice-Chancellor of the Faculty of Medical Sciences. His research interests are focused largely on fatty liver disease related both to obesity and to alcohol with additional interests in drug-induced liver injury and liver fibrosis. His work has been funded by the MRC and the Wellcome Trust, he is a former MRC Clinical Training Fellow and Clinician Scientist Fellow. In 1999 he was the Goulstonian Lecturer of the Royal College of Physicians and in 2000 was awarded the research gold medal of the British Society of Gastroenterology. He is a Fellow and Clinical Vice President of the Academy of Medical Sciences and an NIHR Senior Investigator. He is a member of the Council of the MRC, on the Executive of the Medical Schools Council and was recently Chair of the Clinical Medicine Sub-Panel for the 2014 Research Excellence Framework (REF) exercise. In November 2014 Professor Day became a Deputy Lieutenant of the County of Tyne and Wear.

Prof Gareth Evans

Professor of Medical Genetics
& Cancer Epidemiology
University of Manchester, U.K.



Professor Evans has established a national and international reputation in clinical and research aspects of cancer genetics, particularly in neurofibromatosis and breast cancer.

He has published 609 peer reviewed research publications; 228 as first or senior author, over 80 reviews and chapters and two books. He has an ISI web of knowledge H-index of 82 and google scholar of 111. In the last 7 years he has raised over £12 million in grants for multicentre and local studies –approximately £6 million to Manchester. He is Chief Investigator on a £1.59 million NIHR program grant PROCAS(2009-2014). He is lead clinician on the NICE familial breast cancer guideline group and is a trustee of BCN.

Mr Sean Martin

Consultant Colorectal Surgeon
St Vincents University Hospital, Dublin



I am a graduate of University College Dublin. I did my basic surgical training in Cork, before completing an M.D. at The Johns Hopkins in Baltimore, Maryland, USA. After completing Higher Surgical Training at RCSI I did a Colorectal fellowship at The Cleveland Clinic, Ohio, USA, spending a year on staff before appointment as Consultant Colorectal Surgeon in St. Vincent's University Hospital in 2012. My specialist interests are Inflammatory Bowel disease, Colorectal Cancer and Minimally Invasive Surgery.

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Summer Meeting 2015



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Boston Scientific - Steve Donnellan, Claire Flinn



Young Investigator Award 2015

Biographical Sketch

Mr Ivan Yu

University College Dublin



Mr Ivan Yu is a medical student of University College Dublin (UCD) currently completing his final year. He entered the UCD medical programme in 2011 having received the UCD Entrance Scholar Award. While attending medical school, Mr. Yu found a passion for medicine and paediatrics in particular which led to electives in Cardiology and Paediatric Gastroenterology. These learning opportunities afforded Mr. Yu a chance to experience research, which led to the "Aetiological risk factors for developing paediatric inflammatory bowel disease in a prospective cohort" project. At UCD, Mr. Yu has participated in many clubs and societies including Badminton, Hockey and the UCD Orchestra. He continues to play Badminton at club level.

Oral Presentation (15W144)

Aetiological risk factors for developing paediatric inflammatory bowel disease in a prospective cohort

Author(s): Ivan Yu¹, Eleanor O'Neill¹, Rebecca Stanley¹, Aoife Carey^{2,3}, Siobhain Kiernan³, Mary Hamzawi³, Karen O'Driscoll³, Shoana Quinn³, Annemarie Broderick^{1,3}, Billy Bourke^{1,3}, Tara Rafferty^{2,3}, Séamus Hussey

Department(s)/Institution(s): 1. Academic Centre for Paediatric Research, School of Medicine and Medical Science, University College Dublin. National Children's Research Centre, Crumlin, Dublin 12 3. Our Lady's Children Hospital, Crumlin, Dublin.

Introduction: The incidence of paediatric inflammatory bowel disease (PIBD) has increased 3-fold in the past 15 years. Aetiological factors underlying this are not well known.

Aims/Background: To assess potential familial, demographic and environmental risk factors for developing PIBD in a prospective national cohort of patients.

Method: Parents of participants in the DOCHAS study (Determinants and Outcomes in Children and Adolescents with IBD Study) were asked to complete a standardised questionnaire at diagnosis. Patients diagnosed between January 1st 2012 and June 30th 2015 were included. Information including pre-diagnosis home environment, location, household density, smoking exposure, medication exposure as well as extended family histories was recorded prospectively. Patients were classified according to the Paris Classification of PIBD. Data was exported from the study database to excel format for data analysis, using descriptive statistics where applicable.

Results: A total of 356 subjects were recruited, including 64 controls, 145 with Crohn disease (CD) and 123 with ulcerative colitis (UC). More males than females were diagnosed with CD (3:1), whereas in UC the M:F ratio was (1:1.1). The mean age of those with UC was 13.1 yr, and CD was 12.7 yr. Rural dwelling was observed in 37% with CD and 40% with UC. Twenty six percent had a positive family history of IBD, with 5% having a maternal family history in particular. Compared with controls, PIBD was associated with maternal smoking during pregnancy (11.48% vs 24.7%, $p=0.02$). A family history of autoimmune disease had a more likely diagnosis of CD than that of UC (46% vs 28%, $p=0.001$); this was mirrored in patients with autoimmune disease (54% vs 18%, $p<0.001$). Patient and paternal atopic diseases were more associated with CD than UC (40% vs 19%, $p<0.001$ and 12% vs 5%, $p=0.049$ respectively), and conditions such as maternal type 1 diabetes, patient and paternal autoimmune thyroid disease and patient celiac disease were also significantly associated with PIBD. There were no significant differences between patients with CD and UC in relation to prior antibiotic use, NSAID exposure, previous infective enteritis or appendicectomy.

Conclusions: This is the first prospective study of potential risk factors for developing PIBD. Gender, maternal smoking exposure, maternal family history of IBD and a family history of autoimmune disease were associated significantly with certain IBD phenotypes. Ongoing prospective research is required to further elucidate these associations.



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Oral Presentations – Winter Meeting 2015

Abstract No.	Ref	Author	Title of Paper	Day	Time
5	15W142	Sinead Smith	Are new generation fluoroquinolones useful for the treatment <i>Helicobacter pylori</i> infection?	Thurs 19th.	13.45
6	15W143	Barry Hall	Photographic documentation of caecal intubation: Are we doing it right?	Thurs 19th.	13.55
7	15W151	Ciara Coleman	Transcriptome analysis of CD4+ T cells in coeliac disease highlighting BACH2 as a key regulatory gene.	Thurs 19th.	14.05
11	15W172	David Gibson	FIT-positive Colorectal Cancer (CRC) screening colonoscopy: High sensitivity or just serendipity?	Thurs 19th.	14.15
10	15W166	Patricia McArdle	Counting the Costs - The Financial Burden of IBD for Patients	Thurs 19th.	14.25
14	15W190	Shivashini Kirthi	Chronic inflammatory conditions carry a similar higher cardiovascular risk compared to the general population warranting screening.	Thurs 19th.	14.35
1	15W115	Daniel Schmidt-Martin	The safety and efficacy of dual therapy for Hepatitis C among Cirrhotic patients – Is there a future for dual therapy?	Fri. 20th.	09.00
3	15W133	Grainne Holleran	Identification of predictive factors for positive capsule endoscopy findings in obscure gastrointestinal bleeding and anaemia	Fri. 20th.	09.10
13	15W184	Conor Braniff	Can Patient Characteristics Help Predict Post-TACE Infection?	Fri. 20th.	09.20
15	15W191	Emma Gray	Real-world outcomes from the national HCV treatment registry	Fri. 20th.	09.30
17	15W218	Fiona Hand	Metastatic Microenvironment of Human Liver, Characterised by Increased Levels of IL6, VEGF and GM-CSF, Blocks Interferon γ Production by Natural Killer Cells	Fri. 20th.	09.40
16	15W199	Deirdre McEnroy	The expression of Dual Specificity Phosphatases (DUSP) 1, 5 and 6 is mod by acid and bile acid exposure, and varies at different stages of oesop carcinogenesis.	Fri. 20th.	09.50
2	15W119	Francesco Caiazza	Preclinical investigation of the prognostic role of KHSRP in colorectal cancer: balancing the tumor and the immune microenvironment	Fri. 20th.	11.50
8	15W154	Marie Boyle	C - reactive protein predicts Low Trough Infliximab Concentrations in Patients who Lose Response to Infliximab	Fri. 20th.	12.00
4	15W135	Stephen Boyle	Faecal Calprotectin in the Diagnosis and Monitoring of Inflammatory Bowel Disease	Fri. 20th.	12.10
9	15W157	Karen Hartery	Changes in Medical Treatment and Surgical Rates in Inflammatory Bowel Disease: A Single Centre Cohort Study 1990-2015.	Fri. 20th.	12.20
12	15W173	Donal Tighe	Evaluation of the clinical efficacy of Anti-TNF- α drug trough and antibody levels in an Irish Inflammatory bowel disease cohort	Fri. 20th.	12.30
18	15W222	Gerard Clarke	Gut Microbiome alterations in Depression: relevance to pathophysiology	Fri. 20th.	12.40



ABSTRACT 1 (15W115)

ORAL PRESENTATION

Title of Paper: The safety and efficacy of dual therapy for Hepatitis C among Cirrhotic patients – Is there a future for dual therapy?

Author(s): Daniel Schmidt-Martin¹, Omar El-Sherif¹, Audrey Dillon⁴, Orla Crosbie², Susan Corbett², Diarmaid Houlihan³, Steve Stewart⁴, Susan McKiernan¹, Aiden McCormick³, and Suzanne Norris¹.

Department(s)/Institution(s): ¹Department of Hepatology, St James's Hospital, Dublin ²Department of Hepatology, Cork University Hospital ³The Liver Unit, St Vincent's University Hospital, Dublin ⁴Department of Hepatology, Mater Misericordiae University Hospital, Dublin.

Introduction: The recent publication of the French Early access programme also known as the CUPIC study which targeted Hepatitis C patient patients with advanced liver disease identified worryingly high rates of serious complications and a number of deaths among cirrhotic patients with platelet counts below 100,000 and albumin <35g/L who were treated with triple therapy. New interferon free regimens offer higher response rates in genotype 1 patients but genotype 3 has become the new challenge.

Aims/Background: To evaluate the safety and efficacy of dual therapy with pegylated interferon and ribavirin among patients with established cirrhosis.

Method: We performed a multicentre retrospective review of treatment outcomes among cirrhotic patients in the period between 2003 and 2012 in four of the leading centres for HCV treatment in the Republic of Ireland.

Results: Among the 202 patients with cirrhosis who underwent treatment with dual therapy we identified no mortalities and 5.4% discontinued treatment due to drug related side effects. Patients with low platelet counts were associated with lower SVR rates in the entire cohort ($p < 0.01$), genotype 3 patients ($p < 0.05$) and genotype 1 ($p < 0.05$). Patients with low albumin achieved lower SVR rates ($p < 0.05$) though this was not statistically significant when the patients were stratified by genotype. Genotype 1 patients with both low platelets and albumin had a non response rate of 86% ($p < 0.01$). SVR rates were markedly lower among patients with both low platelet and albumin levels for both genotype 1 (14%) and genotype 3 patients (25%) when compared with patients without these baseline characteristics (42% and 66% respectively). SVR rates among subjects with preserved platelets counts and albumin levels were comparable to published rates for non cirrhotic patients and this was also true for when analysed by genotype. This may suggest that the CUPIC group represents a form of liver decompensation which has not to date been recognized.

Conclusions: Dual therapy with ribavirin and interferon has a satisfactory safety profile among patients with low platelets and albumin levels. Cirrhotic patients with normal platelets and albumin levels achieve SVR rates with dual therapy which are equivalent to non cirrhotic patients. Where access to interferon free regimens is limited due to cost, the early treatment of genotype 3 cirrhotic patients with dual therapy should be considered.

ABSTRACT 2 (15W119)

ORAL PRESENTATION

Title of Paper: Preclinical investigation of the prognostic role of KHSRP in colorectal cancer: balancing the tumor and the immune microenvironment

Author(s): Francesco Caiazza, Zaid Heetun, Louise Elliott, Miriam Tosetto, Robert Power, Blathnaid Nolan, Glen A. Doherty, Elizabeth J. Ryan

Department(s)/Institution(s): Centre for Colorectal Disease, St. Vincent's University Hospital; School of Medicine and Medical Science, University College Dublin

Introduction: Inflammation is a key driver of the initiation and progression of Colorectal Cancer (CRC). Post-transcriptional regulation of the 3' untranslated region (UTR) is a powerful regulatory process that determines the rate of protein translation from mRNA. Regulatory elements targeting the 3' UTR such as the RNA-binding protein, K-homology splicing regulatory protein (KHSRP) can both dramatically alter the immune response and regulate cell cycle, and therefore this may be a good biomarker or therapeutic target for the control of cancer associated inflammation.

Aims/Background: Our aim was to determine if KHSRP plays a role in establishing the inflammatory environment of CRC.

Method: KHSRP transcript and protein expression in CRC and Inflammatory Bowel Disease (IBD) was analyzed in publicly available databases, and in tissue samples by western blot and Immunohistochemistry. Functional analysis of KHSRP was performed by siRNA-mediated knockdown of KHSRP in 2 colorectal cancer cell lines.

Results: In silico analysis of 17 different patient cohorts showed an elevated expression of KHSRP mRNA in CRC patients. This was confirmed at the protein level by Western blot analysis of 19 patients in both early stage and metastatic CRC. IHC analysis showed that KHSRP was expressed in both the epithelial and stromal compartments of CRC and IBD patients, however for the latter case expression of KHSRP increased specifically in the stroma of dysplastic tissue. Furthermore, KHSRP expression predicted decreased 5-year relapse-free survival in a cohort of 750 patients with stage I-IV CRC

Using siRNA in two CRC cell lines we showed that KHSRP is required for secretion of the pro-angiogenic cytokines IL-8 and VEGF, whereas KHSRP reduces secretion of RANTES, a T-cell chemoattractant. Furthermore, cell proliferation, clonogenic potential and three-dimensional growth of CRC cells in extracellular matrix are also enhanced by KHSRP, through regulation of cell cycle.

Conclusions: Our data suggests a role for KHSRP in creating a tumor-permissive microenvironment in CRC.

ABSTRACT 3 (15W133)

ORAL PRESENTATION

Title of Paper: Identification of predictive factors for positive capsule endoscopy findings in obscure gastrointestinal bleeding and anaemia

Author(s): Grainne Holleran, Mary Hussey, Deirdre McNamara

Department(s)/Institution(s): Department of Gastroenterology, Tallaght Hospital and Trinity Academic Gastroenterology Group

Introduction: Capsule endoscopy(CE) is the recommended first



second-line investigation in obscure gastrointestinal bleeding (OGIB) and iron deficiency anaemia (IDA). Currently, there are no known predictive factors to identify high risk patients or guidelines on prioritising patients.

Aims/Background: To evaluate the diagnostic yield (DY) of CE in IDA and OGIB, and to identify predictive factors which may be useful in prioritising requests for CE.

Method: A retrospective review of the CE database at Tallaght Hospital was performed identifying patients who underwent a CE for IDA or OGIB; either occult or overt. Data was collected by reviewing clinic and referral letters, discharge summaries and laboratory results. Information including: demographics, CE indication, lowest haemoglobin (Hb) level, interval from referral, comorbidities and medication usage, was recorded. Results were compared between groups based on CE positivity and clinical factors using a student's t test or relative risk (RR) ratio.

Results: From our database of 1379 CEs, we identified 455 patients whose indication was IDA or OGIB. Of these, 51% (n=232) were female and the mean age was 64 years (13-99). Indications were IDA: 62% (n=281), occult bleeding: 26% (n=117) and overt bleeding: 12% (n=57). The overall DY was 57% (n=258), with a significantly lower DY: 49% (n=137) (p=0.01) in IDA, compared to occult (63% (n=74) and overt (77% (n=44) OGIB. Between the negative and positive CE groups, there was a significant difference in age 61 vs 67 years (p<0.001, 95% CI -8.91- -2.93) and lowest Hb 10.3 g/dL vs 9.3 g/dL (p<0.003, 95% CI 0.33-1.55), but there was no difference in gender. The presence of overt bleeding increased the DY from 53% to 77%, with a RR of 1.46 (p<0.0001). Clinical data was available in 39% (n=178) of patients, of which 56% (n=99) had positive findings. In the 56 (31%) patients who underwent CE within 4 days of presentation, the DY was significantly higher than beyond 4 days with DYs of 68% vs 49% (p=0.02, 95% CI 0.03-0.34) respectively. The use of warfarin and antiplatelet agents had RRs of 1.36 (p=0.03) and 1.31 (p=0.04) respectively, however no medical conditions or other medications were found to be predictive. When Hb levels were assessed, a cut-off <10 g/dL was associated with a positive CE, with a RR of 1.43 (p<0.03), and a DY of 61% vs 44% with a Hb >10 g/dL.

Conclusions: The DY of CE in OGIB is increased in patients with overt bleeding and when performed within 4 days of presentation. Older age, Hb <10 g/dL, anticoagulation and antiplatelets all increase the risk of positive findings and should be assessed when prioritising patients for CE.

ABSTRACT 4 (15W135) ORAL PRESENTATION

Title of Paper: Faecal Calprotectin in the Diagnosis and Monitoring of Inflammatory Bowel Disease

Author(s): S Boyle, J McGoran, C Loughrey, G Rafferty, Dr Graham Turner

Department(s)/Institution(s): Department of Gastroenterology, Belfast City Hospital

Introduction: Faecal calprotectin (FC) is a novel method for measuring gut inflammation which was conceived originally to distinguish between inflammatory bowel disease (IBD) and irritable bowel syndrome. (1)

Aims/Background: FC use has expanded as a surveillance tool in established IBD. Manufacturers commonly determine that values under 50 µg/g should be regarded as normal, application of which level leads to a very high test sensitivity. (2) Sampling is estimated

in our healthcare trust to cost around £30/€40 each so prudent requesting for this novel test is vital to ensure its sustainability.

Method: We collected data on the first 150 FC results of 2014. Paediatric cases and those from the independent sector were excluded from the analysis. Each patient's clinical notes were then examined.

Results: 108 patients were identified after exclusions were applied, 55 of which had known IBD. Three cut-off points were used in analysing the FC: <50 µg/g, 50-199 µg/g and >200 µg/g. Of those not known to have IBD, 6/12 of patients who had calprotectin >200 µg/g and none of the 15 who had levels 50-199 µg/g had evidence of inflammation on colonoscopy. (See Table) Among those with known IBD reviewed in clinic, 51.4% (18/35) of patients in the FC >200 µg/g underwent a step-up in therapy compared to 23% (3/13) in the 50-199 µg/g group. Twenty-five out of the 54 patients without known IBD had FC <50 µg/g, with all such patients declared as not having IBD, only two of which actually undergoing colonoscopy to support this.

Conclusions: Our data corresponds with the literature in that a FC level below 50 µg/g can adequately exclude IBD. Applying exact cut-off figures may be hazardous and should not substitute clinical and endoscopic assessment but if applied as part of the entire approach to the care of those with a suspected or established diagnosis of IBD, faecal calprotectin can be a useful and cost-effective tool. FC levels exceeding 200 µg/g when used appropriately can carry high positive predictive value for IBD and steer treatment in established disease.

ABSTRACT 5 (15W142) ORAL PRESENTATION

Title of Paper: Are new generation fluoroquinolones useful for the treatment Helicobacter pylori infection?

Author(s): Turlough Heffernan¹, Denise Brennan², Joseph Omorogbe², Grainne Holleran², Mary Hussey², Colm O'Morain², Deirdre McNamara², Sinead Smith^{1,2}

Department(s)/Institution(s): ¹School of Pharmacy and ²Trinity Academic Gastroenterology Group, Trinity College Dublin.

Introduction: Fluoroquinolones exert their antimicrobial effect by preventing bacterial DNA from unwinding and duplicating. H. pylori fluoroquinolone resistance results from point mutations in the gyrA gene, which encodes the A subunit of the DNA gyrase enzyme involved in regulating DNA strain during bacterial replication. Consensus guidelines currently recommend levofloxacin-based triple therapy for the treatment of H. pylori infection following failure of standard first-line triple therapy. However, H. pylori levofloxacin resistance has emerged with a prevalence of 11.7% in Irish patients¹. New generation fluoroquinolone antibiotics have been suggested as a more potent alternative to levofloxacin with the potential to overcome fluoroquinolone resistance.

Aims/Background: To compare the minimum inhibitory concentration (MIC) of levofloxacin required to inhibit the growth of H. pylori with that of the new generation fluoroquinolone moxifloxacin, and (ii) evaluate the efficacy of moxifloxacin against H. pylori strains bearing gyrA DNA mutations.

Method: Following ethical approval and informed consent, antrum biopsies of adult patients with a positive Campylobacter-like organism test were used to inoculate Columbia blood agar plates (Oxoid) for H. pylori culture. Antibiotic susceptibility testing was performed using E-test strips (Biomérieux) and isolates were deemed sensitive or resistant using MIC cut-off guidelines outlined

Biological Confidence



by the European Committee on Antimicrobial Susceptibility Testing (levofloxacin >1 mg/L, moxifloxacin >1 mg/L). *H. pylori* DNA was analysed using the GenoType HelicoDr assay (Hain Life Sciences).

Results: In all, cultures from 23 patients (mean age 45.6 ± 17.8 years, 52% male) were analysed. Culture and antimicrobial susceptibility testing revealed that the rates of levofloxacin and moxifloxacin resistance were 13% (N=3) and 9% (N=2) respectively. Two of the 3 levofloxacin-resistant strains were resistant to moxifloxacin. In susceptible strains, the average MIC required to inhibit *H. pylori* growth was lower for moxifloxacin than levofloxacin (0.07 versus 0.09 mg/L), although this did not reach statistical significance at the numbers tested ($p=0.4$). DNA analysis indicated that all 3 levofloxacin-resistant strains were positive for a *gyrA* DNA mutation. One strain with a *gyrA* mutation was susceptible to moxifloxacin.

Conclusions: The prevalence of moxifloxacin resistance was lower than that of levofloxacin resistance in our patient cohort. Additionally, a levofloxacin-resistant strain bearing a *gyrA* mutation was susceptible to moxifloxacin. These findings provide a rationale for further investigations into the use of moxifloxacin as an alternative to levofloxacin in rescue therapy for *H. pylori*.

10' Connor A. et al. (2013) *Ir J Med Sci*; 182(4):693-5.

ABSTRACT 6 (15W143) ORAL PRESENTATION

Title of Paper: Photographic documentation of caecal intubation: Are we doing it right?

Author(s): B Hall¹, J Rasool¹, F O' Hara¹, YC Khiev¹, E Carton¹, J Keohane¹, S Patchett², S Sengupta¹

Department(s)/Institution(s): 1. Department of Gastroenterology and Surgery, Our Lady of Lourdes Hospital, Drogheda, Co. Louth
2. Department of Gastroenterology, Beaumont Hospital, Beaumont Road, Dublin 9

Introduction: Caecal intubation rate (CIR) is an important key performance indicator in assessing the quality of colonoscopy. Importantly, high caecal intubation rates are associated with less interval cancers. Caecal intubation can be defined as passage of the tip of the colonoscope past the ileo-caecal valve. However, the metric may be affected by the definition of caecal intubation. This underlines the importance of photographic evidence of caecal landmarks at time of colonoscopy.

Aims/Background: To assess inter-observer agreement of appropriate photographic documentation of caecal intubation.

Method: Data was extracted from EndoRAAD (Manitex, Ireland). Caecal images were isolated and anonymised in an encrypted database. Images were then distributed independently to four experienced endoscopists blinded to baseline data. Each reader was asked to comment on each image (Yes or No) with regard to whether caecal intubation was achieved as per the presence of caecal landmarks. An exact definition of caecal intubation was not supplied to the readers prior to the study. All results expressed as a mean and analysed using SPSS 19 software. Inter-observer agreement was assessed using Cohen's kappa index (0.40-0.8 considered moderately significant, $K>0.8$ considered highly significant).

Results: In total, 200 caecal photos were obtained and analysed. Individually, CIR for reader one, two, three and four was 59% (n=119), 65% (n=130), 68% (n=136) and 72% (n=145),

respectively. The mean caecal intubation rate was 66% (n=132). There did appear to be good inter-observer agreement in terms of photographic evidence of caecal intubation. Mean inter-observer agreement was 93% (n=185). The kappa index assessing inter-observer agreement between each reader is included in table 1.

Conclusions: Photographic documentation of caecal landmarks is an important key performance indicator. This study showed good inter-observer agreement (93%) between a group of experienced endoscopists in defining caecal landmarks which is reassuring. However, a caecal intubation rate of 66% as defined by photographic evidence of caecal landmarks suggests the importance of increasing awareness of adequate photographic documentation of caecal intubation amongst endoscopists.

ABSTRACT 7 (15W151) ORAL PRESENTATION

Title of Paper: Transcriptome analysis of CD4+ T cells in coeliac disease highlighting BACH2 as a key regulatory gene.

Author(s): Ciara Coleman*, Emma M Quinn*, Ben Molloy, Patricia Dominguez Castro, Paul Cormican, Valerie Trimble, Nasir Mahmud, Ross McManus

Department(s)/Institution(s): Department of Clinical Medicine, Trinity College Dublin

Introduction: Genetic studies have to date identified 43 genome wide significant coeliac disease susceptibility (CD) loci comprising over 70 candidate genes. However, how altered regulation of such disease associated genes contributes to CD pathogenesis remains to be elucidated. Recently there has been considerable emphasis on characterising cell type specific and stimulus dependent genetic variants.

Aims/Background: To assay the transcriptome of CD4+ T cells in individuals with CD and those without CD, using various stimuli to determine characteristic gene expression patterns. To use pathway and network analysis to identify key pathways involved in CD and to group genes into biologically related expression modules composed of potentially functionally related genes.

Method: Use RNA sequencing to profile over 70 transcriptomes of CD4+ T cells. To identify key CD biological pathways using Goseq and KEGG pathway annotations. To use WGCNA to group genes into biologically related expression modules.

Results: We identified extensive transcriptional changes across all conditions, with the previously established CD gene IFN γ the most strongly up-regulated gene (log2 fold change 4.6; $P_{adjusted}=2.40 \times 10^{-11}$). We show a significant correlation of differentially expressed genes with genetic studies of the disease to date ($P_{adjusted}=0.002$), and 21 CD candidate susceptibility genes are differentially expressed under one or more of the conditions used in this study. Pathway analysis revealed significant enrichment of immune related processes. Network analysis identified several modules of coordinately expressed CD genes and highlighted IFN γ and the transcription factor BACH2 as key regulatory genes in CD. We show for the first time significant differential expression of BACH2 regulated genes in CD (P

Conclusions: We characterised over 70 transcriptomes from coeliac patients and controls in both resting and stimulated cells and identified large transcriptional changes that significantly mirror previous genetic studies of the disease. Differential expression is



strongly associated with genes of immunological function and is associated with several co-expression networks, the most strongly of which feature IFN γ and BACH2. BACH2 is genetically associated with CD and down regulated under all conditions tested. We identify a strong association of CD with a network of BACH2 regulated genes, supporting emerging evidence of an important role of BACH2 in the regulation of T-cell differentiation and prevention of autoimmune disease.Dd

ABSTRACT 8 (15W154) ORAL PRESENTATION

Title of Paper: C - reactive protein predicts Low Trough Infliximab Concentrations in Patients who Lose Response to Infliximab

Author(s): Marie P. Boyle, Alan C Moss, Aoibhlinn M. O'Toole, Adam S. Cheifetz

Department(s)/Institution(s): Division of Gastroenterology, Beth Israel Deaconess Medical Center & Harvard Medical School, Boston, MA, USA

Introduction: Low serum infliximab (IFX) concentrations are associated with an increased risk of loss of response in IBD. Whether C-reactive protein (CRP) could be used to identify patients with low drug concentrations is unknown.

Aims/Background: The objective of this study was to evaluate the test characteristics of CRP in identifying low serum IFX concentrations.

Method: We measured serum IFX concentrations and CRP levels in patients who experienced symptom deterioration while on IFX (reactive cohort). Receiver operating characteristic (ROC) curves were used to determine the CRP concentration threshold that identified an IFX concentration $<3 \mu\text{g/mL}$ at the time of loss of response. These CRP thresholds for IFX concentration $<3 \mu\text{g/mL}$ were then tested in a separate validation cohort.

Results: The initial cohort contained 111 patients, and the validation cohort contained 139 patients. In 42% of subjects, the serum IFX concentration was $<3 \mu\text{g/mL}$. In the initial cohort, the area under the curve (AUC) for CRP to identify an IFX concentration $<3 \mu\text{g/mL}$ was 0.7 (95% CI 0.6-0.8, $p < 0.001$). A CRP level above 12mg/L in the preceding 90 days provided a 90% specificity for the later detection of IFX concentration $<3 \mu\text{g/mL}$. These test characteristics were similar in the validation cohort.

Conclusions: CRP levels $>12 \text{mg/L}$ exhibit a high specificity for identifying patients with IFX concentration $<3 \mu\text{g/mL}$. CRP may be a cost-effective alternative to identify patients with low concentrations of IFX at the time of, or at risk of, loss of response.

ABSTRACT 9 (15W157) ORAL PRESENTATION

Title of Paper: Changes in Medical Treatment and Surgical Rates in Inflammatory Bowel Disease: A Single Centre Cohort Study 1990-2015.

Author(s): Karen Hartery, Carthage Moran, Juliette Sheridan, Marie Buckley, Garret Horgan, Garret Cullen, Glen Doherty, Hugh Mulcahy.

Department(s)/Institution(s): Dept of Gastroenterology and Centre for Colorectal Disease, St.Vincent's University Hospital, Dublin

Introduction: Inflammatory Bowel Disease (including Crohn's Disease (CD), Ulcerative, and Indeterminate Colitis (UC and IBD-U)) is a chronic disorder where severe disease can result in surgical intervention. Primary indications for surgery include emergency and failure to respond to medical treatment. However, the medical face has majorly been evolving over the last three decades with increasing use of immunomodulators and introduction of biologic treatments.

Aims/Background: Our goal was to assess changes, in our single centre cohort, in exposure to newer IBD medications over time as well as short-term and long-term risk of major among patients diagnosed with IBD since 1990.

Method: Data on our patient population was extracted from our prospectively maintained IBD database. Follow-up dates were taken from PAS Hospital System. Patients were excluded if no diagnosis date was available, they were diagnosed prior to 1990, no follow-up date was available, or their length of follow-up was <1 month. Our patient population then was divided into 3 groups according to their date of diagnosis; 1- 1990-2002, 2- 2003-2008, and 3- 2009-2015. Data was analysis using SPSS statistics program.

Results: A total of 3,497 patients are currently in our IBD database. After the exclusion criteria were applied, 2,597 patients were analyzed. These were divided into 3 groups: Cohort 1-1,258 (551 CD and 707 UC/IBD-U), Cohort 2- 741 (308 CD and 433 UC/IBD-U), and Cohort 3- 598 (250 CD and 348 UC/IBD-U). Our database contained 15,202 years of surgery free follow-up with a mean follow-up per patient of 8.7 years. Cumulative risk of major surgery has significantly decreased in CD ($p = 0.001$)(Fig.1) but not in UC/IBD-U ($p=0.099$) over time. There has been significantly increased and earlier use of biologics agents for treatment of IBD observed over time ($p=0.0001$)(Fig.2).

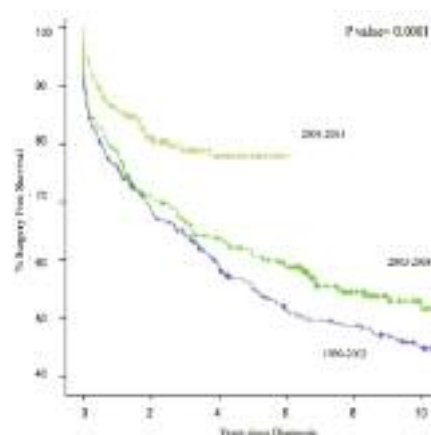


Figure 1. Kaplan Meier Survival Curve for Crohn's Surgery-Free Survival

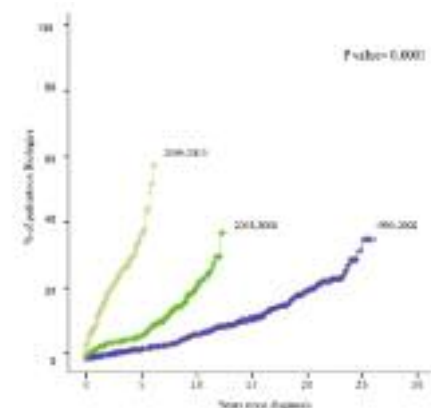


Figure 2. Cumulative Probability of Ever Receiving Biologic Agent in IBD



Conclusions: We have shown time trends to biologic therapy and surgical rates in a single centre cohort study. There has been a reduction in surgical rates in patients with CD over time. Also, we have shown an earlier and increased use of biologic treatment over time.

ABSTRACT 10 (15W166) ORAL PRESENTATION

Title of Paper: Counting the Costs - The Financial Burden of IBD for Patients

Author(s): The Irish Society for Colitis and Crohns Disease (ISCC)

Department(s)/Institution(s): ISCC kindly supported by Abbvie with fieldwork conducted by Accuracy Research

Introduction: There is currently no data available costing the burden of illness for Irish patients suffering with Inflammatory Bowel Disease (IBD).

Aims/Background: The aim of the survey was to gather current information from IBD patients focusing on quantifying the burden of living with the disease. The survey aimed to provide the first comprehensive economic data about the cost to a patient in Ireland of living with the disease.

Method: Questionnaires were distributed to ISCC members as well as outpatient clinics and infusion rooms in hospitals around Ireland. Participants were asked about all aspects of disease from diagnosis through to treatment, patient experience and financial costs. Results: 623 questionnaires were received. Of those who responded 28% classed their disease as mild, 48% as moderate and 24% as severe. 39% of those surveyed report that the symptoms of IBD have significantly affected their lives. The average annual spend by private patients on prescribed medication was €1154. 51% of respondents were availing of the drug Payment scheme. 35% of respondents were in receipt of a medical card, 3% in receipt of a GP Visit card, 1% in receipt of a discretionary medical card. 31% were treated for their IBD privately while 49% were treated solely in the public system. Typically IBD patients will see a GP 3 times per year and their Consultant 2-3 times per year with private patients spending €250 per year on consultant fees. On average patients have spent 3-4 days in hospital in the last year because of symptoms. 31% of respondents had undergone surgery for their IBD. Prior to diagnosis 19% of those with severe disease reported attending the A&E 3 or more times. Overall the annual spend on health related expenditure (including prescriptions) ranged from €1,564 for public patients to €3,111 for private patients. 56% claim the disease has negatively affected their income. The average number of days absent from school/college/work was 17 days which increases to between 33-34 amongst those with severe IBD. Based on the CSO 2014 average wage, average earnings lost equates to approximately €2,320 rising to an average of €4,670 for those with severe illness.

Conclusions: The financial burden of illness is high for patients with inflammatory bowel disease particularly for those treated privately and for those with severe illness. The rate of annual sick leave for employees with IBD is also a large socio-economic burden and a further cause of patient stress.

ABSTRACT 11 (15W172) ORAL PRESENTATION

Title of Paper: FIT-positive Colorectal Cancer (CRC) screening colonoscopy: High sensitivity or just serendipity?

Author(s): David J Gibson¹, Blathnaid Nolan¹, Joanna Rea¹, Sarah

Collins², Maire Buckley¹, Gareth Horgan¹, Kieran Sheahan¹, Glen A Doherty¹, Hugh E Mulcahy¹, Alan Smith³, Garret Cullen¹

Department(s)/Institution(s): ¹Centre for Colorectal Disease, St Vincent's University Hospital; ²MedLab Pathology; ³Bowelscreen -The National Bowel Screening Programme, Ireland

Introduction: Approximately 65% of FIT positive clients in BowelScreen have colonic polyps identified at colonoscopy. It is not known if these polyps are the cause of the positive FIT, particularly when they are less than 10mm in size.

Aims/Background: The aim of this study is to determine if polypectomy in BowelScreen clients is associated with a negative FIT on follow up.

Method: A single centre prospective observational study of consecutive patients attending for first round screening colonoscopy who had a positive FIT (>225ng/ml buffer) as part of the Bowel Screen program. Subjects were consented at the time of their colonoscopy and were sent a further FIT 6-8 weeks later. Pre and post-colonoscopy FITs were compared, and this was correlated with clinical findings and endoscopic intervention.

Results: 112 consecutive first round clients were recruited. Eight patients (7%) had a colonic tumour, 75 had adenomatous polyps (67%), 17 had a normal colonoscopy (15%) and 12 (11%) had other pathology. There was a clear difference in median FIT levels between the 4 groups ($p=0.006$). Advanced pathology (tumour or adenomatous polyp>10mm) was associated with higher FIT than non-advanced pathology (median FIT 1728 vs 443 $p=0.0003$). 83% (86/104) of subjects completed a follow-up FIT. Follow-up FIT remained positive in 20% (17/86). Polypectomy was associated with a reduction in FIT from a median of 498ng/ml to 25ng/ml ($p<0.0001$). Polypectomy was the only factor independently associated with a negative follow-up FIT on multivariate analysis (OR 3.9 (1.3-11.9, $p=0.017$)).

