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Irish Society of Gastroenterology

# Summer Meeting

9 - 10 June 2016  
Radisson Blu Hotel  
Galway

# CONFIDENCE THROUGH CLARITY



PROVEN EFFICACY  
IN BOWEL CLEANSING<sup>1</sup>

**MOVIPREP<sup>®</sup> ORANGE**

**PEG + ASC (PEG 3350 + Sodium ascorbate + Ascorbic acid + Sodium sulfate + Electrolytes)**



**MOVIPREP<sup>®</sup>**

**PEG + ASC (PEG 3350 + Sodium ascorbate + Ascorbic acid + Sodium sulfate + Electrolytes)**



**MOVIPREP<sup>®</sup> and MOVIPREP<sup>®</sup> Orange Abbreviated Prescribing Information**

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

**Presentation:** A box containing two transparent bags, each containing two separate sachets, A and B. Sachet A contains macrogol 3350 100g; sodium sulphate anhydrous 7.5g; sodium chloride 2.691g and potassium chloride 1.015g as white to yellow powder. Sachet B contains ascorbic acid 4.7g and sodium ascorbate 5.9g as white to light brown powder. MOVIPREP also contains aspartame (E951), acesulfame potassium (E950) and a lemon or orange flavour. **Uses:** Bowel cleansing prior to any clinical procedure requiring a clean bowel. **Dosage and administration:** *Adults and Older People:* A course of treatment consists of two litres of MOVIPREP. A litre of MOVIPREP consists of one Sachet A and one Sachet B dissolved together in water to make one litre. This one litre reconstituted solution should be drunk over a period of one to two hours. This process should be repeated with a second litre of MOVIPREP to complete the course. A further litre of clear fluid is recommended during the course of treatment. The two litres of MOVIPREP may be consumed either as a 'divided dose', one litre the evening before the procedure and one litre in the early morning of the procedure, or as a 'single dose' of two litres the evening before the procedure or two litres in the morning of the procedure. For the 'divided dose' there should be at least one hour between the end of intake of fluid and the start of the procedure. For the 'single dose' in the morning of the procedure, there should be at least two hours between the end of intake of MOVIPREP and at least one hour between the end of the intake of any clear liquid and the start of the procedure. No solid food should be taken from the start of the treatment and until after the procedure. Patients should be advised to allow for the appropriate time to travel to the colonoscopy unit. *Children:* Not recommended in children below 18 years of age. **Contra-indications, warnings etc:** *Contra-indications:* Known or suspected hypersensitivity to any of the ingredients, gastrointestinal obstruction or perforation, disorders of gastric emptying, ileus, phenylketonuria, glucose-6-phosphate dehydrogenase deficiency, toxic megacolon which complicates very severe inflammatory conditions of the intestinal tract. Do not use in unconscious patients. **Warnings:** Diarrhoea is an expected effect. Administer with caution to fragile patients in poor health or patients with serious clinical impairment

such as impaired gag reflex, or with a tendency to aspiration or regurgitation, impaired consciousness, severe renal insufficiency, cardiac impairment (NYHA grade III or IV), those at risk of arrhythmia, dehydration, severe acute inflammatory disease. Dehydration, if present, should be corrected before using MOVIPREP. The reconstituted MOVIPREP does not replace regular fluid intake and adequate fluid intake must be maintained. Semi-conscious patients or patients prone to aspiration should be closely monitored during administration, particularly if this is via a naso-gastric route. If symptoms indicating arrhythmia or shifts of fluid or electrolytes occur, plasma electrolytes should be measured, ECG performed and any abnormality treated appropriately. In debilitated fragile patients, patients with poor health, those with clinically significant renal impairment, arrhythmia and those at risk of electrolyte imbalance, the physician should consider performing baseline and post-treatment electrolyte, renal function test and ECG as appropriate. The possibility of serious arrhythmias, predominantly in those with underlying cardiac risk factors and electrolyte disturbance cannot be ruled out. If patients experience symptoms which make it difficult to continue the preparation, they may slow down or temporarily stop consuming the solution and should consult their doctor. MOVIPREP containing orange flavour is not recommended for patients with glucose and galactose malabsorption. MOVIPREP contains 56.2 mg of absorbable sodium per litre (caution in patients on a controlled sodium diet), 14.2 mg potassium per litre (caution in patients with reduced kidney function or patients on a controlled potassium diet). **Interactions:** Oral medication should not be taken within one hour of administration as it may be flushed from the GI tract and not absorbed. **Pregnancy and lactation:** There is no experience of use in pregnancy or lactation so it should only be used if judged essential by the physician. **Side Effects:** *Very common or common:* abdominal pain, nausea, abdominal distension, anal discomfort, malaise, pyrexia, vomiting, dyspepsia, hunger, thirst, sleep disorder, headache, dizziness, and rigors. *Uncommon or unknown:* Dysphagia, discomfort, abnormal liver function tests, allergic reactions including rash, urticaria, pruritus, erythema, angioedema and anaphylaxis, dyspnoea, electrolyte disturbances, dehydration, convulsions associated with severe hyponatraemia, transient increase in blood pressure, arrhythmia, palpitations, flatulence and retching. Refer to the Summary of Product Characteristics (SmPC) for full list and frequency of adverse events.

**Overdose:** In case of gross accidental overdosage, conservative measures are usually sufficient. In the rare event of severe metabolic derangement, intravenous rehydration may be used. **Pharmaceutical Particulars:** Sachets: Store in the original package below 25°C. **Reconstituted solution:** Keep covered. May be stored for up to 24 hours below 25°C or in a refrigerator. **Legal Category:** UK - Pharmacy only, Ireland - Prescription medicine. **Packs:** One pack of MOVIPREP or MOVIPREP Orange contains a single treatment. **Basic NHS Price:** UK £9.87, Ireland €13.26 **Marketing Authorisation Number:** UK: PL 20142/0005 (MOVIPREP), PL 20011/0006 (MOVIPREP Orange), IE: PA 1336/1/1 (MOVIPREP), PA 1336/1/2 (MOVIPREP Orange). For further information contact: Norgine Pharmaceuticals Ltd, Moorhall Road, Harefield, Middlesex, UB9 6NS Tel: +44 (0) 1895 826606 E-mail: medinfo@norgine.com MOVIPREP<sup>®</sup> is a registered trademark of the NORGINE<sup>®</sup> group of companies. **Date of preparation/revision:** July 2015. Ref UK/MPR/0715/0060 **United Kingdom**

Adverse events should be reported. Reporting forms and information can be found at [www.mhra.gov.uk/yellowcard](http://www.mhra.gov.uk/yellowcard). Adverse events should also be reported to Medical Information at Norgine Pharmaceuticals Ltd on 01895 826606.

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Adverse events should be reported to Medical Information at Norgine Pharmaceuticals Ltd on +44 (0) 1895 826606.

References:

1. Worthington J et al. *Curr Med Res Opin* 2008;24(2):481-88.

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Date of preparation:  
July 2015.



UK/MPR/0715/0063



## Welcome Message from the President Professor Padraic MacMathuna

**Dear Colleagues and Friends,**

Welcome to Galway, a city with a proud tradition and one of the cultural capitals of Europe. The ISG is delighted to be back here to receive the perennial welcome and to soak up the atmosphere of this vibrant city with its reputation for music, art and theatre at the doorstep of scenic Connemara.



According to the revised format agreed in November, the meeting will start at Thursday lunchtime with several of the top scoring free papers and be followed by an exciting 'tour' of the Pancreato-biliary tracts. The ISG is delighted to welcome back to Ireland two 'old friends' of Irish Gastroenterology, Laurent Palazzo (Paris) and Thierry Ponchon (Lyon). Professors Palazzo and Ponchon are European and world leaders in Biliary endoscopy who will bring us up to date with Auto-immune pancreatitis and difficult stone disease. The ISG is also delighted to welcome John Conneely, the newly appointed Hepato-biliary surgeon in the Mater (IEHG) to showcase the advances made in Laparoscopic surgery. Mr Conneely returns from training in North America but has strong roots here in Galway, so this is a real coming home for John.

The **introduction:** of Endoscopy video section, coordinated by Subhasish Sengupta, represents an exciting innovation for the society in keeping with international GI best practice. Gupta will give a brief demonstration laying out the format for clinical investigators to use for future meetings starting in November in Dublin.

Friday morning kicks off with several more high level oral presentations followed by a much anticipated Coeliac Symposium. It is only fitting that the ISG revisit this 'Celtic' disorder given the seminal work carried out by Prof Ciaran McCarthy during his tenure as Chair of Medicine here at UCG. We are also fortunate that another Galway graduate Prof Joe Murray is travelling from the US to participate and give us a state of the art on Coeliac Disease in 2016. Based in the Mayo Clinic, Rochester, Joe has earned the reputation of being one of the major figures in Coeliac disease in North America and its great that this meeting gives Joe the opportunity to come back home to the ISG in Galway and meet old friends.

The Liver disease session addresses the current 'hot' controversy surrounding anti HCV therapy. The potential for HCV eradication has generated heated debate given the costs involved. I'm delighted our own Suzanne Norris, National HCV Lead, has agreed to talk in the role of Obama 'Yes we can!'. To counter this, Dr Will Gelson, a major player in UK/European hepatology, is coming from Cambridge to argue that HCV eradication using expensive drugs is unrealistic. Let the battle begin.

As always, I must thank the ISG staff Michael and Cora for all their efforts and hard work in putting this meeting together. My colleagues Stephen Stewart, Valerie Byrnes and Jan Leyden were really helpful in putting the programme together.

I hope the new website is bedding in and becoming a valuable resource for members. It has great potential and the feedback already is very positive in relation to abstract submissions, registration and archive. Any thoughts on how it can be further improved are welcome. Finally, the ISG could not function without its sponsors to whom we owe our appreciation. So enjoy the meeting, meeting old colleagues and enjoy all that Galway has to offer.

**Padraic Mac Mathuna**

President ISG

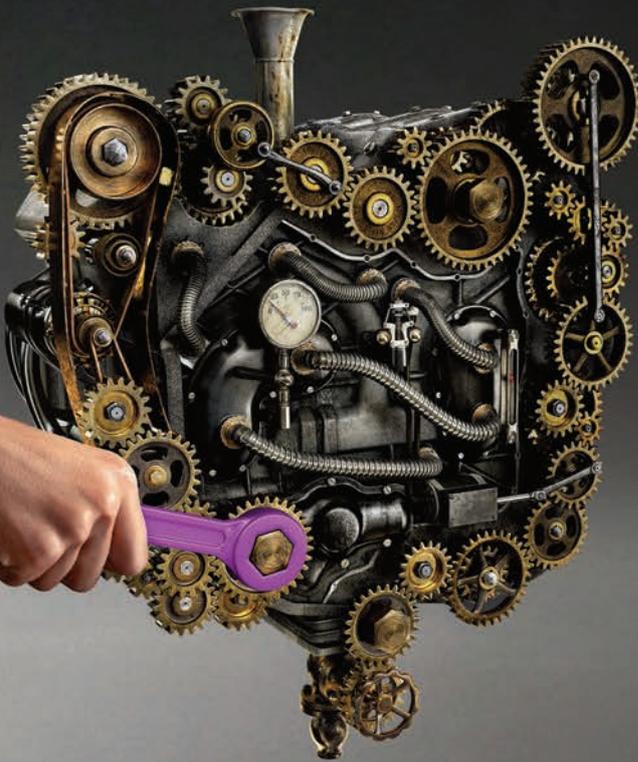
Consultant Gastroenterologist

Introducing Entyvio: the first and only gut-selective biologic for patients with moderately to severely active ulcerative colitis (UC) or Crohn's disease (CD)

# TREAT WITH PRECISION

The first and only gut-selective biologic<sup>1</sup>

- Achieved remission at Week 52 in:
  - 42% of UC patients vs 16% for placebo in patients responding at Week 6 ( $P < 0.001$ )
  - 39% of CD patients vs 22% for placebo in patients responding at Week 6 ( $P < 0.001$ )
- Targeted mechanism of action<sup>1</sup> different from anti-TNF $\alpha$  therapies
- One dose for all patients<sup>1</sup>: 300-mg IV infusion



References: 1. Entyvio Summary of Product Characteristics. Takeda Pharmaceuticals Ireland Ltd. [www.medicines.ie](http://www.medicines.ie)

ITEM CODE: IRE/VED/14/0008c(1)  
DATE OF PREPARATION: October 2015



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**Entyvio**<sup>®</sup>  
vedolizumab

YOUR GUT-SELECTIVE BIOLOGIC

**Entyvio<sup>®</sup> ▼ (vedolizumab) PRESCRIBING INFORMATION**  
Refer to the Summary of Product Characteristics (SmPC) before prescribing.

**Presentation:** 300 mg powder for concentrate for solution for infusion. **Indications:** Adult patients with moderately to severely active ulcerative colitis (UC)/Crohn's disease (CD) who have had an inadequate response with, lost response to, or were intolerant to either conventional therapy or a tumour necrosis factor- $\alpha$  (TNF $\alpha$ ) antagonist. **Dosage & Administration:** Treatment should be initiated and supervised by a specialist healthcare professional experienced in diagnosis and treatment of ulcerative colitis or Crohn's disease. Patients should be monitored during and after infusion in a setting equipped to manage anaphylaxis. **Ulcerative colitis:** Recommended dose regimen 300mg administered by intravenous infusion over approximately 30 minutes at 0, 2, 6 weeks and 6 weeks thereafter. Reconsider treatment if no evidence of therapeutic benefit at week 10. If patients experience a decrease in response, they may benefit from increased dosage frequency to 300mg every 4 weeks. Corticosteroids may be reduced/discontinued in patients who respond to treatment with Entyvio; if therapy is interrupted and needs to be restarted, Entyvio dosing every 4 weeks may be considered. **Crohn's disease:** Recommended dose regimen is 300mg administered by intravenous infusion over approximately 30 minutes at 0, 2, 6 weeks and 6 weeks thereafter. Patients who have not shown evidence of therapeutic benefit may benefit from a dose at week 14. Continue therapy every 8 weeks from week 14 in responding patients. Therapy should be discontinued if no evidence of therapeutic benefit is observed at week 14. If therapy is interrupted and needs to be restarted, Entyvio dosing every 4 weeks may be considered. **Paediatric populations:** No data available in children aged 0-17 years. Not recommended. **Elderly patients:** No dosage adjustment required. **Renal or hepatic impairment:** Entyvio has not been studied in these populations. No dose recommendation can be given. **Contraindications:** Hypersensitivity to Entyvio or any of the excipients. Active infections such as tuberculosis (TB), sepsis, cytomegalovirus, listeria and opportunistic infections such as Progressive Multifocal Leukoencephalopathy (PML). **Warnings and Precautions:** Patients should be observed continuously during infusions for signs/symptoms of hypersensitivity reactions. Patients should continue to be observed for two hours following infusion completion for the first two infusions and one hour for subsequent infusions. Infusion-related reactions (IRR): Hypersensitivity reactions have been reported, the majority were of mild to moderate severity. Discontinue treatment if anaphylaxis or other serious allergic reactions occur and institute appropriate treatment. In mild to moderate IRR, slow or interrupt infusion. Consideration for pre-treatment with antihistamine, hydrocortisone and/or paracetamol should be given prior to next infusion, for patients with history of mild/moderate IRR to Entyvio. Infections: Not recommended in patients with active, severe infections until infections are controlled. Consider withholding in patients who develop severe infection while on treatment with Entyvio. Before initiating treatment, patients must be screened for TB. If latent TB is diagnosed, anti-tuberculosis appropriate treatment must be initiated prior to Entyvio treatment.

**Progressive Multifocal Leukoencephalopathy (PML):** No cases were observed in Entyvio clinical trials, but John Cunningham (JC) virus infection resulting in PML and death has occurred in patients treated with other integrin receptor antagonists and systemic immunosuppressive agents. A risk of PML cannot be ruled out. Monitor patients for any new or worsening neurological signs/symptoms. **Malignancy:** Underlying increased risk of malignancy in UC and CD. Immunomodulatory products may increase risk. **Prior and concurrent use of biological products:** No clinical data available for Entyvio use in patients previously treated with natalizumab or rituximab. Patients previously exposed to natalizumab should wait at least 12 weeks prior to initiating Entyvio therapy. Entyvio not recommended for concomitant use with biologic immunosuppressants as no clinical data available. **Live and oral vaccines:** Patients may continue to receive non-live vaccines. Patients recommended to be up-to-date with all appropriate immunisations prior to initiating Entyvio. Live vaccines may be administered concurrently only if benefit clearly outweighs risk. **Interactions:** No interaction studies performed. Concomitant administration of corticosteroids, immunomodulators (azathioprine, 6-mercaptopurine, and methotrexate) and antimicrobials did not have a clinically meaningful effect on Entyvio pharmacokinetics. **Fertility, pregnancy and lactation:** Women of child-bearing potential should use adequate contraception and continue for at least 18 weeks after last Entyvio treatment. Since maternal antibodies are excreted in breast milk, decision whether to discontinue breast-feeding or to discontinue/abstain from Entyvio should be made according to relative benefit to child or breast-feeding or to mother of Entyvio. **Undesirable Effects:** Very Common ( $\geq 1/10$ ): nasopharyngitis, headache, arthralgia. Common ( $\geq 1/100$ ,  $< 1/10$ ): bronchitis, gastroenteritis, URI, influenza, sinusitis, pharyngitis, paresthesia, hyperperistalsis, oropharyngeal pain, nasal congestion, cough, anal abscess, anal fissure, nausea, dyspepsia, constipation, abdominal distension, flatulence, haemorrhoids, rash, pruritus, eczema, erythema, night sweats, acne, muscle spasms, back pain, muscular weakness, fatigue, pain in extremities, pyrexia. **Other serious undesirable effects ( $\geq 1/1000$  to  $< 1/100$ ):** respiratory tract infection, infusion site reaction, infusion-related reaction. Refer to the SmPC for details on full side effect profile and interactions. **Legal Classification:** POM. **Marketing Authorisation Number:** EU/1/14/923/001; 300mg powder for concentrate for solution for infusion. Further information is available from Takeda UK Ltd. Building 3, Glory Park, Glory Park Avenue, Woomers Green, Buxinghamshire, HP10 0DF. Tel: 01628 537900 Fax: 01628 526617. **PI Approval Code:** PRE/VED/15/0014  
Date of revision: September 2015.

Adverse Events should be reported to the Pharmacovigilance Unit at the Health Products Regulatory Authority ([medsafety@hpra.ie](mailto:medsafety@hpra.ie)). Information about Adverse Event reporting can be found on the HPA website ([www.hpra.ie](http://www.hpra.ie)). Adverse Events should also be reported to Takeda UK Ltd on 1800 837 973.



**ISG Summer Meeting  
June 9th & 10th 2016, Radisson Blu Hotel, Galway  
Programme**

**Thursday June 9th**

- 10.00 **Visit to BSCI Factory in Galway**
- 12.45 **Lunch, Registration and meet the Industry**
- 13.30 **Oral Free Papers (1 - 6)**
- 14.30 **Session 1: PANCREATO-BILIARY:  
WHERE THE GASTROENTEROLOGIST AND SURGEON MEET**  
*Auto-Immune Pancreatitis: a real challenge for surgeons & gastroenterologists*  
**Dr Laurent Palazzo**  
Consultant Gastroenterologist, Paris, France  
*Large stones, intrahepatic stones - ERCP/ Cholangioscopy?*  
**Professor Thierry Ponchon**  
Consultant Gastroenterologist, Lyon, France  
*Laparoscopic Surgery - The Cutting Edge in 2016*  
**Mr. John Conneely**  
Mater Misericordiae University Hospital Dublin
- 16.00 **Coffee break, Visit the Posters & Meet the Industry**
- 16.25 **Endoscopy Video Clips – ISG innovation**
- 16.50 **Oral Free Papers (7 – 10)**
- 17.30 **ISG AGM**
- 18.15-19.00 **AbbVie Satellite Symposium**  
*Hot Topics in Hepatitis C with: Treatment Success and Failure*  
**Professor Jean-Michel Pawlotsky**  
Professor of Medicine, Hospital Henri Mondor, Paris
- 19.15 **Pre Dinner drinks for Dinner at 20.00**

**Friday June 10th**

- 09.00 **Oral Free Papers (11 - 16)**
- 10.00 **Session 2: Coeliac Disease**  
*Coeliac Disease: novel insights*  
**Professor Joseph A Murray**  
Rochester, Minnesota, USA  
*Challenging cases: management options*  
**Dr Valerie Byrnes**  
Consultant Gastroenterologist, University Hospital, Galway
- 11.00 **Coffee break, Visit the Posters & Meet the Industry**
- 11.45 **Session 3: Controversies in Liver Disease**  
*HCV Eradication – A public health measure we can't afford?*  
**Dr Will Gelson**  
Addenbrooke's Hospital, Cambridge, UK
- 12.45 **Top Five Posters – Short Presentations**
- 13.05 **Awards Presentation**
- 13.15 **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<sup>1,2,a</sup>

The first and only subcutaneous anti-TNF with 4-week efficacy during maintenance treatment<sup>1,2,b</sup>

Please consult the Summary of Product Characteristics before prescribing.

<sup>a</sup>Based on results of PURSUIT Maintenance study.