Conclusions: Adenomatous polyps cause a positive FIT test and polypectomy is associated with a negative follow-up FIT in the Bowel Screen programme. This may indicate a role for FIT in surveillance of clients with polyps identified at index colonoscopy.

ABSTRACT 12 (15W173) ORAL PRESENTATION

Title of Paper: Evaluation of the clinical efficacy of Anti-TNF- α drug trough and antibody levels in an Irish Inflammatory bowel disease cohort

Author(s): Donal Tighe, Shivashini Kirthi Jeyarajah, Barry Hall, Sinead Smith, Deirdre McNamara

Department(s)/Institution(s): AMNCH Tallaght/School of Medicine, Trinity College Dublin

Introduction: Anti-TNF- α therapies have resulted in improved IBD care. Variations in trough levels, associated with several factors including antibody status may impact outcome. Although correlation with clinical activity at a single time point is lacking, lower trough levels are associated with loss of response and clinical relapse overtime while higher trough levels are needed to achieve mucosal healing and alter disease course. As yet optimal anti-TNF trough levels are unknown and Irish data is lacking

Aims/Background: Correlate anti-TNF- α trough and antibody levels with clinical outcome over 1 year in a cohort of Irish IBD patients.



Method: In an IBD cohort with previous random anti-TNF trough and antibody levels using ELISA we performed a retrospective follow-up to assess clinical outcomes. Poor outcome was defined as; need for steroids, dose intensification, treatment discontinuation, hospitalisation and surgery. CRP was recorded. Low trough <1ug/ml, high trough 3ug/ml Infliximab and >5ug/ml Adalimumab were documented. Cut-off's for Infliximab and Adalimumab antibodies were 2.5ug/ml and 0.45ug/ml respectively. Trough and antibody status was correlated with outcome, a p value of < 0.05 was considered significant.

Results: In all 74 patients were included, 50% (n=37) male, mean age 41 years, 57% (n=42) received Infliximab, 82.4% (n=61) had Crohn's, mean baseline CRP 4.03. Disappointingly 27% (n=20) overall had a poor outcome, with a similar proportion in each group 24% (n=10) Infliximab and 31% (n=10) Adalimumab. A low trough occurred in only 11% (n= 8), 14.2% (n=6) Infliximab versus 6% (n=2) Adalimumab. Adalimumab antibody prevalence was greater (62.5%, n=20, versus 14.3%, n=6, p<0.001, 95% CI -0.62 to -0.22). Only 9% of Adalimumab antibodies were strongly positive. There was no difference in mean trough according to outcome (4.9ug/ml poor versus 5.4ug/ml good). Antibody positivity did not correlate with low trough levels (16.6% versus 83.3%). While 72% (n=31) on Infliximab achieved a recommended trough >3ug/ml, none on Adalimumab reached a target of >5ug/ml, p<0.0001, 95% CI 0.58-0.90. A higher Infliximab trough was not associated with better outcomes, 3/10 poor versus 8/ 32 good response. Low infliximab trough levels did correlate with high CRP and response, mean CRP 6.66 (n=3) low trough and poor response versus 2.0 (n=24) high trough and good response (p=0.009, 95% CI -0.78 to -0.12).

Conclusions: Our study confirms loss of response is a real problem with anti-TNF therapy (27%). Our data suggests testing in relation to clinical events rather than baseline measurements may be required to optimise therapeutic monitoring.

ABSTRACT 13 (15W184) ORAL PRESENTATION

Title of Paper: Can Patient Characteristics Help Predict Post-TACE Infection?

Author(s): Braniff C, Stratton L, Agnew P, McDougall NI, Cash WJ.

Department(s)/Institution(s): The Liver Unit, Royal Victoria Hospital, Belfast

Introduction: Hepatocellular carcinoma is the third most common cause of cancer death worldwide. At presentation many patients are unsuitable for surgical or curative treatment and trans-arterial chemo-embolisation (TACE) is often used as a palliative treatment. However, TACE is associated with a number of potentially fatal complications including infection. All TACE therapy in Northern Ireland is carried out in the regional Liver Unit, RVH.

Aims/Background: To determine the incidence of post-TACE infection and identify any patient characteristics which predict this outcome.

Method: A database of all patients who had undergone TACE therapy in NI from Jan 2006 to Jan 2014 was accessed. Chart review was used to identify which patients had developed post-TACE infections requiring intravenous antibiotics. This group was then compared to a control group of patients who had suffered no complications.

We compared data on variables including patient age, gender, tumour size, number of treatments, underlying liver disease, and co-

morbidities. Pre treatment blood tests were recorded and used to calculate MELD, UKELD and Child Pugh scores.

Results: 131 patients underwent TACE in the RVH during the 8 year period. 18 patients (16 men, 2 women) developed infections. 79 patients (65 men, 14 women) had no complications and were included in the control group.

There were significant differences between the infection and control group with regards average age (74 vs 65.8 years), creatinine level (102 vs 88.3) and tumour size (7.84 vs 4.98cms). There was a significant difference in co-morbidity. 88.9% of the infection group had a history of cardiac or chest disease compared with 22.8% in the control group.

There was no significant difference between the groups with regard MELD, UKELD, Child Pugh scores or afp.

Conclusions: Increasing age, elevated creatinine, large tumour size and cardio-respiratory co-morbidity are associated with higher rates of post TACE infection. This information could aid decision-making regarding patient suitability for TACE therapy and raises the question of whether antibiotic prophylaxis should be considered for those at higher risk of infection.

ABSTRACT 14 (15W190) ORAL PRESENTATION

Title of Paper: Chronic inflammatory conditions carry a similar higher cardiovascular risk compared to the general population warranting screening.

Author(s): S.Kirthi, M.Hussey, AM Tobin, D.McNamara

Department(s)/Institution(s): Departments of Gastroenterology and Dermatology, Tallaght Hospital and Trinity College Dublin

Introduction: It is well recognised that chronic inflammatory diseases cause an increased risk of cardiovascular disease (CVD). The relative risk for different diseases is unknown. Investigation of the risk in a variety of conditions could help identify disease specific risk factors.

Aims/Background: To determine the CVD risk among two cohorts with common inflammatory conditions, psoriasis (PD) and Crohn's Disease (CD)

Method: Patients with CD and PD with no history of CVD were prospectively recruited from IBD and Dermatology clinics. Non-inflammatory controls without a history of CVD were recruited from outpatients. Demographic details, smoking history (pack years PY), disease severity (Harvey Bradshaw Index, HBI and Psoriasis Area Severity Index, PASI) and diabetes were recorded at interview. Blood pressure and waist circumference (WC) were measured. Fasting lipid profile, glucose, insulin & homocysteine (Hcy) levels were obtained. Insulin resistance (IR) was calculated using the Homeostatic Model Assessment calculator. A Framingham risk (FR) was calculated predicting the 10 year risk of CVD , <10% low, 10-20% intermediate and >20% high risk and compared between groups, a p< 0.05 was considered significant.

Results: To date 91 CD, 103 PD and 40 controls were recruited, mean age 40(range 19-69), 43(range 19-69) and 43(range 21-72) respectively. PD had a greater; percentage of men (51% vs 36%, p<0.04), disease duration (23 vs 13 years, p<0.0001), disease severity (mean PASI 10 vs HBI 1.5) and smoking history (11.5 vs 4.5 PY, p<0.006) compared to CD. Mean FR was 7.4% vs 5.4% vs 2.8% in PD, CD and control groups respectively. Overall frequency of a high FR was greater in patients with disease versus controls, 6.4 vs 3 (p<0.0001). There was also a higher mean BMI (26 vs 25,



$p < 0.0001$), WC (95.6 vs 89, $p = 0.03$), TG (1.32mmol/L vs 1mmol/L, $p < 0.02$), and smoking level (7.2 vs 1.4, $p = 0.0005$) between disease and control groups. The FR in CD versus Psoriasis however was not different (7.4 vs 5.4). In addition there was no difference in most risk factors including glucose, HDL, high CRP, IR and homocysteine levels between disease groups apart for TG (CD 1.5mmol/L vs 1.2mmol/L PD, $p < 0.01$).

Conclusions: Our study confirms an increased risk of CVD in chronic inflammatory conditions. The CVD risks for both conditions was similar supporting a common multifactorial aetiology. NICE guidelines recommend that patients with severe psoriasis should have CVD screening a similar strategy may need to be considered for CD.

ABSTRACT 15 (15W191) ORAL PRESENTATION

Title of Paper: Real-world outcomes from the national HCV treatment registry

Author(s): E Gray, A. O'Leary, C Bergin, G. Courtney, M. Cannon, O. Crosbie, C. deGascun, E. Feeney, D Houlihan, B. Kelleher, JS. Lambert, J. Lee, P. Mallon, S. McConkey, A. McCormick, S. McKiernan

Department(s)/Institution(s): School of Medicine, Trinity College, Dublin, Ireland; National Centre for Pharmacoeconomics; St James' Hospital, Dublin, Ireland; Irish Hepatitis C Outcomes and Research Network

Introduction: The Irish Hepatitis C Outcomes and Research Network (ICORN) national HCV treatment registry was established in 2012 to prospectively collect clinical and economic outcomes for patients treated for HCV infection with regimens containing direct-acting antiviral agents (DAAs) in the post-reimbursement setting. Patients treated in seven hospitals across hepatology, gastroenterology and infectious disease disciplines were included in this national registry.

Aims/Background: To report the clinical outcomes for patients treated with interferon-based or interferon-free regimens in the Irish real-world clinical setting, for whom final outcomes have been achieved.

Method: All patients consented for participation in the registry were included. Demographic data, relapse rates, discontinuation rates and sustained viral response (SVR) rates are captured during treatment and follow-up, and entered into a secure electronic platform.

Results: Between June 2012 and September 2015, 668 patients commenced treatment with interferon-based ($n=330$) and interferon-free regimens ($n=338$), and were enrolled in the registry. Genotype 1 accounted for 87% of the total cohort, and GT3 11%. Outcome data is currently available for 264 interferon-based and 100 interferon-free patients. The overall SVR24 rate among GT1 patients, of whom 25% were cirrhotic, treated with interferon-based regimens was 68% (179/264); 73% (132/180), 55% (42/76) and 63% (5/8) in patients prescribed telaprevir (TPV) with pegylated interferon and ribavirin (PR), boceprevir (BOC)/PR and simeprevir (SIM)/PR respectively. The overall discontinuation rate was 31% with a relapse rate of 5%. The median age for 100 patients (62% male) with advanced liver disease (CPT ≥ 7 , and/or evidence of decompensation) treated with sofosbuvir/ledipasvir and ribavirin (SOF/LDV/RBV) was 49 years (range 34-79). One third were reported to have had an episode of decompensation. The genotypic profile was 70% GT1, and 23% GT3. The SVR12 rate in this cohort

was 80% and 34% in GT1 and GT3 respectively (Table 1). Eleven patients (12%) prematurely discontinued therapy, of whom 7 patients died on treatment. Sixteen patients relapsed following treatment, primarily driven by a high rate in GT3 (10/23). Two further relapses were obtained in patients with genotype 4 and of a mixed profile.

Conclusions: Robust observational Irish data is essential for evaluating and understanding the true effectiveness of newer treatment regimens for hepatitis C and provide valuable information for Irish health policy makers and decision makers regarding allocation of resources. Results from this national dataset are comparable to other European and international studies.

ABSTRACT 16 (15W199) ORAL PRESENTATION

Title of Paper: The expression of Dual Specificity Phosphatases (DUSP) 1, 5 and 6 is modulated by acid and bile acid exposure, and varies at different stages of oesophageal carcinogenesis.

Author(s): McEnroy, D.M.^{1,2}, Kirca M.^{1,2}, MacGarrigal S.³, Zaheer A.^{1,2}, Reynolds J.V.³, Duggan, S.P.⁴ & Kelleher, D.⁴

Department(s)/Institution(s): 1Dept. of Clinical Medicine, Trinity College Dublin, St. James's Hospital, Dublin 8, Ireland 2Dept. of Gastroenterology, St. James's Hospital, Dublin 8, Ireland 3Dept. of Surgery, Trinity College Dublin.

Introduction: Reflux damage caused by gastric / bile acids predisposes to the development of Oesophageal Adenocarcinoma (OAC) and its metaplastic precursor Barrett's Oesophagitis (BO). During this process inflammatory and proliferative pathways regulated by ERK, AP-1 and NF- κ B are known to be deregulated. Dual Specificity Phosphatases (DUSPs) play an important role in modulating inflammatory processes, cell proliferation and cell death through de-phosphorylation of mitogen-activated protein kinase ERK. DUSP expression has been found to differ between various other cancers and their more benign precursors (e.g. in the pancreas).

Aims/Background: The aims of this study were to ascertain the expression status of DUSPs 1, 5, and 6 in clinical samples of BO and OAC relative to normal squamous oesophageal samples, and to examine whether DUSP expression may be influenced by exposure to simulated reflux events in cell lines derived from normal squamous, dysplastic BO and adenocarcinomatous oesophageal tissues.

Method: DUSP1, 5 and 6 levels were compared in patient samples of OAC ($n=21$), BO ($n=17$) and normal squamous tissue ($n=19$) using RT-PCR. Cells from squamous (HET1A, HEEC), dysplastic (GOH-TRT), and adenocarcinoma (SKGT4) cell lines were exposed to varying concentrations of de-oxycholic acid (DCA) and pulses of HCl, and DUSP 1, 5 and 6 levels were compared with resting cells at different time-points using RT-PCR.

Results: Significant up-regulation of DUSPs 1 and 6 ($p=0.02$, $p<0.0001$) was observed in BO tissues but was surprisingly absent in the OAC patients. DUSP5 expression was significantly increased in the OAC patient cohort ($p<0.0001$) in contrast with its substantial down-regulation in the BO tissue ($p<0.001$). DCA exposure induced changes in DUSP expression in all of the cell lines tested. In cells treated with DCA concentration 250uM for 12 hours, DUSP6 was down-regulated in the squamous cell lines (HET1A log fold change (LFC) = 0.5, HEEC LFC = 0.4), was up-regulated in the dysplastic cells (GOH-TRT LFC = 12), and the magnitude of LFC was reduced in the cancer cell line (SK-GT4 LFC = 1.4). In cancer



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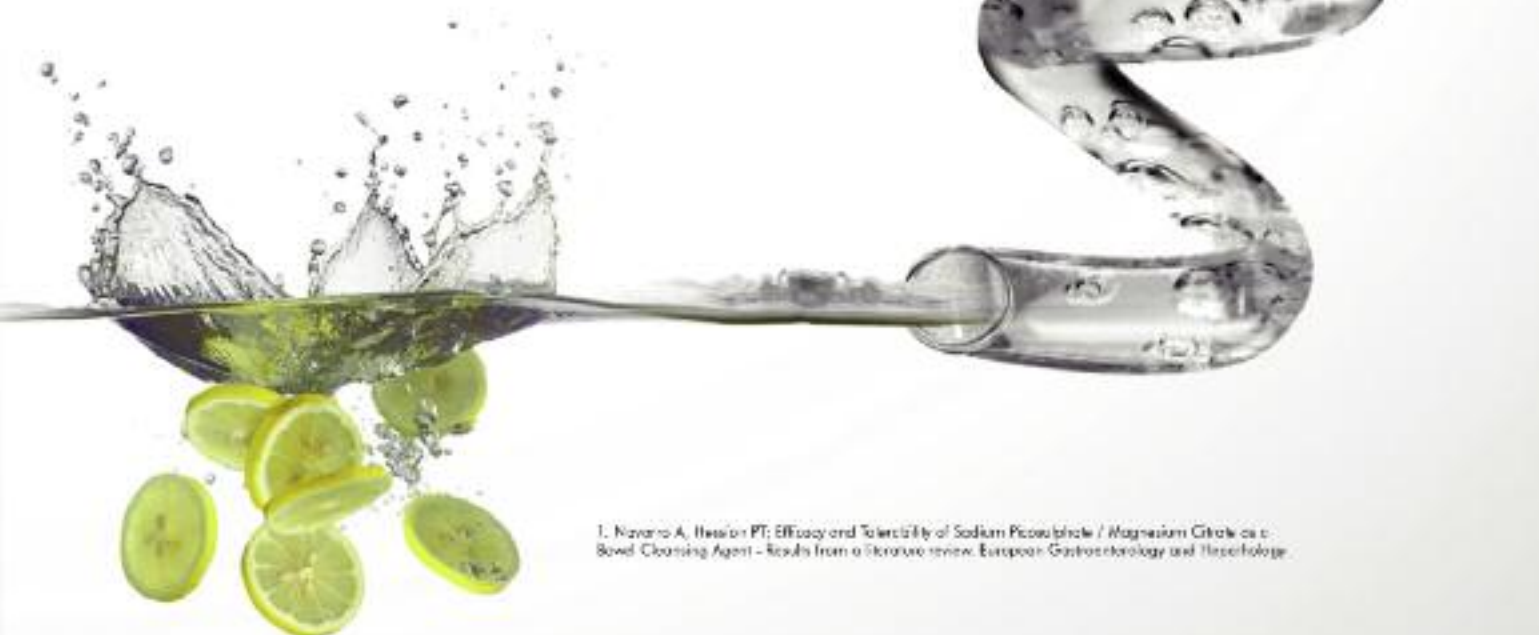
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1. Navarro A, Hession PT. Efficacy and Tolerability of Sodium Picosulfate / Magnesium Citrate as a Bowel Cleansing Agent – Results from a literature review. *European Gastroenterology and Hepatology*.

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Preparation: Sachets of powder (15.08g) containing sodium picosulfate (10.8mg), magnesium oxide (3.5g), citric acid anhydrous (10.97g). Each sachet contains 3mmol (195mg) of potassium.

Indication: Bowel cleansing prior to any diagnostic procedure that requires a clean bowel.

Dosage: Adults only. One sachet reconstituted in water taken orally before 8.00am on the day before the procedure and second sachet 6-8hrs later.

Contraindications: Hypersensitivity to ingredients, congestive cardiac failure, severe dehydration, hypomagnesaemia, gastric retention, GI ulceration, toxic colitis or megacolon, ileus, nausea and vomiting, ascites, acute surgical emergencies, active inflammatory bowel disease, rhabdomyolysis, severely reduced renal function.

Precautions and Warnings: Risk of electrolyte imbalance in debilitated and elderly patients at risk of hyponatraemia or hypokalaemia. Care with recent GI surgery, renal impairment, dehydration, hypertension and heart disease.

Interactions: Increased GI transit time may affect other oral medications. Separate dosage of tetracyclines, fluoroquinolone antibiotics and penicillins to avoid chelation with magnesium. Efficacy is lowered by bulk forming laxatives. Caution with drugs associated with hypokalaemia or known to induce Syndrome of Inappropriate Antidiuretic Hormone.

Pregnancy and lactation: No data available. Preferable to avoid.

Side effects: common abdominal pain, nausea, and consequences of diarrhoea and mild dehydration (dry mouth, thirst, headache, fatigue, sleep disorder); uncommon dizziness, orthostatic hypotension, vomiting, focal incontinence; not known anaphylactoid reaction, hypersensitivity, rash, pruritus, hyponatraemia, epilepsy, convulsions, confusion, state, pain.

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Date of Preparation: April 2015



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cell line SK-GT4, pulsatile exposure to acidic pH simulating reflux events induced increases in DUSP expression, which were still present 24 hours later (DUSP1 LFC = 1.4, $p < 0.01$; DUSP5 LFC = 8.9, $p < 0.0001$; DUSP6 LFC = 14.5, $p < 0.001$). Use of BCI, a chemical inhibitor of DUSPs 1 and 6, is associated with reduced cell proliferation in the dysplastic BO cell line GOH-TRT.

Conclusions: DUSP expression differs between the normal, BO and OAC tissues, and is altered in response to acid and bile acid exposure. Further work is ongoing to assess their potential as therapeutic targets in the prevention and treatment of oesophageal cancer.

ABSTRACT 17 (15W218) ORAL PRESENTATION

Title of Paper: Metastatic Microenvironment of Human Liver, Characterised by Increased Levels of IL6, VEGF and GMCSF, Blocks Interferon γ Production by Natural Killer Cells

Author(s): Hand F (1,2), Harmon C (2), Elliott L (3), Caizza F (3), Nolan N (2), Geoghegan J(1), Ryan EJ (3), O'Farrelly C (2)

Department(s)/Institution(s): (1) National Liver Unit, St.Vincent's Hospital, Elm Park, Dublin. (2) School of Biochemistry & Immunology and School of Medicine, Trinity Biomedical Sciences Institute, Trinity College, Dublin. (3) Centre for Colorectal Disease, School of Medicine and Medical Sciences, University College Dublin & St. Vincent's Hospital, Elm Park, Dublin.

Introduction : The healthy liver is immunologically equipped for effective immune surveillance, with repertoires of potent anti tumour lymphoid populations including NK cells, CD8⁺ T lymphocytes and iNKT cells. These populations are functionally compromised in liver metastases and are therefore important immunotherapeutic targets. Here we explore the hypothesis that the immune micro environment of metastatic liver is responsible for compromised NK function thereby contributing to metastatic development.

Aim: To examine the cytokine and growth factor milieu of metastatic and healthy liver and test its effect on Natural Killer cell activity

Patients and Methods: Twenty-five patients with colorectal liver metastases (CRLM) undergoing liver resection were prospectively recruited to this study. Biopsies of freshly resected tumour, tumour adjacent liver and liver at the distal resection margin were cultured in vitro to obtain metastatic conditioned media (CM). Using an antibody array, metastatic CM was screened for 102 cytokines and proinflammatory mediators and compared to CM from healthy control liver. Differentially expressed cytokines ($n=12$) were quantified using luminex-based multiplex analysis. The effect of metastatic and healthy CM on NK function was assessed.

Results: Healthy liver biopsies secreted high levels of diverse cytokines and growth factors. Several cytokines demonstrated altered expression in the metastatic microenvironment. Metastatic liver was characterised by increased expression of several proinflammatory mediators including IL6 ($p=0.03$), VEGF ($p=0.006$) and RANTES ($p=0.006$). Furthermore, LIF ($p=0.0008$) GMCSF ($p=0.04$) and IP10 (0.01) levels were increased at the distal resection margin when compared to control indicating that the whole organ, not just the immediate environment was responding immunologically to the tumour. CM from tumour-bearing liver tissue, inhibited IFN γ production by Natural Killer Cells.

Conclusion: Healthy human liver has a highly evolved anti-tumour immune repertoire which is maintained by a complex cytokine environment with pro-inflammatory and immunosuppressive activity. The altered cytokine profile of the metastatic microenvironment inhibits NK cell function, perhaps potentiating tumour growth and metastatic recurrence.

ABSTRACT 18 (15W 222) ORAL PRESENTATION

Title of Paper: Gut Microbiome alterations in Depression: relevance to pathophysiology

Authors: Kelly JR^{1,2}, Borre Y¹, O' Brien C³, El Aidy S^{1,4}, Deane J³, Patterson E³, Kennedy¹ PJ, Beers S¹, Scott K¹, Moloney G¹, Scott L², Ross P³, Stanton C³, Cryan JF^{1,5}, Dinan TG^{1,2}, Clarke G^{1,2}

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Background Pre-clinical evidence suggests that the microbiota can recruit the brain-gut communication system to modulate brain development, function and behaviour. The pathophysiology of depression involves neuroimmune-endocrine dysregulation, however, the extent to which changes in the gut microbiota composition and function mediate dysregulation of these pathways in depression is currently unknown.

Methods Thirty four patients with major depression and 33 matched healthy controls were recruited. Cytokines, CRP, Salivary Cortisol and plasma Lipopolysaccharide binding protein were determined by ELISA. Plasma tryptophan and kynurenine were determined by HPLC. Fecal samples were collected for 16sRNA metagenomic sequencing. A FMT was prepared from a sub group of depressed patients and controls and transferred by oral gavage to a microbiota-deficient antibiotic rat model.

Results Depression is associated with altered gut microbiota composition, richness and phylogenetic diversity. We show that FMT from depressed patients to microbiota-deficient rats can induce the development of behavioural and physiological features of depression in the recipient animals. This includes anhedonia and anxiety like behaviours, altered tryptophan metabolism and a decrease in intestinal transit time.

Conclusion Our results confirm that depression is associated with a distinct microbial signature which is capable of inducing alterations in behaviour, neurobiology and gastrointestinal physiology when transferred to microbiota-deficient animals. This suggests that the gut microbiota may play a causal role in the development of core behavioural and neurobiological features of depression and may provide a tractable target in the treatment and prevention of depression.

ABSTRACT 19 (15W102) POSTER PRESENTATION

Title of Paper: The association between serum vitamin D status and disease activity in paediatric inflammatory bowel disease

Author(s): O'Neill, E, Raftery, T, Broderick, A, Bourke, B, Hussey S



Department(s)/Institution(s): Our Lady's Children's Hospital Crumlin, National Children's Research Centre, Health Research Board

Introduction: The role of vitamin D has been investigated in numerous inflammatory conditions including inflammatory bowel disease (IBD). Paediatric and adult studies show vitamin D status associates with disease initiation, progression and severity. This had yet to be investigated in an Irish paediatric cohort.

Aims/Background: (1) To determine the vitamin D status at diagnosis of paediatric IBD patients referred to the National Centre for Paediatric Gastroenterology.
2) To describe differences in vitamin D status observed between children diagnosed with Crohn's disease (CD) and ulcerative colitis (UC).
3) To investigate associations between vitamin D status and markers of systemic (C reactive protein, CRP), and intestinal inflammation (faecal calprotectin, FC) and disease activity (Paediatric Ulcerative Colitis Activity Index, PUCAI score/ Paediatric Crohn Disease Activity Index, PCDAI score).

Method: Data was obtained from the Determinants and Outcomes in Children and Adolescents with IBD Study (DOCHAS). Classification of patients was based on diagnosis at recruitment. Vitamin D status was compared with PUCAI/ PCDAI, CRP status, and FC status. Serum 25(OH)D concentration was used to assess vitamin D status. Vitamin D deficiency was defined as serum 25(OH)D <50nmol/l.

Results: Three hundred and thirty-eight children were included (Table1). 25(OH)D was suboptimal in 80.7% of cases. Serum 25(OH)D inversely correlated with PCDAI ($r = -0.490$, $p < 0.001$), age ($r = -0.367$, $p < 0.001$) and CRP ($r = -0.534$, $p < 0.001$). Correlation analysis was non-significant between serum 25(OH)D and FC ($r = -0.084$, $p = 0.724$), and PUCAI ($r = -0.239$, $p = 0.123$). ANOVA test showed no significance between 25(OH)D status and season, diagnosis, or living arrangement.

Conclusions: Vitamin D deficiency is common in paediatric IBD irrespective of diagnosis, season or living arrangement. Serum 25(OH)D inversely associates with systemic inflammation (CRP) and severity of disease in CD (PCDAI). Further study is warranted, as reverse causality cannot be excluded. Year-round supplementation of vitamin D should be considered. Investigation of the affect of vitamin D supplementation on disease activity in paediatric CD is advisable.

ABSTRACT 20 (15W104) POSTER PRESENTATION

Title of Paper: Review of the management of acute severe colitis in the Northern Trust

Author(s): Adgey C, Manikpure G.

Department(s)/Institution(s): Department of Gastroenterology, Northern Trust Altnagelvin Hospital.

Introduction: Acute colitis is a medical emergency and many patients require colectomy despite increasing use of immunomodulators and biologics. Optimum management relies on recognition of the unwell patient and early consideration for step up treatment in steroid non-responders.

Aims/Background: The aim of this study is to evaluate outcome of acute ulcerative colitis in NHSCT and use of rescue infliximab

Method: A retrospective study was carried out involving patient who presented with acute colitis as per Truelove and Witt criteria between Aug 2014 and Jan 2015.

Clinical notes were reviewed for demographic and biochemical data. Day 0 and day 3 data was examined for stool frequency, CRP, temperature, pulse and haemoglobin.

The primary outcome was response to hydrocortisone. If the patient did not respond then the notes were reviewed for the next modality used and the final outcome

Results: There were 10 patients admitted with a severe flare of ulcerative colitis. 70% were men and the average age was 31 yrs with a range of 16-60years old.

50% of the patients had trialled prednisolone in the community All patients were on some form of oral 5ASA, 1 patient was on humira and methotrexate, one patient was on infliximab and 2 were on azathioprine.

All patients had some response to intravenous steroids with the average stool volume falling from 10 on day 0 to 5 on day 3 ($p = 0.0002$). There was no significant change in temperature from day 0 to day 3 (36.7°C to 36.6°C, $p = 0.66$). Heart rate improved from average of 97.6bpm on day 0 to 76bpm on day 3 however this change was not significant ($p = 0.075$). CRP improved for all patients falling from an average of 90.1 to 34.9 ($p = 0.08$).

Five patients responded completely to hydrocortisone, while five were partial responders needing step up treatment. Their stool volume fell from 9.5 to 7 ($p = 0.06$) and their CRP fell from 66 to 38 ($p = 0.40$). One patient developed toxic megacolon while on biologics. The three biologic naive patients received infliximab therapy with successful outcomes; the two who were already getting biologics went for surgery

Mean hospital stay was 4 days for the patients who responded to IV hydrocortisone, 7 days for the infliximab patients and 24.5 days for the patients who required surgery.

Conclusions: Overall 50% of patients responded to steroid therapy, 20 % needed Surgery and 30% were rescued with infliximab. Patients who received biologics had significantly lower hospital stays compared with surgery.

ABSTRACT 21 (15W106) POSTER PRESENTATION

Title of Paper: A 104 week mucosal healing and intention to treat analysis of symptomatic small bowel Crohn's disease

Author(s): B Hall¹, G Holleran¹, L Chapman¹, B Ryan¹, N Mahmud², D McNamara¹

Department(s)/Institution(s): 1. Department of Gastroenterology, AMNCH, Tallaght, Dublin 24 2. Department of Gastroenterology, St James's Hospital, James's Street, Dublin 8

Introduction: Mucosal healing in colonic Crohn's disease (CD) is recognised as an important treatment goal. Limited data from small bowel studies suggest mucosal healing is achievable in ileal CD. However, there is no follow-up data available to show improved long-term outcomes in patients achieving complete mucosal healing of the small bowel.

Aims/Background: This study provides the first two-year prospective data on mucosal healing outcomes in a cohort of symptomatic small bowel CD patients.

Method: Patients commencing thiopurine or adalimumab therapy were recruited and initially followed over a one year period. Capsule endoscopy (SBCE) was utilised to diagnose and monitor



small bowel CD activity. As part of this study extension, a further two year assessment was performed. An intention to treat analysis was also performed assessing long-term outcomes between patients with or without mucosal healing; including need for steroids and/or hospitalisation over the two year period.

Results: In total, 71 patients were screened with 51 included in the final analysis. Overall, 125 SBCE were performed on 43 patients over the 2 years. One year data demonstrated a 42% mucosal healing rate ($p < 0.0001$ 95% CI -0.62 to -0.22). In all, 17 patients underwent 2 year SBCE assessment. There was only a 5% drop-off in mucosal healing rates compared to one year assessment. In ITT analysis, mucosal healing was associated with decreased steroid usage ($p < 0.006$ 95% CI -0.90 to -0.27), decreased need for step-up in therapy ($p < 0.001$ 95% CI -0.88 to -0.24) and decreased hospitalisation rates ($p < 0.0059$ 95% CI -0.79 to -0.14). Although not quite statistically significant, there was also a decreased need for surgical intervention ($p < 0.06$)

Conclusions: Mucosal healing of small bowel CD can be safely and effectively monitored using SBCE. Importantly, mucosal healing is achievable (42%) and sustainable (95%) over a long time period. Mucosal healing also correlates with improved long-term patient outcomes including decreased need for steroids, hospitalisation and surgery.

ABSTRACT 22 (15W107) POSTER PRESENTATION

Title of Paper: Chronic Pancreatitis (CP) in Primary Care: the management of an orphan disease

Author(s): Ní Chonchubhair, HM, O'Shea B, Duggan S, Ryan B, Conlon KC

Department(s)/Institution(s): Professorial Surgical Unit, Dept of Surgery, Tallaght Hospital & Trinity College Dublin. Dept of Public Health and Primary Care, Trinity College Dublin. Dept of Gastroenterology Tallaght Hospital

Introduction: There are no data regarding the incidence, prevalence, hospitalisation, aetiology or management of CP in Ireland, nor have the experiences/insights of frontline clinicians been sought.

Aims/Background: We devised a GP survey, and distributed it to a random sample of 20% nationally. This explored trends in primary care CP management, GPs' insights and concerns regarding CP management and the potential for the development of a national CP disease registry.

Method: A 23-question survey was twice posted to 563 randomly-selected GPs. The survey was first piloted ($n=20$). Preliminary analysis of the first 100 surveys is presented. Data were analysed using SPSS and content analysis of qualitative information.

Results: Most respondents (69%) were male and 87% had >8 years experience. Most (96%) were unaware of any national/international consensus guidelines for CP management. Whilst 61% of GPs reported having CP patients in their care, 40% actually code for these in their practice. Almost half (49%) have no access to multidisciplinary team support. 48% indicated a disease registry would be useful, however only 26% felt it would be actively used. 40% of GPs indicated they were "unhappy" with current care levels.

Conclusions: Deficits exist in guideline knowledge, MDT support and CP management in the Irish primary care setting. Many GPs

were unsure if a disease registry would be utilised by healthcare professionals, and most were unhappy with the prospect of ongoing CP care. The survey was couched with reference to the principals of good chronic disease management, and based on these results, evidently CP is not currently being managed as a chronic disease.

ABSTRACT 23 (15W108) POSTER PRESENTATION

Title of Paper: Interval colorectal cancers in the setting of the Bowel Cancer Screening Programme in South Eastern Health & Social Care Trust

Author(s): Reed O, Loughrey MB, Ing G, Fitzsimmons G, Armstrong G, Owen T, Caddy G

Department(s)/Institution(s): Department of Gastroenterology, The Ulster Hospital, South Eastern Health & Social Care Trust

Introduction: The introduction of bowel cancer screening programmes (BCSP) have been shown to reduce mortality of colorectal cancer (CRC) by 16%. BCSP using faecal-occult blood (FOB) testing was implemented in Northern Ireland in April 2010.

Aims/Background: To retrospectively review patients who were diagnosed with CRC and to identify interval cancers. These were identified as two types: those arising in individuals during the screening interval after either a negative FOB test or after a positive FOB test and subsequent negative (for cancer) colonoscopy.

Method: We retrospectively collected data over the last five years of patients diagnosed with CRC. This data was cross referenced by Public Health with the bowel cancer screening database to see if patients had participated.

Results: Data was collected from January 2011 to July 2015. A database of 475 patients was identified. To detect interval cancers we specifically looked at patients diagnosed from 2013 onwards and were able to analyse data from 254 patients.

62.2% (158) patients were diagnosed with colorectal cancer that did not attend screening / were non-responders. 21.3% (54) patients were diagnosed as a screen detected cancer.

15.7% (40) patients were subsequently diagnosed with CRC despite having either one or two negative FOBs.

2 patients (0.79%) were classified as interval cancers. One was thought to be missed pathology and the second was thought to be due to aggressive pathology.

Conclusions: Since commencing bowel screening within the SE Trust, we have detected 2 interval cancers. One of these is likely to be aggressive pathology type and one truly missed cancer.