<sup>b</sup>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.<sup>1</sup>



## SIMPONI 50 MG, 100 MG SOLUTION FOR INJECTION IN PRE-FILLED PEN SIMPONI 50 MG SOLUTION FOR INJECTION IN PRE-FILLED SYRINGE (GOLIMUMAB)

**Prescribing Information** (Refer to full SPC text before prescribing Simponi (golimumab))  
**Indications:** *Rheumatoid Arthritis (RA):* Simponi, in combination with methotrexate (MTX), is indicated for the treatment of moderate to severe, active rheumatoid arthritis in adults when the response to disease-modifying anti-rheumatic drug (DMARD) therapy including MTX has been inadequate; the treatment of severe, active and progressive rheumatoid arthritis in adults not previously treated with MTX. Simponi, in combination with MTX, has been shown to reduce the rate of progression of joint damage as measured by X-ray and to improve physical function; *Psoriatic Arthritis (PsA):* Simponi, alone or in combination with MTX, is indicated for the treatment of active and progressive PsA in adults when the response to DMARD therapy has been inadequate. Simponi 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):* Simponi is indicated for the treatment of severe, active AS in adults who have responded inadequately to conventional therapy. *Non-radiographic axial spondyloarthritis (nr-Axial SpA):* Simponi is indicated for the treatment of severe, active nr-Axial SpA who have had an inadequate response to or are intolerant to NSAIDs. *Ulcerative colitis (UC):* Simponi is indicated for treatment of moderately to severely active UC 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. **Dosage and administration:** Simponi should be injected subcutaneously. Treatment should be initiated and supervised by qualified physicians experienced in the diagnosis and treatment of RA, PsA, AS, nr-Axial SpA or UC. After proper training in subcutaneous injection technique, patients may self-inject, if their physician deems it appropriate. **RA:** Simponi 50 mg given once a month, on the same date each month, concomitantly with MTX. **PsA:** Simponi 50 mg given once a month, on the same date each month, alone or in combination with MTX. **AS and nr-Axial SpA:** Simponi 50 mg given once a month, on the same date each month. Clinical response is usually achieved within 12-14 weeks of treatment (3 or 4 doses). Continued therapy should be reconsidered in patients who show no evidence of therapeutic benefit within this time period. In patients weighing more than 100 kg who do not achieve an adequate clinical response after 3 or 4 doses, increasing the dose of golimumab to 100 mg once a month may be considered, taking into account the increased risk of certain serious adverse reactions with the 100 mg dose compared with the 50 mg dose. **UC:** Patients weighing < 80 kg: Simponi given as an initial dose of 200 mg, followed by 100 mg at week 2, then 50 mg every 4 weeks. Patients weighing ≥ 80 kg: Simponi given as an initial dose of 200 mg, followed by 100 mg at week 2, then 100 mg every 4 weeks. During maintenance treatment, corticosteroids may be tapered, following clinical practice guidelines. Clinical response is usually achieved within 12-14 weeks of treatment (after 4 doses). Missed dose: If a patient forgets to inject Simponi on the planned date, the forgotten dose should be injected as soon as the patient remembers. The patient should be instructed not to inject a double dose. **Older patients (> 65 years):** no dose adjustment required. **Paediatric patients (< 18 years) and patients with renal and hepatic impairment:** Simponi is not recommended in these populations. **Contraindications:** Patients with a hypersensitivity to golimumab or any of the excipients. Patients with active tuberculosis (TB) or other severe infection such as sepsis and opportunistic infections; patients with moderate or severe heart failure (NYHA class III/IV). **Precautions and Warnings:** Infections: Patients must be monitored closely for infection before, during and for 5 months after cessation of treatment. Exercise caution when considering Simponi in patients with chronic infection or a history of recurrent infection including use of concomitant immunosuppressive therapy. Simponi should not be given to patients with clinically important active infection. Patients should be advised of the potential risk factors. Bacterial infections (including sepsis and pneumonia), mycobacterial (including TB), invasive fungal and opportunistic infections, including fatalities, have been reported. The invasive fungal infection should be suspected if they develop a serious systemic illness. There was a greater incidence of serious infections, including opportunistic infections and TB, in patients receiving golimumab 100 mg compared with patients receiving golimumab 50 mg. Serious infections have occurred in patients on concomitant immunosuppressive therapy that, in addition to their underlying disease, could predispose them to infection. There have been reports of active TB in patients receiving Simponi, including patients previously treated for latent TB. Patients should be evaluated for active or latent TB before Simponi treatment. All such tests should be recorded on the Patient Alert Card provided with the product. If active TB is diagnosed, treatment with Simponi should not be initiated. If latent TB is diagnosed, treatment with anti-TB therapy must be initiated before initiation of Simponi. Patients on Simponi should be monitored closely for signs and symptoms of active TB and advised to seek medical advice if signs and/or symptoms of TB appear. **Hepatitis B (HBV) reactivations:** Reactivation of HBV occurred in patients receiving Simponi who were chronic carriers. Some cases had a fatal outcome. Patients should be tested for HBV infection before initiating treatment with Simponi. **Malignancies and lymphoproliferative disorders:** Caution is advised when considering Simponi treatment in patients with history of malignancy or continuing treatment in patients who develop a malignancy, additional caution should be exercised in patients with increased risk for malignancy due to heavy smoking. A risk for the development of malignancies in children and adolescents cannot be excluded. Rare cases, usually fatal, of hepatosplenic T-cell lymphoma (HSTCL) have been reported, the majority of cases occurred in adolescent and young males nearly all on concomitant treatment with azathioprine

(AZA) or 6-mercaptopurine (6-MP). The potential risk with the combination of AZA or 6-MP and Simponi should be carefully considered. A risk for the development of HSTCL in patients treated with TNF-blockers cannot be excluded. Colon dysplasia/carcinoma - Screen for dysplasia in all patients with UC who are at increased risk or had a prior history for dysplasia or colon carcinoma. In newly diagnosed dysplasia patients the risks and benefits of continued Simponi use should be carefully assessed. Melanoma (all TNF-blocking agents including Simponi) and Merkel cell carcinoma (other TNF-blocking agents) have been reported, periodic skin examination is recommended, particularly for patients with risk factors for skin cancer. **Heart Failure:** Simponi should be used with caution in patients with mild heart failure (NYHA class I/II). Patients should be closely monitored and Simponi must be discontinued in patients who develop new or worsening symptoms of heart failure. Some cases had a fatal outcome. **Neurological events:** Use of anti-TNF therapy, including Simponi, has been associated with cases of new onset or exacerbation of clinical symptoms and/or radiographic evidence of central nervous system demyelinating disorders, including multiple sclerosis and peripheral demyelinating disorders. Discontinuation of Simponi should be considered if these disorders develop. Carefully consider the benefits and risks before initiation of therapy in patients with a history of demyelinating disorders. **Surgery:** Patients requiring surgery whilst on Simponi therapy should be closely monitored for infections. **Autoimmune processes:** If a patient develops symptoms suggestive of a lupus-like syndrome following treatment with Simponi and is positive for antibodies against double-stranded DNA, treatment should be discontinued. **Haematological reactions:** There have been post-marketing reports of pancytopenia, leukopenia, neutropenia, aplastic anaemia, and thrombocytopenia in patients receiving TNF-blockers. Cytopenias including pancytopenia have been reported infrequently in clinical trials. Patients should be advised to seek medical attention if they develop signs and symptoms suggestive of blood dyscrasias. Discontinuation should be considered in patients with significant haematologic abnormalities. **Vaccinations/therapeutic infectious agents:** It is recommended that live vaccines or any therapeutic infectious agents should not be given concurrently. **Allergic reactions:** If an anaphylactic reaction or other serious allergic reaction occurs, administration of Simponi should be discontinued immediately, and suitable treatment initiated. The needle cover of the pre-filled pen contains latex and may cause allergic reactions in those sensitive to latex. **Special populations:** Adverse events, serious adverse events and serious infections in patients aged ≥ 65 were comparable to those observed in younger patients. However, caution should be exercised when treating the elderly, particular attention should be paid to infections. There were no patients age 45 and over in the nr-Axial SpA study. **Excipients:** Simponi contains sorbitol (E420). Patients with rare hereditary problems of fructose intolerance should not take Simponi. **Interactions:** Combination of Simponi and other biological therapeutics used to treat the same conditions as Simponi, including anakinra and abatacept is not recommended. **Pregnancy and Lactation:** Administration of Simponi is not recommended during pregnancy or breast-feeding. Women of childbearing potential should use adequate contraception and continue its use for at least 6 months after the last Simponi treatment. **Side-effects:** Refer to SmPC for complete information on side effects. **Very Common (> 1/10):** upper respiratory tract infection; **Common (> 1/100):** bacterial infections, lower respiratory tract infections, viral infections, bronchitis, sinusitis, superficial fungal infections, abscess, anaemia, allergic reactions, autoantibody positive, depression, insomnia, dizziness, headache, paraesthesia, hypertension, asthma and related symptoms, dyspepsia, gastrointestinal and abdominal pain, nausea, gastrointestinal inflammatory disorders, stomatitis, alanine aminotransferase increased, aspartate aminotransferase increased, pruritus, rash, alopecia, dermatitis, pyrexia, asthenia, injection site reaction, chest discomfort, bone fractures were reported. **Serious, including fatal adverse events:** have been reported including septic shock, lymphoma, leukaemia, melanoma, Merkel cell carcinoma\*, hepatosplenic T-cell lymphoma\*, leukopenia, thrombocytopenia, pancytopenia, aplastic anaemia, serious systemic hypersensitivity reactions (including anaphylactic reaction), skin exfoliation, vasculitis (systemic), sarcoidosis, demyelinating disorders, congestive heart failure, arrhythmia, ischaemic coronary artery disease, thrombosis, interstitial lung disease and lupus-like syndrome. \*Observed with other TNF-blocking agents, but not observed in clinical studies with golimumab. **Package quantities:** 150 mg pre-filled pen containing 50 mg of golimumab in 0.5 ml solution for injection or 150 mg pre-filled syringe containing 50 mg of golimumab in 0.5 ml solution for injection or 100 mg pre-filled pen containing 100 mg of golimumab in 1 ml solution for injection. **Legal Category:** Prescription Only Medicine. **Marketing Authorisation Number:** 50 mg Pre-filled Pen EU/1/09/546/001; 50 mg Pre-filled Syringe EU/1/09/546/003; 100 mg Pre-filled Pen EU/1/09/546/005. **Marketing Authorisation Holder:** Janssen Biologics B.V., Einsteinweg 101, 2333 CB Leiden, The Netherlands. **Date of Revision of Text:** December 2015. **Further information is available on request from:** MSD, Red Oak North, South County Business Park, Leopardstown, Dublin D18X5K7 or from www.medicines.ie. **Date of preparation:** May 2016.

Adverse events should be reported. Reporting forms and information can be found at [www.hpra.ie](http://www.hpra.ie)  
 Adverse events should also be reported to MSD (Tel: 01-299 8700)

**References:** 1. EU Summary of Product Characteristics for SIMPONI 12 Jan 2016. 2. Sandborn WJ, Feagan BG, Marano C, et al. Subcutaneous Golimumab Maintains Clinical Response in Patients with Moderate-to-Severe Ulcerative Colitis. *Gastroenterology*. 2014;146:96-108.



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# Irish Society of Endoscopy Nurses

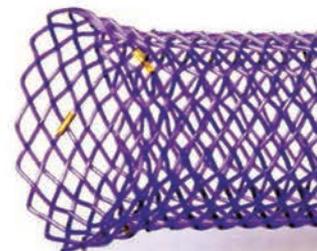
10th June 2016 • Radisson Blu Hotel, Galway

## Agenda

Time	Chair	Speaker	Topic
08.30-09:10	Registration		
09:15-09:30	Leah Palado	Cella Dwan CNM2 Endoscopy, Nenagh Hospital	Welcome to Galway
09:30-10:00	Sheila King	Prof Stephen Patchett Consultant Gastroenterologist Beaumont/Bon Secours Hospital Dublin	Safe Sedation in Endoscopy
10:00-10:30	Leah Palado	Sheila King CNM3 Bon Secours Hospital, Dublin	Introducing a Postal Informed Consent ESGENA 2015 Prize Winner
<b>10:30-11:10 COFFEE</b>			
11:10-11:50	Margaret O Donnell	Dr Sean Nugent Consultant Gastroenterologist Aut Even Hospital / Whitfield Clinic	Capsule Endoscopy
11:50-12:20	Deirdre Clune	Margaret O Donnell CNM2 South Tipperary General Hospital	GORD (Gastro Oesophageal Reflux Disease)
12:20-13:00	Deirdre Clune	Thomas Kenny	Bowel Screening A Patients Perspective
<b>13:00-14:00 LUNCH</b>			
14:00-14:50	Mary Hackett Brennan	Dr Gerard Colleran Microbiologist/Lecturer, Tallaght I.T.	Decontamination
14:50-15:00	Leah Palado	Elaine Egan Committee Member	ESGENA Barcelona 2015 Feedback
15:10-15:30	Elaine Egan	Dr Allan Coss Consultant Gastroenterologist Galway Clinic	Gastric Disease
15:50-16:00	Deirdre Clune	Evaluation	Committee news and Education updates

# BD Stent

SX-ELLA Stent Esophageal Degradable BD



# BD Stent



**FLEETWOOD**  
HEALTHCARE

Biodegradation

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Unique delivery system

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Excellent flexibility

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Radiopaque markers

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### 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 Sengupta

Secretary 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:** Pancreatic biliary Disease and Inflammatory Bowel Disease.