ABSTRACT 24 (15W109) POSTER PRESENTATION

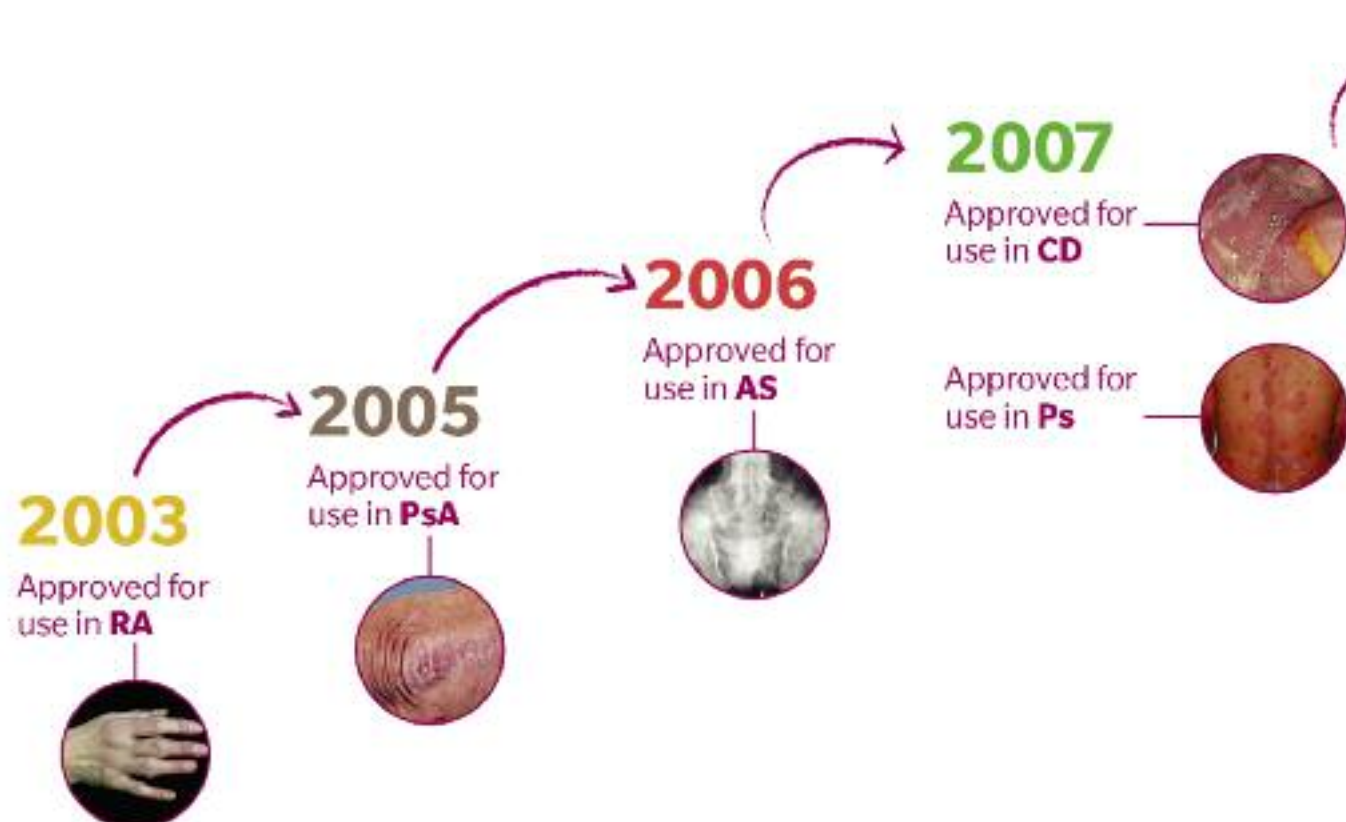
Title of Paper: Altered expression of inflammatory caspases during inflammatory bowel disease and colorectal cancer.

Author(s): B. Flood¹, K. Oficjalska¹, D. Laukens², J. Fay³, K.H.G. Mills¹, K. Sheahan⁴, E.J. Ryan⁴, G.A. Doherty⁴, E. Kay³ and E.M. Creagh¹.

Department(s)/Institution(s): ¹School of Biochemistry & Immunology, Trinity Biomedical Sciences Institute, Trinity College Dublin, Ireland; ²Department of Gastroenterology, Ghent

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HUMIRA in combination with methotrexate, is indicated for:

- the treatment of moderate to severe, active rheumatoid arthritis in adult patients when the response to disease-modifying anti-rheumatic drugs including methotrexate has been inadequate.
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HUMIRA can be given as monotherapy in case of intolerance to methotrexate or when continued treatment with methotrexate is inappropriate. HUMIRA has been shown to reduce the rate of progression of joint damage as measured by X-ray and to improve physical function, when given in combination with methotrexate.

Psoriatic Arthritis (PsA)

HUMIRA is indicated for the treatment of active and progressive psoriatic arthritis in adults when the response to previous disease-modifying anti-rheumatic drug therapy has been inadequate. HUMIRA has been shown to reduce the rate of progression of peripheral joint damage as measured by X-ray in patients with polyarticular symmetrical subtypes of the disease and to improve physical function.

Ankylosing Spondylitis (AS)

HUMIRA is indicated for the treatment of adults with severe active ankylosing spondylitis who have had an inadequate response to conventional therapy.

Crohn's Disease (CD)

HUMIRA is indicated for treatment of moderately to severely active Crohn's disease, in adult patients who have not responded despite a full and adequate course of therapy with a corticosteroid and/or an immunosuppressant; or who are intolerant to or have medical contraindications for such therapies.



Psoriasis (Ps)

HUMIRA is indicated for the treatment of moderate to severe chronic plaque psoriasis in adult patients who failed to respond to or who have a contraindication to, or are intolerant to other systemic therapy including cyclosporine, methotrexate or PUVA.

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HUMIRA in combination with methotrexate is indicated for the treatment of active polyarticular juvenile idiopathic arthritis, in patients from the age of 2 years who have had an inadequate response to one or more disease-modifying anti-rheumatic drugs (DMARDs). HUMIRA can be given as monotherapy in case of intolerance to methotrexate or when continued treatment with methotrexate is inappropriate. HUMIRA has not been studied in patients aged less than 2 years.

Paediatric Crohn's Disease (Paed CD)

HUMIRA is indicated for the treatment of severe active Crohn's disease in paediatric patients (from 6 years of age) who have had an inadequate response to conventional therapy including primary nutrition therapy, a corticosteroid, and an immunomodulator, or who are intolerant to or have contraindications for such therapies.

Hidradenitis Suppurativa (HS)

HUMIRA is indicated for the treatment of active moderate to severe hidradenitis suppurativa (acne inversa) in adult patients with an inadequate response to conventional systemic HS therapy.

Full prescribing information is available upon request from AbbVie Limited, Block B, Liffey Valley Office Campus, Quarryvale, Co Dublin, Ireland. **Legal category:** POM. **Marketing Authorisation Numbers:** EU/1/03/256/001-005, EU/1/03/256/007-010. **Marketing Authorisation Holder:** AbbVie Ltd., Maidenhead, Berkshire SL6 4UB, UK. **Reference:** 1. HUMIRA [summary of product characteristics]. AbbVie Ltd.

Paediatric plaque psoriasis (Paed Ps)

Treatment of severe chronic plaque psoriasis in children and adolescents from 4 years of age with an inadequate response to or who are inappropriate candidates for topical therapy and phototherapies.

Ulcerative Colitis (UC)

HUMIRA is indicated for treatment of moderately to severely active ulcerative colitis in adult patients who have had an inadequate response to conventional therapy including corticosteroids and 6-mercaptopurine (6-MP) or azathioprine (AZA), or who are intolerant to or have medical contraindications for such therapies.

Axial Spondyloarthritis Without Radiographic Evidence of AS (nr-axSpA)

HUMIRA is indicated for the treatment of adults with severe axial spondyloarthritis without radiographic evidence of AS but with objective signs of inflammation by elevated CRP and / or MRI, who have had an inadequate response to, or are intolerant to nonsteroidal anti-inflammatory drugs.

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University, Belgium; ³RCSI and Beaumont Hospital, Dublin.

Introduction: Caspases are a group of proteolytic enzymes involved in the co-ordination of cellular processes, including cellular homeostasis, inflammation and apoptosis. Altered activity of caspases, particularly caspase-1, has been implicated in the development of intestinal diseases, such as inflammatory bowel disease (IBD) and colorectal cancer (CRC). However, the involvement of two related inflammatory caspase members, human caspases-4 and -5 (or their murine equivalent, caspase-11) during intestinal homeostasis and disease has not yet been established.

Aims/Background: This study aimed to characterise the involvement of inflammatory caspases during IBD and CRC.

Method: IHC techniques were employed to examine the cellular expression levels of Inflammatory Caspases in ulcerative colitis (UC) and CRC patients (both sporadic and UC-associated CRC) at various stages of disease severity.

Experimental models of acute colitis (elicited by dextran sodium sulfate (DSS)) and CRC (elicited by azoxymethane (AOM) and DSS) were also performed in control and caspase-11 deficient mice, to determine the importance of caspase-11 (the caspase-4/-5 equivalent in mice) during these disease models.

Results: Increased expression of caspases-4 and -5 in infiltrating immune cells strongly correlated with inflammation scores and disease activity in UC patients. In CRC patients, caspases-4 and -5 were selectively expressed in malignant epithelial cells. Examination of adjacent-normal, inflamed and tumour tissue confirmed that epithelial expression is specific to neoplastic tissue. Murine studies revealed that caspase-11 is protective during experimental models of UC and UC-associated CRC.

Conclusions: This study identifies epithelial-expressed caspases-4 and -5 as novel biomarkers for CRC. It also identifies caspases-4 and -5 as potential targets for the therapeutic regulation of intestinal inflammation.

ABSTRACT 25 (15W110) POSTER PRESENTATION

Title of Paper: Randomised controlled trial of information leaflet on preference for endoscopy sedation: Impact of a 'nudge' on patient behaviour

Author(s): Karen Boland, Jennifer McGrath, Gavin Harewood

Department(s)/Institution(s): Department of Gastroenterology and Hepatology, Beaumont Hospital.

Introduction: Behavioural economists have used the term 'nudge' to describe an attempt to influence an individual's behaviour using a subtle intervention while preserving freedom of choice. There is growing awareness of the potential of 'nudges' to modify human behaviour. In our endoscopy unit, approximately 60% of outpatients undergoing oesophagogastroscopy (OGD) opt to receive conscious sedation. For the majority of patients, an unsedated procedure would be safer, more efficient and less costly.

Aims/Background: We aimed to assess the impact of a 'nudge' intervention –an information leaflet explaining details of a sedated/unsedated procedure – on patients' choices for procedure sedation.

Method: Consecutive outpatients scheduled to undergo OGD were randomised: a) to receive an information leaflet prior to their

procedure (study group) or b) no leaflet (control group) on alternate weeks over 10 weeks. Within the study group, patients either received the leaflet during registration (self informed group) or received personalised procedure information by a physician (physician informed group). The leaflet detailed practical considerations of conscious sedation while personalised information comprised a brief 1 to 2 minute review by a physician. All patients were free to opt for sedation/no sedation (anaesthetic throat spray) for their procedure. The endoscopist had the discretion to administer or withhold sedation if medically necessary regardless of patient preference. Patients scheduled for an anticipated endoscopic intervention or for combined colonoscopy were excluded. Written, informed consent was obtained from each patient.

Results: 354 consecutive patients were enrolled of whom 209 received a pre-procedure information leaflet. Within the study group, 175 patients reviewed the leaflet independently (self-informed group) while 34 patients reviewed the leaflet with a physician (physician informed group). Overall, the proportion of patients opting for sedation within the physician informed group (47%) was lower than either the self informed group (61%) or the control group (60%). One patient required reversal of their sedation in the control group. All groups were similar in terms of age and gender; age and gender did not influence selection of sedation.

Conclusions: The study findings illustrate the potential of a 'nudge' strategy to modify patient behaviour. Interestingly, provision of an information leaflet alone does not appear to influence patient preference for sedation; however, personalised review of the procedure with a physician carries greater impact on patient behaviour while still respecting patient autonomy. Reduction in utilisation of sedation for OGD results in a safer and more efficient procedure while saving on costs. Further study is required to evaluate the utility of 'nudges' in other aspects of medical practice.

ABSTRACT 26 (15W111) POSTER PRESENTATION

Title of Paper: Intestinal ganglioneurofibromatosis – Be flexible & arm your radiologist

Author(s): B Layard, R Skelly, P Lynch

Department(s)/Institution(s): Antrim Area Hospital

Introduction: This case highlights the challenges in the diagnosis of a rare condition when it mimics a more common one.

Aims/Background: A 28 year old male had multiple hospital admissions over a 2 year period with intermittent abdominal pain, weight loss and vomiting. His bowel frequency was normal. On each admission, blood work was unremarkable. Initial investigations including CT abdomen, small bowel series and MRI enteroclysis demonstrated thick-walled oedematous small bowel segments with other areas appearing strictured. Gastroscopy and colonoscopy with biopsies were unremarkable. Faecal calprotectin was elevated. It was considered the findings were consistent with a diagnosis of small bowel Crohn's disease especially as oral corticosteroid appeared to ease his abdominal pain with symptoms recurring on dose reduction. On this basis, he was considered for azathioprine therapy.

Prior to commencement of azathioprine the patient was re-admitted with increasing abdominal pain under a different clinical team who noted he had cutaneous features of neurofibromatosis (NF) type-1 supported by a documented family history of NF type-1. It was



therefore postulated that the patient actually had intestinal NF and not Crohn's. He underwent a further CT of abdomen that demonstrated similar features to previous however with the knowledge of NF type-1, the CT imaging was now more in keeping with intestinal NF than Crohn's disease. With this it was agreed to proceed with elective laparotomy and small bowel resection.

Surgery revealed a dilated 80cm segment of distal small bowel which was resected. He had an uneventful post-operative recovery. Pathology confirmed features of diffuse intestinal ganglioneuromatosis in keeping with the clinical diagnosis of NF type-1. He has remained well at subsequent follow up with no further symptoms.

Results: Ganglioneuromatosis occurring in the gastrointestinal tract is rare. It has been described in both multiple endocrine neoplasia (MEN) type-2B and, less commonly, NF type-1. There are only 2 reported cases of small bowel ganglioneurofibromatosis in NF type-1. Presenting features include acute intestinal obstruction, abdominal pain and intestinal motility disorders. It can be suspected radiologically, however due to its rarity and lack of recognition, may be undiagnosed.

Conclusions: This case demonstrates the importance of clinical examination and the revision of a diagnosis when necessary with provision of a thorough clinical history for the radiologist to assist in image interpretation. This would expedite the diagnosis and as a consequence lead to a better patient outcome.

ABSTRACT 27 (15W112) POSTER PRESENTATION

Title of Paper: Review of NSAID abuse in Belfast trust- a look at biochemistry, imaging and endoscopy.

Author(s): Adgey C, Small S, Loughrey C, Rafferty G, Turner G

Department(s)/Institution(s): Belfast Trust, Northern Ireland

Introduction: Non-steroidal anti-inflammatory drugs (NSAIDs) are widely used and their associated upper Gastro-intestinal toxicity is well documented.

Deliberate mis-use of NSAIDs (+/- codeine) is under-recognised, representing a significant disease profile and burden on healthcare resources. Literature analysis of NSAID abuse to date is limited predominantly to single and small case based publications. 1-7

Aims/Background: This review focuses on biochemistry, imaging and endoscopic features associated with NSAID abuse in an identified patient cohort within Belfast Trust outlining their disease timeline from presentation to diagnosis.

Method: Within the Belfast Trust the review population was identified from known NSAID-abusing patients. For each patient, demographic data was compiled with each subsequent admission reviewed to collate each patient's imaging and blood profile from initial presentation and most abnormal, as well as endoscopy findings and pathology. The time-frame from first presentation of an NSAID-related problem to diagnosis was established as well as number and duration of admissions.

Results: Fourteen patients were identified, 9 of whom were female (64.3%). Age range was 29-53yrs (mean 39.9). Each patient's lightest weight was reviewed with figures available for 12 of 14 patients ranging from 27-54kg (median 45.5kg). Each patient's biochemistry was assessed in 13 of 14 cases, from initial presentation to most abnormal as outlined in the table below.

Biochemistry at Initial Presentation and most abnormal results
Initial presentation median (interquartile range) Most abnormal presentation median (interquartile range) P value
Albumin 38 (31-42) 24 (15-32) 0.009
Haemoglobin 89 (83.5-112.75) 65 (61-71) P<0.001
CO2 21 (18-24) 11.5 (7-14) P<0.001
Potassium 3.6 (3.2-4.3) 2.3 (2-2.8) P<0.001
Creatinine 75 (60-92) 156 (88-229) 0.009

Time to diagnosis of NSAID abuse from initial presentation of NSAID-related complication was 0-72 months (median 15 months). All patients had peptic ulceration on at least one endoscopy, 6 had gastric outlet obstruction.
The number of hospital admissions ranged from 1-26 (median 9). Bed days required ranged from 3-1088 (median 125 days).

Conclusions: The burden of disease associated with NSAID abuse spans hospital specialties and multi-disciplinary teams with recurrent and prolonged admissions. A characteristic profile of anaemia, hypoalbuminaemia, hypokalaemia and acidosis (renal tubular) with renal function impairment was identified. These abnormalities became more marked with continued NSAID abuse. Upper GI pathology and nutritional inadequacy were also seen as frequent complications.

Greater awareness of these discriminating clinical, biochemical and endoscopic features amongst healthcare professionals may prompt NSAID abuse inclusion in differential diagnoses, preventing delays in diagnosis and management in the future.

ABSTRACT 28 (15W113) POSTER PRESENTATION

Title of Paper: Home subcutaneous fluids for Magnesium stabilisation - a review of patients in the Belfast trust

Author(s): Adgey Carolyn, McKenna Catriona, Murray Emma, Turner Graham, Rafferty Gerard.

Department(s)/Institution(s): Intestinal Failure Service, Belfast Trust

Introduction: All patients who require home subcutaneous fluids (SCF) for gastrointestinal disease in Northern Ireland are managed through the intestinal failure unit in the Belfast trust. There is a wide range of indications for usage and patients felt to be good candidates are referred to the unit for assessment and training by a multidisciplinary nutrition team. The majority of patients required SCF for stabilisation of magnesium. There are two studies in the literature regarding effectiveness and safety of home sub cut fluids 1,2.

Aims/Background: To assess safety and effectiveness of magnesium stabilisation using SCF in the Belfast trust

Method: Data was collected using the electronic care record. Demographic data, underlying diagnosis and anatomy was collected for all patients. Magnesium levels were reviewed before SCF were initiated and compared with levels at one month to establish if SCF did in fact normalise magnesium and maintain this resolution

Results: There were 35 patients who have used SCF for any period of time over the last 9 years. 30 of these patients had magnesium replacement in their SCF. 16 of these were female (53%). Age at initiation ranged from 45-76 with a median of 56.5 years.



Each patient received 4 mmol of Magnesium in a bag. The volume of fluid in the bag varied from patient to patient. Crohns disease, ischaemia and post operation complications made up the majority of patients requiring SCF with magnesium (87%).

Review of blood tests revealed:

	Pre SCF median (interquartile range)	1 month median (interquartile range)	P value
Magnesium	0.57 (0.515-0.615)	0.78 (0.725-0.855)	<0.001

Two patients had admissions after SCF initiation with cellulitis at needle site. Four other patients required admission following initiation of SCF for dehydration. Three of these were resolved with medication to reduce stoma output. However one patient required HPN.

Conclusions: Home SCF with magnesium can be safely used to stabilise magnesium electrolyte in suitable patients with significant rise seen in serum magnesium. No serious side effects were demonstrated and the readmission rate to hospital was low in our cohort of patients.

References:

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2. M Small, D Brundrett, J Nightingale. Long term subcutaneous saline and magnesium administration in patients with a short bowel. 10 year outcomes. Gut 2015; 64: a315.

ABSTRACT 29 (15W114) POSTER PRESENTATION

Title of Paper: H.pylori - It's a bugs life!

Author(s): J Doherty, K Sheahan, M Buckley

Department(s)/Institution(s): Department of Gastroenterology, St Michaels Hospital, Dunlaoighre

Introduction: Helicobacter Pylori(HP) is a well-recognised cause of gastritis, PUD, gastric cancer, MALT lymphoma and is implicated in a subset of patients with dyspepsia. Recent recommendations are to 'Test and Treat' patients under 55years with 'non-worrying' upper GI symptoms. The Kyoto consensus paper recommended eradication of HP as first line treatment when found in association with gastritis and in HP positive patients with dyspepsia. There was 100% agreement that all patients treated should be followed up to assess cure rate. This has implications for service workload.

This study compares three modalities of HP assay- (a)Carbon-Urease Breath Test(CUBT), (b)Rapid Urease Test(RUT) and (c)Histological examination.

Aims/Background: HP is estimated to colonise at least 50% of the world's population. CUBT is available in our hospital and a retrospective analysis of referrals for CUBT over 12months revealed a prevalence of 22.74%. Many units do not have access to CUBT and rely on RUT. Anecdotally in our unit we felt our yield from RUT('Quicktest') to be lower than 20% and decided to compare histological assay with RUT. We also audited all CUBT referrals for the same period.

Method: We analysed 12 months data from 01/04/14-31/03/15. 488 patients had a CUBT.

247 patients who underwent an OGD and had a RUT performed were included. Each RUT included a specimen from antrum and corpus. Of these, 235 had biopsies from antrum and corpus for histological examination. Histology was considered gold standard and sensitivity, specificity, PPV and NPV of the RUT were compared to this.

Results: In the CUBT group there were 160 males and 328 females. Median age was 41(15-89 years). CUBT was positive in 22.74%(111/488) and negative in 77.26%(377/488). In the OGD group there were 86 males and 149 females. Median age was 51(16-96 years). RUT was positive in 11.49%(27/235) and negative in 88.51%(208/235). Histopathology detected HP in 15.32%(36/235) and did not in 84.68%(199/235). The sensitivity for RUT was 50%, specificity 95.48%, PPV 66.67% and NPV 91.35%.

Conclusions: Despite the RUT being faster and cheaper than sending biopsies, the sensitivity was significantly inferior to histology. In this study, despite sampling corpus and antrum, which should increase the yield of positive tests, 25% of HP positive patients were not diagnosed by RUT alone. A previous study demonstrated an almost 25% lower yield from Quicktest compared to Clotest. Taking biopsy samples entering the stomach rather than on exit and ensuring two samples are taken, from both corpus and antrum may increase the yield. If HP is suspected and RUT is negative, referral for CUBT should be considered.

ABSTRACT 30 (15W116) POSTER PRESENTATION

Title of Paper: Colonoscopy in the Elderly: diagnostic yield and outcomes.

Author(s): Daniel Schmidt-Martin, Margaret Walshe, Zita Galvin, Una Kennedy, Nasir Mahmud

Department(s)/Institution(s): Department of Gastroenterology, St James's Hospital, Dublin Department of Medicine, Trinity College Dublin

Introduction: Colonoscopy in the elderly has been reported to be safe with a high diagnostic yield.

Aims/Background: We aimed to evaluate the diagnostic yield at colonoscopy in elderly patients, investigate the long term outcomes of the pathology encountered, and examine whether there is appropriate pre procedure screening of potential patients.

Method: We performed a retrospective review of all colonoscopies performed in 2010 on patients over 80 who were not attending for polyp follow up, or had a previous diagnosis of inflammatory bowel disease or colorectal cancer.

Results: 315 colonoscopies were performed on 285 patients at mean age 84 (80-96). Female:male ratio 2:1. 7 colorectal cancers were diagnosed (2.2 cancers per 100 procedures). Five patients underwent surgery. The five year survival for all cancers detected was 29% (n=2) Mortality was due to metastatic recurrence, cerebrovascular accident, and infective complications of COPD. The tumours were located in the rectum (1), sigmoid (3), hepatic flexure (1), and ascending colon (2). 116 polyps were identified in 65 patients (100 < 1cm). The caecal intubation rate was 78%. The procedure failed due poor prep in 10% of cases. Notably, only 16 of the 62 cases where the



caecum was not reached underwent repeat endoscopy. 7 patients experienced a complication bradycardia (2), hypotension (1) and hypoxia requiring reversal of sedation (4) and major bleeding (1).

Conclusions: Colonoscopy is safe in the elderly and has a high diagnostic yield. Five year cancer survival is low as a result mainly of co-morbidity. The low rate of repeat procedures where the caecum was not intubated suggests that better pre procedure screening strategies may obviate the need for colonoscopy in a significant proportion of patients.

ABSTRACT 31 (15W117) POSTER PRESENTATION

Title of Paper: Non-alcoholic fatty liver disease in patients with type two diabetes: A retrospective review of management and outcomes over a five year period

Author(s): A Kearney¹, J McGoran², AG Nugent¹

Department(s)/Institution(s): Departments of Endocrinology¹ and Gastroenterology², Belfast City Hospital, Belfast UK.

Introduction: Non-alcoholic fatty liver disease (NAFLD) is the commonest cause of chronic liver disease worldwide. The clinical syndromes range from simple steatosis to non-alcoholic steatohepatitis, cirrhosis and hepatocellular carcinoma. Insulin resistance and the metabolic syndrome, which are strongly associated with type two diabetes and obesity, have been implicated in the pathogenesis and disease progression of NAFLD. Treatment strategies include weight loss and managing insulin resistance. The effects of metformin on NAFLD are mixed but more promising results have been observed with thiazolidinediones and glucagon-like peptide-1 (GLP-1) agonists. Cardiovascular disease and NAFLD are strongly associated and statin therapy is urged having been shown to improve hepatic biochemical and histological scores.

Aims/Background: We analysed the management and outcomes of patients with type two diabetes and NAFLD over a five year period.

Method: A retrospective analysis of 46 patients with type two diabetes who were diagnosed with NAFLD between January 2008 and December 2013 in the Belfast Trust was performed. Data recorded included body mass index (BMI), glycated haemoglobin (HbA1c), statin use and diabetic therapy. Outcomes measured included progression to cirrhosis, cardiovascular events and mortality.

Results: The mean length of follow up was 44 months at the time of data collection. At diagnosis of NAFLD the mean BMI and HbA1c were 33.8kg/m² and 67.9mmol/mol respectively. BMI averaged 34.5kg/m² and HbA1c 61.5mmol/mol at the end of our follow up period. Statins were prescribed in 54.3%. Metformin, thiazolidinediones and GLP-1 agonists were prescribed in 33, 3 and 1 case respectively. Twenty-two patients (47.8%) progressed to cirrhosis and the mean age at diagnosis of cirrhosis was 59.4 years. Twelve patients (26.1%) had confirmed cirrhosis within one year of presentation with NAFLD. Cardiovascular events occurred in 13% and mortality in 19.6%.

Conclusions: Co-existing type two diabetes and NAFLD carries a high risk of morbidity and mortality with high rates of progression to cirrhosis observed. The prevalence of NAFLD is expected to increase significantly over the coming years making aggressive strategies including weight loss and reducing cardiovascular risk profile essential in its management.

ABSTRACT 32 (15W118) POSTER PRESENTATION

Title of Paper: Clinical and Nutritional Outcomes in Biliary Atresia Patients in an Irish Paediatric Centre.

Author(s): Fiona Barron, DIT/TCO, Tara Raftery, OLCHC, Sheila Sugrue, DIT, Michelle Hurley, OLCHC, Seamus Hussey, OLCHC.

Department(s)/Institution(s): Dublin Institute of Technology, Trinity College Dublin and Our Lady's Children's Hospital, Crumlin.

Introduction: Biliary Atresia (BA) is a life-threatening, progressive cholestatic disease that leads to the obliteration of the bile ducts. This disease affects infants within the first weeks of life. Surgical management is the only option available to manage this disease. The Kasai portoenterostomy (KPE) is an important primary therapy that aims to restore bile flow. However, 80-90% of patients will eventually require liver transplantation (LT) throughout their lifetime.

Aims/Background: The care of BA patients in Ireland is shared between The National Centre for Paediatric Gastroenterology, Hepatology and Nutrition (NCPGHN) at Our Lady's Children's Hospital, Crumlin (OLCHC) and King's College Hospital, London (KCH). The aim of this study was to assess the clinical and nutritional outcomes of BA patients in Ireland.

Method: This study is a retrospective case review of BA patients treated in The NCPGHN between the years 1992-2014. Clinical, biochemical and anthropometric data was collected from medical, dietetic and electronic records as appropriate. Anthropometric data was described in weight-for-age and length-for-age z scores. Fifty-four patients were included in the final analysis of this study.

Results: Overall survival of BA patients is 91% in this study (4 patients died post KPE and 1 post LT). Five and 10-year survival with native rates were calculated as 42% and 33%, respectively using Kaplan Meier survival statistics. 18 out of 50 (36%) patients cleared jaundice by 6 months in the present study. Failure to clear jaundice was significantly associated with reduced survival with native liver post KPE (P=0.00) and increased progression to LT prior to the age of 1 year (P=0.00). Patients who failed to clear jaundice have poorer median (IQR) weight [-2.04 (0.19) vs -0.19 (0.41), P=0.00] and height [-1.04 (0.37) vs 0.00 (0.09), P=0.12] z scores from as early as 6 months post KPE.

Conclusions: This is the first study to analyse the clinical and nutritional outcomes in a cohort of Irish BA patients. The clinical outcomes in this Irish centre are comparable to international centres. It is evident that poorer outcomes are reported in BA patients who fail to clear jaundice post KPE. These patients have poorer SNL rates, increased progression to LT at a younger age and poorer nutritional status. These patients should be closely monitored for symptoms of progressive liver disease and nutritional status should be optimised in all BA patients.

ABSTRACT 33 (15W121) POSTER PRESENTATION

Title of Paper: An audit of Liver Biopsies performed at the Department of Hepatology, Cork University Hospital

Author(s): Ramlal N, McCarthy K, Crosbie O.

Department(s)/Institution(s): Department of Hepatology, Cork University Hospital

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Introduction: The aim of this audit was to ascertain the main indications for performing elective day case liver biopsies at our department and compare the findings to a similar audit performed eight years previously, prior to the routine use of Fibrosan.

Aims/Background: A previous audit in 2008 over an 18 month period revealed that most elective liver biopsies carried out in our department were to assess patients with hepatitis C prior to making a decision with regard to the need for antiviral therapy. We wanted to see if there has been a change in practice over this 7 year period.

Method: This is a retrospective study of elective day case liver biopsies performed between January 2014 and April 2015. This excluded patients who were referred to us for care and had a biopsy performed elsewhere or patients having inpatient liver biopsies.

Results: 56 elective liver biopsies were performed over a 16 month period (35 female, 21 male), mean age of patients was 50.9 years (range 14 – 78). The commonest indications for proceeding to liver biopsy were to assess and/or diagnose autoimmune hepatitis, steatosis and steatohepatitis, overlap syndromes, the cause of persistent cholestasis and hepatitis C. In 2007-2008, 34% of liver biopsies were performed on patients with hepatitis C whereas now this accounts for only 2 (3.6 %) of the total number. An overwhelming majority of biopsies now performed 29 (51.8%) were to assess autoimmune hepatitis of which 76% were females. The rest of the biopsies showed PBC/overlap syndrome 5 (8.9%), steatosis/steatohepatitis 9 (16.1%), drug induced liver injury 2 (3.6%), chronic hepatitis non-specific 5 (8.9%), cholangitis 2 (3.6%), tumour 1 (1.8%) and normal 1 (1.8%).

Conclusions: This audit clearly illustrates that since the introduction of the Fibrosan, there is rarely a need to perform liver biopsy for the assessment of hepatitis C and thus biopsies were mainly performed to diagnose and assess other conditions which would be more difficult to characterise otherwise.

ABSTRACT 34 (15W122) POSTER PRESENTATION

Title of Paper: Cost Effectiveness of Fibrosan in Assessing Patients with Hepatitis C

Author(s): McCarthy K, Corbett S, Ramlal N, Healy E, Crosbie O

Department(s)/Institution(s): Department of Hepatology, Cork University Hospital, Cork

Introduction: Chronic hepatitis C (HCV) is a significant cause of morbidity and mortality affecting almost 200 million people worldwide. HCV is a risk factor for cirrhosis and hepatocellular carcinoma (HCC). Patients require regular screening to assess progression of the disease. Liver biopsy has to date been the gold standard procedure. However, it is invasive, is associated with complications in some cases and is expensive, with costs including bed, radiology and pathology fees. Ultrasound-based transient elastography (Fibrosan) is a non-invasive, inexpensive test with no associated side effects, which it is hoped will replace the need for liver biopsy in assessing the degree of hepatic fibrosis.

Aims/Background: This study aims to assess the cost effectiveness of regular surveillance with Fibrosan for progression of hepatic fibrosis in chronic HCV patients when compared with percutaneous liver biopsy.

Method: Chronic HCV patients who underwent Fibrosan in the 12 months, April 2014 to April 2015 at Cork University Hospital were enrolled in this study. The cost of each Fibrosan procedure, in

addition to the initial purchase of the Fibrosan machine, depreciation of same and the annual maintenance fee, provided an overall annual costing. The cost of the total number of biopsies carried out in the same time period provided a comparison. These two figures were then analysed to assess the cost effectiveness of Fibrosan.

Results: 234 chronic HCV patients underwent Fibrosan during the study time period. Year one expenditure, including the purchase of the machine and its operating expenses, amounted to €82,771. In the absence of a Fibrosan machine and to obtain comparable assessment of hepatic fibrosis, all patients would have had to undergo a liver biopsy. Total cost of this procedure would have amounted to €81,009, which is in essence cost neutral. However the real saving should be evident in year two and subsequent years, where, based on the same numbers, the Fibrosan annual operating cost (including depreciation of the machine) reduces to €14,371.

Previous guidelines would have recommended a liver biopsy every 5 years in many patients with hepatitis C resulting in a cost of €81,009. Cost effectiveness of Fibrosan allows more frequent assessment to be performed. There are also 'hidden' costs savings, e.g. reduced absence from work, travel costs and time saving/convenience of Fibrosan.

Conclusions: Regular surveillance with Fibrosan is a cost effective and convenient strategy to assess the degree of hepatic fibrosis in chronic HCV patients, replacing the need for both expensive and invasive liver biopsies.

ABSTRACT 35 (15W123) POSTER PRESENTATION

Title of Paper: High adenoma detection rate: a prospective analysis of the factors influencing this outcome in Bowelscreen patients.

Author(s): Ann Cooney, Dr J. Keohane, Dr H. Sengupta

Department(s)/Institution(s): LCH Dundalk, Our Lady Of Lourdes, Drogheda

Introduction: The adenoma detection rate (ADR) is an important metric in the measurement of quality at colonoscopy. ADR of 25-35% is expected in a screening colonoscopy. Many factors influence the ADR in particular the quality of bowel preparation and studies show that the ADR is directly proportional to the length of time taken by endoscopists to withdraw from caecum to anus.

Aims/Background: To compare our screening endoscopy performance against the standards recommended by the National QA programme for GI endoscopy.

Method: A prospective analysis of data collected from all patients attending for colonoscopy on the Bowelscreen programme. Data was collated from the Endoraad (electronic reporting system), patient charts and endoscopy log books. The parameters analysed for this study included bowel preparation adequacy, sedation type /amount, caecal intubation rate, cancer detection rate and ADR. Withdrawal time was calculated from a clearly identifiable appendiceal orifice photo and also from the retroflex photo taken in the rectum.

Results: In total 268 colonoscopies were included in this analysis. Scopes were carried out by gastroenterologists only. All patients were between the screening age of 62-70 and all had a positive FIT test.

Patients were preassessed and were given both verbal and written



instructions on how/when to take their Moviprep© and all patients were given a split dosage regime.

Bowel preparation standard achieved, 250 patients (93.2%) scored excellent/adequate, 18 (6.8%) patients scored poor and had a repeat preparation/CT COLON. Recommended standard >90%.

Caecal intubation rate was 95.9%, standard recommended >90%.

Caecum was not reached in 11 patients due to pathology encountered (n=9) or patient intolerance (n=2)

Intravenous sedation; Midazolam 0-5mgs IV & Fentanyl 0-100mgs was administered. Median administered Midazolam 2.5 /Fentanyl 50mgs. Reversal agents were not required in this cohort.

Cancer detection rate was 6.8%. Standard expected 11%.

Caecal withdrawal time was 6-105 minutes with an average time for withdrawal 21.86 mins. Recommended time >6mins.

ADR was 71.5%, standard recommended 25-35%

Conclusions:

- Many factors influence ADR.
- Our ADR is higher than minimum standard rate.
- Good quality bowel preparation and slow withdrawal times are the two important factors to achieve a high ADR.

ABSTRACT 36 (15W124) POSTER PRESENTATION

Title of Paper: Co-existence of coeliac disease and other autoimmune conditions in a cohort of Irish coeliac patients.

Author(s): By P. Dominguez Castro¹, G. Harkin³, M. Hussey⁴, B. Christopher⁵, C. Kiat³, J. Liong Chin¹, V. Trimble¹, T. Martin², D. McNamara⁴, P. MacMathuna², B. Egan⁶, D. Kevans¹, NP. Kennedy¹, R. Farrell⁵, N. Mahmud¹, V. Byrnes³, R. McManus¹.

Department(s)/Institution(s): ¹Institute of Molecular Medicine & Department of Clinical Medicine, Trinity Centre for Health Science, St James's Hospital, Dublin 8, Republic of Ireland, ²Gastrointestinal Unit, Mater Misericordiae University Hospital, Eccles St., Dublin 7, Republic of Ireland, ³Department of Clinical Medicine, University College Hospital Galway, Galway, Republic of Ireland, ⁴Department of Clinical Medicine, The Adelaide and Meath Hospital, Dublin 24, Republic of Ireland, ⁵Connolly Hospital Blanchardstown, Blanchardstown, Dublin 15, Republic of Ireland, ⁶Department of Clinical Medicine, Mayo General Hospital, Castlebar, Co Mayo, republic of Ireland.

Introduction: Coeliac disease (CD) is an immune-mediated condition characterized by a highly heterogeneous clinical presentation and associated complications (1, 2). The co-occurrence of CD with other autoimmune conditions has been well reported in the literature (3). However, this aspect has not been well explored in Irish patients.