#### Dr Barbara Ryan

Consultant 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.

#### Prof. Glen Doherty

Treasurer 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 Harewood

Consultant 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 Cash

Consultant 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.

His specialist interests include the treatment of colorectal and peritoneal malignancy, inflammatory bowel disease, pelvic floor disorders, and surgical education and training. He was awarded the Association of Surgeons of Great Britain and Ireland Medal for first place in the Intercollegiate Exit examination (FRCS) in 2010 and was the 2012 Association of Coloproctology of Great Britain and Ireland Travelling Fellow to the United States.

**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.

**Dr Tony C.K. Tham**  
MB BCh BAO, MD, MSc, 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.

**Prof Deirdre McNamara**  
Consultant Gastroenterologist  
Tallaght Hospital, Dublin



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 70 publications in peer reviewed journals. He is the first author of a book entitled "Gastrointestinal Emergencies" and the third edition has just been published. He is the Guidelines Editor for Gut and on the international editorial board of Gastrointestinal Endoscopy.

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 Physician's 1997 MD Trinity College Dublin 2002 Diploma in Cancer Prevention, National Cancer Institute USA 2002 Fellow Royal College of Physician's of Edinburgh 2005 Fellow Royal College of Physician's 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

He has contributed to several other book chapters. He was the Head of the School of Medicine, Northern Ireland Medical and Dental Training Agency and is currently Training Program Director in general internal medicine. He sits on the Specialist Advisory Committee for general internal medicine at the Joint Royal College of Physicians Training Board. He is the secretary of British Society of Gastroenterology (BSG) clinical services and standards committee. He is the guidelines lead for the BSG. 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.

**Mr Jürgen Mulow**  
Consultant  
General and Colorectal Surgery



Jürgen Mulow is a Consultant Surgeon in the Department of Colorectal Surgery at the Mater Misericordiae University Hospital and Clinical Lecturer in Surgery at University College Dublin. He undertook specialist training in Ireland before completing a Fellowship in Colorectal Oncology at the University Clinic in Erlangen, Germany.



**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

**Mr John Connelly**  
Consultant General Surgeon  
Mater Misericordiae University Hospital,  
Dublin



Mr. John Barry Connelly, B.Sc., M.Ch., F.R.C.S.I. (Gen.) joined the Mater Private as a Consultant General Surgeon specialising in Digestive Diseases.

He graduated from the National University of Ireland, Galway in 2000 and subsequently completed his surgical training under the auspices of the RCSI, completing the Higher Surgical Training Programme in 2011. Following that, Dr. Connelly undertook a fellowship in Minimally-Invasive Surgery and Bariatric Surgery at the University of Toronto, followed by the completion of a two-year Fellowship in Abdominal Transplantation and Hepato-pancreato-biliary Surgical Oncology at Toronto General Hospital, where he subsequently worked as a Consultant. His subspecialty interests encompass the entire spectrum of foregut and hepato-pancreato-biliary surgery, both in the oncology and non-oncology settings.

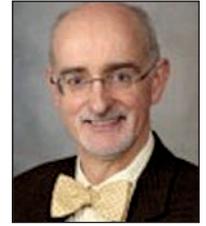
He is particularly passionate about the value of minimally-invasive surgery in every context and has trained extensively in the field. Dr. Connelly is committed to developing the excellent minimally-invasive surgery services at the Mater Private Hospital and looks forward in time to the development of metabolic and bariatric services.

**Dr Will Gelson**  
Consultant Hepatologist  
Aldenbrookes Hospital, Cambridge, UK



Will Gelson is a consultant hepatologist at Addenbrooke's Hospital in Cambridge. His interests are in viral hepatitis and liver transplantation. He leads the Eastern Hepatitis Network, which is the Operational Delivery Network that co-ordinates hepatitis C therapy for the East of England.

**Prof Joseph Murray**  
Consultant Gastroenterologist  
Mayo Clinic, Rochester, Minnesota.



Joseph A. Murray, M.D. serves as a Gastroenterologist in the Division of Gastroenterology and Hepatology at the Mayo Clinic in Rochester, Minnesota. He founded a celiac disease clinic at the University of Iowa in 1992. In 1998, Prof. Murray joined the staff of Mayo clinic, where he runs the celiac disease research and clinical program that focuses on epidemiology, complications and mouse models of gluten sensitivity.

In addition, Prof. Murray is a Professor of Medicine at the Mayo clinic in Rochester, Minnesota. He serves as a Consultant to several companies and has broad experience with clinical trials. Prof. Murray is an Associate Editor of Clinical Gastroenterology and Hepatology as well as an expert reviewer for many scientific journals. He has published over 100 scientific articles and has several patents on novel devices for the treatment of GI disorders. He has a large clinical practice widely focused on celiac disease and has been elected to the Best doctors in America from 2001 to 2006. He received his medical training in Ireland at NUIG. He completed his early training in Beaumont Hospital Dublin and UCD. His internships for Medicine and Surgery were carried out in the Regional Hospital Galway and GI training from the University of Iowa.

**Dr Valerie Byrnes**  
Consultant Gastroenterologist  
University College Hospital Galway



Valerie Byrnes, Consultant Gastroenterologist UCHG. A graduate of RCSI, did her SpR training in Ireland and the US. She completed her MD thesis on the "Genetics and Pathophysiology of Hereditary Haemochromatosis in Ireland" under the mentorship of Professor John Crowe. Following completion of an advanced hepatology fellowship at Beth Israel Deaconess Medical Centre, Boston, Dr Byrnes remained on as a faculty member for a number of years. During this time she completed a masters in medical science at Harvard Medical School. Her research interests in the US were in the fields of chronic hepatitis C and hepatocellular carcinoma. Since taking up her position as a gastroenterologist at UCH she has developed a keen interest in the management of coeliac disease and runs a subspecialty coeliac clinic in Galway managing over 1.000 coeliac patients.



# Winter Meeting 2015



Audience View



Dr Chris Steele and Dr S SenGupta



Dr Barry Hall



Dr Manus Moloney, Dr Valerie Byrnes, Prof Glen Doherty,  
Dr Miriam O'Sullivan, Dr Chris Steele



Prof John Crowe, Prof Paud O'Regan,  
Dr John Lennon & Prof Colm O'Morain



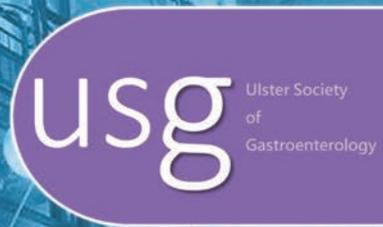
Dr Grainne Holleran

# Big Meeting

Europa Hotel, Belfast  
27 - 28 April, 2017



Irish Society of  
Gastroenterology



## WINTER MEETING 2016

24<sup>th</sup> & 25<sup>th</sup>  
November 2016

The Fitzpatrick's Castle Hotel,  
Killiney. Co. Dublin

The Winter meeting in Dublin promises to be stimulating with teaching sessions on a range of 'hot' topics including Novel IBD Therapies, Latest Guidelines on Endoscopy management of Premalignant lesions, Multi-disciplinary management of Rectal cancer, Role of Molecular markers in early Cancer diagnosis and screening and review of Endoscopy QA in Ireland.



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Consultant Gastroenterologist

Dr Subhasish Sengupta, Hon Secretary ISG  
Consultant Gastroenterologist

Professor Glen Doherty, Hon. Treasurer, ISG  
Consultant Gastroenterologist

Dr David Gibson,  
Specialist Registrar

Dr Gavin Harewood,  
Consultant Gastroenterologist

Dr Johnny Cash,  
Consultant Hepatologist

Dr Barbara Ryan,  
Consultant Gastroenterologist

Dr Paul Lynch,  
Consultant Gastroenterologist

Professor Deirdre McNamara,  
Consultant Gastroenterologist

Dr Tony Tham,  
Consultant Gastroenterologist

Professor Humphrey O'Connor  
Consultant Gastroenterologist

Mr Jurgen Mulsow  
Consultant Surgeon

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Dr Maeve Skelly  
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Professor Fergus Shanahan  
Professor Garry Courtney  
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Professor Colm O'Morain

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2009-2011	Professor John Hyland
2007-2009	Professor Fergus Shanahan
2005-2007	Professor John Crowe
2002-2005	Professor Colm O'Moráin
1999-2002	Dr John Collins
1997-1998	Dr Paud O'Regan
1995-1996	Dr Diarmuid O'Donoghue
1993-1994	Mr Gerry O'Sullivan (R.I.P.)
1991-1992	Dr Tom O'Gorman
1989-1990	Professor Tom PJ Hennessy
1987-1988	Dr Michael J Whelton
1985-1986	Professor TG Parks
1983-1984	Mr Joseph McMullin (R.I.P.)
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1979-1980	Mr Sean Heffernan (R.I.P.)
1977-1978	Dr Robert Towers (R.I.P.)
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1973-1974	Professor Ciaran McCarthy
1971-1972	Professor Patrick Collins (R.I.P.)
1969-1970	Professor Peter Gatenby
1967-1968	Dr Byran G Alton (R.I.P.)
1964-1966	Professor Patrick Fitzgerald (R.I.P.)
1962-1964	Professor Oliver Fitzgerald (R.I.P.)