Aims/Background: The aim of this study is to explore the co-existence of other autoimmune conditions in a cohort of CD patients (n=564).

Method: Retrospective analysis of medical charts from a cohort of coeliac patients (n=564) (median age 57 years, range 16-88 years) attending referral centres. Standardized ratios (SR) and 95% confidence intervals (CI) were calculated from prevalence data from the literature (4-6).

Results: 134 patients (30.9%) had a coexistent autoimmune disorder, the most prevalent being thyroid disease (20.6%), followed by type 1 diabetes (T1DM) (3.2%) and psoriasis (3.2%). Type 1 diabetes presented prior to CD in most cases, however presentation of Thyroid disorders and psoriasis occurred equally prior or after CD diagnosis. Thyroid disorders were more prevalent in women than in men (ratio 6.7:1, p<0.001). Patients with thyroid

disease were diagnosed later in life with this condition (median=47 years) compared to those with T1DM or psoriasis (median=33 years) (p=0.003). Standardized ratios for thyroid disorders and T1DM (5.4; 95% CI 4.5, 6.3 and 10.6; 95% CI 5.8, 15.4 respectively).

Conclusions: CD patients seem to be predisposed to develop other co-existent autoimmune conditions such as thyroid disorders, T1DM and psoriasis. Standardized ratios suggest a high predisposition to T1DM and thyroid disorders in our sample.

Disease	N _a Observed (%)	Presentation	n	Female/Male ratio	Median age of diagnosis (years)	N _e Expected (%)	Standardized ratio (95% CI)
Thyroid Disorders, n 563	116 (20.6)	Prior/same time CD	42	6.7:1	47 (10-79)	21.5	5.4 (4.5-6.3)
		After CD	49				
		Not reported	24				
Type 1 Diabetes, n 563	18 (3.2)	Prior/same time CD	12	1:1	17 (6-61)	1.7	10.6 (5.8-15.4)
		After CD	1				
		Not reported	5				
Psoriasis, n 563	18(3.2)	Prior/same time CD	7	1.6:1	38.5 (7-65)	8.3	2.2 (1.2-3.1)
		After CD	6				
		Not reported	3				

ABSTRACT 37 (15W126) POSTER PRESENTATION

Title of Paper: Music to the ears: A pilot study into the effect of classical music in the endoscopy suite

Author(s): Grace Chan, Jun Liong Chin, Mary Hackett Brennan, Genevieve Corrigan, Aftab Abdur Rahman, Garry Courtney

Department(s)/Institution(s): Gastroenterology Department, St Luke's General Hospital, Kilkenny

Introduction: Patients undergoing endoscopy are often anxious despite sedation. Improvements in endoscopy techniques, adequate bowel preparation, CO2 insufflation and the use of ScopeGuide are methods that have been employed to improve patients' experience in endoscopy. However, the role of music is often overlooked despite music therapy being shown to provide stress relief and improve the comfort of patients undergoing endoscopic procedures.

Aims/Background: To evaluate the effect of classical music on patients undergoing endoscopic procedures.

Method: 67 consecutive patients attending the endoscopy suite for procedures were included. Classical music was played continuously from the start to the end of each procedure. Patients were then given a questionnaire to evaluate their experience, comfort and music preferences prior to discharge.

Results: Of the 65 patients included, 33(50.8%) were male, with a mean age of 50.7 ±15.5 years. 21(32.3%) patients underwent gastroscopies(OGDs), 31(47.7%) underwent colonoscopies, 9(13.8%) underwent sigmoidoscopies and 4(6.2%) underwent both OGD as well as colonoscopy. The majority of patients (96.9%) admitted to generally enjoying music. When asked about their music preference, 46.2%(30/65) enjoyed country music, 43.1%(28/65) enjoyed classical music, 43.1%(28/65) enjoyed pop music, 30.8%(20/65) enjoyed rock music, 26.2%(17/65) enjoyed jazz and 10.8%(7/65) enjoyed rhythm/blues. 67.7%(44/65) patients had a very good endoscopic experience with only 2 patients describing their experience as very poor. The median comfort score was 1, indicating excellent comfort. The mean midazolam used was 2.9 ±2.8mg and the mean pethidine used was 27.4 ±24.9mg. After sedation was administered, 49.2%(32/65) actually noticed that there was music playing and only 41.5%(27/65) could correctly identify the genre of music being played. 50.8% (33/65) of patients described the music as relaxing and/or pleasant, with 49.2%(32/65) reporting that the music helped them during the procedure. Importantly, 75.4%(49/65) of patients believed that music actually helped the endoscopist performing their procedure.



Conclusions: We conclude that music enhances the patients' endoscopic experience. The majority of patients also believed that music assisted the endoscopist in performing their procedure.

ABSTRACT 38 (15W127) POSTER PRESENTATION

Title of Paper: Prevalence of significant hepatic fibrosis and cirrhosis assessed by various non-invasive scores in patients attending the diabetic clinic

Author(s): Jun Liong Chin, Grace Chan, Niamh Nic Cinneide, James Trayner, Abdur Aftab, Garry Courtney, Colm McGurk

Department(s)/Institution(s): St. Luke's General Hospital, Kilkenny

Introduction: Non-alcohol fatty liver disease (NAFLD) is common in diabetic patients with the metabolic syndrome. Patients with NAFLD can develop steatohepatitis and progress to cirrhosis. A number of non-invasive scores have been developed to identify patients at high risk of significant hepatic fibrosis and cirrhosis.

Aims/Background: The aim of this study is to apply a number of validated scores in patients attending the diabetic clinic to assess the prevalence of significant fibrosis and cirrhosis.

Method: We retrospectively examined all patients attending the diabetic clinic from March to June 2014 and included patients with type 2 diabetes. Patients with type 1 diabetes and gestational diabetes were excluded. Data were obtained from laboratory database and electronic diabetic patient record (Cellma). We applied the NAFLD fibrosis score (NFS), Fib-4 score, AST to Platelet Ratio Index (APRI), AST/ALT ratio and BARD score, to assess the prevalence of significant hepatic fibrosis and cirrhosis, in patients with diabetes.

Results: Of the 521 patients screened, only 29.4% (153) of patients with complete laboratory data were studied. In our cohort of 153 patients, the median age was 63 (IQR 56.0–71.5) years and 64.1% (98) of patients were male. More than half of our patients (56.2%; n=86) had a BMI >30kg/m². Of these, 14.4% of patients had a BMI >40kg/m², 14.4% had a BMI of 35–40kg/m² and 27.5% had a BMI of 30–35kg/m². Using the NFS, almost a quarter of our patients (24.2%, n=37) had significant fibrosis with a median score of 1.169(0.898–1.563). The majority of our diabetic patients (66.0%, n=101) had an indeterminate score of -0.224(-0.744–0.302). Only 15 (9.8%) patients had no significant fibrosis with a score of -1.820(-2.500– -1.550). With the Fib-4 score, only one patient had significant fibrosis. 62.1% of patients had no significant hepatic fibrosis [Fib-4 score of 1.08(0.86–1.29)] while 37.3% had an indeterminate score [1.78(1.59–2.41)]. Using the APRI, only 1.3% of patients were found to have cirrhosis [median APRI 1.18(1.10–1.25)] while 4.6% of patients had significant hepatic fibrosis [0.78(0.72–0.83)]. Conversely, using the AST/ALT ratio and BARD score, the prevalence of significant hepatic fibrosis was 60.1% and 90.2% respectively, for diabetic patients.

Conclusions: Identifying diabetic patients with significant hepatic fibrosis and cirrhosis remains challenging in clinical practice despite the description of various non-invasive scores. The prevalence of significant hepatic fibrosis and cirrhosis differ considerably depending on the score applied.

ABSTRACT 39 (15W129) POSTER PRESENTATION

Title of Paper: Comfort Score for Colonoscopy. Do we all get it right?

Author(s): SR Ahmed, S. Carey, A. Morcos

Department(s)/Institution(s): Endoscopy Suite, University Hospital Waterford

Introduction: Colonoscopy is commonly performed to investigate colonic symptoms. British Society of Gastroenterology suggests Ceacal Intubation Rate (CIR) as its prime quality indicator. As a consequence, individuals with poor technique may push harder and persist for longer to achieve this standard. This could lead to more pain, sedation levels and sedation related complications. This study aimed to analyze the difference in allocation of CS by Nurses (NCS) and endoscopists (ECS) in conjunction with CIR and procedure times.

Aims/Background: To explore the relationship of patient comfort score allocated by nurses versus endoscopists in relation to Ceacal Intubation Rate and Procedure time as performance indicators for colonoscopy and to compare the outcome.

Method: All colonoscopies performed in our endoscopy unit were recorded in a period between from 8th September 2014 to 24th October 2014. All procedures were performed by qualified endoscopists and their trainees. The following variables were measured: NCS and ECS on a scale from 1 to 5 (Gloucester Comfort Score), CIR, procedure duration and use of sedation and analgesia. Pearson's correlation coefficient was used to identify relationships between performance indicators. Friedman test was used to analyze the CS.

Results: Total 193 Colonoscopies were performed. The median age was 58y (IQR 47–73y) of which 91(47%) were males. The sedation used was a combination of midazolam (100%) and an opiate, fentanyl (88.1%) or pethidine (5.2%). Buscopan was also used (6.7%). The median midazolam dose used was 5mg (SD1.8mg), Fentanyl 25mcg (SD27.0) and Pethidine 50mg (SD 7.9).

The average midazolam dose was negatively correlated with CIR ($r = -0.028$, $P 0.70$). There was also a positive correlation between midazolam dose and NCS ($r = 0.239$, $P 0.01$) and ECS($r=0.212$ $P 0.03$) however to a lesser extent. The average CIR was 79.8%, negatively correlated with the higher NCS($r=-0.112$ $P 0.121$) and again to a lesser extent ECS($r=-0.127$ $P 0.79$).

Friedman test was employed to evaluate difference between NCS and ECS. It was statistically significant $\chi^2(1) = 17.26$, $P < 0.01$. Follow up Post-hoc analysis with Wilcoxon signed-rank test was conducted controlling for type 1 error and demonstrated significant difference between the two groups ($P < 0.01$).

Conclusions: Higher sedation dose and Procedure time were unrelated to CIR statistically. Furthermore NCS was found to be distributed differently from ECS suggesting a need for standardization. Furthermore A low CIR(<90%) suggested need for more training in the Unit. This audit should be cycled in a 12 month period to see the effectiveness.



ABSTRACT 40 (15W130) POSTER PRESENTATION

Title of Paper: Incisional Hernia and Diverticular Disease: A Correlation Analysis

Author(s): I. O’Riordan, T. Connolly, P. Wrafter, WA Kolton, WP Joyce

Department(s)/Institution(s): Galway Clinic, RCSI and Penn State Hershey Medical Centre

Introduction: Recent data suggests that there is a genetic cause of diverticular disease (DV) related to poor wound healing and some connective tissue disorders. We have therefore evaluated the correlation of postoperative incisional hernia (IH) in a large cohort of patients undergoing surgery for colorectal cancer and complicated DV.

Method: We have reviewed the data from a prospective database involving major colorectal surgery from a single surgeon’s department over 11 consecutive years. This involved 370 consecutive patients from 2004- 2015 (to date). The ratio of colorectal cancer resections to resections for complicated diverticular disease was 2:1. All patients were reviewed for a minimum of 1 year (Range: 1-11 years). All relevant post operative CTs were also reviewed for incidence of incisional hernia.

Results: Overall incidence of IH in both groups was 18%. In patients who had resections for complicated diverticular disease the rate of IH was 34%. The overall incidence in patients undergoing resections for colorectal cancer was 8%. This gives an odds ratio of 3.48 (95% CI 1.32-9.17, $p = 0.01$) for the development of an incisional hernia following resection for diverticular disease vs colorectal cancer

Conclusions: The data presented suggests a significant link between the presence of DV and the development of a post op IH. This may well influence developing specific wound strategies in patients undergoing surgery for major complicated diverticular disease.

ABSTRACT 41 (15W131) POSTER PRESENTATION

Title of Paper: GI Bleed services in Ireland : a hospital based Survey from the GI registrar and Specialist Registrars

Author(s): Pardeep K Maheshwari , Carol A Goulding

Department(s)/Institution(s): Department of Gastroenterology , Galway University Hospitals.

Introduction: GI Bleed is very common medical emergency . According to British society of Gastroenterology (BSG) , even after the lot of progress in GI bleed management there is still significant hospital mortality rate around 10% . To assess the GI Bleed services in Ireland we performed a hospital based survey.

Aims/Background: To assess the GI bleed Services of Ireland .

Method: We developed a 10 question based Survey monkey and contacted the GI registrars and Specialist Registrars Via email. We received 30 replies which almost covered all the major hospital of Ireland . From some hospital more than one person participated in the survey. The data was exported to the excel sheet for the calculations.

Results: Of those who replied 93% replied as no formal rota for

the GI bleeder management , 20 % replied they have their endoscopy unit open out of hours for the emergencies . For the endoscopy timing 83 % agreed that OGD is performed within 24 hours of the admission . For the assessment of the severity of the emergencies 40 % don't use any formal scoring and 36% only the Glasgow Blatchford score for upper GI bleed. Use of PPI infusion as pre endoscopy is still very common as 56% replied they use the infusion 33% replied as not used always and only 6% said they don't use the PPI infusion. The use of prokinetic agents to clear the gut for better visualization is very uncommon as only 13% use IV Erythromycin pre-endoscopy. Fifty six percent of the replies said they don't have any formal guideline for the management of the Upper GI bleed ,while for the quality assurance and improvement only 46% replied that their hospital unit performs the audit . Some hospital has more the one respondents and when we compare their replies there was clear discrepancies in the replies.

Conclusions: Looking at the above results it can be concluded that for management of the such a significant medical emergency there is no uniform guideline in the Ireland . There are discrepancies in the formal assessment of the severity. More interesting part of the results is there were discrepancies in the replies form the same hospital suggest that these guideline are not properly communicated to the trainees who are handling these emergencies day and night time.

ABSTRACT 42 (15W134) POSTER PRESENTATION

Title of Paper: Patients’ experience of the Irish Society for Colitis and Crohns Disease (ISCC)

Author(s): Mary Forry, Bruno Lucas, Mary Hamzawi, Ciaran Davis, Fergal Troy, Victoria Power, Patricia McArdle

Department(s)/Institution(s): Irish Society for Colitis and Crohns Disease (ISCC)

Introduction: The Irish Society for Colitis and Crohns Disease (ISCC) was set up in 1984 to support people living with Inflammatory Bowel Disease (IBD).

Aims/Background: This survey aimed to gather patients’ experience of the ISCC and to ascertain if patients use the ISCC as a source of information about IBD.

Method: Questionnaires were distributed to ISCC members and non members. They were also distributed to Out Patient clinics and to Infusion Suites.

Results: 200 questionnaires were analysed -100 male and 100 female. 48% of respondents were over 45. Only 32 % of respondents were ISCC members, with 71% of non-members saying they would consider joining. When questioned about where they got information regarding IBD – 42% got information from their Gastroenterologist, 25% from their nurse, 12% from General Practitioner, 12% from the ISCC, 2% from their pharmacist and 7% from other sources. While an overwhelming majority (95%) of people feel they get value from their ISCC membership, those affected by the condition want more. Suggestions to improve service from the ISCC included organizing additional services such as social and sport events, as well as more regular newsletters. Participants in this survey also wished to be kept up to date with research and clinical trials. Only 27% of respondents had attended an ISCC event, with 75% of those who haven’t attended an event saying they would do so in the future. The ISCC relies heavily on volunteers and 18% of respondents were willing to give some time to the ISCC.



Conclusions: 12% of respondents use the ISCC as a source of IBD information. There is a need for the ISCC to become more visible. Encouraged by the enthusiasm for volunteering, a volunteer recruitment event is being organised with a view to promoting the ISCC across all media and devising a social media strategy. The ISCC website is also being updated. Interestingly only 12% of respondents use their GP as a resource so it would seem ISCC has a significant role to play in informing people about living with IBD and providing a network of support. Health Care Professionals too have a role to play in the promotion of the ISCC as a peer support organisation.

ABSTRACT 43 (15W136) POSTER PRESENTATION

Title of Paper: An interesting cause of liver failure: Secondary Haemophagocytic Lymphohistiocytosis (HLH) – A Case Series

Author(s): Thomas Garvey, Jon McKee, Johnny Cash, Ian Cadden

Department(s)/Institution(s): Liver Unit, Royal Victoria Hospital, Grosvenor Road, Belfast BT12 6BA

Introduction: Hemophagocytic lymphohistiocytosis (HLH) is a rare aggressive disease, which is potentially life threatening, in which certain white blood cells (histiocytes and lymphocytes) build up in organs including the skin, spleen, and liver, and destroy other blood cells. This usually causes fever and damages the liver and spleen and can result in enlargement of these organs. HLH may be inherited or acquired. Secondary HLH (acquired form) occurs after strong immunologic activation, such as that which can occur with systemic infection (mostly viral infections), immunodeficiency, autoimmune diseases or underlying malignancy.

Aims/Background: We present two cases of patients who presented to district general hospitals (DGH) with pyrexia, jaundice, malaise and deranged liver function tests in conjunction with high ferritin levels and cytopenias. Both patients were transferred to the same regional liver unit due to worsening liver function. Both underwent investigations showing findings indicating a haemophagocytic syndrome. Bone marrow biopsies confirmed HLH in both patients. One patient had a natural killer (NK) cell leukaemia as the precipitant whilst the other had Epstein Barr Virus (EBV) – associated HLH.

The aim of this case series is to increase awareness for early detection for patients with secondary HLH, especially those presenting with fulminant hepatic failure (FHF).

Results: Whilst we were unable to alter the course of the disease in the patient with NK cell leukaemia, we highlight the case of the 20 year old female with EBV-associated HLH, who regained normal liver function after treatment with dexamethasone and etoposide.

Conclusions: HLH should be considered in the differential diagnosis of FHF, especially in patients presenting with clinical signs of acute liver failure accompanied by cytopenias, high ferritin levels and unexplained prolonged fever. HLH can lead to severe liver damage and awareness and early recognition of the clinical symptoms and diagnostic criteria is important to start potentially life-saving therapy, and aim to regain normal liver function.

ABSTRACT 44 (15W137) POSTER PRESENTATION

Title of Paper: Improving referral of women with chronic hepatitis B from antenatal services to a specialist hepatitis clinic - the Northern Ireland experience 2004-2014

Author(s): Leanne Stratton¹, Annelies McCurley², Ruth Campbell², Neil McDougall¹

Department(s)/Institution(s): 1. Regional Liver Unit, Royal Victoria Hospital, Belfast. 2. The Northern Ireland Regional Hepatitis B&C Managed Clinical Network, Belfast.

Introduction: Antenatal screening for hepatitis B virus (HBV) has been recommended for all pregnancies in the UK since 1998. NICE guidelines published in 2013 now recommend the use of oral tenofovir in the third trimester of pregnancy to women with viral loads >107 in order to reduce the rate of vertical transmission.

Aims/Background: Previous work in Northern Ireland (NI) showed a poor rate of follow-up at a specialist hepatitis clinic⁽¹⁾ and in 2011 a new referral form and pathway were introduced to improve detection of cases and management of HBV in pregnancy. The aim was to re-audit this group to see whether the rate of review had improved, with the ultimate aim of providing timely and appropriate treatment to women in pregnancy, dependent on viral loads.

Method: Data from NI maternity services, the Regional Virology Laboratory, and the NI Hepatitis B&C Clinical Network, were reviewed from 2004-2014 to identify all hepatitis B surface antigen (HBsAg) positive pregnant women. Data to 2010 were analysed retrospectively, and gathered prospectively from 2011 with the introduction of the new pathway.

A record was kept of all clinic appointments offered to this group, and where possible, reason for non-attendance listed. Data were gathered on stage of pregnancy at first review, HBV DNA levels and ethnicity. All patients with HBV DNA >107 were considered for treatment with oral tenofovir.

Results: Table 1 shows the number of HBsAg positive women detected and referred during pregnancy each year.

Table 1 - Antenatal referral and review of HBsAg positive patients in Northern Ireland

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Number of HBsAg positive cases detected	25	36	29	46	39	36	45	35	37	45	22
Number of referrals to hepatology (%)	2 (8%)	7 (19%)	10 (34%)	22 (48%)	18 (46%)	21 (58%)	22 (49%)	33 (94%)	35 (95%)	43 (96%)	22 (100%)
Number seen by hepatology (%)	-	-	-	-	-	-	-	27 (82%)	31 (89%)	36 (84%)	20 (91%)
Patients requiring oral antivirals	-	-	-	-	-	-	-	1	2	2	2

Until 2010, the rate of referral to a specialist hepatology clinic was less than 60%. Following the introduction of the pathway this soon increased to greater than 90%.

Review of ethnicity data for 2014 showed patients to be predominantly South-East Asian (41%) and Eastern European (50%). This is similar to previous years.

Conclusions: Detection and follow-up of HBsAg positive pregnant women has improved dramatically with the introduction of a new referral pathway in 2010. Major challenges include timely referral, to allow for consideration of oral tenofovir, and also language and cultural barriers, given that the majority of these patients do not speak English as their first language.

1. Detection of chronic hepatitis B through antenatal screening in NI: what happens to the mother? E. Mamwa et al. ISG oral presentation 2011



ABSTRACT 45 (15W138) POSTER PRESENTATION

Title of Paper: Hemospray Application in Acute Gastrointestinal Bleeding

Author(s): J Treacy, J McGoran, I Mainie

Department(s)/Institution(s): Belfast City Hospital, Royal Victoria Hospital, Belfast, Gastroenterology, Belfast HSC Trust

Introduction: Acute upper gastrointestinal bleeding is a common medical emergency that has a ten percent hospital mortality rate (1). Hemospray is a haemostatic powder that is licensed for use in non-variceal upper gastrointestinal bleeding. It has proven effective in achieving haemostasis in bleeding peptic ulcers (2).

Aims/Background: We investigated the use of hemospray in the Belfast HSC Trust with regard to indications, diagnosis at endoscopy and follow-up endoscopy

Method: A comprehensive gastrointestinal bleeding service is provided at two sites. The reporting systems from both locations were analysed for cases where Hemospray was used between January 2014 and May 2015.

Results: Thirty seven patients were included in this review. There were multiple indications with 22 of the patients presenting with haematemesis, melena or both. The commonest diagnosis made at endoscopy was a bleeding gastroduodenal ulcer (n=15). Three cases involved lower gastrointestinal bleeds. Additional haemostatic methods were employed in 21 cases, in contrast to the sixteen that received Hemospray alone. Nine patients underwent follow-up endoscopy from 0 to 142 days later to investigate the site of their original bleed with none requiring further haemostasis.

Conclusions: Hemospray has a valid role in improving patient outcomes given its ability in many circumstances to achieve haemostasis where other means fail. Currently it is unclear in which cases and when follow-up endoscopy should be performed to confirm healing. Indicators may include a high prognostic score, the underlying pathology or through the qualitative means of the endoscopist's experience at that time.

References:

- 1 Acute upper GI bleeding (CG141), National Institute for Health and Care Excellence (NICE) (July 2013)
- 2 Sung JJ, et al. Early clinical experience of eh safety and effectiveness of hemospray in achieving hemostasis in patients with acute peptic ulcer bleeding. Endoscopy 2011;43:291-5

ABSTRACT 46 (15W139) POSTER PRESENTATION

Title of Paper: The impact of aetiology and age on long term outcomes in Irish children on home parenteral nutrition

Author(s): Rebecca Stanley¹, Tara Raftery^{2,4}, Sheila Sugrue¹, Michelle Hurley², Anthea Bryce-Smith², Annemarie Broderick²⁻⁴, Billy Bourke²⁻⁴, Séamus Hussey²⁻⁴

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1. School of Biological Sciences, Dublin Institute of Technology Kevin Street, Dublin, Ireland
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3. Academic Centre for Paediatric Research, School of Medicine and Medical Sciences, University College Dublin
4. National Children's Research Centre, Crumlin, Dublin 12

Introduction: Home parenteral nutrition (HPN) is the intravenous administration of nutrients and fluids via a central venous catheter in the patient's home. This is the primary maintenance therapy for children with chronic intestinal failure.

Aims/Background: Internationally, outcomes have improved for children since home parenteral nutrition was first introduced. However, Irish paediatrics home parenteral nutrition outcome data is limited. The aim of the present study was to describe the long-term outcomes of the Irish paediatric home parenteral nutrition population and to analyse the influence of age at parenteral nutrition onset and aetiology of intestinal failure on these outcomes.

Method: Data were extracted retrospectively from medical records. All children in Ireland commenced on home parenteral nutrition between the 1st January 2000 and the 28th February 2015 were included. Data were collected from the date of parenteral nutrition commencement in hospital until the end of the most recent year, death or until one year post home parenteral nutrition. Patient aetiologies were classified as either medical or surgical, parenteral nutrition commencement time as having begun before or after 6 months of age. Data was compiled and analysed the SPSS statistical package.

Results: A total of 32 patients were enrolled on the HPN programme. Currently, 13 patients continue on home parenteral nutrition. The mortality rate was 28% (n = 9) and the weaning rate was 31% (n = 10). The incidence of central line sepsis was 2.3 per 1000 days of HPN. Parenteral nutrition associated liver disease was highest in surgical patients (9/11, 81%) who began parenteral nutrition <30 days old (p <0.03). Surgical patients who began parenteral nutrition <6 months were weaned from home parenteral nutrition quicker (8/10, 80%) than medical patients who began parenteral nutrition <6 months (2/10, 20%) (p <0.03). Surgical patients had a higher mean height z-score (p <0.004) and mean weight z-score (p < 0.01) in their first year on home parenteral nutrition than medical patients.

Conclusions: This is the first study to describe the outcomes of paediatric HPN in Ireland. A surgical diagnosis and a younger age at parenteral nutrition onset affect parenteral nutrition associated liver disease risk and weaning rate. A surgical diagnosis is also associated with normal growth on home parenteral nutrition. A medical diagnosis is associated with a longer duration of home parenteral nutrition and poorer growth outcomes.

ABSTRACT 47 (15W141) POSTER PRESENTATION

Title of Paper: Radiofrequency Ablation for dysplastic Barrett's Oesophagus - Beaumont experience.

Author(s): Vikrant Kale, Anwar Syed, Shweta Shinde, Wendy Hickey, Stephen Patchett

Department(s)/Institution(s): Beaumont Hospital, Dublin

Introduction: Barrett's oesophagus(BO), a condition of intestinal metaplasia of the oesophagus, is associated with an increased risk of oesophageal adenocarcinoma(OAC), particularly if cellular dysplasia is present. In recent years, management of high grade dysplasia and early mucosal carcinomas has shifted from surgical resection to endoscopic ablation and/or resection. Radiofrequency ablation (RFA) with a circumferential catheter (Halo-360) or tangential catheter (Halo-90) have emerged as the treatment of choice for dysplastic Barrett's oesophagus without visible mucosal lesions.



Aims/Background: We aimed to assess the effectiveness of RFA in eradication of dysplasia in BO in a consecutive series of patients presenting for treatment at a single Irish centre.

Method: We performed retrospective analysis of records of all the patients having undergone RFA(Halo-360) for dysplasia in our institute over last 5years. The indications for RFA and subsequent endoscopy reports and pathology results were reviewed and recorded. End points were complete eradication of dysplasia(CED) and complete eradication of intestinal metaplasia(CEIM).

Results: Over the study period, RFA(Halo-360) was done for 19 patients. One patient had a stroke and no subsequent follow up and another patient had squamous dysplasia. These two patient were excluded from analysis. Records for 17 patients (15 males/ 2 females) were reviewed and analysed. Average age was 66yrs (37 – 85yrs). Primary indications for RFA were high grade dysplasia and/or intramucosal adenocarcinoma. Patients were followed up for minimum of 6months. Follow up RFA with Halo-90 was required in 13 patients with a mean number of procedures per patient being 2 (0-5). CED was achieved in 12 out of 17 patients (71%) and CEIM was achieved in 10 out of 17 patients (56%). Out of five patients who didn't achieve CED, 2 patients had oesophagectomy and the other 3 were deemed unfit for surgery and had palliative procedures done.

Conclusions: RFA for HGD and early OAC is an effective treatment option. Our results are comparable to published rates of successful eradication of dysplasia in BO overall. Results were better in the last 2 years with the learning curve effect.

ABSTRACT 48 (15W145) POSTER PRESENTATION

Title of Paper: Co-existence of thyroid disease in a cohort of Irish coeliac patients; the role of coeliac disease diagnosis and the onset of its symptoms on the development of thyroid disease.

Author(s): By P. Dominguez Castro¹, G. Harkin³, M. Hussey⁴, B. Christopher⁵, C. Kiat³, J. Liong Chin¹, V. Trimble¹, T. Martin², D. McNamara⁴, P. MacMathuna², B. Egan⁶, D. Kevans¹, NP. Kennedy¹, R. Farrell⁵, N. Mahmud¹, V. Byrnes³, R. McManus¹.

Department(s)/Institution(s): Institute of Molecular Medicine & Department of Clinical Medicine, Trinity Centre for Health Science, St James's Hospital, Dublin 8, Republic of Ireland, 2Gastrointestinal Unit, Mater Misericordiae University Hospital, Eccles St. Dublin. 3Department of Clinical Medicine, University College Hospital Galway, 4Department of Clinical Medicine, The Adelaide and Meath Hospital, Dublin, 5 Connolly Hospital Blanchardstown, Dublin, 6Department of Clinical Medicine, Mayo General Hospital, Castlebar, Co. Mayo.

Introduction: Thyroid disease (TD) and other autoimmune conditions have an increased prevalence in coeliac patients and vice-versa (1,2). Serum transglutaminase antibodies in CD patients may have a role in the development of TD (3,4). The gluten free diet (GFD) could have a protective role in the development of co-existent autoimmune conditions in CD patients (5).

Aims/Background: The aim of this study is to explore the role of CD diagnosis and onset/reoccurrence of its symptoms on the diagnosis of TD.

Method: Retrospective analysis of medical charts from a cohort of coeliac patients (n=564) (median age 57 years, range 16-88 years).

Results: 116 patients (20.6%) had co-existent TD. There was no

statistically significant difference in the time span between diagnosis of both diseases when the patients were separated between those who were diagnosed TD first (n=32, median=15.5 years) and those who were diagnosed CD first (n=49, median=14 years) (p=0.824). There was a small positive correlation between the age of diagnosis of CD and the age of diagnosis of TD (r=0.275, n=84, p=0.012). This became a medium positive correlation when for some of the patients (n=33) the onset or re-occurrence of symptoms after a long period not following the GFD was considered as their age of diagnosis (r=0.366, n=84, p=0.001).

Conclusions: The onset of symptoms or non-adherence to the GFD seems to be more related to the development of TD in our sample than the age of diagnosis with CD.

ABSTRACT 49 (15W146) POSTER PRESENTATION

Title of Paper: Clinical audit of the genotypic frequencies of Hereditary Haemochromatosis referrals to Cork University Hospital 2009-2012.

Author(s): McDonald, C., Joyce, C, Su, Y*, Crosbie, O.

Department(s)/Institution(s): Department of Hepatology and Clinical Biochemistry, Cork University Hospital Department of Statistics, University of Hawaii at Manoa, USA*

Introduction: Hereditary Haemochromatosis (HH) defines a complex heterogeneous group of autosomal recessive disorders that result in multi organ iron overload with the liver parenchymal cells being primarily affected. Our study concentrated on HFE- related haemochromatosis, the most common cause of HH.

Aims/Background: Clinical expression of HH is variable with the C282Y homozygous genotype representing the largest group. However, even within this group, approximately 75-85% do not develop HH owing predominantly to its varied penetrance. There have been few studies extensively reviewing genotype population frequencies in Ireland to date. Our study aims to assess the frequencies of the various genotypes recorded from referrals to CUH. A further objective is to correlate the different genotypes with biochemical iron overloading to establish any statistically significant variations in altering the percentage Transferrin saturation (TS%) cutoff for Iron Overload.

Method: The audit encompasses a retrospective review of referrals for HH genotype testing to the Clinical Biochemistry Department from the periods August 2009 to December 2012. The referrals were divided into Diagnostic, Predictive and Carrier Status groups as per best practice guidelines. Iron overload was defined into two groups; TS >45% and TS >55%. Data was anonymised and the following variables were recorded on each patient: Ethnicity, Age, Sex, Referrer, TS, Ferritin, Comorbidities (Elevated LFTs, Cardiomyopathy, DM, Arthritis) and HH genotype. Genotyping was performed using fluorescent PCR for HFE mutations p.Cys282Tyr (C282Y), p.His63Asp (H63D) and p.Ser65Cys (S65C). All analyses for the project were conducted using Statistical Analysis System.

Results: A total of 2,511 referrals were included in the study. The predominant age was 35- 65 years (65% of total). Diagnostic referrals accounted for 62% (1,517) of total with GP's making 93% of referrals. The overall genotype frequencies showed C282Y homozygous represented 20% of the overall population (497 patients), compound heterozygotes recorded at 13% (329 patients) and C282Y carriers were seen in just over a quarter of the population (26%). Above 55%, C282Y homozygous patients represent 75% of HH diagnoses. In a cohort of 139 patients with

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References:

1. Worthington J et al. *Curr Med Res Opin* 2006;24(2):481-88.

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“severe” biochemical overload with TS>45% and Ferritin >1,000, an expected majority were C282Y homozygous (53%). “Normal” patients without a HFE mutation accounted for 20% of these severe iron overloaded patients.

Conclusions: This study shows a high carrier rate of C282Y among the population (26%). C282Y specificity rises dramatically above levels of TS>55%. There remains an unexplained high level of the population (20%) with normal genotyping and severe biochemical iron overload. This finding requires further investigation.

ABSTRACT 50 (15W147) POSTER PRESENTATION

Title of Paper: Introducing a novel disease activity index for mesenteric manifestations in Crohn’s disease

Author(s): M.G. Kiernan¹, S.M. Sahebally^{1,2}, A. Jarrar³, J.P. Burke^{4,5}, J. Hogan², P.A. Kiely⁶, B. Shen^{3,7}, M. Moloney⁸, M. Skelly⁸, D. Leddin⁹, H. Hedayat², P.N. Faul¹⁰, V. Healy¹⁰, P.R. O’Connell^{4,5}, S. Martin⁵, F. Shanahan, C. Dunne¹, J.C. Coffey^{1,2}.

Department(s)/Institution(s): 1. Graduate Entry Medical School and Centre for Interventions in Infection, Inflammation and Immunity (4i), University of Limerick, 2. Department of Surgery, University Hospital Limerick, 3. The Lerner College of Medicine, Cleveland Clinic Foundation, 4. School of Medicine and Medical Sciences, UCD, 5. Centre for Colorectal Disease, St. Vincent’s University Hospital, Dublin, 6. Department of Life Sciences, Materials and Surface Science Institute and Stokes Institute, University of Limerick, 7. Departments of Gastroenterology/Hepatology, the Cleveland Clinic Foundation, Cleveland, Ohio, USA, 8. Department of Gastroenterology, University Hospital Limerick, 9. Department of Medicine, Division of Digestive Care and Endoscopy, Dalhousie University, Halifax, Nova Scotia, 10. Department of Pathology, University Hospital Limerick, 11. Department of Medicine, Alimentary Pharmabiotic Centre, University College Cork.

Introduction: The mesentery contributes to inflammation in Crohn’s disease¹. Mesenteric fat wrapping and thickening are unique to Crohn’s disease but as yet no studies have quantitated mesenteric disease.

Aims/Background: This study aimed to develop a novel disease activity index for mesenteric disease in Crohn’s patients. A second aim was to investigate the relationship between mesenteric disease and other manifestations of Crohn’s disease.

Method: Ethical approval and informed consent were obtained from the HSE Mid-Western Regional Hospital Research Ethics Committee. Both mesenteric and mucosal disease were graded based on presence and extent of the factors listed in Table 1. The relationships between mesenteric, mucosal and systemic disease activity indices (i.e. the Crohn’s disease activity index (CDAI)) were determined. The effect of smoking on each activity index was evaluated. Data are presented as mean ± standard deviation (SD). Statistical analyses were performed in SPSSv22.

Results: Mesenteric disease activity index directly correlated with the mucosal disease activity index ($r=0.76$; $p<0.001$). A direct correlation occurred between the mesenteric disease activity score and CDAI ($r=0.71$; $p<0.01$). The mesenteric disease score was significantly worse in patients who smoked (4.1 ± 1.66 vs. 2.7 ± 1.50 , $p<0.05$). Neither the mucosal disease activity index, nor CDAI, significantly worsened in smokers (9.2 ± 4.18 vs. 7.8 ± 4.87 , $p=0.499$, for mucosal disease activity index) and (318 ± 110.4 vs. 304 ± 73.5 , $p=0.722$, for CDAI).

Conclusions: A novel mesenteric disease activity index was developed. This correlated with a similar mucosal disease activity index, as well as with the Crohn’s disease activity index. Only the mesenteric disease activity index worsened significantly in patients who smoked.