## Oral Presentations – Summer Meeting 2016

Abstract No.	Ref	Author	Title of Paper	Day	Time
1	16S119	M. W. Robinson	Uncovering mechanisms of innate resistance against viral infection amongst Irish women exposed to hepatitis C virus via contaminated anti-D immunoglobulin	Thurs	13.30
2	16S127	Felicity Hartnell	Co-administration of chimpanzee adenoviral vectors of different serotypes, for the prevention of HCV and HIV co-infection	Thurs	13.40
3	16S126	F. Lynch	A single centre evaluation of the accuracy of an Acute-on-Chronic Liver Failure grading system in predicting mortality in cirrhotic patients admitted to the Mater hospital	Thurs	13.50
4	16S125	D Storan	Developing a pragmatic community-based algorithm for prioritization of HCV treatment	Thurs	14.00
5	16S111	Brian Christopher	Clinical Experience with Vedolizumab in Anti-TNF Refractory IBD Patients	Thurs	14.10
6	16S149	O'Reilly S	Morbidity and Mortality in Primary Sclerosing Cholangitis: 20 years of data from the National Liver Unit	Thurs	14.20
7	16S146	Denise Brennan	Can bacterial virulence factors predict antibiotic resistant H. pylori infection?	Thurs	16.50
8	16S103	Ian Reynolds	A meta-analysis of the clinicopathological characteristics and survival outcomes of inflammatory bowel disease associated colorectal cancer versus sporadic colorectal cancer	Thurs	17.00
9	16S137	Aisling Murphy	The real impact of fatigue in Haemochromatosis	Thurs	17.10
10	16S154	Ben Cole	The incidence of liver fibrosis in C282Y homozygous HFE haemochromatosis and its response to venesection	Thurs	17.20
11	16S120	Karen Hartery	“Meticulous” caecal photo documentation correlates with improved polyp detection, and lower sedation rates	Friday	09.00
12	16S159	J O'Connell	Characteristics and Outcomes of Acute Colitis Presenting via the Emergency Department in an Irish Academic Medical Centre	Friday	09.10
13	16S114	Z. Sabra	Gut permeability and inflammation in irritable bowel syndrome and inflammatory bowel disease: implications for pregnancy complications	Friday	09.20
14	16S134	D McSkeane	Altered expression of caspase-4 in colorectal polyps	Friday	09.30
15	16S116	V.Parihar	Clinical outcome of patients with raised intraepithelial lymphocytes (IELs) with normal villous architecture on duodenal biopsy	Friday	09.40
16	16S105	Patricia Dominguez Castro	The Changing Face of Coeliac Disease Presentation; a 55 Five Year Perspective in Ireland	Friday	09.50



## ABSTRACT 1 (16S119)

## ORAL PRESENTATION

**Uncovering mechanisms of innate resistance against viral infection amongst Irish women exposed to hepatitis C virus via contaminated anti-D immunoglobulin**

**Author(s):** M. W. Robinson<sup>1</sup>, C. Keane<sup>1</sup>, M. Needham<sup>1</sup>, G. Roche<sup>1</sup>, C. Gardiner<sup>1</sup>, D. Houlihan<sup>2</sup>, and C. O'Farrelly<sup>1,3</sup>

**Department(s)/Institutions:** <sup>1</sup> School of Biochemistry and Immunology, Trinity College Dublin, Dublin 2, Ireland  
<sup>2</sup> Liver Unit, St. Vincent's University Hospital, Dublin 4, Ireland  
<sup>3</sup> School of Medicine, Trinity College Dublin, Dublin 2, Ireland

**Introduction:** Understanding the immune mechanisms conferring resistance against viral infection is vital for future therapeutic and vaccination strategies targeting hepatitis C virus (HCV). Studies of resistance to viral infection in humans are hampered by a lack of suitable cohorts with defined pathogen exposure and no documented evidence of infection. In Ireland individuals exposed to HCV through contaminated anti-D immunoglobulin provide a unique opportunity to study mechanisms of innate resistance in a well-defined human cohort.

**Aims/Background:** Hundreds of Irish women received documented high-risk batches of contaminated anti-D immunoglobulin and yet subsequently tested negative for any evidence of previous infection. We hypothesise that these exposed seronegative (ESN) individuals have enhanced innate immune function capable of providing innate resistance against HCV infection. The aim of this study was to profile innate immune responses in a pilot group of ESN individuals who received contaminated anti-D immunoglobulin.

**Method:** To explore potential mechanisms of viral resistance, we profiled innate immune function in ESN recipients of contaminated anti-D immunoglobulin (n = 16) and matched healthy controls (n = 9). Initial screening assays assessed circulating cytokine levels and immune cell responsiveness to interferon (IFN) $\alpha$ , in addition to targeted assays focusing on natural killer (NK) cell function.

**Results:** Analysis of intracellular signalling following IFN $\alpha$  stimulation identified enhanced signalling exclusively in NK cells of ESN individuals compared to matched unexposed controls (mean MFI fold change 2.81 vs 1.96, P-value = 0.003). Circulating proinflammatory cytokine levels were largely comparable to matched unexposed controls with the exception of interleukin (IL)8 and IL18, which were elevated in exposed seronegative individuals. At a functional level CD56dim NK cells from exposed seronegative individuals had stronger IFN $\gamma$  responses following IL2/IL12/IL18 pre-activation and 721.221 target cell stimulation compared to matched unexposed controls (mean % IFN $\gamma$ [+] CD56dim NK cells 50.9 vs 31.8, P-value = 0.046).

**Conclusions:** Our results describe a general enhancement of NK cell activity in ESN individuals that provides insights into the mechanisms of enhanced innate immune cell function. This work highlights the potential of Irish women who received contaminated anti-D immunoglobulin for discovering novel mechanisms that confer innate resistance to viral infection.

## ABSTRACT 2 (16S127)

## ORAL PRESENTATION

**Co-administration of chimpanzee adenoviral vectors of different serotypes, for the prevention of HCV and HIV co-infection**

**Author(s):** Felicity Hartnell (1) , Anthony Brown (1) , Emma Ghaffari (2) , Beth Turner (2) , Antonella Folgori (3) , Stefania Capone (3) , Alfredo Nicosia (3) , Riccardo Cortese (3), Stefano Colloca (3) , Tomas Hanke (4) , Lucy Dorrell (2) , Ellie Barnes (1)

**Department(s)/Institutions:** 1 Peter Medawar Building, 2 NDM Research Building, University of Oxford, Oxford, United Kingdom, 3 ReiThera Srl, Rome, Italy, 4 Jenner Institute, University of Oxford, Oxford, United Kingdom

**Introduction:** An estimated 5-7 million people globally are co-infected with HIV-1 and HCV. HCV is the leading cause of non-AIDS deaths in co-infected individuals. New antiviral therapies, although promising, are unaffordable to most and do not prevent reinfection.

**Aims/Background:** We have developed a novel vaccination strategy employing replication-defective serologically distinct chimpanzee adenovirus (AdCh3, and ChAdV63) for the simultaneous delivery of HCV non-structural (NSmut) and HIV-1 conserved (HIVcons) region immunogens. Priming vaccination is followed by heterologous MVA vectored boost with the aim of inducing potent HIV and HCV specific T cells responses in healthy volunteers.

**Method:** 32 healthy volunteers were recruited in a Phase-I (EU Fp7 funded) clinical trial and sequentially enrolled into 3 groups: Group 1 (n=8) received HCV vaccines: AdCh3NSmut1 [2.5x10<sup>10</sup> vp] and MVA.NSmut [2x10<sup>8</sup> pfu] at weeks 0 and 8 and respectively. Group 2 (n=8) received HIV vaccines: ChAdV63.HIVcons and MVA.HIVcons at the same interval [ 5x10<sup>10</sup> vp and 2x10<sup>8</sup> pfu respectively]. Group 3 (n=16) were co-primed with AdCh3NSmut1 and ChAdV63.HIVcons (dosed as previous) followed at week 8 by MVA-NSmut and MVA.HIVcons [both 1x10<sup>8</sup> pfu]. All vaccines were given i.m.. Immunogenicity was determined using peptide pools in ex-vivo IFN- $\gamma$  ELISpot assays.

**Results:** Vaccine priming with either AdCh3NSmut or ChAdV63.HIVcons alone induced high magnitude and broad peak T cell responses (mean  $\pm$  SD: 608.5  $\pm$  374 and 785  $\pm$  753 SFU/10<sup>6</sup> PBMC respectively) and responses were markedly enhanced following heterologous MVA boost (peak mean 4260  $\pm$  2390 and 3760  $\pm$  2811 SFU/10<sup>6</sup> PBMC targeting NSmut and HIV cons respectively). Co-administration of AdCh3NSmut1 and ChAdV63.HIVcons did not impair the magnitude or breadth of either HCV or HIV specific T cell responses compared to each alone; peak ELISpot responses to the HCV immunogen prime and boost vaccines were 1184  $\pm$  869 and 5297  $\pm$  3153 SFU/10<sup>6</sup> PBMC respectively, and to the HIV immunogen 780  $\pm$  774 and 3081  $\pm$  3724 SFU/10<sup>6</sup> PBMC respectively. All vaccines were well tolerated with no serious AE's.

**Conclusions:** Co-administration of serologically distinct adenoviral vectors encoding HCV and HIV-1 immunogens in a heterologous prime-boost regimen can be safely administered and induce broad and high magnitude T cell responses. This provides a novel strategy for the prevention of multiple pathogens in the same individual.

**ABSTRACT 3 (16S126)****ORAL PRESENTATION****A single centre evaluation of the accuracy of an Acute-on-Chronic Liver Failure grading system in predicting mortality in cirrhotic patients admitted to the Mater hospital**

**Author(s):** F. Lynch, V. Cooper, E. McDermott, B. Kelleher, J. Leyden, P. MacMathuna, S. Stewart

**Department(s)/Institutions:** Centre for Liver Disease, Mater Misericordiae University Hospital

**Introduction:** Acute on Chronic Liver Failure (ACLF) is a term to define acute decompensation accompanied by organ failure in cirrhotic patients. Recently, a multi-centre prospective study of ACLF called CANONIC developed an ACLF grading (0-3) based on the severity of organ failure. This has helped define the syndrome and links to prognosis. It may also help stratify patients for early intervention (including ICU care) and have implications for resource allocation.

**Aims/Background:** To investigate the role of the ACLF tool and to compare mortality rates to international rates.

**Method:** We reviewed 118 admissions from the year 2014 with acute on chronic liver failure as identified by HIPE. 72 admissions in 47 patients met the CANONIC ACLF inclusion criteria. Using Patient Centre, the Mater's electronic record, an ACLF score was assigned using the online calculator, <http://www.clifconsortium.com/aclf-calculator>. MELDNa scores were also calculated and ROC curves used for comparison.

**Results:** There were 44 (61%) male patients and the average age was 47. The primary indications for admission were ascites (53%), encephalopathy (29%), haematemesis (21%) and sepsis (19%). The breakdown of ACLF grade was; 55 (76%) category 0, 0 (0%) category 1, 10 (14%) category 2 and 7 (10%) category 3. The 28-day mortality for each group was 5.5%, 30% and 57% respectively ( $p < 0.001$ ), which is very similar to the CANONIC mortality of 5%, 32% and 77%. Our 1-year mortality was 20%, 50% and 86%. There was no difference between the ACLF and MELDNa scoring systems in prediction of mortality ( $p=0.06$  for 28 days and 0.7 for 1 year).

**Conclusions:** The ACLF tool is a quick and simple scoring system, which accurately predicts mortality rates in acute on chronic liver failure. Our data validates the ACLF scoring system in an Irish healthcare setting and confirms that our short-term mortality for each severity category compares with that of international units. This clinical score can now be used to risk stratify patients in the emergency department and wards, while triaging liver consults or in guiding ICU care. Better treatments and preventions are required for those with high ACLF scores. Whether ACLF scoring confers additional benefit over MELDNa warrants further study.

**ABSTRACT 4 (16S125)****ORAL PRESENTATION****Developing a pragmatic community-based algorithm for prioritization of HCV treatment.**

**Author(s):** D Storan, S Rutledge, C Kiat, S Stewart

**Department(s)/Institutions:** Centre for Liver Disease, Mater Misericordiae University Hospital, 55 Eccles St, Dublin 7

**Introduction:** HCV is a leading cause of cirrhosis and liver related mortality in Ireland. The advent of direct acting antivirals has removed many of the contraindications to treatment associated with interferon. High cost, however, has led to the rationing of therapy and we have largely limited treatment to those with established cirrhosis based on imaging, biopsy or FibroScan® (FS) score  $> 12$ kPa.

**Aims/Background:** As we look to expand access to treatment, we sought to assess more accessible modalities for staging, namely APRI and FIB-4, both of which can be calculated using readily available blood tests. The aim of this study was to determine if FIB-4 or APRI score could be used in primary care to detect patients with a FS  $> 12$ kPa.