Table 1: Scoring system for (i) mesenteric disease manifestations and (ii) mucosal disease manifestations.

Mesenteric Disease Score				
Description	Severity	Grade	Stage	Score
FW minimal, MT minimal	Early	Mild	One	1
FW <25%, MT adipovascular pedicle only	Intermediate I	Moderate	Two A	2
FW <25%, pan-mesenteric MT	Intermediate II	Moderate	Two B	4
FW >25%, pan-mesenteric MT	Advanced	Severe	Three	6

Mucosal Disease Score	
Description	Score
Oedema	1
Aphthous ulcer	2
Confluent ulcer	3
Stricture	4
Fistula	5

References: 1. Peyrin-Biroulet L, Gonzalez F, Dubuquoy L, et al. Mesenteric fat as a source of C reactive protein and as a target for bacterial translocation in Crohn’s disease. Gut 2012;61:78-85.

ABSTRACT 51 (15W148) POSTER PRESENTATION

Title of Paper: Esophagogastric Junction (EGJ) Outflow Obstruction

Author(s): Yousif K, Barry L, Buckley M

Department(s)/Institution(s): Mercy University Hospital

Introduction: EGJ outflow obstruction is one of the causes of non obstructive dysphagia, characterized by impaired LES relaxation – raised Integrated Resting Pressure (IRP) (>23 mmHg) - with preserved peristalsis. High resolution manometry HRiM is the gold standard of assessing and diagnosing EGJ outflow obstruction. It can co-exist with Distal Oesophageal Spasm DES giving symptoms of dysphagia and chest pain.

Aims/Background: To assess the sensitivity of OGD and Barium swallow in diagnosing EGJ outflow obstruction. To compare response to various treatments: Endoscopic - pneumatic dilatation/Botox - and Heller’s myotomy.

Method: All patients that were diagnosed with EGJ outflow obstruction from February 2013 to March 2015 based on HiRM results –Chicago classification- were included and their medical notes were reviewed retrospectively for presenting symptoms, intervention and outcome. Barium swallow and Gastroscopy results were collected to compare the sensitivity against HiRM.

Results: 41 patients were diagnosed with EGJ outflow obstruction. 4 patients were excluded as secondary to antireflux surgery, 3 were lost to follow up and 14% had co-existing Jackhammer Oesophagus. The median age is 57 with standard deviation of 14.7, 62% are females. The median IRP is 21 mmHg, with a mean value of 22.8 and standard deviation of 6.7. Half of the patients had no intervention, 15% had pneumatic dilatation, 20% had Botox, 3% had both –Botox/pneumatic or Botox/ Myotomy - and 12%

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proceeded to Heller's Myotomy. $\frac{3}{4}$ of patients responded positively to pneumatic dilatation, versus 71% for Botox and 100% for Heller's myotomy. Nevertheless, this is not statistically significant when comparing pneumatic vs Botox (p 0.89) and surgical vs endoscopic intervention (p 0.24). All patients had OGDs and 2/3 had Barium swallow, both have very low sensitivity in the diagnosis of EGJ outflow – 4 and 7% respectively.

Conclusions: EGJ outflow obstruction presents with dysphagia in all patients, more prevalent in females 2:1. Both Gastroscopy and Barium swallow have very low sensitivity for diagnosis of EGJ outflow obstruction. Pneumatic dilatation/Botox in addition to Sildenafil is a reasonable approach with variable response. Heller's myotomy can be used if endoscopic treatment fails.

ABSTRACT 52 (15W149) POSTER PRESENTATION

Title of Paper: Myocardium Microalterations Index (MMI) in patients with haemochromatosis attending Nenagh hospital for venesection.

Author(s): Mohammed Ali, Ahsan Sarfaz, Eoin Ryan and Manus Moloney

Department(s)/Institution(s): University of Limerick Hospital Group Nenagh

Introduction: Haemochromatosis is the abnormal accumulation of iron in parenchymal tissue, leading to organ damage. Cardiomyopathy is a recognised complication. Fatigue is a common symptom of Haemochromatosis (74%), whether fatigue may be linked to subclinical myocardial dysfunction is unknown.

Aims/Background: The aim is to use the ECG dispersion mapping (ECG-DM) in a preliminary study to analyze myocardial electrophysiological properties in Haemochromatosis patients attending Nenagh Hospital for venesection. ECG-DM is a novel technique that analyzes low-amplitude ECG oscillations and reports them as the myocardial micro-alternation index (MMI), which is expressed as a percentage (1). If pathological micro-deviations are present throughout the entire myocardium, the MMI is 100%, whereas an MMI of 0% indicates a total absence of abnormal micro-deviations. This technique may have a role in assessing individual risks of cardiovascular disease. The normal mean Myocardium Microalteration Index (MMI) is less than 15%. MMI of 15% to 17% suggests the possibility of intermediate cardiac risk, and greater than 17% represents increased risk of cardiac disease with significant electrophysiological deviation. MMI in the population of healthy persons increases with age (1).

Method: We carried out ECG dispersion mapping in 38 patients with hemochromatosis attending Nenagh hospital for routine venesection. Myocardium Microalterations Index (MMI) was recorded for each patient.

Results: 79 % of patients were males, while the females represent 21% of the cases. The mean age for all the group was 64.5 . 87% (33) of patients had MMI of less than 15%. 8% (3) had MMI between 15 -17% and only 5% (2) had MMI of 20%. Of these patients the first is a male age 40 with fatigue as main symptom, ferritin 564 at presentation, transferring saturation 74%. No independent risk factors for cardiac disease. The second patient is a 62 year old female, C282Y homozygous, ferritin 308 at presentation, transferrin saturation 88%. She complained of shortness of breath 2009, cardiac catheter negative for coronary artery disease. Chest x ray normal. No risk factors for heart disease other than age.

Conclusions: Most patients of haemochromatosis attending

Nenagh Hospital for venesection have normal MMI which may indicate low risk of myocardial disease but may also reflect early diagnosis and early initiation of therapy. Patients with the highest MMI in this small preliminary study exhibited symptoms of fatigue and cardiac dysfunction in the absence of independent cardiac risk factors. Further studies are needed to evaluate MMI utility in haemochromatosis as a method of detecting subclinical cardiac disease.

ABSTRACT 53 (15W150) POSTER PRESENTATION

Title of Paper: Procedural Outcomes and Peri-Procedural Complications of Endoscopic Retrograde Cholangiopancreatography: The Experience of a Tertiary Centre in the West of Ireland

Author(s): Fennelly Evelyn, Harkin Grace, Lee John.

Department(s)/Institution(s): Department of Gastroenterology, Galway University Hospital, Galway; School of Medicine, National University of Ireland, Galway

Introduction: Endoscopic retrograde cholangiopancreatography (ERCP) is a complex endoscopic procedure which allows for minimally invasive management of pancreato-biliary disorders. However, its benefits are tempered by higher potential for complications than any other endoscopic technique [1,2], the most common complication being post-ERCP pancreatitis (PEP) [3].

Aims/Background: To evaluate ERCP procedural outcomes and peri-procedural complications in a tertiary centre in the West of Ireland.

Method: Patients who underwent ERCP at our institution from January 2010 to June 2015 were included. Retrospective demographic and procedural data was collected, using a standardised data collection form from a combination of endoscopy and radiology reports, discharge summaries and laboratory results. 62 patient charts were evaluated for more information. Statistical analysis was performed using SPSS v21.

Results: 430 ERCP's were performed on 348 patients during the study period. The mean age was 64.03 years and 50.0% were female. The most common indication was choledocholithiasis (30.0%). Pancreatogram was obtained in 94.87% of procedures and cholangiogram in 74.65%. 74.59% of procedures involved interventions, including sphincterotomies (44.88%) and biliary stent insertion (20.9%). 74.47% procedures were successful or partially successful. The relationship between documented indication and successful outcome was significant ($p < 0.001$) for all indications except cholangiocarcinoma (p 0.741). There was no statistically significant relationship between the age of patient and procedural success.

The overall complication rate was 9.8%: PEP 5.1%, oxygen desaturation 1.6%, self-limiting bleeds 1.6%, minor bleeds 0.7%, perforations 0.5%, sepsis 0.2%, acute kidney injury 0.2%. There were no haemorrhages, cardiopulmonary events, contrast allergy reactions, or peri-procedural deaths. Patients who had bleeds (self-limiting or minor) were older than the cohort average (mean age 74 years) and 71.4% were female. Higher dose of midazolam was a risk factor for oxygen desaturation ($p < 0.001$). 96.28% procedures were performed using Midazolam, 63% with Pethidine; 32.09% with Fentanyl; and 2.09% under general anaesthesia. 3.26% procedures required administration of reversal agent. There is a negative correlation (-0.148) between age and midazolam dose which is statistically significant ($p=0.003$).

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TABLE 1

Mean dose all patients	Mean dose of medication by age grouping			
	29 and under	30 – 59	60 and above	
Midazolam	4.94mg	7.39mg	6.63mg	4.10mg
Pethidine	40.08mg	50.00mg	46.68mg	35.99mg
Fentanyl	61.96µg	85.71µg	82.14µg	50.56µg

Conclusions: Procedural outcomes for ERCP were acceptable: 74.47% procedures were successful or partially successful; overall complication rate of 9.8%; there were no deaths, haemorrhages or cardiopulmonary events. PEP was the most common periprocedural complication, consistent with larger multicentre studies.

ABSTRACT 54 (15W152) POSTER PRESENTATION

Title of Paper: Wide mesenterectomy is associated with reduced postoperative recurrence following surgery for Crohn's disease.

Author(s): LG Walsh, MG Kiernan, H Hedayat, SM Sahebally, A Jarrar, JP Burke, J Hogan, PA Kiely, B Shen, M Moloney, M Skelly, D Leddin, PN Faul, V Healy, PR O'Connell, S Martin, F Shanahan, C Dunne, D Waldron, E Condon, JC Coffey.

Department(s)/Institution(s): Department of Surgery, University Hospital Limerick, Graduate Entry Medical School, University of Limerick, 4i Centre for interventions in Infection, Inflammation and Immunity, The Lerner College of Medicine, the Cleveland Clinic Foundations, Cleveland, Ohio, USA, Department of Colorectal Surgery, the Cleveland Clinic Foundation, Centre for Colorectal Disease, St Vincent's University Hospital, Dublin, School of Medicine and Medical Sciences, UCD, Department of Life Sciences, Materials and Surface Science Institute and Stokes Institute, University of Limerick, Department of Gastroenterology/Hepatology, the Cleveland Clinic Foundation, Department of Gastroenterology, University Hospital Limerick.

Introduction: Conservative approaches are conventionally adopted in the surgical management of Crohn's disease (CD). Recent advancements in mesenteric anatomy now enable a more radical approach to mesenteric resection. We report outcomes when a more radical "wide" mesenteric resection is conducted for Crohn's disease.

Aims/Background: To identify differences in early surgical recurrence rates between patients undergoing close mesenterectomy in comparison to those undergoing wide mesenterectomy

Method: Two cohorts were compared, i.e. "close" and "wide" mesenterectomy. The former, an historic cohort, comprised of patients undergoing conventional surgery for CD. As such, the mesentery was divided and resected close to the gastrointestinal margin. Data were collected retrospectively and collated into a database. The latter cohort consisted of 38 patients collated prospectively who underwent wide or radical mesenterectomy at time of gastrointestinal resection. Both cohorts were compared for the rate of surgical recurrence within three years of patients' index resections.

Results: Surgical recurrence rates (i.e. symptoms necessitating repeat resection) were 27% and 2.7% in close and wide mesenterectomy cohorts respectively ($p=0.077$). In the wide mesenterectomy group, only one patient has required repeat surgery for symptoms of CD. Wide mesenterectomy was not feasible in four patients. These individuals underwent defunctioning ileostomy following by a staged resection after four to eight months. With exception of patients undergoing either pouchectomy or panproctocolectomy, all patients in the wide mesenterectomy cohort are currently stoma-free. Post-operative complications occurred in 5.4% of patients.

Conclusions: Radical or wide mesenterectomy is feasible in the surgical management of Crohn's disease. Short term surgical recurrence rates appear reduced following a wide mesenterectomy.

ABSTRACT 55 (15W153) POSTER PRESENTATION

Title of Paper: Obstacles in patient flow and a review of the infliximab infusion protocol for IBD patients in a tertiary children's hospital.

Author(s): Flanagan M¹, Kiernan S¹ & Hussey S¹⁻³.

Department(s)/Institution(s): 1) Department of Paediatric Gastroenterology, Our Lady's Children's Hospital Crumlin, Dublin. 2) Academic Centre for Paediatric Research, School of Medicine and Medical Science, UCD. 3) National Children's Research Centre, Crumlin, Dublin 12.

Introduction: Our Lady's Children's Hospital, Crumlin is the national referral centre for paediatric inflammatory bowel disease (PIBD). Approximately 100 patients are newly diagnosed with PIBD each year in Ireland. Biologic agents such as infliximab are indicated for the treatment of severe IBD but infusions are associated with a significant length of stay for patients on infusion days.

Aims/Background: To study the impact of potential timesaving interventions (prior laboratory testing, advanced prescription writing and advanced infusion preparation) on duration of stay for infliximab infusions.

Method: Over a 1 month period (23/3/15-17/4/15) patients were asked to have bloods performed within 7d of their forthcoming infusion. Doctors were advised to prescribe infliximab 48h in advance of patients' infusions. Pharmacists were advised to prepare the infusions in advance of blood results or clinical review. A retrospective study of all infliximab infusions over a 5w period (20/4/15-22/5/15) was performed. Chart review was performed for each patient. The previous and subsequent infusions to the study timeframe infusion were analysed for comparison. Statistical analysis was performed using Excel data-tools.

Results: A total of 55 infliximab infusions were administered throughout the study timeframe, of which 54 charts were reviewed. 78% had CD and 22% UC. Seventeen percent of patients were on induction infusions versus 83% on maintenance therapy. The average times were as follows: admission to IVC insertion - 57m; admission to infusion - 3h 8m; total length of stay - 7h 5m. Forty four percent of patients had paired blood tests performed, of which there was no difference in absolute neutrophil counts. The combined interventions showed a reduction in the time taken from admission to infusion commencing by 1h 9m and in the length of stay by 1h 8m. The most time efficient patient group were those who had prior bloods performed (length of stay 6h 32m, time to infusion 2h 36m). The effects of these interventions waned with time with an increase in length of stay and time to infusion of 8m. For subsequent patient infusions the shortest length of stay was for patients who had bloods performed immediately prior to infusion (6h 51m) compared to those who had paired bloods (7h 46m) or prior bloods (7h 35m) performed.

Conclusions: This study shows that simple interventions such as advanced prescription writing, advanced infusion preparation and, to a lesser extent prior, phlebotomy can reduce hospital times by over 1h. A prospective validation study is ongoing to ensure efficient patient flow for our IBD patients.



ABSTRACT 56 (15W155) POSTER PRESENTATION

Title of Paper: Adherence to Rectal Mesalamine in Patients with Ulcerative Colitis (UC)

Author(s): Marie Boyle, Amanda Ting, Didia Cury, Kavinderjit Nanda, Adam Cheifetz, Alan Moss

Department(s)/Institution(s): 1Center for Inflammatory Bowel Disease, Beth Israel Deaconess Medical Center, Boston, MA,

Introduction: Rectal mesalamine is an effective induction and maintenance therapy for ulcerative colitis (UC). Little is known about adherence to rectal mesalamine, or barriers to its use.

Aims/Background: To quantify the prevalence of non-adherence to rectal mesalamine in practice, and to identify patient-reported barriers to adherence to rectal mesalamine.

Method: A cohort of patients with UC was prospectively enrolled in this observational study and followed for 12 months. Adherence was assessed by tracking pharmacy refills (Medication Possession Ratio, MPR) during the follow-up period. Individual interviews were undertaken in a subset of subjects using a trained interviewer. Transcripts from the focus groups and interviews were analyzed to identify themes and links between these themes using qualitative data software (MaxQDA).

Results: 70 patients prescribed rectal mesalamine were prospectively enrolled in the study. At enrolment, 39/70 subjects (55%) self-reported "occasional non-adherence" to rectal mesalamine. Over the 12 months follow-up period, only 20 subjects (26%) completed 3 or more refills. Males, or subjects prescribed a once-a-day suppository, were significantly more likely to refill than females (OR 3.3 95% CI 1.1-10.9), or those prescribed suppositories more than once a day (OR 1.3, 95% CI 1.1-1.7). By MPR criteria, 71% of all subjects were non-adherent with their prescribed regimen (MPR <0.6). Non-adherers were significantly older than adherent subjects; mean age 48 years in non-adherers, vs. 37 in adherers, $p=0.04$. Patients who were non-adherent to rectal mesalamine frequently cited the mode of administration (65%) and busy lifestyle (40%) as reasons for intentional non-adherence.

Conclusions: Intentional non-adherence is very common in patients who have been prescribed rectal mesalamine. Gender, age, frequency of dosing and lifestyle factors may impact adherence to this form of mesalamine.

ABSTRACT 57 (15W156) POSTER PRESENTATION

Title of Paper: Determination of on-treatment pharmacokinetics of sofosbuvir and ledipasvir in patients with decompensated cirrhosis - the potential for therapeutic drug monitoring in predicting treatment response

Author(s): Omar El-Sherif (1), Diarmaid Houlihan (2), Stephen Stewart (3), Colm Bergin (4), Liam Fanning (5), Orla Crosbie (5), Susan McKiernan (1), Saye Khoo (6), Suzanne Norris (1)

Department(s)/Institution(s): (1) Hepatology Centre, St. James's Hospital; (2) St. Vincent's Hospital; (3) Mater Hospital, (4) Department of Infectious Diseases, SJH; (5) Cork University Hospital (6) University of Liverpool

Introduction: With the availability of interferon-free direct acting antiviral therapy (DAA) for hepatitis C, patients with decompensated cirrhosis can now be considered for antiviral therapy.

Aims/Background: The combination of sofosbuvir-ledipasvir with ribavirin was associated with high sustained virological response rates (SVR) in decompensated cirrhotics in the SOLAR-1 trial, although real world outcomes are awaited. It is unclear whether interindividual pharmacokinetic variability affects treatment outcome.

Method: Plasma trough samples were prospectively collected in 35 decompensated cirrhotic patients receiving 12 weeks of sofosbuvir-ledipasvir and ribavirin therapy for HCV genotype 1 infection. GS-331007 (major circulating metabolite of sofosbuvir) and ledipasvir plasma trough samples were collected at treatment days 7, 14, 28, 84 and measured using validated LC-MS/MS. Mean age was 53.6 ± 10.3 and 62% were male. The median MELD score was 10 ± 3.3 . Trough GS-331007 and ledipasvir concentrations were compared in patients achieving a rapid virologic response (RVR) vs no RVR and SVR4 vs non-SVR4.

Results: All 35 patients achieved an on-treatment virologic response, and the SVR4 rate per protocol is 82%. GS-331007 C_{min} ranged from 47 – 1097 ng/ml, and ledipasvir C_{min} ranged from 36.1 – 366ng/ml. There was no relationship between trough GS-331007 levels and RVR or SVR. However, mean day 28 ledipasvir C_{min} levels were higher in patients achieving SVR4 compared to early relapsers (182ng/ml vs 102 ng/ml - $p=0.062$).

Conclusions: These novel data suggests that on-treatment trough ledipasvir may predict treatment response and the need for extended treatment in decompensated cirrhotics treated with 12 weeks sofosbuvir and ledipasvir. This relationship between sofosbuvir and ledipasvir pharmacokinetics and treatment response is being further examined in a larger cohort of patients.

Conclusions: We have shown time trends to biologic therapy and surgical rates in a single centre cohort study. There has been a reduction in surgical rates in patients with CD over time. Also, we have shown an earlier and increased use of biologic treatment over time.

ABSTRACT 58 (15W158) POSTER PRESENTATION

Title of Paper: Four Eyes are Better than Two! Does Double-Observer Endoscopy Increase Polyp Detection Rate?

Author(s): Karen Hartery, Orla Gildea, Marie Buckley, Gareth Horgan, Hugh Mulcahy, Juliette Sheridan, Garret Cullen, Glen Doherty

Department(s)/Institution(s): Dept of Gastroenterology and Centre for Colorectal Disease, St. Vincent's University Hospital, Dublin.

Introduction: Colonoscopy is regarded as an effective tool to reduce the incidence of colorectal cancer (CRC) and its associated mortality. The protection afforded by colonoscopy is thought to be due to detection and removal of adenomatous polyps. The adenoma detection rate (ADR) has been shown to inversely associated with the risks of interval colorectal cancer, advanced-stage interval cancer, and fatal interval cancer. Literature has shown that experienced endoscopy nurse as a second observer can increase polyp detection rate.

Aims/Background: To determine whether double-observer endoscopy (consultant and trainee) at time of training lists increased polyp detection rate.



Method: This study included out-patient colonoscopies performed from January 1st to July 31st, 2015. Patients were excluded if they were referred from National Bowel Screening Programme. Endoscopy data was extracted from EndoRad reporting system. Histology reports for polyp histology were obtained from PAS system. Data was analyzed using SPSS statistics program.

Results: A total of 1,266 outpatient colonoscopies were performed from January 1st to July 31st 2015 in St. Vincent's University Hospital Endoscopy Unit excluding National Bowel Screening cases. In total 708 polyps, including 389 adenomas, were identified in 367 patients. 436 of these were performed for the indication surveillance.

Overall PDR was 29%, with 32.6% in males and 25.7% in females. Overall ADR was 17.1% with 15% in males 19.2% in females. Multivariate analysis revealed male gender (OR 1.04, CI 95% 1.03-1.04), older age at procedure (OR 1.4, CI 95% 1.09-1.8), surveillance as indication (OR 1.8, CI 95% 1.4-2.3), and procedure performed by both trainee and consultant were factors significantly associated with increased PDR (OR 1.6, CI 95% 1.19-2.2), ($p < 0.01$). The PDR was significantly higher in the dual-observer group (Consultant and Trainee) at 37.2% ($p = 0.001$) versus single-observer groups, (Consultant Only 26.8% and Trainee Only 27.2%).

Conclusions: We have shown that double-observer endoscopy, with a trainee doctor and consultant, is significantly associated with increased polyp detection rate.

ABSTRACT 59 (15W160) POSTER PRESENTATION

Title of Paper: Recent experience with PEG tube insertion in Connolly Hospital

Author(s): B.Christopher, K.Altamimi, H.Elmileik, R.Farrell, C.Smyth

Department(s)/Institution(s): Department of Gastroenterology, Connolly Hospital Blanchardstown

Introduction: Percutaneous Endoscopic Gastrostomy (PEG) tube is an important means to provide enteral nutrition in a selected subgroup of patients. The decision to insert a PEG tube is usually made using a multidisciplinary approach with clear discussion with patients and family.

Aims/Background: The aim of this study was to look at our patient cohort in Connolly Hospital Blanchardstown who have had a PEG tube inserted between January 2014 and August 2015. As comparison in the previous 12 months, there were 11 PEG tubes inserted.

We evaluated the indications for PEG tube insertion, by whom the decision was made, time between presentation on acute illness and referral for PEG insertion, patients' age, sedation used and any immediate complications related to the procedure.

Method: We obtained data from EndoRAAD database, chart review and phone contact to relatives and general practitioners.

Results: 23 patients had PEG tubes inserted over the duration of this audit. The indications for PEG insertion were as follow: -

Stroke ($n = 6 / 26\%$), learning impairment (cerebral palsy, Trisomy 21) with recurrent aspiration pneumonia ($n = 5 / 21.7\%$) dementia with reduced oral intake ($n = 3 / 13\%$), Inclusion body myositis ($n = 2 / 8.7\%$), Myasthenia Gravis ($n = 1 / 4.3\%$), brain Injury, dysphagia ($n = 1 / 4.3\%$) Hereditary spastic paraparesis ($n = 1 /$

4.3%), Progressive mitochondrial myopathy ($n = 1 / 4.3\%$), Subarachnoid Haemorrhage, dysphagia ($n = 1 / 4.3\%$), Huntington's chorea with recurrent aspiration ($n = 1 / 4.3\%$) and Progressive Parkinson's disease with multisystem atrophy ($n = 1 / 4.3\%$).

Decision for insertion was made by stroke physician (26%) and other medical physician – 74% (neurologist, gastroenterologist, primary physicians). Time frame from event or diagnosis to insertion was variable. The only definitive time frame was for severe stroke patients when the average time to PEG insertion being 5 weeks.

There were 13 females (56.5%) and 10 males (43.5%) in terms of gender distribution. The average age was 65 years old (range 32 – 87). For sedation, the average use of midazolam was 3.75mg, Fentanyl 50 mcg and Pethidine 25mg. There were no documented immediate complications in this cohort.

Conclusions: PEG feeding is an important intervention treatment when used in the right cohort of patients. A multidisciplinary approach is crucial in the decision making process. We plan to prospectively assess all referrals for PEG tube to ensure clear and appropriate patient selection at all times. Our retrospective study showed that our patients were carefully selected and did benefit from PEG feeding.

ABSTRACT 60 (15W161) POSTER PRESENTATION

Title of Paper: Accuracy of the CLO test versus histology in the diagnosis of Helicobacter pylori infection in patients undergoing gastroscopy at Tallaght Hospital.

Author(s): Denise Brennan, Turlough Heffernan, Joseph Omorogbe, Mary Hussey, Grainne Holleran, Vikrant Parihar, Yousif Hamid, Colm O'Morain, Sinead Smith*, Deirdre McNamara*

Department(s)/Institution(s): Trinity Academic Gastroenterology Group (TAGG), Department of Clinical Medicine, Trinity College Dublin. *Joint senior authors

Introduction: The accurate detection of H. pylori infection is essential for managing infected patients with gastro-duodenal symptoms. The reduced prevalence of infection in the developed world and the widespread use of PPI's can affect the accuracy of a given diagnostic test in terms of sensitivity and specificity. Commonly employed tests for H. pylori on gastric biopsies include the Campylobacter-like organism (CLO) test, histological examination and culture.

Aims/Background: To determine the sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) of the CLO test versus histological testing for the detection of H. pylori infection.

Method: Adult patients were prospectively recruited to the study from our endoscopy department from April 2013 to July 2015. Following ethical approval and informed consent, gastric biopsy samples were obtained from patients undergoing endoscopy. For CLO testing, a biopsy was taken from the antrum (from April 2013 to October 2014, single antral biopsy used in CLO test; from October 2014 to July 2015, combined antral and corpus biopsies used in CLO test). CLO tests were stored at room temperature and examined and interpreted after 30 minutes in accordance with manufacturer's guidelines. An additional two biopsies each were taken from the antrum and corpus for histological examination for H. pylori by hematoxylin and eosin staining and immunohistochemistry. The sensitivity, specificity, positive



predictive value (PPV) and negative predictive value (NPV) of the CLO test was compared to histology using Diagnostic Test Evaluation software (www.medcalc.org).

Results: In all, 473 patients mean age 52.7 ± 16.8 years, 45% (n=213) male were included. A total of 98 (20.7%) patients were positive by histology while 99 (20.9%) patients were positive by CLO test. The average age of infected patients (by histology) was 49.4 ± 15 years, 51% (n=50) male, while the average age of non-infected patients was 53.6 ± 17.1 years, 43.5% (n=163) male. Patients infected with *H. pylori* were significantly younger than those who were not (49.4 vs 53.6 years; $p = 0.03$; 95% CI 0.5025 to 7.962). Using histological testing as gold standard, there were 21 false positive and 20 false negative CLO tests. The sensitivity, specificity, PPV and NPV of the CLO test compared to histology was 80%, 94%, 79% and 95% respectively.

Conclusions: The rate of patients infected with *H. pylori* attending Tallaght Hospital is low (20.9%, by histological testing). The low sensitivity and NPV of the CLO test (80% and 79% respectively) warrants continued histological testing for *H. pylori* in order to ensure minimal incidence of false negative diagnosis. It is necessary to continue use of the CLO test during endoscopy because it allows prompt diagnosis of infection, on the same day the procedure is carried out.

ABSTRACT 61 (15W162) POSTER PRESENTATION

Title of Paper: Retrospective Audit of the Utilization of Infliximab in Inflammatory Bowel Disease Patients at a Single Centre over a 10-year Period

Author(s): Hannah O'Driscoll, Dr Geraldine Mc Cormack

Department(s)/Institution(s): Midlands Regional Hospital Tullamore, Graduate Entry Medical School University of Limerick.

Introduction: Infliximab (IFX) is a monoclonal antibody against TNF-alpha with established efficacy in moderate to severe Inflammatory Bowel Diseases (IBD). Clinical trials have established the efficacy of IFX in the induction and maintenance of remission in moderate to severely active Crohns Disease (CD). Efficacy has also been established in acute severe and steroid dependent Ulcerative Colitis (UC) and refractory pouchitis.

Aims/Background: This study reviews the use of IFX at a single center over a 10-year period to evaluate treatment indications, outcomes, durations of treatment, reasons for discontinuing and adverse events. Service demands of providing an IFX infusion service were also examined.

Method: • Retrospective review of patients treated with IFX at the Midland Regional Hospital Tullamore over a 10-year period (01/07/2005 to 1/7/2015).

- Patients were identified from hospital and pharmacy records, all patients receiving at least one dose during the study period were included.
- Data was analysed using Microsoft Excel 2010.

Results: Fifty-eight IBD patients were treated, with an increasing number over the study period. Sixteen patients are currently having maintenance infusions. Fifteen patients had an induction regimen only, 17 went on maintenance treatment (mean duration 23 months) and subsequently stopped treatment. Surgical intervention was the most common reason to stop maintenance therapy. All patients commencing maintenance therapy were on 8 weekly infusions

initially, this interval was shortened in 11 cases and dose escalation occurred in 2 cases. Adverse events occurred in 6 cases, most commonly skin rashes and arthralgias. There was one death during the study period from an unrelated underlying condition.

Conclusions: The audit demonstrates an increasing utilization of IFX in the management of IBD over the study period. Treatment protocols at our centre were compliant with best practice guidelines. Treatment outcomes and adverse events were similar to published data. Increased utilization of biologics and the complex multidisciplinary care required for this cohort of IBD patients has significant implications for service providers.

ABSTRACT 62 (15W163) POSTER PRESENTATION

Title of Paper: CRP/Albumin ratio; a novel predictor of early colectomy in Acute Severe Ulcerative Colitis

Author(s): Gibson DJ, Doherty J, Nolan J, Keegan D, Byrne K, Martin ST, Buckley M, Sheridan J, Horgan G, Mulcahy HE, Cullen G, Doherty GA

Department(s)/Institution(s): Centre for Colorectal Disease, St Vincent's University Hospital, Dublin 4

Introduction: Dose optimisation of infliximab (IFX) with an accelerated induction in Acute Severe Ulcerative Colitis (ASUC) reduces initial colectomy rates. However, it is unclear whether all steroid non-responsive ASUC patients should receive an accelerated IFX induction. It is known that hypoalbuminaemia is strongly associated with colectomy while a raised CRP at IFX induction is favourable. The relationship between CRP and albumin has not been explored.

Method: A retrospective study of a prospectively maintained database of 3600 attending a single centre was performed. Patients admitted with ASUC over a 5 year period from January 2010-December 2014 were identified. All patients were initially treated with IV steroids for histologically confirmed ulcerative colitis. Patient demographics were collected and CRP and albumin levels were recorded at day 1 and day 3 of admission. ROC statistics were used to determine the optimal CRP/Albumin ratio for 30 day colectomy. Kaplan Meier Survival analysis was then performed to evaluate the relationship between high and low CRP/Albumin on time to colectomy.

Results: 129 patients with ASUC were admitted during a 5 year period. The median follow up was 2.3 years. 50 patients (37%) were steroid responsive, 58 patients (45%) received rescue infliximab. 24 patients (19%) required colectomy within 30 days of admission, while a further 14 (11%) required colectomy during follow-up. By ROC statistics, day 3 CRP/albumin ratio was a more accurate marker of subsequent 30 day colectomy than day 3 albumin alone (AUC =0.78 ($p < 0.001$) vs AUC 0.70 ($p = 0.002$)) with optimal CRP/albumin ratio to predict colectomy of 1.75 (sensitivity 72%, specificity 75%). Kaplan Meier survival analysis revealed predicted 3 year colectomy rates of 50% vs 20% in patients with day 3 CRP/Albumin ratio > 1.75 and < 1.75 respectively ($p < 0.001$).

Conclusions: A raised day 3 CRP/Alb is strongly associated with subsequent need for colectomy. Early introduction of infliximab at this stage, using an accelerated induction regimen may be justified to reduce risk of subsequent colectomy in this high risk group.



ABSTRACT 63 (15W164) POSTER PRESENTATION

Title of Paper: CMV Pneumonitis in an immunosuppressed IBD patients

Author(s): R. Stack, V. Parihar, A. Alakkari, B. Ryan.

Department(s)/Institution(s): AMNCH, Tallaght, Dublin 24.

Introduction: Inflammatory bowel disease patients are increasing commenced on immunosuppressant therapies which subsequently puts them at risk of opportunistic infections. This must be kept in mind when approaching the care of immunocompromised IBD patients who may present with either atypical or opportunistic infections. We discuss the case of a 35 year Crohn's patient who presented with flu-like symptoms for one week while on azathioprine therapy.

Aims/Background: Cytomegalovirus, CMV, exposure is becoming increasing less frequent due to increasing hygiene conditions. Primary CMV infection while immunosuppressed carries a significantly greater morbidity and mortality. This case highlights the importance in considering primary infection in patient immunosuppressed, particularly where CMV IgM and IgG serology may be unknown, as this is not currently routinely screened in patients commencing azathioprine.

Method: 35 year old lady presented with one week history of flu-like symptoms of fevers, rigors, arthralgia, and chronic, non-productive cough. She was on azathioprine therapy for 2 and half years for terminal ileum Crohn's. The patient was febrile, 39.5, tachycardic 126, normotensive and saturating to 98% on room air. She had a normal systemic examination. The patient was treated as a likely viral infection and additionally covered with intravenous co-amoxiclav.

Results: The patient was persistently febrile and became thrombocytopenic. CT abdo-pelvis and colonoscopy showed a normal colon with normal mucosal biopsies. The patient developed respiratory distress on day 6 and repeat CXR showed a new right upper lobe lesion. Due to clinical suspicion and patient deterioration, she was started on empirical ganciclovir therapy for CMV pneumonitis and given one dose of G-CSF to treat her leukopenia.

CMV IgM and IgG subsequently came back positive suggesting primary infection within 3 months. CMV PCR was 20,205 copies/ml. She required intubation and admission to ICU with haemodialysis. In total she was ventilated for 20 days. Prior to discharge from ICU, she developed a duodenal ulcer complicated by an upper gastrointestinal bleed. She was treated with intravenous proton pump inhibitors.

Conclusions: This case is an example of the risks immunosuppressed patients are exposed to. While CMV colitis is recognised complication regularly considered in unwell IBD patients, CMV pneumonitis is not as common and should be considered early in the differential for a patient with non-localising signs and symptoms. Viral serology prior to commencing azathioprine was unknown. One may argue that if the patient was identified previously as IgM and IgG negative, she would have been flagged high risk for CMV infection earlier.

ABSTRACT 64 (15W165) POSTER PRESENTATION

Title of Paper: The regulation of glucocorticoid metabolism in Inflammatory Bowel Disease

Author(s): M Hussey, A Cannon, G Holleran, C Kiat, B Hall, J O'Sullivan, M Sherlock, D McNamara

Department(s)/Institution(s): Department of Gastroenterology, Tallaght Hospital, Trinity Academic Gastroenterology Group

Introduction: The 11 beta hydroxysteroid dehydrogenase (11 β HSD) enzyme system has been previously shown to play a role in glucocorticoid metabolism in Inflammatory Bowel Disease (IBD). However the role of potential key regulators including hexose-6-phosphate dehydrogenase (H6PDH) & the Glucocorticoid Receptor alpha (GR- α) is unknown.

Aims/Background: To examine the relative expression of 11 β HSD enzyme regulators H6PDH and GR- α in an IBD cohort.

Method: Frozen biobank samples from prospectively recruited IBD patients and controls which were previously examined for 11 β HSD 1 & 2 expression were identified. Demographic and clinical data including CRP, clinical (Harvey-Bradshaw Index / Mayo Score), endoscopic & histological activity were recorded. Biopsies were analysed in batches using Quantitative real time RT-PCR (TaqMan) using commercially available GR- α and H6PDH probes. Relative transcript levels were determined using 18S as a reference gene. Relative expression of GR- α and H6PDH were calculated as a mean and compared among groups and controlled for activity using a student t test, p value of <0.05 was considered significant.