**Method:** All FS tests performed from 26/7/2011 to 16/9/2015 were analysed and duplicates and inaccurate FS scores (SR  $< 60\%$ , IQR  $< 0.3$ ) were removed. 223 patients were included in the study. Laboratory values closest to the date of FS were used in the formulae with a limit of 1 year either side of the FS date. Data were analysed using Microsoft Excel. APRI score was calculated as (AST/ULN)/(Platelet count  $\times 100$ ) and FIB-4 was calculated as age  $\times$  AST/platelet count  $\times \rightarrow$  ALT.

**Results:** 55/223 (25%) had a FS score of  $\rightarrow 12$ kPa and qualified for treatment. The performance of APRI and FIB-4 in detecting these patients at various cut-offs is as follows:

- APRI  $> 0.7$  (110/223); 80% sensitivity, 61% specificity, 40% PPV, 90% NPV
- APRI  $> 1$  (69/223); 62% sensitivity, 79% specificity, 49% PPV, 86% NPV
- APRI  $> 1.5$  (40/223); 47% sensitivity, 92% specificity, 65% PPV, 84% NPV
- FIB-4  $> 1.45$  (120/223); 91% sensitivity, 58% specificity, 42% PPV, 95% NPV
- FIB-4  $> 3.25$  (46/223); 60% sensitivity, 92% specificity, 72% PPV, 88% NPV

**Conclusions:** The FIB-4 score is superior to the APRI when used to detect HCV patients with a Fibroscan score of  $> 12$  kPa. A cut-off of 3.25 performs best overall, but a cut-off of 1.45 would be the most practical for use in the community. This could be used to reduce those requiring referral for Fibroscan by 46% while detecting 91% of those that will be approved for treatment.

**ABSTRACT 5 (16S111)****ORAL PRESENTATION****Clinical Experience with Vedolizumab in Anti-TNF Refractory IBD Patients**

**Author(s):** B. Christopher<sup>1</sup>, O. Aoko<sup>2</sup>, C. Garry<sup>1</sup>, E. Anderson<sup>2</sup>, M. Forry<sup>3</sup>, M. Kennedy<sup>1</sup>, M. O'Sullivan<sup>1</sup>, A. O'Toole<sup>3</sup>, S. Patchett<sup>3</sup>, C. Smyth<sup>1</sup>, S. Sengupta<sup>2</sup>, R.J. Farrell<sup>1</sup>

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**Introduction:** The approval of Vedolizumab (VDZ) in 2014 for the treatment of moderate-to-severe Inflammatory Bowel Disease (IBD) offers gastroenterologists a gut-specific biologic alternative to anti-Tumour Necrosis Factors (anti-TNF) therapy in patients with refractory disease.

Gut selective blockade of lymphocyte trafficking by VDZ, an  $\alpha 4\beta 7$  integrin antibody, has been shown in clinical trials to offer effective induction and maintenance therapy in both ulcerative colitis (UC) and Crohn's disease (CD) and a potential role as a rescue therapy post anti-TNF therapy.

**Aims/Background:** We evaluated the efficacy of VDZ in anti-TNF refractory IBD patients attending 3 teaching hospitals (Connolly Hospital, Beaumont, Our Lady of Lourdes Hospital, Drogheda) affiliated with Royal College of Surgeons in Ireland. VDZ was administered intravenously at weeks 0, 2, 6 and 8 at a dose of 300mg. Patients' characteristics, disease severity pre-infusion and clinical response at

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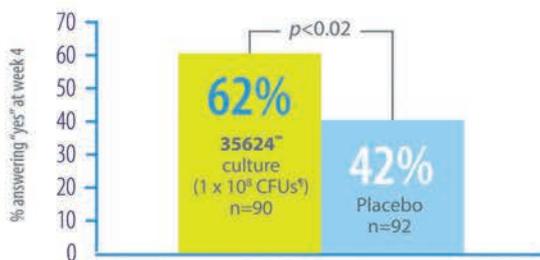
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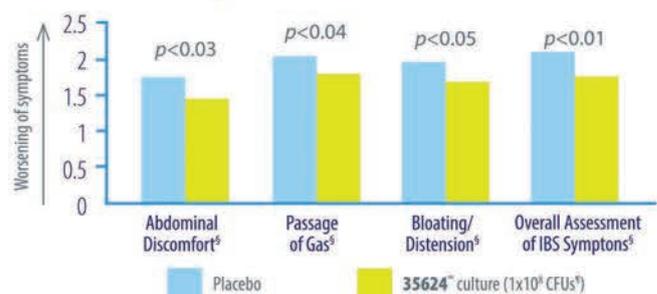
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- Clinical and Translational Gastroenterology

<sup>†</sup>1. Whorwell PJ, Altringer L, Morel J, et al. *Am J Gastroenterol.* 2006;101:1581–1590. 2. O'Mahony L, McCarthy J, Kelly P, et al. *Gastroenterology.* 2005;128:541–551. <sup>††</sup>Among Gastroenterologists who recommended a probiotic brand in a Walters Kluwer 2011 survey. <sup>†</sup>In response to the question "Compared to the way you felt before beginning the medication, have you had adequate relief of your IBS symptoms?"<sup>§</sup> Assessed using a 6-point scale where 0 = no symptoms and 5 = very severe symptoms. <sup>§</sup> CFUs: Colony Forming Units



week 12 were assessed.

**Method:** Clinical response among CD patients was assessed using the Harvey Bradshaw Index (HBI) and Mayo score was used for UC.

**Results:** Between November 2014 and March 2016, 19 patients (13 CD, 6 UC / 12 females, 7 males) received a total of 86 VDZ infusions. Patients' mean age was 36 years (20 – 55). 2 patients who were started on VDZ recently have not reached week 12 of treatment. All 19 patients had undergone prior anti-TNF including 16 patients (84%) who had both infusion and subcutaneous anti-TNF. Thirteen patients were on concomitant immunomodulators (68%) while 8 patients (42%) had prior colonic resections.

The mean pre-VDZ baseline HBI was 8 and Mayo score was 9. At week 12, 10 of 11 (91%) CD patients showed  $\rightarrow$ 3 point reduction and 5 of 6 (83%) UC patients had  $\rightarrow$ 3 point reduction in their scores. 15 of 17 patients (88%) had shown clinical response. There were no reported infusion reactions or adverse events among our VDZ cohort.

**Conclusions:** Vedolizumab is safe, well tolerated and effective in our refractory IBD cohort all of whom had failed or lost response to prior anti-TNF therapy.

Despite clinical trials suggesting superior efficacy among anti-TNF naive IBD patients, in clinical practice VDZ remains second-line therapy to anti-TNF.

#### ABSTRACT 6 (16S149) ORAL PRESENTATION

##### Morbidity and Mortality in Primary Sclerosing Cholangitis: 20 years of data from the National Liver Unit

**Author(s):** O'Reilly S, Hartery K, Buckley M, Horgan G, Cullen G, Doherty G, MacNicholas R, McCormick A, Iqbal M, Houlihan D, Sheridan J

**Department(s)/Institutions:** Gastroenterology Dept, St Vincent's University Hospital; National Liver Unit, St Vincent's University Hospital

**Introduction:** There is a well established, yet still poorly understood link between PSC and inflammatory bowel disease (IBD). St Vincent's University Hospital is the National Transplant Unit for the Republic of Ireland, as well as a large IBD specialist centre.

**Aims/Background:** To examine morbidity and mortality in a large PSC/transplant cohort, and to compare PSC alone to PSC/IBD.

**Method:** Data from HIPE, the National Liver Unit and the IBD database were used to create a database capturing all patients with PSC referred to St Vincent's since the founding of the National Unit in 1994, and looking at basic patient demographics, distribution of disease, complications and mortality.

**Results:** 102 (57.9%) have undergone liver transplant in the Republic of Ireland, with indications being cholangiocarcinoma, decompensated cirrhosis and recurrent cholangitis. Mean age at transplant was 46.3 years (Median 47 years, IQR 46.3-57.72)

19(10.7%) developed cholangiocarcinoma. Almost half of these (n=9) did not have concurrent IBD.

Recurrence of PSC occurred in 19.6%. Median time to recurrence was 6.07 years (IQR 5.01-6.84). There was no difference in graft survival in those with recurrence vs non-recurrence.

40 of those with PSC/IBD required colectomy, 24 of whom also underwent transplant (10 colectomies pre-OLT, 14 post).

Mortality rate in the whole cohort is 23.8% (n=42). 30.9% (n=13) from cholangiocarcinoma, hepatocellular carcinoma or post transplant lymphoproliferative disorder. 16.6% died due to post transplant complications (bleeding, pancreatitis, ischaemia, sepsis), and the remainder died from complications of cirrhosis.

73.8% of deaths occurred in patients who were post transplant. The mean follow up post transplant was 5.68 years (median 5.36, IQR 2.01-7.67). When post transplant deaths were divided into those with concurrent IBD (n=22) vs PSC alone (n=10), mean survival was 4.53 years (median 5.19, IQR 0.52-7.11) vs mean survival of 0.2 years (median 2.27, IQR 0.07-4.3), which was statistically significant (p < 0.0001).

**Conclusions:** In this cohort, patients with concurrent IBD have improved survival. Little data has been published regarding this. Much work is needed regarding PSC and its long term management post transplant. Decreased survival rates may be attributable to immunosuppression regimes, recurrence, and the aggressive nature of cholangiocarcinoma.

#### ABSTRACT 7 (16S146) ORAL PRESENTATION

##### Can bacterial virulence factors predict antibiotic resistant H. pylori infection?

**Author(s):** Denise Brennan<sup>1</sup>, Mark Feighery<sup>2</sup>, Ciara Treacy<sup>1</sup>, Edwin Fahy<sup>1</sup>, Joseph Omorogbe<sup>1</sup>, Mary Hussey<sup>1</sup>, Donal Tighe<sup>1</sup>, Grainne Holleran<sup>1</sup>, Colm O'Morain<sup>1</sup>, Deirdre McNamara<sup>1\*</sup>, Sinead Smith<sup>1,2\*</sup>.

**Department(s)/Institutions:** <sup>1</sup>Trinity Academic Gastroenterology Group (TAGG), Department of Clinical Medicine, Trinity College Dublin. <sup>2</sup>School of Pharmacy & Pharmaceutical Sciences, Trinity College Dublin. \*Joint senior authors.

**Introduction:** Virulence factors produced by H. pylori contribute to the pathogenicity of the organism. Cytotoxin-associated gene A (cagA) and vacuolating-associated gene A (vacA) are the main H. pylori virulence factors. The frequency of virulence factor genotype differs across countries and recent data suggests that the cagA and vacA virulence factors may influence H. pylori treatment outcome.

**Aims/Background:** To evaluate the impact of virulence factor genotype (vacA and cagA) on the prevalence of primary H. pylori antibiotic resistance.

**Method:** Following ethical approval and informed consent, DNA was isolated from gastric biopsies of treatment naive adult patients infected with H. pylori (determined by histology) at Tallaght Hospital. Virulence factor genotyping was performed using PCR and genotypic susceptibility to clarithromycin and levofloxacin was tested using the GenoType HelicoDR assay (Hain Lifesciences). The chi-squared test was used to assess correlations between H. pylori genotypes and drug susceptibilities.