Results: To date 24 IBD (12 Crohn's, 12 UC) & 12 control subjects have been recruited. IBD & control cohorts were demographically similar with 50% (n= 12) versus 75% (n=9) female, mean age 42years (17-66 years) versus 57 years (19-83 years) respectively. Overall 50% (n=12) had mildly, 29% (n=7) moderately & 21% (n=5) severely active disease. The mean HBI was 6 (0-21), mean mayo score was 7(0-12)and mean CRP was 22mg/l (1-192.5mg/l). For active patients the mean CRP was 37mg/l versus 2.0mg/l for inactive disease, p<0.04 95% CI 68.8- 1.7. Overall between IBD patients and controls there was no difference in GR- α expression (4.5 au versus 2.1au (p=0.4), H6PDH expression 3.4au versus 3.9au (p=0.2) and 11 β HSD-1 expression 416au versus 166au (p=0.4). In addition there was no statistical difference in GR- α , H6PDH or 11 β HSD-1 expression within the IBD cohort based on either disease subtype, histological or biochemical activity. Interestingly, there was a significant difference in 11 β HSD-2 expression between IBD patients (13.8 au) and controls (318.4 au), P<0.01 95%CI -517.5- 91.7. As a result there was an increased proportion of 11 β HSD-1 expression compared with 11 β HSD-2 in IBD patients versus controls 81:1 versus 1.5:1, P<0.006, 95% CI 57.7 – 78.5.

Conclusions: Expression of 11 β HSD-1 and its regulator H6PDH do not vary in IBD. While GR- α receptor are levels are consistent, 11 β HSD-2 down regulation and enhanced tissue cortisol bioavailability may play a central role in response to inflammation in patients with active IBD.

ABSTRACT 65 (15W169) POSTER PRESENTATION

Title of Paper: Correlation between MRCP positive and ERCP positive studies for biliary tree stones.

Author(s): R. Stack, C. McGarvey, V. Parihar, N. Breslin, D. McNamara, H. O'Connor, I. Cretu, B. Ryan.

Department(s)/Institution(s): AMNCH, Tallaght, Dublin 24.



Introduction: Choledocholithiasis is a common condition. Timely ERCP is the treatment of choice but it is not without risk. Nowadays ERCP is usually performed following positive findings on non invasive imaging such as MRCP or ultrasound. However not infrequently patients who have been diagnosed with choledocholithiasis on imaging and who subsequently undergo ERCP, do not have a calculus at time of procedure, likely due to spontaneous passage of stones.

Aims/Background: Patients who undergo a normal ERCP are exposed to unnecessary risk. Better identification of patients who are likely to have already passed a stone should be common practice. This patient group should undergo an EUS if available, prior to ERCP. The aim of this study was to try to identify factors that might predict a normal exam.

Method: So far we have identified 179 patients who underwent ERCP at our institution for either confirmed or suspected choledocholithiasis on imaging (ultrasound, MRCP or CT). Patients who had positive findings on imaging but who had no calculi on ERCP were categorised based on (1) time lag between imaging and ERCP, (2) improving LFTs or not and (3) size of stones.

Results: The study cohort comprised n=110(61.5%) AMNCH and n=69(38.5%); external institute patients [median age – 68; male gender n=59 (33.0%)]. 38 patients (21.2%) in total had no confirmed stone on ERCP. Of these patients, 13 (34.2%) were referred from AMNCH and 25 (65.7%) were external referrals. The time delay for the AMNCH patients between imaging and ERCP were as follows: n=6 – 30 days. LFTs at time of imaging and ERCP for AMNCH patients identified 9 out of 13 patients had a downward trending profile before intervention. Further analysis of the external subgroup and of stone size is in progress.

Conclusions: The majority of negative ERCP findings were from the external institution cohort. Indeed 25/69 (36%) of this group had negative ERCPs as opposed to 13/110 (11.8%) of in-house procedures. This disproportion may be attributable to delay in access to ERCP but other factors may also play a role. In the AMNCH cohort with negative ERCP, there was strong biochemical evidence to suggest resolution of obstruction prior to intervention. We propose that patients who have a substantial delay to ERCP or who have improving LFTs prior to intervention should undergo an EUS prior to ERCP to re-assess the CBD and thus avoid unnecessary intervention.

ABSTRACT 66 (15W170) POSTER PRESENTATION

Title of Paper: Clinical outcome of patients with raised intraepithelial lymphocytes (IELs) with normal villous architecture on small intestine biopsy

Author(s): Vikrant Parihar*, Roisin Stack*, A. Alakari*, Stephen Crowther**, Deirdre McNamara*

Department(s)/Institution(s): Departments of *Gastroenterology & **Histopathology; Tallaght Hospital

Introduction: Intraepithelial lymphocytes (IELs) are a population of T-lymphocytes present between epithelial cells of both small and large bowel. Raised IELs with preserved villi are a feature of latent coeliac disease (CD). However they are also seen in a number of other conditions and the interpretation and the management of patients with high IEL's remains challenging. Follow-up data from clinical practice may help identify at risk patients.

Aims/Background: Assess the clinical presentation, demographic profile and clinical outcome in a cohort of patients with increased IELs on small intestinal biopsy.

Method: The histopathology database at Tallaght Hospital was interrogated to identify patients from 2013 and 14 where at least one duodenal or jejunal biopsy had increased numbers of IELs (duodenal >25 and jejunum > 40 IELs/100 enterocytes) with preserved villous architecture. Patients were excluded if any biopsy showed architectural change. A retrospective review of medical notes was then undertaken and demographic and clinical data was recorded and compared according to outcome.

Results: To date 94 patients have been identified. Follow up data is available for 40 (43%), 16(40%) males, mean age 44 years (range 20-81) and mean follow-up 17.3 months (range 7-36). Presentations included microcytic anaemia (n= 12, 30 %), abdominal pain (n=9, 23 %), reflux (n=7, 18%) diarrhoea (n= 4, 10%), other (n=8, 20%). None were on medications associated with raised IEL's. Overall 4 (10%) gave a history of autoimmune conditions. On follow up 9 (23%) patients have been given a clinical diagnosis of CD and commenced on a gluten free diet. Interestingly only one had repeat small bowel biopsies. Associated conditions, medications and indication were not predictive of CD development. Of note 8/9 (89%) that developed CD were women, OR 7.5 p<0.05, 95%CI 0.74-0.01. CD patients were older 55 versus 41 years, p< 0.04, 95%CI 26.8- 0.28. In addition 6/9 (66%) with CD had a raised tTG titer at presentation versus 0/21 without, OR 7.9, p< 0.0001, 95%CI 0.45-0.88. H. pylori tests were available in 32 cases, 11(35%) were positive. There was a negative association between H.pylori infection and subsequent CD development, 1 of 9(11%) CD versus 10 of 23 (43%) without CD, OR 0.16, p<0.04.

Conclusions: Bearing in mind the limitations, our study suggest older women with increased IEL's have a higher conversion to CD. Anaemia and raised tTG at presentation warrants close follow up, while H. pylori infection is commonly associated with raised IEL's without latent coeliac disease.

ABSTRACT 67 (15W171) POSTER PRESENTATION

Title of Paper: Accuracy of Blood Tracer Technology in Small Bowel Capsule Endoscopy

Author(s): Vikrant Parihar, Roisin Stack, A. Alakari, Deirdre McNamara*

Department(s)/Institution(s): Departments of Gastroenterology Tallaght Hospital & Trinity College*

Introduction: Bleeding from the small intestine poses a difficult problem due to its length and looping which makes direct visualization technically challenging and time consuming. Small bowel capsule endoscopy (SBCE) is often used to localize bleeding sources. Capsules are fitted with blood tracer technology which is designed to highlight areas of bleeding within the video and assist rapid reading and analysis.

Aims/Background: To determine the accuracy of the blood tracer in clinical practice.

Method: Patients who underwent SBCE were identified retrospectively by using search function and key word bleeding from our database. Patient demographics, indication were recorded. The reports were checked for bleeding. Another reader blinded to the report checked the tracer for red markers suggestive of bleeding. The accuracy of the tracer was compared to the actual report.



Results: To date 100 SBCE's have been reviewed. The average age of the cohort was 63 years and included 54 males. The three most common indication for SBCE were obscure overt (n= 49) and occult (n= 31) gastrointestinal bleeding and iron deficiency anaemia (n= 13). In 10 patients the SBCE did not reach the caecum, there were no retained capsules. In all Clinicians reported bleeding in 20 cases compared to 56 by the tracer. Overall there were 2 false negative and 36 false positive tracer documented bleeding episodes. The sensitivity, specificity, positive predictive and negative predictive value of the Tracer were 92%, 52%, 32% and 95%. As such if the tracer showed a red mark it was indicative of blood only in one third of cases. However it was highly accurate at predicting bleeding events.

Conclusions: Tracer technology is a simple and reliable quick screening test to rule out active bleeding.

ABSTRACT 68 (15W174) POSTER PRESENTATION

Title of Paper: Voluntary Childlessness and Knowledge of Pregnancy-Related Issues in Inflammatory Bowel Disease Patients

Author(s): M Boyle, F Jones, S. Murphy, P MacMathuna, J Leyden, HE Mulcahy, GA Doherty, Garret Cullen

Department(s)/Institution(s): 1. Centre for Colorectal Disease, St. Vincent's University Hospital. 2. GI Unit, Mater Misericordiae University Hospital. 3.School of Medicine and Medical Science, University College Dublin

Introduction: 36% of women with IBD choose not to have children ('voluntary childlessness') compared with reported ranges of 2.5% to 28% in the general population. Studies suggest this is because of concerns related to medication-associated teratogenicity, the impact of pregnancy on their disease, and inheritance fears. Many of these concerns are unsubstantiated because women with IBD, in general, have similar fertility to the general population, and are able to carry successful pregnancies.

Aims/Background: To examine IBD-specific reproductive knowledge and its association with reproductive decisions, including voluntary childlessness. The secondary objectives were to examine commonly held perspectives held by women regarding IBD and pregnancy related issues.

Method: A cross-sectional descriptive study was conducted in specialist IBD clinics. Data were gathered from a 60 item questionnaire offered to female IBD patients (age 18-60years). The Crohn's and Colitis Pregnancy Knowledge Score (CCPKNOW), a validated multiple-choice questionnaire on the subject of IBD that is able to objectively quantify the level of patient knowledge was employed. Scores were grouped according to; poor (0 to 7); adequate (8 to 13); very good (14 to 17).

Results: 102 women took part in this study (Median age 35.5 years (IQR 15.5), 60%UC; 52% were employed; 65% had completed third level education; 71% were in a relationship; 61% practiced religion). The median CCPKNOW score was 5.5(IQR 8). 11% of women believed they had decreased fertility due to IBD; 15% were concerned regarding birth defects, and 17% were afraid of a disease flare in pregnancy. Despite this, almost half (48%) did not seek pregnancy advice. 67% of the cohort had children. Of the 34 women without children; 8 women were 'voluntarily childless' (24%). In this group; the median age was 39.5 years (IQR 6). 28% of subjects indicated their disease changed their attitudes toward childbearing, but two-thirds (62%) said they would have

children irrespective of their diagnosis. One third of women who had children after a diagnosis of IBD stated they would have no further as a result of their disease.

Conclusions: The overall level knowledge of pregnancy issues specific to IBD was low in this cohort. 24% of women without children were 'voluntarily childless' at a median age of 39 years, compared to 17% in the general population at age 40. The use of CCPKNOW as an educational screening tool for female IBD patients of childbearing age may allow targeted patient education on pregnancy related issues.

ABSTRACT 69 (15W175) POSTER PRESENTATION

Title of Paper: Effect of direct acting antiviral therapy on AFP levels in patients treated for hepatitis C cirrhosis

Author(s): Andrew Carroll, John O'Grady, Orla Crosbie

Department(s)/Institution(s): Cork University Hospital

Introduction: Hepatitis C virus affects between 170- 185 million people worldwide, hepatocellular carcinoma (HCC) is a well-recognised complication, particularly in the context of cirrhosis. Alpha fetoprotein (AFP) is an onco-fetal protein found in increased levels in HCC, liver metastasis and other benign liver conditions.

Newer direct acting antiviral (DAA) therapies are showing higher rates of sustained virologic response (SVR) than the more traditional interferon based regimes in Hepatitis C treatment. HCC risk is reduced with SVR in interferon based therapy, with absolute risk reduction of 4.6%. In advanced liver disease, 4.2% with SVR develop HCC compared to 17.8% of non responders. A higher reduction in AFP level was seen following triple therapy with Telepravir compared to interferon based therapy. We sought to investigate AFP level with DAA therapy in our centre.

Method: All cirrhotic patients treated with DAAs for hepatitis C were analyzed. Exclusion criteria were those who discontinued treatment or who died prior to completion. 28 patients were suitable for inclusion, 9 of which are still undergoing treatment.

Results: Of 28 patients, 16 were female and 12 male. Average age was 57 years (range 36- 73). All patients became virus negative on treatment, the earliest occurring at week two. 3 patients relapsed following treatment.

AFP levels decreased following treatment. Pre treatment levels averaged 46.6 ng/ml (1.4- 265) and post treatment 38.7 ng/ml (1- 93). AFP treatment levels are awaited on 5 patients. Individual case analysis revealed that all but one case showed a decrease following treatment.

Mean bilirubin levels pre and post treatment were similar at 19.1 mg/dl (5- 79) and 19.7 mg/dl (5- 100) respectively. However there was an overall trend for levels to rise transiently during the first month of treatment to an average level of 27.9 mg/dl (9- 54). ALT levels decreased following treatment from mean levels of 94.7 U/L (18- 260) to 30.25 U/L (10- 50).

Conclusions: Our sample suggests that notable decreases occur in AFP levels with DAAs, in keeping with recent studies. This may suggest a reduced risk of HCC with DAA therapy, given the known association between AFP level and HCC risk. Long term follow up is required to determine if there will be a similar HCC risk reduction associated with SVR following DAA therapy compared to other treatments.



ABSTRACT 70 (15W176) POSTER PRESENTATION

Title of Paper: ERCP procedures in a tertiary referral centre over 3 months

Author(s): A Shahin, A beshir, Y muhamed, Dunne, G Chan, S Naimomosses F MacCarthy, N mahmmud

Department(s)/Institution(s): St. James's Hospital- Department of gastroenterology

Introduction: ERCP is the most complex common endoscopic procedure. It has great potential for benefits, but it also carries significant risk of failure, adverse events which includes life threatening and serious complications. The indications have been changed to be solely therapeutic procedure.

Aims/Background:

1. To review the indications of the ERCP procedures.
2. The rate of complications and the associated known risk factors.
3. The rule of NSAIDs in lowering complications
4. The importance of other diagnostic tools including EUS in the pre ERCP work up.

Method: The data of the patients who had ERCP done over a 3 months periods were reviewed including indications, procedure course, complications and risk factors

Results:

1. Complications in our centre has been consistent with international standards.
2. The only diagnostic indication for ERCP is brush cytology.

Conclusions:

1. High volume ERCP procedures have been associated with low complications rate.
2. Pre ERCP diagnostic tools including EUS has lowered our overall ERCP numbers by about 30%
3. ERCP remains an essential therapeutic procedure

ABSTRACT 71 (15W179) POSTER PRESENTATION

Title of Paper: Clinical use of anti-TNF therapy and increased risk of recurrent Sinusitis

Author(s): M Hussey, Y Bailey, D McNamara

Department(s)/Institution(s): Department of Gastroenterology, Tallaght Hospital, Trinity Academic Gastroenterology Group

Introduction: Experience with anti-Tumour Necrosis Factor (TNF) agents is growing and with time we are learning more about adverse events. Anti-TNF drugs are usually well tolerated however there are reports of a variety of adverse effects, potentially leading to their discontinuation. Sinusitis is highlighted as a non-serious infection and most patients are described as continuing therapy after their infection resolves.

Aims/Background: We report its significance within our own institution necessitating therapy discontinuation.

Method: A retrospective review of patients taking an anti-TNF agent from our IBD database was conducted. Patients who had reported chronic sinusitis as a side effect were identified. Chronic sinusitis was defined as an episode lasting for ≥ 8 weeks. Baseline demographics, disease subtype and duration were noted as well as concomitant therapies and treatment duration. Subjective

symptoms were recorded & objective evidence of sinusitis where possible was documented. Discontinuation of therapy as a consequence of chronic sinusitis was included in our analysis.

Results: In all 407 patients on anti-TNF agents were identified since 2010. Of these 313 (77%) had Crohn's disease (CD) and 94 (24%) ulcerative colitis (UC). Of these, 237 (58%) were taking Adalimumab, 166 (41%) Infliximab and 4 (1%) Golimumab. Of those taking Adalimumab and Infliximab, 208 (88%) and 105 (63%) had CD respectively. In all, 3 % (n=11) had reported chronic sinusitis as an adverse event. The mean age of this group was 36 years (range 18-50 yrs) and 82% (n=9) were female. The commonest reported symptoms were nasal discharge and facial pressure (n=8, 73%). The mean onset of symptoms was 6 months from starting therapy (range 1-28 months). In all, 46% (n=5) had objective evidence of sinusitis on radiology. The mean disease duration was 10 years (2-14 years). The majority (82 % (n=9)) had CD however this was not statistically significant (p=0.6). Sinusitis occurred more frequently in patients taking Adalimumab (9 (82%) compared with Infliximab (n=2, 18%) (p=0.001). However within the Adalimumab group, 55% (n=5) were taking a concomitant immunomodulator compared to none in the Infliximab group. Odds Ratio 6.1 (95% CI 0.23-162.74). The majority (n=7, 64%) discontinued therapy permanently as a consequence of their symptoms.

Conclusions: Our observations within an Irish cohort, suggest recurrent sinusitis can be a significant adverse event potentially leading to therapy discontinuation and the overall risk is enhanced when patients are on combined therapy regimes

ABSTRACT 72 (15W180) POSTER PRESENTATION

Title of Paper: Does the Alcohol Liaison Nurse Service in the Belfast Trust impact on ED attendance and hospital admissions?

Author(s): E. Clarke, K. Adams and R. McCorry

Department(s)/Institution(s): Liver Unit, Royal Victoria Hospital, Belfast, Northern Ireland

Introduction: Alcohol related harm is estimated to cost Health and Social Care in Northern Ireland (HSC) £250 million annually. It is an escalating issue for our hospitals with a 61% increase in admissions resulting from alcohol related illness between 2000/01 and 2009/10. In response to this crisis alcohol liaison nurse (ALN) services have been established to co-ordinate detection and management of alcohol use disorders.

Aims/Background: We investigated if consultation with an alcohol liaison nurse (ALN) reduced emergency department (ED) attendances and hospital admission in the 6 months following initial referral.

Method: We compared both ED attendance and hospital admissions 6 months pre- and post- consultation with an ALN. All inpatients under the age of 55 years referred from February to September 2014 across the 3 Belfast Trust hospitals were included. An existing ALN referral database was used to identify patients.

Results: A total of 176 patients were referred (male 69.9%; median age 44 years). Of these, 78.4% (n=138) had presentations directly related to alcohol. In the 6 months pre- ALN intervention there were 176 hospital admissions and 184 ED attendances (total = 360). In the 6 months post- ALN intervention there were 301 hospital admissions and 241 ED attendances (total = 542). This equates to a 50.6% increase in all hospital attendances in the 6 months after



consultation. Only 30 (17.0%) patients were re-referred to the ALN service within the 6 months. 41 (23.3%) patients had no hospital attendances either pre- or post consultation. Eight patients (3.9%) had more than 10 ED attendances/hospital admissions either pre- or post-consultation (range 16-65). They accounted for 31.2% of all hospital attendances (total = 281; 114 pre-, 167 post-).

Conclusions: Alcohol use disorders contribute to high volumes of attendances and admissions in the Belfast Trust. The majority of admissions were directly related to alcohol and its complications. These individuals may be less receptive to change hence the increase in hospital attendances following intervention. The volume of referrals is low when the presentation is non-alcohol related. A recent trust-wide audit suggested that we may only be detecting 2.6% of all potentially dependent drinkers attending ED. A planned expansion in the number of ALN posts and implementation of a 7day service should impact positively on patient identification. A small number of complex patients account for a significant proportion of hospital admissions and there may be scope to manage these individuals with an alcohol assertive outreach team.

ABSTRACT 73 (15W181) POSTER PRESENTATION

Title of Paper: Validation of Prognostic Indices in Locally Advanced and Metastatic Oesophago-gastric Cancer

Author(s): Michael J Devlin¹, Laura Feeney¹, Peter Gallagher¹, Jirhe Okugbeni², Kyle Crawford¹, Rachel Campbell¹, Claire Harrison¹, Colin Purcell¹, Martin Eatock¹, Richard C Turkington^{1,2}

Department(s)/Institution(s): 1 Northern Ireland Cancer Centre, Belfast City Hospital, Belfast, Northern Ireland.

Introduction: Survival outcomes in advanced oesophago-gastric adenocarcinoma are poor and there is a need to improve patient stratification to aid clinical decision-making.

Aims/Background: Prognostic indices have been developed by the Royal Marsden Hospital (RMH)¹, Japanese Clinical Oncology Group (JCOG)² and Korea Cancer Center (KCC)³. We sought to validate each index in a western, non-trial oesophago-gastric adenocarcinoma population.

Method: 183 patients with locally advanced or metastatic oesophago-gastric adenocarcinoma were treated with Epirubicin, Cisplatin and 5-Fluorouracil/Capecitabine chemotherapy at the Northern Ireland Cancer Centre between 2007 and 2012. Survival analysis was performed using the Kaplan-Meier method with Hazard ratios (HR) calculated using the log-rank test

Results: For the RMH index the median survival rates for the good, moderate and prognostic groups were 11.5, 9.6 and 8.7 months respectively. Compared to the good risk group, the moderate risk group had a 1.4-fold (HR1.42; 95% CI 1.04-1.95, p=0.03), and the poor risk group an over 2-fold (HR 2.25; 95% CI 0.9-5.59, p=0.08) increased risk of death.

For the JCOG index the median survival rates for the good, moderate and prognostic groups were 11.5, 9.2 and 5.0 months respectively. Compared to the good risk group, the moderate risk group had a 1.3-fold (HR1.32; 95% CI 0.96-1.8, p=0.09), and the poor risk group an almost 4-fold (HR 3.89; 95% CI 1.3-11.5, p=0.01) increased risk of death.

The KCC index was unable to separate the patients into prognostic groups. For the RMH and JCOG indices the range of survival and risk of death between the prognostic groups was reduced when compared to the published development datasets.

Conclusions: We successfully validated the RMH and JCOG prognostic indices in a non-trial population. Each score did not differentiate between good, moderate and poor prognostic patients as effectively as previously published, indicating a need to adapt these indices for a non-trial population

ABSTRACT 74 (15W182) POSTER PRESENTATION

Title of Paper: Completion of Chemotherapy and Survival Outcomes for Advanced Oesophago-gastric Adenocarcinoma at the Northern Ireland Cancer Centre

Author(s): Laura Feeney, Michael J Devlin, Peter Gallagher, Jirhe Okugbeni, Kyle Crawford, Rachel Campbell, Claire Harrison, Colin Purcell, Richard C Turkington, Martin Eatock

Department(s)/Institution(s): Northern Ireland Cancer Centre

Introduction: The majority of oesophago-gastric adenocarcinoma patients present with locally advanced or metastatic disease and are considered for palliative chemotherapy. Data from the National Oesophago-gastric Cancer Audit (NOGCA) and clinical trials indicates that completion rates for palliative chemotherapy are low and survival is poor.

Aims/Background: We sought to compare chemotherapy and survival outcomes at the Northern Ireland Cancer Centre with published data.

Method: We examined the palliative chemotherapy completion rates and survival of all patients with locally advanced or metastatic oesophago-gastric adenocarcinoma treated at the Northern Ireland Cancer Centre between 2007 and 2012. All patients received Epirubicin, Cisplatin and 5-Fluorouracil/Capecitabine (ECF/X) chemotherapy and survival analysis was performed using the Kaplan-Meier method. Characteristics of completers and non-completers of chemotherapy were compared using the χ^2 test.

Results: Of the 183 patients who received palliative chemotherapy, 80 (43.7%) completed all cycles of their planned treatment, with only 33 (18%) receiving their full planned dose. Reasons for failing to complete chemotherapy included progressive disease (28.4%), acute chemotherapy toxicity (14.2%), death (11.5%) and patient choice (2.2%). Treatment completion was not related to sex, age, performance status, stage or site of primary or metastatic disease. These results compare favourably with NOGCA completion rates of 39.7%.¹

The overall response rate was 46.5%, compared to the published rate of 42.7% for the ECF regimen.² Median progression-free survival (PFS) was 8.1 months and overall survival (OS) 9.7 months, compared to published rates of 7 and 9.4 months for PFS and OS respectively.

Conclusions: Completion rates for palliative chemotherapy for oesophago-gastric adenocarcinoma are comparable to national standards and progression-free and overall survival outcomes exceed published data. The low proportion of patients completing planned treatment and poor survival outcomes indicate the need for better patient stratification and treatment selection in advanced oesophago-gastric cancer.

**ABSTRACT 75 (15W183) POSTER PRESENTATION**

Title of Paper: Is hepatitis E becoming more common Northern Ireland than hepatitis A?

Author(s): Gordon K, McCaughey C*, Coyle P*, Cash WJ, McDougall NI

Department(s)/Institution(s): Liver Unit and Regional Virology Laboratory*, Royal Victoria Hospital, Belfast

Introduction: Detection of Hepatitis E (HEV) is increasing across the UK with 884 confirmed cases in England in 2014 compared to 274 in 2010 (1). It is not a notifiable condition in Ireland. Hepatitis E is transmitted via the faecal-oral route, with the largest rise noted in cases of presumed zoonotic route via the food chain. The illness is usually mild and self limiting but can occasionally progress to fulminant hepatitis.

Aims/Background: Our aims were twofold. Firstly to analyse data from the single regional virology laboratory for NI and determine if the number of positive HEV tests is increasing year on year; and secondly to identify trends within the data that may inform decisions on recommendations for HEV testing in NI.

Method: A retrospective analysis was performed on all HEV tests performed between January 2010 and July 2015. The data was grouped into 10 year age increments, sex and source of referral. If multiple tests were sent for the same person the first test was included and any replicas removed. Hepatitis A (HAV) results for the same time period were also analysed to provide context for the HEV results. Any positive HAV IgM's were checked with PCR results leaving true positives only.

Results:

YEAR	HEV TESTS PERFORMED	POSITIVE HEV RESULTS	HAV TESTS PERFORMED	POSITIVE HAV RESULTS
2010	35	2	3373	5
2011	54	4	2846	0
2012	54	3	2773	4
2013	79	1	3833	3
2014	210	11	2182	4
2015*	131*	7*	1449*	7*
Total	563	28	16456	23

* only 7 months from January- July 2015

In 2012 all HEV positive tests were in females >40 years old. In 2013 and 2014 all positive test results were in Males >50 years old. The most common reason for testing was "deranged lfts".

Conclusions: Both testing and detection of HEV is rising in Northern Ireland. There were more positive HEV tests than HAV despite 30 times more HAV tests being sent over 5 years. We suggest HEV testing anyone presenting with jaundice and hepatitis, deranged LFT's following overseas travel or hepatitis with negative liver screen.

ABSTRACT 76 (15W185) POSTER PRESENTATION

Title of Paper: Liver transplant candidates should be vaccinated against Hepatitis B Virus: an analysis into current status

Author(s): Jones F, Braniff C, Boyle M, Iqbal M

Department(s)/Institution(s): National Liver Transplant Unit, St. Vincent's University Hospital

Introduction: Donor related infections remain a significant concern for solid organ transplant recipients. Approximately 30% of the world's population have been infected with Hepatitis B virus (HBV). De novo HBV infection post transplant can occur if recipients receive a HBV core antibody positive (HBV cAb+) donor liver. Solid organ transplant recipients develop a more severe and rapidly progressive HBV infection, resulting in excessive morbidity and mortality in this population. Over a 3 year period 2 patients in the National Liver Transplant Unit (NLTU) received a HBV cAb+ donor liver necessitating lifelong treatment with viral suppressive therapy +/- Hepatitis B Immunoglobulin. This represents a significant financial burden with costs of up to €80,000 for the first year of treatment and up to €7000 per annum thereafter. Unvaccinated transplant candidates may refuse a HBV cAb+ donor liver, resulting in sub-optimal graft utilisation.

Aims/Background: The Centre for Disease Control (CDC) recommends vaccination for all patients with Chronic Liver disease. The American Society for the Study Liver Disease (AASLD) recommends HBV vaccination in all patients prior to liver transplantation however this is not routinely carried out in many centres. We sought to ascertain the current HBV vaccination status of patients on the liver transplant waiting list and review our current approach to vaccination in this patient population.

Method: The NLTU database was accessed for patients on the active liver transplant waiting list. HBV serology was reviewed and patients or their GP were contacted directly regarding their HBV vaccination status.

Results: At the time of this survey, 39 patients were on the active liver transplant waiting list. Median age was 56 years. Underlying liver disease included PBC (2%), PSC (26%), ALD (23%), AIH (7%), NASH (5%), HCC (18%) and others (19%). The median MELD score of this group was 15. Only 3 patients (7%) were vaccinated against HBV. Of those not vaccinated, none were aware of the potential benefit of HBV vaccination.

Conclusions: We found very low HBV vaccination rates in a high risk population on the active liver transplant waiting list. De novo HBV infection in these patients has huge patient related and cost implications. We therefore recommend the introduction of routine HBV vaccination in this population. We recommend a high-dose, accelerated vaccination schedule which is associated with improved vaccine response rates in patients with chronic liver disease.

ABSTRACT 77 (15W186) POSTER PRESENTATION

Title of Paper: Risk of acute liver injury associated with misuse of antibiotics

Author(s): Aman Yadav¹, Jawad Rasool, John Keohane, Subhasish Sengupta

Department(s)/Institution(s): Gastroenterology Department, Our Lady of Lourdes Hospital, Drogheda, Co. Louth

Introduction: Antibiotics are the most common cause of DILI (Drug induced liver injury) with an incidence of 5/100,000. [1] Antibiotics particularly containing beta-lactamase inhibitor like Piperacillin/ Tazobactam combination and Co-amoxiclav puts the patients at increased risk with Co-amoxiclav being the leading cause of DILI accounting for 32% of all cases with an incidence of 9.1/100,000. [2] Co-amoxiclav is also the leading cause of hospitalization for adverse hepatic events and increases the risk 5-10 times as compared to amoxicillin alone with an adjusted odds



ratio versus non-use at 31.9 for recent use and 94.8 for current use. [2] On the other hand antibiotics such as amoxicillin (adjusted odds ratio 1.7), fluoroquinolones (adjusted odds ratio 1.2), and macrolides are rarely shown to cause DILI. Females and elderly (age >65) are at higher risk of DILI. [3]

Aims/Background: The aim of the study was to assess if misuse of antibiotics in respiratory tract infections can put patients at increased risk of liver injury

Method: In this retrospective single centre study, we identified all patients who presented with respiratory tract infection to ED and AMAU between 1st March 2015 and 31st March 2015. From chart review patient details, history, examination, investigations, blood results and antibiotic prescribed were recorded. From the collected data CURB-65 score was calculated on the individual patients. Hospital antibiotic guidelines were then used to ascertain the appropriateness of the antibiotic usage. Only patients on whom hospital chart was available were included in the study.

Results: Demographics: In total 88 patients (male: 32, female: 56) were included in this study of which 49 (55.7%) patients were admitted to the hospital. Age range was: 19 – 95, Mean Age: 66.34. Etiology: Mild infection (CURB 0-1): 63 (71.6%), Moderate (CURB 2): 21 (21.9%), Severe (CURB 3-5): 4 (4.5%).

As per hospital antibiotic guidelines, patients with mild and moderate pneumonia should be treated with amoxicillin or/ and Clarithromycin. However out of 84 patients with mild and moderate infection in our study, 65 (77.4%) received Co-amoxiclav or Pip/Tazo combination antibiotic putting patients at an increased risk of developing DILI. Of 34 patients in the high-risk group (female >65), 31 had mild infection but 25 (73.5%) of these received Co-amoxiclav or Pip/Tazo combination again putting patients at increased risk of DILI.

Conclusions: Respiratory tract infections represent the most common acute illness evaluated in outpatient setting. So its imperative the local guidelines are followed in treating these infections as misuse of antibiotics can put patients at an increased risk of developing DILI.

ABSTRACT 78 (15W187) POSTER PRESENTATION

Title of Paper: Tace as a Treatment for Hepatocellular Carcinoma in Northern Ireland, What Are The Outcomes?

Author(s): P Agnew, L Stratton, P Kennedy, W J Cash, N I McDougall

Department(s)/Institution(s): Hepatology Unit, Royal Victoria Hospital, Belfast, Northern Ireland, Radiology Department, Royal Victoria Hospital, Belfast, Northern Ireland.

Introduction: Transarterial chemoembolization (TACE) is used as a palliative treatment in hepatocellular carcinoma (HCC). It can also be used to slow tumour growth in patients that have been accepted for liver transplant. TACE can be carried out alone or with radio frequency ablation (RFA), where appropriate. All TACE in Northern Ireland (NI) are carried out in the regional tertiary referral centre, the Royal Victoria Hospital, Belfast.

Aims/Background: To establish the outcomes for patients treated with TACE in NI from January 2006 up to and including January 2014.

Method: Patients who underwent their first TACE treatment for HCC in NI between January 2006 and January 2014 were identified

from interventional radiology records. Electronic Care Records were then used in order to obtain patient data. Patients were followed up until July 2015. The study population was divided into subgroups and survival rates calculated up to 5 years in order to compare survival of differing ages, aetiology of liver disease and whether RFA was added to treatment.

Results: 131 patients with HCC were included. 105(80%) were male with a mean age of 68. The most common aetiology was alcoholic liver disease at 39(30%). Overall survival was calculated at 64%(125/131) year 1, 43%(84/131) year 2, 34%(40/117) year 3, 33%(36/106) year 4 and 33%(34/101) year 5, including 8 patients who had liver transplant. Survival rates for females were greater than males with 84% (22/26) vs 63%(67/105) year 1, 70%(17/24) vs 45%(45/100) year 2 and 68%(15/22) vs 36%(34/94) year 3. Two year survival decreased from 63% for patients in their 50's to 38% in their 70's. 26%(35/131) underwent TACE and RFA. Survival rates for those with TACE and RFA were 97%(34/35) at year 1, 68%(22/32) year 2, 60%(17/28) year 3, 64%(16/25) year 4, 58%(14/24) year 5. The number of TACE for HCC in NI from 2006 until 2013 each year was 6, 11, 15, 14, 14, 18, 29 and 23.

Conclusions: Overall survival in the population study was found to be comparative to previous studies. Females were shown to have a greater survival when compared to male with 2 year survival of 70% vs 45%. It was also found that age had a significant effect on survival rates following TACE with the largest fall in survival rates seen between those under 60 and those over 70. TACE with RFA had significantly favourable outcomes with regard to survival. The use of TACE has increased greatly over the period of the study.

ABSTRACT 79 (15W189) POSTER PRESENTATION

Title of Paper: A retrospective analysis of morning and afternoon colonoscopy in a busy endoscopy centre: Does time of day affect quality?

Author(s): F O'Hara, J Rasool, YC Khiew, B Hall, J Keohane, S Sengupta

Department(s)/Institution(s): Our Lady of Lourdes Hospital Drogheda

Introduction: Analysis of key performance indicators (KPIs) provides a measure of quality assurance in endoscopy standards. Numerous studies have reported that KPIs tend to vary based on the time of day of endoscopic procedure. For instance, polyp detection rates (PDR) have been shown to decrease throughout the day (1, 2). Caecal intubation rates (CIR) and patient comfort scores have also been shown to diminish in the afternoon.

Aims/Background: This study examined the variability of key KPIs namely PDR, CIR, and patient comfort scores in patients undergoing colonoscopy in the morning compared to the afternoon.

Method: Data was extracted from EndoRAAD software (Manitex, Ireland) for OLOL, Drogheda and Louth County Hospital endoscopy units during the period January 2013 and May 2015. Baseline patient data coupled with the aforementioned KPIs was collated and anonymised. All data was encrypted and stored on a protected computer. Morning endoscopies were considered as those occurring prior to 12pm. A comfort score of 3 or more was considered as poorly tolerated. Of note, not all procedures were performed on a full day list and data was analysed both in terms of overall difference and then amongst colonoscopies performed on full day lists. All data expressed as a mean and analysed using SPSS



19 software. A paired T-test was utilised for univariate analysis with $p < 0.05$ considered statistically significant.

Results: In total, 4,541 colonoscopies were included. Of these, 3,568 were performed by endoscopists with a full day list while the remaining 973 were performed on half day lists. Overall, PDR was 25% in the morning compared to 22% in the afternoon ($P = 0.413$). Interestingly, a comparison of morning and afternoon PDR on full day lists was 25% vs 24% ($P = 0.980$), respectively. Similarly there was no statistically significant difference in either overall CIR (88% vs 84% $p = 0.416$) or comfort scores (76% vs 75%, $p = 0.158$). Again, these parameters did not differ when full day colonoscopy lists were analysed independently; namely CIR (88% vs 90%, $p = 0.119$) and comfort scores (77% vs 73%, $p = 0.697$)

Conclusions: Time of day did not have a statistically significant affect on any of the three KPIs. Furthermore, overall polyp detection rate (25%) and caecal intubation rate (88%) are within current recommended guidelines. Half day and full day colonoscopy lists appear to have equivalent efficacy in our unit and is an effective tool in meeting increasing service demand.

ABSTRACT 80 (15W192) POSTER PRESENTATION

Title of Paper: The use of Anti-TNF levels and antibodies for precise tailoring of inflammatory bowel disease (IBD) treatment.

Author(s): H. Naqvi, S. Anwar, A. O'Toole, G. Harewood, Prof. S. Patchett

Department(s)/Institution(s): Department of Gastroenterology, Beaumont Hospital, Department of Immunology, Beaumont Hospital

Introduction: The use of anti tumour necrosis factor (anti-TNF) drugs has dramatically improved the management of inflammatory bowel disease (IBD). The cost of long term treatment with these biological agents coupled with their long term efficacy in maintaining remission has introduced new concepts of tailoring anti-TNF therapy. The symptom profile along with use of drug levels and anti-drug antibodies provides more insight into the disease and immunological status. This approach therefore helps for precise tailoring of IBD treatment.

Aims/Background: We considered retrospective analysis of clinical and laboratory data of IBD patients who had anti-TNF levels and/or antibodies tested since 2012. These patients had treatment tailored accordingly therefore we aimed to review the impact of these tests on clinical decision making.

Method: Retrospective data was collected and analysed on 54 patients attending Beaumont Hospital, Gastroenterology services. These patients had anti-TNF tests tested for following indications

- 1- To optimize IBD treatment in deteriorating patients
- 2- To consider possibility of less frequent dosing in stable patients
- 3- Other reasons in stable IBD patients

Results: A total of 54 patients analyzed were on biological treatment at the time of testing. Ulcerative colitis was the diagnosis of 21 patients whereas 30 patients had crohn's disease. The remaining 3 patients had indeterminate colitis. Three patients with stable IBD had test done for rheumatologic or skin disorders 2 of them continued the same treatment. Two patients with stable disease had levels tested to consider less frequent dosing but were continued on 6 weekly infliximab as levels were borderline. One patient was found to have duodenal malignancy. Four had

worsening symptoms requiring surgical intervention. Thirteen patients with normal/borderline drug levels had symptom improvement on follow up assessments therefore no change was made to their management.

Thirty one (57.40%) patients had treatment changed on the basis of tests. Twelve were changed from infliximab to Adalumimab and 1 to Golimumab due to presence of antibodies. Twelve patients on infliximab and 3 on Adalumimab had low drug levels without antibodies therefore managed with dose escalation of same anti-TNF agent. Three patients are being considered for anti-integrin treatment as one had multi drug antibodies and 2 had complete failure to multiple anti-TNF agents.

Conclusions: Recent clinical data and our retrospective observational data support the concept of testing anti-TNF levels and antibodies in order to optimize the IBD treatment. This approach can also prove cost effective as it may prevent unnecessary use of anti-TNF agents especially where formed antibodies will render trial of dose escalation completely useless.

ABSTRACT 81 (15W193) POSTER PRESENTATION

Title of Paper: Response Rate to Ursodeoxycholic Acid in Primary Biliary Cirrhosis

Author(s): D Storan, A Abu Shanab, J Walsh, C Kiat, S Stewart

Department(s)/Institution(s): Centre for Liver Disease, Mater Misericordiae University Hospital, 55 Eccles St, Dublin 7

Introduction: The only approved evidence-based treatment for patients with PBC is ursodeoxycholic acid (UDCA), a hydrophilic, non-cytotoxic bile acid (BA). UDCA at the recommended dose of 13 to 15 mg/kg per day delays the progression to end-stage liver disease, enhances survival, and is well tolerated^{1, 2}. The validated Toronto criterion for response to UDCA (ALP $< 1.67 \times \text{ULN}$ at 2 years) correlates well with long-term survival³. Second-line agents such as obeticholic acid should soon be available to treat non-responders. Data from the UK suggests that many PBC patients are under-treated with UDCA and that response rates in those adequately treated reach 60%.

Aims/Background: We sought to determine the adequacy of, and response to, UDCA treatment in our PBC cohort in order to cohort patients for second-line therapies.

Method: A search was performed on the HIPE Reporting Database for all patients with PBC listed as a primary or secondary diagnosis from 1/1/2005 to 31/12/2014. This returned a total of 85 patients, however after duplicate and deceased patients were removed, a total of 51 patients were identified. Data was analysed using Microsoft Excel.

Results: Of the 51 patients, 48 (94%) were female and the mean age was 66 (33-91). 80% were AMA +ve. 29 of the 48 (60%) patients receiving UDCA were on an adequate weight-based dose. 33/48 (69%) receiving UDCA and 16/29 (55%) of those on an adequate dose reached the Toronto criterion for response.

Conclusions: Our study has highlighted that UDCA treatment is suboptimal in many of our PBC patients. Even with adequate therapy, however, 45% are non-responders and suitable for second line therapies.

**ABSTRACT 82 (15W194)****POSTER PRESENTATION**

Title of Paper: Unexplained Hyperferritinaemia - A Diagnostic Dilemma

Author(s): O Aoko, MS Ismail, A Peters, A Capplis, M Jobling, S Sengupta, J Keohane

Department(s)/Institution(s): Gastroenterology Department/Our Lady of Lourdes Hospital Drogheda & Louth County Hospital Dundalk

Introduction: Elevated serum ferritin concentrations are common in clinical practice, often prompting referral for further evaluation. Hyperferritinaemia can be caused by a variety of systemic conditions, including hereditary, infective, neoplastic and inflammatory processes. Over the last five years we have experienced a steady increase in the number of referrals for hyperferritinaemia.

Aims/Background: To analyse our diagnostic and management approach for patients referred with unexplained hyperferritinaemia.

Method: We retrospectively analysed patients referred to the gastroenterology services of Our Lady of Lourdes Hospital Drogheda and Louth County Hospital Dundalk for hyperferritinaemia, from 2012-2015. We evaluated their medical history, laboratory, radiological and histological investigations.

Results: A total of 448 patients were referred to our services for hyperferritinaemia from 2012 to 2015, 46(10.3%) of these patients had unexplained hyperferritinaemia while the remaining 402(89.7%) patients had hereditary haemochromatosis. Our study showed a male preponderance, with 36(78.3%) males and 10(21.7%) females. The mean age was 62.8 (38 – 88). 31(67.4%) patients had co-morbidities including Diabetes mellitus, Hypertension, Hyperlipidaemia, Ischaemic heart disease and elevated body mass index. Transferrin saturation was done in 37(80.4%) patients, 26(70.3%) of these patients had normal or low transferrin saturation while 11(29.7%) had elevated transferrin saturation. Evaluation of liver function tests showed that 34(73.9%) patients had normal liver function tests while 12 (26.1%) had abnormal tests. Liver ultrasound was performed on 31(67.4%) patients, with normal findings in 20(64.5%) patients and fatty infiltration in 8(25.8%). Furthermore, liver MRI was performed in 7(15.2%) patients with 4(57.1%) patients having elevated Liver iron concentration and 3(42.7%) patients having normal liver iron concentration. In addition, out of the 46 patients studied, 6(13%) patients had a liver Biopsy performed, with 3(50%) patients showing grade 1-2 hemosiderosis. Moreover, 11(23.91%) patients had a trial of phlebotomy, with ensuing normalisation of their serum ferritin. The cause of hyperferritinaemia could be explained in 23(50%) patients as shown in Table 1 below, while hyperferritinaemia remain unexplained in 23(50%) patients.

Conclusions: Our study highlights the significant challenge associated with hyperferritinaemia. The growing number of referrals has subsequently led to an increase use of hospital resources in the diagnosis and management of patients with elevated serum ferritin. Furthermore, the lack of a specific guideline for hyperferritinaemia is an issue that needs to be addressed in the future.

Table 1: Potential Causes of Hyperferritinaemia

Potential Causes Number (%) Serum Ferritin (Range)µg/l
Alcohol 13(28.3) 303 – 3900
NAFLD 7(15.2) 258 – 697
Rheumatoid Arthritis 1(2.2) 436 – 851
Porphyrria Cutanea Tarda 1(2.2) 345 – 535
Lymphoma 1(2.2) 1134 – 1672

ABSTRACT 83 (15W195)**POSTER PRESENTATION**

Title of Paper: Body Mass Index (BMI) in coeliac disease (CD); the relationship between BMI and coexistent autoimmunity in a cohort of CD patients.

Author(s): By P. Dominguez Castro¹, G. Harkin³, M. Hussey⁴, B. Christopher⁵, C. Kiat³, J. Liong Chin¹, V. Trimble¹, T. Martin², D. McNamara⁴, P. MacMathuna², B. Egan⁶, D. Kevans¹, NP. Kennedy¹, R. Farrell⁵, N. Mahmud¹, V. Byrnes³, R. McManus¹.

Department(s)/Institution(s): 1 Institute of Molecular Medicine & Department of Clinical Medicine, Trinity Centre for Health Science, St James's Hospital, Dublin, 2 Gastrointestinal Unit, Mater Misericordiae University Hospital, Dublin, 3 Department of Clinical Medicine, University College Hospital Galway, 4 Department of Clinical Medicine, The Adelaide and Meath Hospital, Dublin, 5 Connolly Hospital Blanchardstown, Dublin, 6 Department of Clinical Medicine, Mayo General Hospital, Castlebar, Co. Mayo.

Introduction: Coeliac disease (CD) is an immune-mediated condition which can only be treated at present by strict adherence to a gluten free diet (GFD) (1). It is well reported in the literature that many CD patients can have a normal or high BMI at diagnosis (2). Studies have also shown that CD patients' BMIs tend to increase on the GFD (2, 3). The co-occurrence of CD with other autoimmune conditions has been well described (4). High BMIs have been linked to increased risk to develop autoimmune conditions (5).

Aims/Background: The aim of this study is to explore CD patients' BMI at diagnosis and after a period on the GFD and its role in the development of co-existent autoimmune conditions.

Method: Retrospective analysis of medical charts from a cohort of coeliac patients (n=565) (median age 57 years, range 16-88 years).

Results: BMIs at diagnosis were available for 264 patients; 5.7% of these patients were underweight (BMI <18.5 kg/m²), 53.4% had a normal BMI (≥18.5-24.9 kg/m²), and 40.9% were either overweight or obese (≥25 kg/m²). BMIs were available at diagnosis and in the most recent outpatient visit for 190 patients. The median time since diagnosis for these patients was 7.5 years. There was a statistically significant difference between the BMI at diagnosis (median=23.45 kg/m²) and the BMI in the most recent outpatient visit (median=25.05 kg/m²) (p<0.001). The most recent BMI was available for 293 patients, 106 of these patients (36.2%) had a co-existent autoimmune condition. There was a statistically significant difference in the percentage of people with a co-existent autoimmune condition when patients were divided into those with a BMI <25 kg/m² and ≥25 kg/m² (28.2% and 42.6% respectively) (p=0.014).

Conclusions: Most of the patients in our sample had a normal or high BMI at diagnosis. BMI's seem to increase with the adoption of the GFD, the median in our study increased from the normal range to the high range. There seems to be a relationship between high BMI and the development of a co-existent autoimmune condition in CD patients in our sample. In these patients with a high predisposition to autoimmunity, dietetic and nutritional input over time after diagnosis seems to be pivotal.



ABSTRACT 84 (15W197) POSTER PRESENTATION

Title of Paper: Random Colonic Biopsies in Diagnosing Microscopic Colitis: Low Yield High Cost

Author(s): MS Ismail, O Aoko, G Kavanagh, L Brandon, R Flood, K Hazel, J Ryan, S Sengupta, J Keohane

Department(s)/Institution(s): Gastroenterology and Pathology Department, Our Lady of Lourdes Hospital Drogheda, Louth County Hospital Dundalk

Introduction: Microscopic colitis has been increasingly recognized as a cause for chronic watery diarrhoea and is more common in females in their fifth to sixth decade of life - . This condition is diagnosed by taking random colonic biopsies from a macroscopically normal colon during colonoscopy. The cost of taking random colonic biopsies can reach up to £160 (€200) per patient.

Aims/Background: This study aims to assess the pickup rate of microscopic colitis from random colonic biopsies that were taken in 2 endoscopy referral centres in the north east (OLOH Drogheda and LCH Dundalk) over a two year period.

Method: Histology results from random colonic biopsies were obtained from the pathology department in Our Lady of Lourdes Hospital from the period of January 2012 to December 2013. This was compared with colonoscopy results to ensure that only biopsies from a macroscopically normal colon were included in the analysis.

Results: 1050 patients had random colonic biopsies performed over the 2 year period. 30 (2.9%) patients showed non-specific colitis; 11 (1.1%) patients showed microscopic colitis while the rest were normal (96%). In the patients with microscopic colitis, 3 (27.3%) had lymphocytic colitis and 8 (72.7%) had collagenous colitis. Mean age of diagnosis of microscopic colitis is 56.5 (49 to 71) years. All 11 patients were females. All patients complained of diarrhoea which led to a colonoscopy

Conclusions: The pickup rate of microscopic colitis from random colonic biopsies in this study is extremely low (1.1%). As per previous studies¹⁻³ our patient group fits the demographic profile for microscopic colitis. The potential cost of doing indiscriminate biopsies in this study could have reached £160,000 (€200,000)⁴. Given the current economic climate it may be more financially beneficial to risk stratify our patients prior to taking random biopsies in order to diagnose microscopic colitis.

ABSTRACT 85 (15W198) POSTER PRESENTATION

Title of Paper: Stage of referral in HCC Treatment Depends on Geographical location and the Speciality of the Referring Physician

Author(s): M. Boyle, M. Bourke, M. Iqbal, R. MacNicholas, E. Hoti, D.D. Houlihan.

Department(s)/Institution(s): National Liver Transplant Centre, St. Vincent's University Hospital.

Introduction: Hepatocellular carcinoma (HCC) is the most common primary liver cancer and is a leading cause of cancer mortality.

Aims/Background: Early detection of HCC through screening programs is essential for the delivery curative therapy. Adequate surveillance (6 monthly Ultrasound and Alpha Fetaprotein) is costly

and time consuming. Geographical disparities in HCC surveillance and access to therapy have been noted in the literature.

Method: Information was retrieved from the HCC database in SVUH. Patient diagnosed with a HCC between January 2014 and August 2015 were included. Referring hospital location and the nature of the referring medical doctor was obtained. We used the Barcelona classification system to characterise stage of HCC at time of referral: stage 0(very early stage); Stage A (Early stage); Stage B(intermediate stage); stage C(advanced stage); stage D(end-stage disease). Stage 0 and A are considered curative.

Results: Patient demographics: We identified 83 patients with a diagnosis of HCC. The median age of the group was 65.5 years (IQR 16.5). 69 (82%) were male. 74 (88%) were Irish. 71(84%) were cirrhotic. Underlying liver disease aetiology included: ALD (30%); HCV (28%); mixed aetiology (19%); HBV (8%); NAFLD (6%); AIH (4%); HFE (4%); PBC (1%)

Location of referral: 62 referrals were from Dublin based hospitals; 21 referrals were from regions outside Dublin.

From the Dublin region; 60% were BCLC 0/A; 29% BCLC B; 8% BCLC C; 3% BCLC D. Median AFP was 13.6 (IQR 124.2). 16% had PVT. 68% were referred by GI physicians; 6% by non-GI physicians; 26% by surgeons.

From regions outside Dublin; 19% were BCLC 0/A; 29% BCLC B; 33% BCLC C; 19 % BCLC D. Median AFP 17.6 (IQR 127.2). 19% had PVT. 38% were referred by GI physicians; 57% by non-GI physicians; 5% by surgeons.

Source of Referral: 50 referrals were from gastroenterologists; 16 from non-GI physicians; 17 from surgeons.

Of the referrals from gastroenterologists; 62% were BCLC 0/A; 22% BCLC B; 14% BCLC C; 2% BCLC D. Median AFP 12.5 (IQR 109). 16% had PVT.

Of the referrals from non-GI physicians; 13% were BCLC 0/A; 31% BCLC B; 25% BCLC C; 31% BCLC D. Median AFP 4.8 (IQR 125.65). 13% had PVT.

Of the referrals from surgeons; 47% were BCLC 0/A; 47% BCLC B; 6% BCLC C; 0 BCLC D. Median AFP 105.7 (IQR 156.67). 24% had PVT.

Conclusions: We found significant disparities related to geographic location and specialist interest of the referring physicians. These disparities need to be addressed urgently to ensure all patients receive optimal care.

ABSTRACT 86 (15W200) POSTER PRESENTATION

Title of Paper: Clinical impact of prolonged wait times for MRE in patients with Inflammatory Bowel Disease

Author(s): J. Duignan, B. Neary, C. Moran, D.Keegan, D. Malone, G. Doherty

Department(s)/Institution(s): Dept of Gastroenterology, St Vincent's University Hospital, Dublin

Introduction: Clinical impact of prolonged wait times for MRE in patients with Inflammatory Bowel Disease

Aims/Background: Timely access to Magnetic Resonance Enterography (MRE) aids decision making in the management of patients with IBD. Prolonged wait times can burden IBD services with additional inpatient and outpatient care of patients awaiting MRE, resulting in missed opportunities to treat active or complicated disease.

Our primary aim was to investigate average wait time for MRE in



our IBD population, and assess compliance with UK IBD standard of care guidelines (updated 2013), which states that MRE should be performed within one month of request. Secondary objectives were to assess:

(a) Whether triaging requests into categories of priority by radiologists, affects wait time for MRE.

(b) Proportion of investigations that revealed active disease or new evidence of complicated disease behavior.

(c) Utilization of health care resources; namely outpatient visits, hospital & ED admissions, surgical interventions and alternative cross sectional imaging with Computed Tomography (CT) whilst awaiting MRE.

Method: We analysed all IBD patients that had outpatient MREs requested from January 1st 2014 to December 31st 2014. MRE reports were read to record clinical findings of activity or evidence of new fistulae or strictures. Hospital & ED admissions, outpatient appointments, surgical interventions and CT abdomens performed during wait time were recorded. Statistical analysis was performed by using Microsoft Excel and IBM SPSS software version 20.

Results: 73 outpatients (57.5% male), had MREs requested during the time period, this represents 4% of all patients with Crohn's Disease on our IBD database. Mean age was 37.8 years (median 37, Std Dev 13.7). The mean waiting time was 216 days (median 223, Std Dev 66.4). Only 3 patients (4.1%) had MRE performed within recommended interval, 89% of patients waited more than six months for MRE. Median waiting times did not vary significant according to radiology priority category.

20.5% of MRE's performed revealed new evidence of complicated disease (strictures or fistulae). Nearly half of patients, 47.9% (35/73) had radiological signs of active disease or new evidence of complicated disease on MRE. During the interval waiting time 58.9% of patients required an outpatient appointment, 11% inpatient admission. 2.7% surgical intervention or emergency department visit. Alternative cross sectional imaging with CT was necessitated in 9.6% of patients whilst they were awaiting MRE.

Conclusions: There is evidence of under utilisation of MRE due to prolonged waiting times, which limits its value in influencing clinical decisions.

ABSTRACT 87 (15W201) POSTER PRESENTATION

Title of Paper: Management of large non-pedunculated polyps in a Bowel Screen Centre

Author(s): C.Rowan, B.Nolan, J.Sheridan, G.Cullen, H.Mulcahy, G.Doherty

Department(s)/Institution(s): St.Vincent's University Hospital, Dublin

Introduction: The national bowel screening programme began in 2013 and since then over 130,000 people have been invited to participate in designated centres across the country. Many of these people will have large (≥ 2 cm) complex polyps diagnosed at colonoscopy. Both endoscopic and surgical techniques can be used to resect these polyps but no formal consensus exists to guide clinicians as to the best option.

Aims/Background: The aim of this study was to examine the management of large (≥ 2 cm) non-pedunculated polyps detected during 1055 Bowel Screen colonoscopies performed at a single centre.

Method: We performed a retrospective review of 1055

colonoscopies undertaken between January 2013 and September 2015 in the Bowel Screen programme in our centre. All polyps ≤ 20 mm, pedunculated polyps and lesions initially suspected of being carcinoma were excluded. Demographic data was collected. Endoscopic and histological reports were reviewed to confirm polyp size, characteristics and dysplasia grade.

Results: 44 patients with 50 non-pedunculated polyps over 20mm were identified. 38 polyps were managed endoscopically in the first instance; 3 polyps required secondary surgical intervention. (n=1 residual adenoma; n=1 invasive adenocarcinoma with deep margin involvement in endoscopic specimen; no residual disease was found in surgical resection specimen, n=1 failed combined laparoscopic –endoscopic resection of splenic flexure polyp).

7 patients were referred for primary surgical management from June 2013-June 2014, compared to 8 patients who underwent primary endoscopic therapy. In the latter half of the study period, only 3 patients (10.3%) were referred for primary surgical management whereas 26 patients were managed endoscopically. $p=0.006$.

Please find table of patient demographics and polyp histology attached

Conclusions: The majority of non-pedunculated polyps ≥ 20 mm (76%) were managed by primary endoscopic means in this centre. Only 3 polyps required a secondary surgical intervention, only 1 of whom had residual adenoma at the time of surgery. Patients with complex right sided lesions were more likely to undergo a primary surgical procedure than those with large left sided polyps. ($p=0.02$) However there was a significant trend towards primary endoscopic therapy as the Bowel Screen programme enrolls more patients and endoscopists become more experienced in resecting complex polyps.

ABSTRACT 88 (15W202) POSTER PRESENTATION

Title of Paper: Thiopurine therapy is associated with severe symptomatic primary CMV infection in patients with inflammatory bowel disease.

Author(s): Catherine Rowan, Ciaran Judge, Garret Cullen, Hugh E. Mulcahy, Glen A. Doherty.

Department(s)/Institution(s): St.Vincent's University Hospital, Dublin

Introduction: CMV disease is observed in patients with inflammatory bowel disease (IBD), generally related to re-activation. Primary Cytomegalovirus (CMV) infection is traditionally believed to be uncommon in adults due to high population seroprevalence. The nature of the relationship between CMV and IBD has been a matter of debate since it was first described in 1961 by Powell and is made more complicated by the use of immunomodulators, such as Azathioprine.

Aims/Background: The aim of this study was to examine the frequency and severity of primary CMV infection in adult IBD patients.

Method: A retrospective review of a prospectively maintained database of 3,200 IBD patients attending a single academic centre was performed. Patients with Primary CMV infection between 2010 and 2013 were identified using CMV IgG avidity indices; clinical, serologic and virologic parameters were studied in detail. The seroprevalence of CMV in the patient population was also then evaluated based on pre-immunosuppression screening serology.



Results: Seroprevalence for CMV, indicating prior exposure, in our IBD population was estimated at 30.5% and increased with age. Eight patients with IBD (UC=3, IBD-U=1, CD=4) presented with acute primary CMV infection (patients with CMV reactivation were excluded); 4 patients presented with colitis, 2 with respiratory CMV, 1 with CMV hepatitis and 1 systemic CMV infection. Median age was 33 years and median duration of disease was 72 months.

All eight patients were receiving a thiopurine immunomodulator (IM) at the time of presentation. 7 patients were neutropenic at admission but had no preceding neutropenia or deranged LFTs to indicate drug toxicity. Median duration of IM use was 144 weeks (range 7-720 weeks).

All patients required hospitalisation (ICU admission, n=1); the median length of hospital stay was 15.5 days (range 6-27), with no statistically significant difference in the colitis subgroup. (p=0.41) Infection resolved in all cases with withdrawal of IM and/or antiviral therapy and 3 patients subsequently resumed their immunomodulator therapy.

Conclusions: This study highlights the impact primary CMV infection can have in IBD patients, particularly those on immunomodulators. Patients with primary CMV can present in a multitude of ways and it is associated with considerable morbidity. CMV prevalence in our IBD cohort is relatively low at 30%, but is in keeping with data from peri-natal screening in Ireland. In an era of increasingly aggressive medical therapy and low CMV seroprevalence, physicians should be cognisant of primary CMV as a potential cause of deterioration in IBD patients.

ABSTRACT 89 (15W203) POSTER PRESENTATION

Title of Paper: IBD and Metabolic Bone disease in Beaumont hospital

Author(s): Ashraf Monged, Conan Reilly, Jun Chin Liong, Dr Aobhlinn O'Toole.

Department(s)/Institution(s): Beaumont hospital, Gastroenterology department.

Introduction: Patients with Inflammatory Bowel Disease (IBD) are at an increased risk of osteoporosis. The BSG guidelines recommend measuring bone mineral density (BMD) with Dual-energy X-ray absorptiometry (DEXA) in all patients under the age of 65 years who are exposed to corticosteroids for more than 3 months [1].

Contributing factors include chronic inflammation, corticosteroid treatment, extensive small bowel disease or resection, age, smoking, low physical activity and nutritional deficiencies.[2]

Aims/Background: The aim of this study is to present the prevalence of osteoporosis and osteopenia among IBD patient's in Beaumont hospital.

Method: A list of Beaumont Hospital Gastroenterology patients who had DEXA scans performed in the past 9 months (January-September 2015) was generated. Patients with a diagnosis of IBD from colonoscopy reports on ENDORAAD software were selected. Patient age, sex, diagnosis and dexa results were collected and analysed.

Results: Ulcerative colitis

DEXA Normal Osteopenic Osteoporosis Total

5 12 1 18

Gender M/F 1M/4F 6M/6F 1M/0

Age below 50/above 50 4(F)/ 1(M) 8(5M,3F)/4(1M, 3F) 0/1(M)

Crohn's disease

DEXA Normal Osteopenic Osteoporosis Total

9 9 5 24

Gender M/F 4M/5F 7M/2F 2M/3F

Age below 50/above 50 8(3M, 5F) /1(M) 6(2M,4F) /3(3F) 1(1F)/4(2M, 2F)

Osteoporosis is more common in patients with ulcerative colitis, rather than with Crohn's disease. The majority of patients diagnosed with osteoporosis are over the age of 50.

Conclusion: More than 50% of patients had abnormal DEXAs and we need to strive to identify risk factors.

References: 1. NR Lewis & BB Scott (2007), 1. Guidelines for Osteoporosis in Inflammatory Bowel Disease and Coeliac Disease. 2. Reinshagen M. Osteoporosis in inflammatory bowel disease., Journal of Crohn's and Colitis 2008;2:202-7

ABSTRACT 90 (15W204) POSTER PRESENTATION

Title of Paper: Immunosuppression post Orthotopic Liver Transplantation: impact on patient quality of life among a cohort at St Vincent's University Hospital

Author(s): O'Reilly S, McHugh N, Doherty A, Coffey A, Harmon C, O'Farrelly C, Hoti E, Houlihan DD

Department(s)/Institution(s): National Liver Unit, St Vincent's University Hospital, Elm Park, Dublin 4

Introduction: Immunosuppression (IS) post liver transplantation has been proven to increase risk of infection, malignancy and cardiovascular disease reducing patient survival. Additionally, multiple side effects such as fatigue and nausea, are associated with immunosuppression which may impact on a patient's quality of life. Some recent studies have shown that it is possible, in a select group of patients, to safely withdraw immunosuppressive therapy.

Aims/Background: To examine patient compliance with immunosuppressive therapy

To explore patient's attitudes towards immunosuppression and its impact on their quality of life

Method: We collected basic patient demographics, year of transplantation and aetiology of disease. We used a modified version of the previously validated BMQ1 questionnaire to examine patient compliance and attitudes towards immunosuppressive therapy. We used the SF36 questionnaire to assess quality of life.

Results: 100 patients (52 female) completed the questionnaire. Patients identified the following reasons for their transplant: Cirrhosis (16), Alcoholic liver disease (14), Autoimmune hepatitis (11), Primary sclerosing cholangitis (10), Hepatocellular carcinoma (10), Hepatitis C infection (8), Fulminant hepatic failure (7), Budd Chiari syndrome (3), alpha-1-antitrypsin deficiency (3) and Biliary atresia (2). 66 patients were >10 years post OLT, 11 were >20 years. Using the 8 domains of SF36, the results below were found (see table). All patients reported that they take their immunosuppression daily. 10 patients admitted to missing >1 doses per week, and 5 did not take the full dose most of the time. 31 patients were 'a little' bothered by taking immunosuppression, and 6 said it bothered them 'a lot', the remainder stating it didn't bother them at all. 63 worried about the long term effects of their medication on their health. 85 patients said that if given the opportunity, they would like to stop their immunosuppression. For statistical analysis, we compared this cohort to the average score in a large healthy population study by Hopman et al (CMAJ 2000) using chi square testing.



Conclusions: This analysis showed that in an age/sex-matched population, post OLT patients have a statistically significantly poorer quality of life in the domains of physical function, limitations due to physical health, emotional well-being, social functioning and general health than those who have not had a transplant. The majority of patients attribute these limitations to immunosuppressive medications. While compliance is good, side effects were reported in a large number. 85% of patients wish to stop their immunosuppression if at all possible. Further analysis for comparison with a cohort of healthy patients at our centre is planned. These data provide additional support for an Irish trial of Immunosuppression withdrawal in liver transplant recipients.

ABSTRACT 91 (15W205) POSTER PRESENTATION

Title of Paper: Transient Elastography: Defining the optimal cut-off for estimating cirrhosis

Author(s): S. Naimimohasses, O. El-Sheriff, H. Irish, B. Hynes, S. Norris, S. McKiernan

Department(s)/Institution(s): Hepatology Department, St. James Hospital, Dublin

Introduction: International guidelines have moved towards recommending non-invasive measures for assessing hepatic fibrosis in a variety of different conditions. One of the most established methods with the largest supporting body of evidence is Transient Elastography.

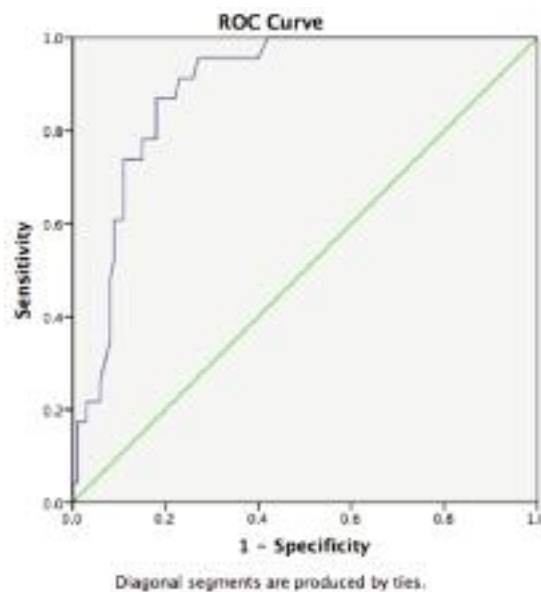
Aims/Background: To validate results obtained via use of a fibro-scanner and to determine an optimal cut-off with the highest sensitivity and specificity for cirrhosis.

Method: We performed a retrospective study of patients who underwent Transient Elastography with an ECHO-sens Fibroscanner with an M2 probe, since its introduction to the Hepatology Department at St. James Hospital from 2008 to 2015 and conducted a direct comparison with biopsies performed within the same year.

Results: 1394 measurements were performed over a 7-year period. Of those, 123 underwent a liver biopsy within 12 months of scanning. 68.3% (83) of patients had hepatitis C, 8.9% (11) had hepatitis B, 6.5% (8) were diagnosed with NASH, 3.3% (4) had autoimmune hepatitis and cholestatic liver disease. 5.7% (7) were diagnosed with cryptogenic cirrhosis and 2.4% (3) had haemochromatosis.

The ROC curve when all data sets were included demonstrated an AUC of 0.89. A score of greater than or equal to 13.5kPa provided an optimal cut off for estimating cirrhosis yielding a sensitivity of 87% and specificity of 82%. Only 50.4% (62) of measurements had a combination of 10 measurements with success rates of greater than or equal to 90% and an IQR: Mean Liver Stiffness ratio of $\leq 30\%$. Interestingly when ROC curves were adjusted for success rate, the AUC increased when a lower than standard threshold was included (AUC= 0.887 with success rates of $\geq 90\%$ and 0.917 with success rates of $\geq 50\%$ with a sensitivity of 84.2% and a specificity of 85.7% for a cut off of 13.5kPa).

Conclusions: This retrospective data analysis conducted demonstrated a good predictive value for identifying cirrhosis, independent of success rate. ICORN criteria recommend a fibroscan score cut off of $\geq 12.5\text{kPa}$, which is supported by our data providing a sensitivity of 87% and a specificity of 81%, comparable with those obtained by high frequency ultrasound. It is recommended that all centers undergo regular validation of Fibroscan results obtained.



Area Under the Curve

Area	Std. Error ^a	Asymptotic Sig. ^b	Asymptotic 95% Confidence Interval	
			Lower Bound	Upper Bound
0.891	0.03	0	0.833	0.95

ABSTRACT 92 (15W208) POSTER PRESENTATION

Title of Paper: How much is enough? A study of patient expectations on sedation for endoscopy

Author(s): Dr Padraic McDonagh, Dr Eoin Slattery

Department(s)/Institution(s): Gastroenterology, Galway University Hospital

Aims/Background: "Conscious sedation" is defined by the ASGE as a level of moderate sedation, whereby the patient, while maintaining ventilatory and cardiovascular function, is able to make purposeful responses to verbal or tactile stimulation. Little is known about patient expectations and perceptions surrounding level of sedation for endoscopic procedures. Anecdotal evidence would suggest that Irish patients expect a higher level of sedation than that which they experience. Our aim was to formally assess expectations and perceptions of sedation and where possible to identify patients at higher risk of unsatisfactory outcomes with respect to sedation and overall experience.

Method: We prospectively recruited patients attending for day case endoscopy at a large tertiary referral hospital. Patients were asked to complete a questionnaire surrounding their expectations with respect to level of sedation they expected to receive using a visual analogue scale (VAS). Pre-morbid depression/anxiety and possible concomitant functional disease were measured using pre-validated psychometric tools (Perceived Stress Scale and Visceral Sensitivity Index). Patients were contacted post procedure to assess their overall experience using a Likert Scale.

Results: Levels of expectation regarding sedation were high with patients expressing a median value of 8/10 (on a scale of 1:10, 10 being completely asleep). When subsequently asked about their wishes a median value of 9/10 was recorded. With half of patients surveyed stating that they wished to be completely asleep for the procedure. Post-procedure self reported comfort median values were 6/10 (10 being very comfortable). Interestingly, 77% of



patients had undergone previous endoscopy. The vast majority of patients were willing to undergo repeat procedure if needed; only 6% said they were not happy to undergo another procedure. However, 45% of patients wanted more sedation at their next procedure. Concomitant anxiety was common in patients undergoing endoscopy with 27% scoring a PSS>19, indicating high anxiety and stress. Unsurprisingly there reported comfort scales were lower (4/10 vs. 6/10) and 71% of this group would like more sedation in any future procedures. Median midazolam dosage in this group was 3mg (compared to 4mg in the entire cohort).

Conclusions: Sedation practices (with respect to overall dosages and nurse/endoscopist perceived comfort) are commonly used as markers of quality of performance of endoscopy. Patient experience is often not considered. Our results show that patient knowledge about perceptions surrounding sedation is poor, despite previous personal experience and institutional literature specifying the level of sedation used. Nevertheless, patient comfort and acceptability of procedure should not be forgotten in our clamour to ensure both high quality and safe endoscopic practices.

ABSTRACT 93 (15W209) POSTER PRESENTATION

Title of Paper: The Importance of MRI Small Bowel Follow Through in Crohns disease Work-up.

Author(s): Dr Padraic Mc Donagh, Dr Nik Affendi, Dr Brian Egan.

Department(s)/Institution(s): Mayo General Hospital

Aims/Background: Magnetic resonance imaging (MRI) is one of the modalities used in evaluating and diagnosing small bowel involvement in crohn's disease. It has advantages over computed tomography imaging in that there is no radiation exposure, Gadolinium is less allergenic than iodine and MRI imaging can be carried out safely in pregnancy. The aim of the study is to highlight the importance of MRI small bowel in the work up of patients with confirmed or suspected crohn's disease. This was achieved by evaluating the number MRI small bowel studies carried out, the indications for which they were requested and the percentage that revealed potentially significant small bowel pathology.

Method: This retrospective analysis looked at 89 MRI small bowel studies that were performed between 1st January and 31st July 2015 in Mayo General Hospital. The indication for which the MRI small bowel was requested and the number of clinically relevant findings were analysed. Patient demographics were also recorded. The department requesting the MRI was divided into: Gastroenterology, Surgery and other.

Results: 89 patients underwent MRI small bowel follow through (41 males, 48 females, median age: 38.2yrs, range 17-80yrs). 47% of MRI SBFTs were requested by the gastroenterology, 28% by the surgical department and 25% from other departments (other physicians, paediatrics). 47% of scans were carried out to help in diagnosis or further evaluation of crohn's disease. 2% were carried out in paediatric population. There were clinically significant findings present on 35% of the MRIs. 63% were normal or had incidental findings. 2% were not applicable as the patient's could not tolerate the scan.