**Results:** A total of 50 samples from H. pylori positive patients, average age 47.6 years, 56% male (n=28), were analysed. 38% (n=19) of samples possessed the cagA gene. The most common vacA genotype was the moderately virulent S1/M2 genotype at 36% (n=18), followed by the highly virulent genotype S1/M1 at 34% (n=17), the S2/M2 genotype at 28% (n=14) and the S2/M1 genotype at 2% (n=1). A clarithromycin resistant genotype was observed in 38% (n=19) of samples. A levofloxacin resistant genotype was observed in 6% (n=3). Resistance to both agents was found in 6% (n=3) samples. The clarithromycin resistance rate in the cagA- group was significantly higher than in cagA+ (48.3% vs 21.1%,  $\chi^2=3.74$ , p=0.05, OR 0.2844). There was no significant difference in either the clarithromycin or levofloxacin resistance rate between vacA genotypes.

**Conclusions:**

CagA- and vacA S1/M2 are the dominant genotypes in *H. pylori* strains in our cohort. Infection with cagA- *H. pylori* may predict clarithromycin resistance. This may be because cagA+ bacteria replicate at a higher rate and are therefore more susceptible to clarithromycin, so will be eradicated faster. Further study is planned to investigate the clinical relevance of virulence factors in *H. pylori* infection.

**ABSTRACT 8 (16S103) ORAL PRESENTATION****A meta-analysis of the clinicopathological characteristics and survival outcomes of inflammatory bowel disease associated colorectal cancer versus sporadic colorectal cancer**

**Author(s):** Ian Reynolds, Aobhlinn O'Toole, Joseph Deasy, Deborah A. McNamara, John P. Burke

**Department(s)/Institutions:** Departments of Colorectal Surgery and Gastroenterology, Beaumont Hospital, Dublin, Ireland.

**Introduction:** Patients with inflammatory bowel disease (IBD) have an established increased risk of developing colorectal carcinoma (CRC). There is no consensus, however, on the clinicopathological characteristics and survival outcomes of IBD associated CRC when compared to sporadic CRC.

**Aims/Background:** The aim of this study was to use meta-analytical techniques to compare IBD associated CRC to sporadic CRC.

**Method:** A systematic search of PubMed and Embase was performed for all studies published comparing outcomes of patients treated for IBD associated and sporadic CRC by using the following in the search algorithm: (crohn's OR colitis) AND (cancer) AND (colorectal). The Cochrane Central Register of Controlled Trials was also searched for articles. Comparative studies of IBD associated and sporadic CRC containing data on tumor differentiation, tumor T, N and M stage at diagnosis, sex distribution, synchronous tumors and overall survival were eligible for inclusion. Studies describing outcomes in IBD associated CRC only with no comparative data were excluded. Studies describing patients with small bowel tumors were not included. There were no language restrictions. Only studies that reported survival at 5 years following diagnosis were included in the survival analysis. All pooled outcome measures were determined using a random-effects model. The quality of included studies was assessed by using the Newcastle-Ottawa Scale.

**Results:** Data were retrieved from 20 studies describing 571,278 patients. IBD associated CRC had an increased rate of synchronous tumors (OR: 4.403, 95% CI: 2.320-8.359,  $p < 0.001$ ), poor differentiation (OR: 1.875, 95% CI: 1.425-2.466,  $p < 0.001$ ) and a reduced rate of rectal cancer (OR: 0.827, 95% CI: 0.735-0.930,  $p = 0.002$ ). IBD associated CRC however did not affect the frequency of T3/T4 tumors (OR: 0.931, 95% CI: 0.782-1.108,  $p = 0.421$ ), lymph node positivity (OR: 1.061, 95% CI: 0.929-1.213,  $p = 0.381$ ), metastasis at presentation (OR: 0.970, 95% CI: 0.776-1.211,  $p = 0.786$ ), sex distribution (OR: 0.978, 95% CI: 0.890-1.074,  $p = 0.640$ ) or 5 year overall survival (OR: 1.105, 95% CI: 0.414-2.949,  $p = 0.842$ ).

**Conclusions:** In this large analysis of available data, IBD associated CRC was characterized by more synchronous and poorly differentiated tumors compared with sporadic cancers, but no discernable difference in survival could be identified.

**ABSTRACT 9 (16S137) ORAL PRESENTATION****The real impact of fatigue in Haemochromatosis**

**Author(s):** Dr. Aisling Murphy, Dr. John Lee, Dr. Eoin Slattery

**Department(s)/Institutions:** Department of Hepatology, University Hospital Galway

**Introduction:** Haemochromatosis is one of the commonest genetically inheritable conditions in Irish people. Fatigue is a common complaint and presenting symptom. Despite this, the level of fatigue experienced by patients with haemochromatosis has never been adequately quantified. Anecdotal experience would suggest that fatigue responds to treatment i.e. venesection.

**Aims/Background:** Our aim was to formally assess the impact of fatigue on patients with Haemochromatosis, by quantifying the severity and where possible identifying contributing factors.

**Method:** We performed a prospective observation based cohort study on patients with Haemochromatosis. Baseline demographics were obtained along with laboratory assessment of iron storage in patients attending a dedicated haemochromatosis clinic. Patients were asked to fill in a questionnaire regarding levels of fatigue, physical activity and co-existent symptomatology using widely validated scoring systems.

**Results:** We recruited 169 patients (39% female) attending our outpatient venesection programme and undergoing treatment as per standard protocol, median ferritin values were 83 (range 11-4900). Median Transferrin saturations (TF sats) were 50% (range 11-97%) and median ALT was 22 (range 4-138). The majority of patients complained of fatigue (67.9%). Joint pain was also commonly reported (57.3%). When asked a series of questions to quantify level of fatigue 38.4% of patients had a fatigue severity score  $> 36$ . Ferritin ( $r = -0.05$ ), TF Sats ( $r = -0.22$ ) or level of physical activity ( $r = 0.073$ ) showed no correlation with severity of fatigue.

Concomitant pathology associated with haemochromatosis was generally rare in our cohort; Diabetes was reported in 3.4%, Heart disease in 5.4%. Interestingly 22% of responders described anxiety/depression and 34.2% of patients described memory loss/impairment. Activity levels were surprisingly high with only 28.9% of patients reporting low levels according to their IPAQ score.

**Conclusions:** Fatigue is extraordinarily common in patients with haemochromatosis (over two thirds), even in patients whom have been adequately de-ironed. More surprisingly the severity of fatigue in patients with haemochromatosis was severe in almost 40% comparable to end stage neurological illness such as MS and Parkinsons (i.e. FSS  $> 36$ ). Ferritin or TF sats levels do not appear to correlate with fatigue severity. Alternative aetiologies to fatigue should be considered in these patients; in particular co-existent psychiatric illness/depression.

**ABSTRACT 10 (16S154) ORAL PRESENTATION****The incidence of liver fibrosis in C282Y homozygous HFE haemochromatosis and its response to venesection**

**Author(s):** Ben Cole<sup>1</sup>, Hannah Douglas<sup>2</sup>, Lana Dixon<sup>1</sup>, Mark Harbinson<sup>3</sup>, Geraldine Carroll<sup>4</sup>, Johnny Cash<sup>4</sup>, Neil McDougall<sup>4</sup>

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<sup>4</sup>Hepatology Department, Royal Victoria Hospital, Belfast, Northern Ireland



**Introduction:** Hereditary Haemochromatosis (HH) is one of the most common genetic disorders affecting Caucasians. Patients with HH are at risk of liver fibrosis, however the current incidence of this complication is not well known, nor the effect of venesection on it.

**Aims/Background:** This study aimed to assess the incidence of liver fibrosis in patients newly diagnosed with HH and its response to venesection using transient elastography (TE).

**Method:** Between April 2013 and January 2015, 100 consecutive patients newly diagnosed as C282Y homozygotes with haemochromatosis were prospectively recruited. All patients proceeded to TE after initial clinical and biochemical evaluation. The patients were followed until completion of a fortnightly venesection regime, at the end of which they had reached current guideline targets for treatment: Ferritin < 50µg/L and Transferrin saturation < 50%. At this point they had repeat TE carried out.

**Results:** Of the 100 patients recruited, 70 were male. The mean age was 50.0 ± 13.8yrs. The median ferritin at the time of recruitment was 820µg/L (IQR 585-1366). 99 patients had valid TE (>10 valid readings, success rate > 60% and interquartile range to median ratio of < 0.3). The median liver stiffness (LS) assessed by TE was 5.1kPa (IQR 3.8-6.1). Using current guidelines 5 patients had cirrhosis (LS >13kPa), 7 had significant fibrosis (LS 7.1-13Kpa) and the remaining 88 had no significant fibrosis (LS < 7.0kPa). Of the 5 patients with cirrhosis, 4 had a history of current or previous alcohol excess while the remaining patient had multiple risk factors for Non-Alcoholic Fatty Liver Disease (NAFLD). 50 patients have follow-up data available. Overall there was no significant change between pre and post-venesection LS (5.1kPa vs. 5.0kPa; p=0.34).

**Conclusions:** In current practice it appears hereditary haemochromatosis is infrequently complicated by liver cirrhosis at presentation. Patients who have cirrhosis tend to have other risk factors for liver disease. When assessed by transient elastography, venesection appears to have no effect on liver fibrosis.

#### ABSTRACT 11 (16S120) ORAL PRESENTATION

**“Meticulous” caecal photo documentation correlates with improved polyp detection, and lower sedation rates.**

**Author(s):** Karen Hartery, Orla Gildea, Carthage Moran, Catherine Rowan, Ateeq Jalil, Maire Buckley, Hugh Mulcahy, Juliette Sheridan, Garret Cullen, Glen Doherty, Gareth Horgan.

**Department(s)/Institutions:** Dept of Gastroenterology and Centre for Colorectal Disease, St. Vincent’s University Hospital.

**Introduction:** The European Society of Gastrointestinal Endoscopy recommends caecal photo documentation at endoscopy. Limited information exists regarding the correlation of caecal image quality and endoscopic outcomes.

**Aims/Background:** Our primary objective was to assess whether endoscopists who are meticulous about caecal image documentation have higher polyp detection rates (PDR) and lower sedation rates.

**Method:** Retrospective study analysing electronic endoscopy database records from an academic teaching hospital from January 1st, to July 31st, 2015. Caecal image documentation score (CIDS) was used to grade the quality of caecal images. CIDS is recorded as follows: no image taken, 0; unclear image, 1; clear image, 2; labeled clear image, 3. Endoscopists with a mean CIDS of >2.0 were considered meticulous and

those with a mean CIDS <2.0 were not. Photos were analysed and scored by two independent observers.

**Results:** 684 procedures by 17 endoscopists were analysed, comprising five consultants and twelve trainees. The mean CIDS was 2.09. Ten endoscopists had a CIDS score >2 (457 procedures). Seven endoscopists had a CIDS <2 (227 procedures). The PDR was significantly higher in endoscopists with CIDS >2 (34.6% vs 24.2%, p=0.006). The adenoma detection rate (ADR) was significantly higher in patients aged >50 years in endoscopists with CIDS >2 (26.7% vs 18%, p=0.042). There was no difference in meticulousness between trainees and consultants (p=0.86). Endoscopists with CIDS <2 were more likely to use >5mg midazolam during a procedure (24.3% vs 8.7%, p<0.001, odds ratio 2.7, 95% confidence interval (CI) 1.9-4.0, p<0.001).