Conclusions: The advantages of MR imaging make it well suited for the evaluation of small-bowel disorders. MRI can provide excellent anatomic and functional information without the need for ionizing radiation. MRI SBFT is a very useful tool in evaluating patients with (or suspected to have) crohn's disease. MRI is a sensitive and non-invasive modality that allows evaluation of the

small bowel. In this study 35% of MRIs performed revealed significant small bowel involvements, this can have implications on the treatment initiated and can support starting with a more aggressive treatment regimen.

ABSTRACT 94 (15W210) POSTER PRESENTATION

Title of Paper: Can We believe our eyes on Endoscopy polyp size?

Author(s): Doherty J, Nolan B, Rea J, Cullen G, Doherty G, Sheahan K, Buckley M.

Department(s)/Institution(s): Centre for Colorectal Disease St Vincent's University Hospital

Introduction: Surveillance colonoscopy intervals following polypectomy are guided by polyp size and quantity. Individuals with larger polyps may be at greater risk of developing colorectal cancer. When the excised polyp is $\geq 10\text{mm}$, (20mm in patients referred through the Bowelscreen programme) a surveillance procedure is scheduled for 3years. The microscopic measurement is the 'yardstick' used.

Aims/Background: Most endoscopists estimate polyp size prior to excision. Ideally polyps are excised and retrieved in one piece. This is not always feasible, either due to piecemeal excision or fragmentation. Size is then determined by the endoscopist. As this measurement dictates follow-up intervals, we reviewed polypectomies performed to determine accuracy of endoscopic sizing.

Method: We undertook a retrospective analysis of all patients referred to the Bowelscreen programme from January 2014 to July 2015. Any patient whose polyp size was not estimated at endoscopy was not included. 355 polyps were measured endoscopically and excised. Of these 278 had a microscopic measurement (78%, remainder not assessable). Endoscopic measurement was based on visual assessment only. Size variation was defined as (endoscopic size-microscopic size/microscopic size). Clinical mis-sizing was defined as a size variation of $>33\%$. (1). The percentage of polyps on endoscopy within 2mm of the microscopic size was assessed as an alternative measurement of accuracy. (2)

Results: Included for analysis were 165 patients who underwent colonoscopy by one of three Consultant Gastroenterologists. A total of 278 polyps met the inclusion criteria. The median age was 68 years (62-72) and 67% (110/165) were male. A total of 128 polyps were mis-sized (46%), of these 106 were over-estimated and 22 underestimated. The mean variation between the endoscopic and microscopic size was 40%.

Of the 278 polyps, 207 were within 2mm of microscopic size compared to endoscopic estimation (74.46%). 90/278 polyps were 1cm or greater, 80 of these were microscopically measured (88.88%). Of these 31 polyps were mis-sized (38.75%). 28 were overestimated, 3 underestimated. 38/80 were within 2mm of the microscopic size (47.5%).

Conclusions: Endoscopic estimation of polyp size consistently overestimated the size of the polyp. This was particularly the case in polyps $\geq 10\text{mm}$. Some of this difference may be attributable to polyp damage during excision or retrieval. The endoscopic assay is two dimensional, histological three dimensional. While in this study 46% of polyps were mis-sized, 74.46% were within 2mm of the histological measurement. A recent comparative study cites 65% and 46% respectively (2).

Our figures concur with previous studies showing a greater



discrepancy in sizing larger polyps. However overall, careful assessment of polyp size by experienced endoscopists accurately reflects polyp size in 74% of polypectomy specimens, with the closest concordance occurring in polyps less than 10mm.

ABSTRACT 95 (15W211) POSTER PRESENTATION

Title of Paper: Pilot Study Assessing the Utility of Faecal Calprotectin in Routine Clinical Practice in an Irish IBD Centre

Author(s): S Naimimohasses, F MacNamara², F MacCarthy, S McKiernan, V Crowley², N Mahmud, M Healy², D Kevans

Department(s)/Institution(s): Department of Gastroenterology, St. James Hospital, Dublin

Introduction: Faecal calprotectin reflects intestinal leukocyte migration and has been shown to be a highly sensitive non-invasive biochemical marker for the diagnosis of inflammatory bowel disease with strong correlation with disease activity.

Aims/Background: To assess the performance of FC as a biomarker of intestinal inflammation in real life clinical practice in an Irish IBD centre.

Method: N=87 Consecutive IBD Patients attending a specialist IBD clinic had a faecal calprotectin (FC) estimation was performed using a commercially available assay. N=29 with endoscopic assessment within 2 months of FC assay were included in this preliminary analysis. FC was expressed in $\mu\text{g} / \text{g}$ of faeces and was considered as a continuous variable. Baseline demographic data and medication were defined for each subject. Endoscopic assessments were reviewed and the cohort was dichotomized based on the presence or absence of significant mucosal inflammation. Blood biomarkers, Hb, CRP, platelet count and serum Albumin, determined at the time of FC estimation, were collected. The association between the presence of mucosal inflammation and FC, Hb, platelet count, CRP and Albumin was determined. Multivariate logistic regression was performed to determine variables independently associated with the presence of mucosal inflammation

Results: 42.9% (12) had Crohns disease, 3.6% (1) had indeterminate IBD and the remaining 53.5% (15) had a diagnosis of UC. FC was significantly increased in the presence of mucosal inflammation, median FC 362 $\mu\text{g} / \text{g}$ vs. 1000 $\mu\text{g} / \text{g}$ in group with absent versus present mucosal inflammation ($p=0.004$). Serum Albumin was significantly decreased in the presence of mucosal inflammation, median serum Albumin 45 vs. 40 g / L in the group with absent versus present mucosal inflammation ($p=0.02$). Hb was significantly decrease in the presence of mucosal inflammation, median Hb 13.9 vs. 13.0 g / L ($p=0.04$) in absent versus present mucosal inflammation. CRP and platelet count were not associated with the presence of mucosal inflammation. FC demonstrated a weak independent association with the presence of mucosal inflammation, Odds ratio 1.01 (95% CI 1.00 – 1.01), $p=0.04$.

Conclusions: In these preliminary data FC has been shown to be a valuable non-invasive biomarker of intestinal inflammation. Blood biomarkers such as Hb, Albumin and CRP remain important in the assessment of inflammatory burden in IBD cohorts. Increasing use of FC in routine clinical practice has the potential to reduce the requirement for endoscopic assessments in IBD cohorts.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Calprotectin is the same across categories of InflamedEndo.	Independent-Samples Mann-Whitney U Test	.004 _‡	Reject the null hypothesis.
2	The distribution of Albumin is the same across categories of InflamedEndo.	Independent-Samples Mann-Whitney U Test	.020 _‡	Reject the null hypothesis.
3	The distribution of Plt is the same across categories of InflamedEndo.	Independent-Samples Mann-Whitney U Test	.664 _‡	Retain the null hypothesis.
4	The distribution of Hb is the same across categories of InflamedEndo.	Independent-Samples Mann-Whitney U Test	.042 _‡	Reject the null hypothesis.
5	The distribution of CRP is the same across categories of InflamedEndo.	Independent-Samples Mann-Whitney U Test	.059 _‡	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

_‡ Exact significance is displayed for this test.

ABSTRACT 96 (15W212) POSTER PRESENTATION

Title of Paper: The Prevalence of Abscesses on MRI Assessment of Crohn's Disease Patients Commencing Anti-TNF therapy for Fistulating Disease

Author(s): P Brown, F MacCarthy, S McKiernan, N Mahmud, D Kevans

Department(s)/Institution(s): Department of Gastroenterology, St James's Hospital, Dublin 8. School of Medicine, Trinity College Dublin, Dublin

Introduction: The presence of perianal Crohn's disease (CD) is an established indication for the initiation of anti-TNF therapy. The exclusion of active perianal sepsis prior to the initiation of anti-TNF therapy is an important clinical issue. Perianal MRI has become an essential imaging modality in this regard allowing the definition of the extent of fistulating disease and the exclusion of perianal sepsis (1). We aimed to define the prevalence of perianal sepsis in CD patients commencing anti-TNF therapy for fistulating disease and determine whether serum CRP was associated with the presence of perianal sepsis.

Method: We retrospectively examined the records of Crohn's disease patients attending a single academic medical centre with an available baseline pelvic MRI performed prior to the initiation of anti-TNF therapy for perianal disease. All imaging was reviewed by an experience GI radiologist and the presence or absence of fistulae and abscesses determined. For each included subject serum CRP performed within one month of baseline MRI was collected. Serum CRP values were compared between subjects with and without perianal abscess using Student's T-test.

Results: 31 patients (20 female, 11 male) with perianal Crohn's disease treated with anti-TNF therapy with available perianal MRI data were identified. Age (mean \pm standard deviation) was 36 ± 13 years. 10 subjects (32%) had a perianal abscess at baseline MRI assessment. There was a numerical trend towards higher CRP values in subjects with a perianal abscess, mean CRP 54.4mg/L vs 25.47mg/L, $p=0.28$, however this difference did not reach statistical significance.



Conclusions: Approximately a third of patients commencing anti-TNF therapy for perianal Crohn's disease, have a perianal abscess at baseline on MRI evaluation. A significantly elevated serum CRP should raise the clinical suspicion of a perianal sepsis. These data highlight the importance of perianal imaging or an examination under anaesthesia to exclude perianal sepsis prior to the initiation of anti-TNF therapy.

ABSTRACT 97 (15W213) POSTER PRESENTATION

Title of Paper: Are Screening-Detected Cancers Different from Symptomatic Cancers?

Author(s): Dr. M. Walshe, Dr. L. Rooney, Dr. G. Doherty.

Department(s)/Institution(s): St. Vincent's University Hospital

Introduction: The NCSS began implementing national colorectal cancer screening in 2012. Screening is currently targeted at patients aged 60-69 years. St. Vincent's University Hospital has been performing screening colonoscopies as part of this initiative since February 2013. Colorectal cancer screening is associated with earlier detection of cancers and reduced mortality. However, real-life data regarding screening outcomes of the NCSS cohort has not yet been well studied.

Aims/Background: • To assess whether screening-detected cancers are being diagnosed at an earlier stage than symptomatic cancers.
• To assess whether right-sided cancers are more prevalent within the screening-detected cancer group.

Method: A prospectively maintained hospital cancer database was used to retrieve information regarding all colorectal cancers diagnosed in patients aged 60-69 years from February 2013 to September 2015. Cancer stage was compared between screening-detected and symptomatic cancers. We also compared the proportion of right-sided and left-sided cancers between these two groups.

Results: A total of 264 cancers were detected; 50 by NCSS screening, and 214 in symptomatic patients. Breakdown of staging and comparison of staging between the two groups is shown in table 1.

Amongst symptomatic patients, 153 had left-sided cancers and 61 had right-sided cancers. Amongst screening-detected cancers, 35 were left-sided and 15 were right sided; $p=0.86$.

Conclusions: Cancers detected as part of the NCSS screening programme are diagnosed at an earlier stage than symptomatic cancers in patients of a similar age. Cancer location does not differ between the screening-detected and symptomatic cancers..

ABSTRACT 98 (15W214) POSTER PRESENTATION

Title of Paper: Dietetic Led Coeliac clinics

Author(s): Nichol A, Caddy G, Harding T, Allen P, Prosser J, Power N, Mulholland P.

Department(s)/Institution(s): The Ulster Hospital, Dundonald. South Eastern Trust.

Introduction: There has been a major increase in referrals to GI clinics over the last 5 years and consequently there have been challenges with regards to capacity to review patients with chronic diseases. Collaborative working resulted in the pilot of a Dietitian-

led coeliac review clinic to improve consultant capacity. A Band 7 Dietitian was trained with Consultant support to undertake the medical annual reviews.

A protocol was developed and review patients were identified. The dietitian was trained in venepuncture and two clinics per week were delivered over five months. To develop skills, the Dietitian discussed selected patients with the GI Consultant within one week of clinic. A total of 123 patients were reviewed by the dietitian with only 23 (18%) requiring medical intervention.

The ESP dietitians liaised with GP's/Consultants regarding outstanding tests including: Pneumococcal Vaccination (61% of patients)

Bone density (27 patients referred for DEXA scans)

Red flag symptoms (23 patients referred to see gastroenterologist)

A patient satisfactory survey indicated that: 98% felt the annual review by the Dietitian was beneficial; 100% were satisfied with the diet related questions and felt they were provided with enough information; 100% were satisfied with their appointment at the Dietitian-led coeliac clinic; 86% were happy to be reviewed at the Dietitian-led coeliac clinic in the future.

This initiative was well received by patients and appears to be safe and efficient use of dietetic services to review patients with coeliac disease. This may provide cost-effective coeliac disease services for future planning.

ABSTRACT 99 (15W215) POSTER PRESENTATION

Title of Paper: What is the Effect of IBD on Sedation rates at Colonoscopy?

Author(s): Dr. M. Walshe, Dr. G. Doherty.

Department(s)/Institution(s): St. Vincent's University Hospital, Dublin 4.

Introduction: Full colonoscopy is used to assess disease extent and activity in IBD patients. There has been very little study on sedation requirements of IBD patients at colonoscopy.

Aims/Background:

- To assess whether IBD is associated with increased sedation at colonoscopy.
- To assess differences in sedation rates amongst U.C. vs Crohn's patients
- To assess the effect of disease activity on sedation rates in IBD patients.

Method: Data was retrieved from EndoRad, our electronic endoscopy reporting system. We analysed data relating to full colonoscopies performed between January 2013 and August 2015. We compared sedation rates for colonoscopies in IBD vs non-IBD patients, assessing the proportion receiving $>5\text{mg}$ midazolam and $>50\text{mcg}$ fentanyl. Within our IBD group, we analysed sedation rates for U.C. vs Crohn's, and for patients with moderate/severe disease activity versus inactive/mild disease activity.

Results: In total, 7,171 full colonoscopies were performed, of which 752 were in IBD patients. For colonoscopies in non-IBD patients, 18.6% received $>5\text{mg}$ midazolam, whilst 30.2% of IBD patients received $>5\text{mg}$ midazolam, $p<0.0001$. For non-IBD patients, 42.7% received $>50\text{mcg}$ fentanyl vs 60.1% IBD patients, $p<0.0001$. In patients with Crohn's disease, 37.2% received $>5\text{mg}$ midazolam



vs 23.5% U.C. patients, $p=0.0002$. In Crohn's patients, 66.9% received >50mcg fentanyl vs 55.4% U.C. patients, $p=0.0024$. Amongst patients with moderate/severe IBD disease activity, 31.8% received >5mg midazolam, vs 29.6% pts with inactive/mild disease activity, $p=0.58$. Amongst patients with moderate-severe activity, 65.6% received >50mcg fentanyl vs 58.1% patients with inactive/mild disease.

Conclusions: Presence of IBD and Crohn's subtype is associated with higher dosing of both midazolam and fentanyl at full colonoscopy. IBD disease activity does not have an impact on sedation use at full colonoscopy.

ABSTRACT 100 (15W216) POSTER PRESENTATION

Title of Paper: Cronkhite-Canada Syndrome: A case Series in Galway University Hospital

Authors: Rahim Khan, G Harkin, P Maheshwari, C Lane, S K Palaniappan, V Byrnes.

Introduction: Cronkhite-Canada syndrome (CCS) is a rare, sporadically occurring, non inherited disorder reported for the first time in 1955 by Leonard W. Cronkhite, Jr, and Wilma J. Canada with 2 female patients having gastrointestinal polyps, cutaneous pigmentation, alopecia, and onychodystrophy. Up to 2002 only 475 cases were reported worldwide and of that 75% are from Japan. Diagnosis is clinical and the predominate features are weight loss, malabsorption, edema, diarrhea, nail changes, hair changes and hyper pigmentation of the skin and cataract formation associated with characteristic non-adenomatous polyps. The management is usually supportive as replacement of the electrolytes orally or intravenously, food supplement for malnutrition, steroids for the inflammation of the gut, occasionally surgery for the intestinal obstruction.

Case Reports

Case 1: A 48 year old man presented with symptoms of malabsorption, Carpo-pedal spasms, and diarrhoea and weight loss of 16 kg in 2 months. He developed nail changes 3 months ago. Also noticed was thinning of hairs and tendency to fall. Spasms mainly in the thumb and index fingers. No significant background history apart from 30 pack years smoking history. On examination she has bilateral pitting pedal oedema, positive trousseau's sign onychoschizia, hyper-pigmented spots on skin. Blood tests were normal apart from hypocalcaemia, Phosphate 1.0. PTH of 121. GI endoscopy showed diffuse polyposis throughout his GI tract confirmed as non-adenomatous polyposis on histology consistent with CCS. He was being followed up in the hospital regularly for electrolytes replacement and after two years he was admitted with overwhelming sepsis and significant electrolytes imbalance which he could not survive eventually.

Case 2: A 45 year old Spanish lady who presented with intermittent loose stools 4-6 per day and anaemia. She had right hemicolectomy for bowel cancer at the age 29 years, carpal tunnel syndrome, cervical glandular intraepithelial neoplasia, and multiple polyps on previous colonoscopies. Multiple upper and lower GI endoscopies revealed hyperplastic and inflammatory polyps consistent with the diagnosis of CCS. She is being followed up regularly in GI outpatients.

Conclusion: CCS is very rare disorder but there are cases present, one need to be vigilant while investigating for weight loss, malabsorption and skin changes. In our cases, first case has classical features of CCS and the second case had bowel cancer at an early age but common feature in both the cases was malabsorption.

References:

1. <http://www.nejm.org/doi/full/10.1056/NEJM195506162522401>
2. <http://www.hindawi.com/journals/grp/2013/856873/>
3. <http://blogs.nejm.org/now/index.php/unfolding-the-diagnosis/2014/04/04/>
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ABSTRACT 101 (15W217) POSTER PRESENTATION

Title of Paper: Are IBD patients getting appropriate surveillance colonoscopies?

Authors: Hussain KM, Watt L, Hillemand C, Murphy SJ.

Department(s)/Institution(s): Department of Medicine & Gastroenterology, Daisy Hill Hospital, Newry, Co. Down, Southern Health and Social Care Trust.

Introduction: 2002 BSG and 2011 NICE guideline recommend offering colonoscopic surveillance to people with inflammatory bowel disease (IBD) whose symptoms started 10 years ago and who have ulcerative colitis or Crohn's colitis. Further surveillance colonoscopies are suggested at intervals based on risk stratification i.e. low, intermediate and high risk. Pancolonic dye spray with targeted or 2-4 random biopsies every 10cm should be taken.

Aim: To compare our current practice of surveillance colonoscopies of IBD patients with BSG and NICE guidance.

Methods: 50 consecutive IBD patients were identified from Unisoft Endoscopy Reports who had an IBD surveillance colonoscopy performed in the Southern Trust during the time period February 2014 to December 2014. Data collection involved reviewing clinical notes and histology reports from electronic care record and colonoscopy reports from Unisoft.

Results: Out of 50 patients, 56% were male. 82 % were over 40 years of age and 82% had a diagnosis of UC whereas only 18% had Crohn's colitis. Repeat surveillance colonoscopies being booked by clinician/endoscopist were appropriate in 60% of cases (30/50). In just above one third (17/50) of cases booking details were not available on previous colonoscopy report or electronic care record. Only 3 out of 50 patients had surveillance colonoscopy done earlier than due time (2 cases 1 year and 1 case 3 years early). Half (25/50) of patients had surveillance colonoscopy performed at the correct time interval whereas just below half of patients (24/50) had delays ranging from 1-18 years with average delay of 3.2 years. Only one out of 50 had colonoscopy performed earlier than required (9 years). No patient had chromoendoscopy performed and only one patient had >30 biopsies taken. Only 44% (22/50) of patients had minimum required number (16-29) of biopsies taken whereas less than 16 biopsies were taken in 50% of patients (25/50) and 2 patients did not have any biopsies taken.

Summary: Our current practice is far from meeting the criteria set by NICE and BSG. Clinicians and endoscopists need awareness of current guidelines for colonoscopy surveillance. More research regarding low uptake of chromoendoscopy among endoscopists is required.

ABSTRACT 102 (15W219) POSTER PRESENTATION

Title of Paper: Does the use of Lidocaine spray during upper GI endoscopy result in false positive CLO test?

Author(s): GUMANI D, SHAH R, MUTHALAGU P



Department(s)/Institution(s): Cavan and Monaghan Group of Hospitals

Introduction: Testing for *Helicobacter Pylori* is a standard protocol during endoscopic procedures. The question is whether we are treating a genuine *Helicobacter Pylori* infection, or are we treating a false positive CLO test with unnecessary antibiotics?

Aims/Background: CLO test (*Campylobacter*-like organism test), is a rapid diagnostic test for *Helicobacter pylori* infection. A biopsy from the gastric mucosa is placed into a medium containing urea and an indicator such as phenol red. The urease produced by *H. pylori* hydrolyses urea to ammonia, which raises the pH of the medium, and changes the colour of the specimen from yellow (NEGATIVE) to red (POSITIVE). Lidocaine spray is usually applied topically on the throat before an upper digestive endoscopy procedure. It contains sodium hydroxide and/or hydrochloric acid for pH adjustment (pH 6.5). Sodium hydroxide reacts with urea to produce sodium cyanate, ammonia and water. Therefore, as witnessed, if lidocaine is sprayed directly on a CLO well, the result will be a red specimen giving a false positive result. Hence, this study is designed to demonstrate if Lidocaine is indeed influencing the CLO result.

Method: A prospective study conducted between the period of May to June 2015 with an estimate of 200 patients undergoing endoscopic procedures for investigation of upper GI pathologies and follow up. Our study was approved by the HSE Ethics Committee in Kells, focuses on finding and eliminating the factors that may give a false positive CLO test. Lidocaine spray was used before each procedure. Biopsies and aspirates were taken from the gastric mucosa for the CLO test as well as for histology examination to compare the results.

Results: The study was predictably closed earlier as 44 of 50 patients showed no positive CLO test on gastric aspirate and 46 of 50 patients had negative CLO tests on antral biopsy however, 7 had positive *H. Pylori* on histology with 4 lidocaine sprays. Subsequently, when 8 sprays were administered for 10 random patients, 7 had positive CLO (aspirate) test, 3 had positive CLO (antral biopsy) test whilst, none of them had positive histology.

Conclusions: Our study demonstrates that Lidocaine spray used in appropriate doses does not influence CLO test results. However, overuse of the spray may mislead the test result, since the reaction of Lidocaine spray and urea from the CLO test produces ammonia as does *Helicobacter Pylori* when it reacts with urea, hence giving the positive red result for a rapid urease test.

References:

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<http://www.nejm.org/doi/full/10.1056/NEJMoa001999#t=articleBackground>

ABSTRACT 103 (15W 220) POSTER PRESENTATION

Title of Paper: The psychobiotic *Bifidobacterium Longum* 1714 blocks stress-induced behavioural and physiology changes and modulates brain activity and neurocognitive performance in healthy human subjects

Authors: Allen AP^{1,2}, Hutch W³, Borre YE¹, Kennedy PJ^{1,2}, Temko A⁴, Boylan G^{5,6}, Murphy E⁷, Cryan JF^{1,8}, Dinan TG^{1,2}, Clarke G^{1,2}

Department(s)/Institution(s): 1. APC Microbiome Institute; 2. Department of Psychiatry & Neurobehavioural Science, UCC; 3. School of Medicine, UCC; 4. Department of Electrical and Electronic Engineering, UCC; 5. INFANT Research Centre, UCC; 6. Department of Pediatrics & Child Health, UCC; 7. Alimentary Health Ltd, Cork; 8. Department of Anatomy and Neuroscience, UCC

Introduction: Precise targeting of the microbiome-gut-brain axis with psychobiotics - live microorganisms with a potential mental health benefit - is a novel approach for the management of stress-related conditions. Preclinical studies have identified *B. longum* 1714 as a putative psychobiotic with an impact on stress-related behaviours, physiology and cognitive performance. This study investigated whether these effects could be translated to human volunteers.

Methods: Healthy male volunteers (N = 22) completed the study. Participants ingested *B. longum* 1714 or placebo daily for four weeks each in a repeated-measures design. Participants completed study visits at baseline, post-placebo and post-probiotic. Acute stress was assessed using the socially evaluated cold pressor test, and daily stress was assessed via validated online questionnaires. Cognitive performance was assessed using the CANTAB platform and neurological activity via resting electroencephalography (EEG).

Results: In response to acute stress, *B. longum* 1714 led to a reduction in cortisol output and a blunted increase in subjective anxiety. Self-reported daily stress was lowered during daily psychobiotic consumption. There was a subtle improvement over placebo in visuospatial memory performance in paired associate learning (PAL) in the *B. longum* 1714 group. Fz mobility was higher following *B. longum* 1714 consumption compared to baseline and placebo.

Conclusions: *B. longum* 1714 is associated with attenuated responses to acute stress, a modest improvement in cognitive performance and altered resting EEG. Further studies are warranted to evaluate the benefits of this putative psychobiotic in relevant stress-related conditions and to unravel the mechanisms underlying such effects.

ABSTRACT 104 (15W 221) POSTER PRESENTATION

Title of Paper: A Prospective Assessment of Cognitive Performance in Irritable Bowel Syndrome Reveals Persistent Visuospatial Memory Deficits

Authors: Kennedy PJ^{1,2}, Clarke G^{1,2}, Allen AP^{1,2}, O'Neill A¹, Groeger JA^{3#}, Quigley EMM^{1,4##}, Shanahan F^{1,4}, Cryan JF^{1,5}, Dinan TG^{1,2}

Department(s)/Institution(s): 1. APC Microbiome Institute, 2. Department of Psychiatry and Neurobehavioural Science, 3. School of Applied Psychology, 4. Department of Medicine, 5. Department of Anatomy and Neuroscience, University College Cork, Cork, Ireland.

#. Current address: Department of Psychology, University of Hull, England, United Kingdom.

Background: Recently, patients with IBS were found to exhibit visuospatial memory deficits (Kennedy et al., 2014). However, a prospective assessment is essential to confirm if cognitive dysfunction is a stable feature of IBS. In this study we aimed to prospectively assess visuospatial memory performance in IBS, in comparison to disease controls [Crohn's disease (CD)] and healthy controls (HC).



Method: At baseline (Visit 1) and 6 months (Visit 2), IBS patients (baseline n=39; age (M): 28 yrs), matched CD patients (baseline n=18; age (M):32 yrs), and matched HC (baseline n=40; age (M):28 yrs), were assessed using a selection of cognitive tests from the CANTAB and Stroop test. Abdominal pain severity at time of testing was reported by IBS patients on a scale ranging from 0-100. Results: At Visit 1 & 2, IBS patients displayed visuospatial memory deficits [Paired Associates Learning (PAL) test]; greater errors at the 6 pattern stage (baseline: $p < 0.05$), which also approached significance across Visit 1 & 2 ($p=0.05$); greater number of trials needed to complete the PAL [Visit 1 & 2 ($p < 0.05$)]. Pain severity did not correlate with PAL performance ($p > 0.05$).

Conclusions: Visuospatial memory dysfunction is a stable feature of IBS. These results may inform future management of this debilitating disorder in which there is a great unmet medical need. References: Kennedy, P. J., Clarke, G., O'Neill, A., Groeger, J. A., Quigley, E. M. M., Shanahan, F., Cryan, J. F. & Dinan, T. G. (2014). Cognitive performance in irritable bowel syndrome: evidence of a stress-related impairment in visuospatial memory. *Psychological Medicine* 44, 1553-1566.

ABSTRACT 105 (15W 223) POSTER PRESENTATION

Title of Paper: Depletion of Gut Microbiota during adulthood in rats: Implications for brain and behavior

Authors: Hoban AE^{1,2}, Moloney RD¹, Dinan TG^{1,3}, Clarke G^{1,3}, Cryan JF^{1,2}

Department(s)/Institution(s): 1. APC Microbiome Institute, University College Cork.
2. Department of Anatomy and Neuroscience, University College Cork
3. Department of Psychiatry and Neurobehavioural Science, University College Cork

Background: There is growing appreciation for the importance of the gut microbiota in shaping brain function and behavior. Proof-of-principle studies in germ-free (GF) animals have played an important role in revealing the alterations in stress-related behaviors and neurochemistry. However, the maturation of multiple aspects of host physiology is contingent on normal patterns of gut microbiome assembly in early life. In order to more precisely parse the role of the gut microbiota outside of this critical time window, we set out to establish a rat model of microbiota depletion via chronic administration of antibiotics in adulthood.

Methods: Adult Sprague Dawley rats (n=10/group) were treated with vehicle or a combination of antibiotics for 6 weeks in adulthood and throughout behavioral testing. Behavioral tests commenced after the 6 week antibiotic treatment period. HPLC and qRT-PCR was used to assess changes in key gut-brain axis neuromodulators in adulthood.

Results: Antibiotic treatment reduced visceral sensitivity with decreased glucocorticoid receptor (GR) and corticotrophin releasing hormone receptor 1 (CRHR1) in the amygdala. Moreover, antibiotic-treatment induced a depressive-like phenotype and induced cognitive deficits in parallel with altered tryptophan metabolism and serotonin synthesis (5-HT) in the hippocampus.

Conclusion: Microbiota depletion in adulthood by means of chronic treatment with antibiotics impacts visceral sensitivity and depressive and cognitive behaviors as well as key neuromodulators in a manner that is similar to that reported in GF animals. This model may represent an additional strategy for the assessment of the

continuous role of the gut microbiota in the modulation of brain and behavior.

ABSTRACT 106 (15 W 224) POSTER PRESENTATION

Title of Paper: Impaired contextual fear extinction and novel object recognition memory in a chronic psychosocial stress mouse model of brain-gut axis dysfunction

Authors: Kennedy PJ^{1,2}, O'Mahony C^{1,2}, Clarke G^{1,2}, Dinan TG^{1,2}, Cryan JF^{1,3}

Department(s)/Institution(s): 1. APC Microbiome Institute; 2. Department of Psychiatry and Neurobehavioural Science; 3. Department of Anatomy and Neuroscience; University College Cork, Cork, Ireland.

Background: Recently, patients with IBS were found to exhibit visuospatial memory deficits (Kennedy et al., 2014). However, a prospective assessment is essential to confirm if cognitive dysfunction is a stable feature of IBS. In this study we aimed to prospectively assess visuospatial memory performance in IBS, in comparison to disease controls [Crohn's disease (CD)] and healthy controls (HC).

Method: At baseline (Visit 1) and 6 months (Visit 2), IBS patients (baseline n=39; age (M): 28 yrs), matched CD patients (baseline n=18; age (M):32 yrs), and matched HC (baseline n=40; age (M):28 yrs), were assessed using a selection of cognitive tests from the CANTAB and Stroop test. Abdominal pain severity at time of testing was reported by IBS patients on a scale ranging from 0-100.

Results: At Visit 1 & 2, IBS patients displayed visuospatial memory deficits [Paired Associates Learning (PAL) test]; greater errors at the 6 pattern stage (baseline: $p < 0.05$), which also approached significance across Visit 1 & 2 ($p=0.05$); greater number of trials needed to complete the PAL [Visit 1 & 2 ($p < 0.05$)]. Pain severity did not correlate with PAL performance ($p > 0.05$).

Conclusions: Visuospatial memory dysfunction is a stable feature of IBS. These results may inform future management of this debilitating disorder in which there is a great unmet medical need.

References: Kennedy, P. J., Clarke, G., O'Neill, A., Groeger, J. A., Quigley, E. M. M., Shanahan, F., Cryan, J. F. & Dinan, T. G. (2014). Cognitive performance in irritable bowel syndrome: evidence of a stress-related impairment in visuospatial memory. *Psychological Medicine* 44, 1553-1566.

ABSTRACT 107 (15W 225) POSTER PRESENTATION

Title of Paper: Conditioned media from gamma-aminobutyric acid (GABA)-producing *Lactobacillus brevis* influences enteric nerve activity and displays a similar bioactivity and pharmacological profile as GABA ex vivo

Authors: Kevin W. Lomasney^{1,2}, John F. Cryan^{1,3} and Niall P. Hyland^{1,2}

Department(s)/Institution(s): APC Microbiome Institute 1 and Departments of Pharmacology & Therapeutics 2 and Anatomy & Neuroscience 3, University College Cork, Cork, Ireland

Introduction: Lactic acid bacteria have been described as "cell factories" for gamma-aminobutyric acid (GABA; Li & Cao, 2012) and thus have potential as delivery vehicles for GABA to the intestine. A screen of human-derived bacteria identified five



efficient GABA-producing strains (Barret et al., 2012). Of these, we selected a *Lactobacillus* with the greatest GABA production to prepare GABA-enriched media. GABA and its receptors are widely expressed in the gastrointestinal tract (GI), including on enteric neurones, where they regulate physiological functions.

Methods: Therefore, we examined the effects of conditioned media (CM) from *Lactobacillus brevis* and GABA on colonic physiology in Ussing chambers and further characterised the nature of these effects using the GABAA receptor antagonist, bicuculline, the GABAB receptor antagonist, phaclofen and the neurotoxin, tetrodotoxin (TTx) in colonic mucosa-submucosa preparations.

Results: CM from a GABA-producing *Lactobacillus* significantly increased baseline Isc relative to CM from a non GABA-producing isolate. In contrast, GABA had no significant effect on baseline Isc. CM, in a similar manner to GABA, significantly inhibited cholinergic-induced colonic ion transport relative to that from a non GABA-producer. This effect was sensitive to GABAA receptor antagonism. Moreover, the TTx sensitivity of these responses suggests that the GABAA receptor-mediated effect most likely involves the enteric nervous system.

Discussion: Factors derived from *Lactobacillus brevis* selectively activate enteric GABAA receptors and regulate colonic secretory function in a similar manner to GABA. These data suggest that GABA-producing microbes may be useful tools in modulating GABAA receptor-mediated functions in the colon.

ABSTRACT 108 (15W 226) POSTER PRESENTATION

Title of Paper: Evidence of On-going Activation of the Mucosal Immune System in Irritable Bowel Syndrome

Authors: Moloney G, Fanning A, MacSharry J, Darby T, Edelstein E, O'Malley D, Hall LJ, Heuston S, Collins F, Scanlan N, Beltran C, Craig O, Dinan T, Cryan J, Hyland N, Shanahan F, Quigley EM, Melgar S, Nally K.

Department(s)/Institution(s): APC Microbiome Institute, University College Cork

Irritable Bowel Syndrome (IBS) is a gastrointestinal disorder of unknown etiology affecting as many as 10-20% of adults. Abdominal pain and disordered defecation are core symptoms and in most sufferers are episodic. Alterations in the gut microbiota and aberrant immune responses have also been described by some investigators in IBS. In this study we focused on the innate and adaptive immune response in mucosal tissue and plasma from IBS patients. We analyzed, in mucosal biopsy tissue of controls and IBS patients, the expression of 35 genes which code for both type I and II interferon (IFN) pathways and IFN stimulated genes (ISGs). We also analyzed the expression of the IFN-regulated and T-cell selective CXCL10/CXCR3 chemokine system in both mucosal biopsy tissue and plasma. In addition, we investigated both the distribution and functional status of T cells in control and IBS mucosal tissue using a combination of qRT-PCR, immunofluorescence staining, cellular activation experiments with anti-CD3/CD28 and quantitation of cytokine production. We found significantly altered expression of components of the type I interferon pathway and the IFN-regulated CXCL10/CXCR3 chemokine system in IBS tissue. While we did not find any evidence of increased numbers of T cells in IBS mucosal tissue, IBS biopsy tissue displayed hyper-responsiveness to anti-CD3/CD28 T cell stimulation as manifested by production of IL-17, CXCL9, CXCL10, MCP-1 and MIP-1 β . Collectively, these studies provide compelling evidence of on-going activation of the mucosal immune system in IBS and are consistent with an immune response to an unidentified, organic trigger in IBS.

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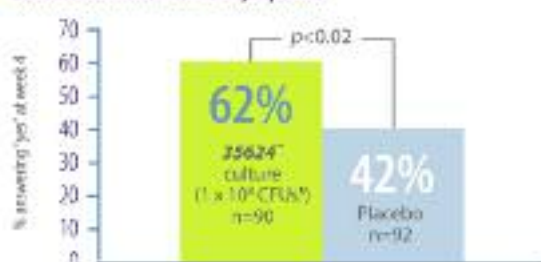
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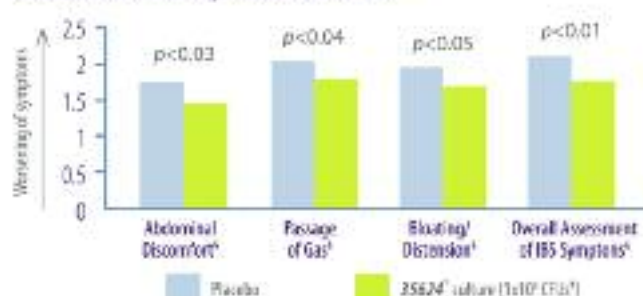
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Takeda Stand; Shane Ryan, Gert De Haans, Humphrey O'Connor & Kieran Leahy



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