**Conclusions:** Endoscopists who are meticulous in caecal photo documentation have higher polyp and adenoma detection and use less sedation. The CIDS may have use as a marker of endoscopist performance.

#### ABSTRACT 12 (16S159) ORAL PRESENTATION

**Characteristics and Outcomes of Acute Colitis Presenting via the Emergency Department in an Irish Academic Medical Centre**

**Author(s):** J O’Connell<sup>1</sup>, S Keohane<sup>1</sup>, A McGreal-Bellone<sup>1</sup>, S Naimimohasses<sup>1</sup>, S Norris<sup>1,2</sup>, S McKiernan<sup>1,2</sup>, F McCarthy<sup>1,2</sup>, D O’Toole<sup>1,2</sup>, U Kennedy<sup>3</sup>, J Meaney<sup>4</sup>, D Kevans<sup>1,2</sup>

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**Introduction:** A significant proportion of Emergency Department presentations with gastrointestinal symptoms, resulting in the performance of cross-sectional imaging, receive a radiological diagnosis of colitis. Data are few on the demographics and natural history of this patient cohort.

**Aims/Background:** We aimed to review the characteristics, outcomes and final diagnoses of new emergency department presentations with acute colitis diagnosed on cross-sectional imaging.

**Method:** An institutional radiology database was interrogated to identify cross-sectional imaging, which demonstrated a colitis, performed on patients admitted in 2015 via the Emergency Department of St James’s Hospital. Radiology reports were reviewed to confirm the presence of colitis and exclude patients with known diagnoses of gastrointestinal disease. Baseline demographic data, information on inpatient investigations, final diagnoses and outcomes were recorded.

**Results:** N=118 subjects were deemed eligible for inclusion: Age [median, range] 64 years [16.9 – 101.2]; 67% female. Proportions admitted under medical, surgical, gastroenterology and other services were 33%, 34%, 9% and 25% respectively. Median [range] admission duration was 10 days [1 – 241]. Laboratory parameters (median [range]) at admission were WCC 9.7 x 10<sup>9</sup> / L [0.1 - 55], haemoglobin 11.8 g / dL [5.8 – 17.7], platelets 261 x 10<sup>9</sup> / L [10 – 757], albumin 34 g / L [14 – 71], CRP 54 mg / L [1 – 307] and lactate 1.8 mmol / L [0.7 – 15]. Final colitis diagnoses were: undefined (35%), infectious (25%), reactive to other intra-abdominal pathology (13%), new IBD diagnosis (11%), ischaemic (9%), chemotherapy-associated (3%), diverticular (3%) and medication associated (1%). Colonic perforation, colectomy and mortality occurred in 1%, 5% and 13% of the cohort respectively. No



clinical or laboratory variable associated significantly with mortality.

**Conclusions:** There is a broad differential for patients presenting with an acute colitis via the Emergency Department with a significant proportion having no clearly defined aetiology following hospital admission. Considerable morbidity and mortality is observed in this patient cohort.

#### ABSTRACT 13 (16S114) ORAL PRESENTATION

##### Gut permeability and inflammation in irritable bowel syndrome and inflammatory bowel disease: implications for pregnancy complications

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**Introduction:** Irritable bowel syndrome (IBS) and inflammatory bowel disease (IBD) are gastrointestinal disorders that are very prevalent in women of reproductive age. Both conditions are associated with an increased risk for adverse outcomes from pregnancy but the biological basis of this risk is poorly understood.

**Aims/Background:** This study is based on the hypothesis that IBD subjects who are in remission and IBS may share a common deficit in intestinal permeability leading to chronic low grade inflammation which may have implications for pregnancy complications. This hypothesis was assessed using lipopolysaccharide-binding protein (LBP) as a circulating marker of intestinal permeability. The pro-inflammatory consequences of any increase in intestinal permeability was determined by assessing cytokine levels. We also assessed the impact of these biological features on the availability of tryptophan, a precursor to a number of neuroactive agents whose metabolism is immunoresponsive.

**Method:** This study was conducted on 29 healthy females (control), 33 IBS patients, and 16 IBD patients in remission, matched on the basis of age. Plasma levels of LBP were assayed in duplicate using a commercially available immunoassay. Plasma levels of IL-8 were measured using an electrochemiluminescence-based assay. Tryptophan and kynurenine pathway metabolites were measured using high performance liquid chromatography (HPLC).

**Results:** LBP was significantly elevated in IBD patients compared to controls ( $p < 0.05$ ). This was associated with increased concentrations of TNF- $\alpha$  ( $p < 0.05$ ) and altered tryptophan metabolism ( $p < 0.001$ ). Although not significantly different from controls, IBS subjects displayed an intermediate physiological signature between healthy controls and IBD.

**Conclusions:** Women with IBD in remission and IBS share a graded biological scar indicative of increased gut permeability and an associated pro-inflammatory profile that impacts on tryptophan metabolism. This may have implications for the mechanism underpinning the pregnancy complications associated with both gastrointestinal disorders but it is

currently unknown whether these biological features are further exacerbated during gestation. Future studies are thus required to understand how these biomarkers alter during pregnancy and the associated implications for fetal neurodevelopment.

#### ABSTRACT 14 (16S134) ORAL PRESENTATION

##### Altered expression of caspase-4 in colorectal polyps

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**Introduction:** Caspases are a family of cysteine proteases with established roles in cellular homeostasis, apoptosis and inflammation. Certain inflammatory caspases have been found to have altered activity in the development of intestinal diseases. Caspase-1 has been demonstrated to contribute to the intestinal inflammation observed during inflammatory bowel disease (IBD) and colorectal cancer (CRC). Two other related inflammatory caspases, caspase-4 and -5, are exclusively expressed in malignant intestinal epithelium cells of colorectal tumours, while their expression is absent from normal and inflamed epithelial tissue. Increased stromal expression of caspase-4 and -5 was also demonstrated in inflamed and dysplastic tissue. Polyps can be associated with inflammatory conditions such as IBD. These polyps may be either of a benign inflammatory nature or pre-cancerous adenomas which may progress to CRC.

**Aims/Background:** This study aimed to assess the involvement of inflammatory caspase-4 in four histological categories of colorectal polyp: hyperplastic (HPL), sessile serrated lesion (SSL), low grade dysplastic (LGD) and high grade dysplastic (HGD).

**Method:** IHC techniques were employed to examine the cellular expression profile of inflammatory caspase-4 in each category of colorectal polyp: HPL (n=18), SSL (n=10), LGD (n=19) and HGD (n=10).

**Results:** Caspase-4 is highly expressed in the epithelium of all four types of colorectal polyp, with a significant increase in the level of expression from LGD to HGD ( $p < 0.01$ ). Similarly, stromal expression also increased in relation to the degree of dysplasia with a significance between HGD and SSL ( $p < 0.05$ ) and HGD and HPL ( $p < 0.05$ ).

**Conclusions:** Caspase-4 expression profiles are increased in relation to the degree of dysplasia, thus identifying caspase-4 as a potential marker of dysplasia in colorectal polyps.

#### ABSTRACT 15 (16S116) ORAL PRESENTATION

##### Clinical outcome of patients with raised intraepithelial lymphocytes (IELs) with normal villous architecture on duodenal biopsy

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##### Department(s)/Institutions:

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**Introduction:** The Finding of a raised intraepithelial lymphocytes (IEL) count with normal villous architecture is of sufficient clinical importance to be reported in routine duodenal biopsies and remains a management challenge.

**Aims/Background:** To determine the long-term clinical relevance of isolated increased IELs on random duodenal biopsy in an Irish cohort, with reference to subsequent coeliac disease development.

**Method:** A single tertiary center retrospective observational cohort study was undertaken. Patients from 2012 to 2014, >18 years with at least one biopsy from the second part of the duodenum with increased IELs; defined as >25IELs/100 enterocytes, with preserved villous architecture were identified from our histopathology database. Patients were excluded if they had a history of Coeliac Disease (CD). Clinical and demographic data were recorded following a chart review. CD was diagnosed by the attending Physician based on the Physician Global Assessment. Data was compared between groups using a student t-test and odds ratios were calculated as appropriate. Statistical significance was set a priori at  $p < 0.05$ .

**Results:** Over 24 months 6,244 patients had duodenal biopsies and 114(1.8%) had isolated increased IELs. The mean age was 50 years (19-91) and 34(30%) were male. Follow-up was available in 75(65%), with a mean duration of 22 months. CD was subsequently diagnosed in 32% (n=24). CD was associated with female gender 22/24 v 39/51, OR 7.5,  $p < 0.05$ , 95%CI 0.74-0.01 and older age 55 v 41 years,  $p < 0.04$ , 95%CI 26.8- 0.28. In addition, a higher IEL count was predictive of CD with an IEL of > 40 in 11/24 (46%) with CD v 12/51 (24%) without CD,  $p = 0.0006$ , OR 5.6, 95% CI -0.54 to -0.15. Overall raised IEL's could be attributed to CD in 24 (32%), associated conditions / medications in 21(28%), H.Pylori infection in 14 (19%) and no cause was found in 24 (32%).

**Conclusions:** Raised IEL's are a frequent non-specific but important finding. In our cohort, a third of patients subsequently developed CD. Of import a negative baseline TTG does not exclude CD development, NPV 85%. Close follow-up of older female patients and those with IEL's > 40 is supported by this data.

**ABSTRACT 16 (16S105) ORAL PRESENTATION**

**The Changing Face of Coeliac Disease Presentation; a 55 Five Year Perspective in Ireland**

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**Introduction:** Coeliac disease (CD) is an immune-mediated enteropathy characterized by a highly heterogeneous clinical presentation and associated complications in genetically predisposed individuals. It is estimated that CD occurs both in adults and children at a rate of

approximately 1% in most populations. In recent years, a change in the phenotypic presentation of CD, together with an increase in the median age of diagnosis has been reported. Few studies have addressed the clinical phenotype of CD in Ireland and those available consist of small cohorts with no information on the disease evolution over time.

**Aims/Background:** Our aim is to explore the CD clinical phenotype and associated conditions and its evolution over a period of 55 years in a cohort (n=706) of CD patients diagnosed from 1960-2015.

**Method:** Retrospective analysis of medical records to collect clinical, serology, histology and associated conditions data from a cohort of CD patients (n=706) (median age 56 years, range 18-91 years). The sample was divided into five groups based on their year of diagnosis (← 1985, 1986-1995, 1996-2005, 2006-2010 and → 2011). The data collected was analysed using the whole sample and posteriorly compared between the five groups.

**Results:** When considering the whole sample, most patients were diagnosed →18 years of age. Classical CD was the most common clinical presentation at diagnosis (54.4%), and thyroid disease the most prevalent associated immune-mediated comorbidity (19.5%). When considering those diagnosed in adulthood over the five time periods, the median age of diagnosis increased from 33.5 years before 1986 to between 44 and 50 years in later periods ( $p < 0.001$ ). A continuous gradual decrease in classical presentation mirrored by an increase in non-classical or subclinical presentation was observed over time ( $p = 0.001$ ). Malabsorption symptoms such as diarrhoea and weight loss became significantly less common during the 55 year period ( $p = 0.031$  and  $p = 0.001$  respectively). There were no significant differences in the female/male ratio over time ( $p = 0.853$ ). Associated thyroid disease decreased significantly during the study period ( $p = 0.006$ ).

**Conclusions:** CD clinical presentation at diagnosis in adulthood in our sample has become milder over the 55 year period. Associated thyroid disease prevalence has also significantly decreased during the study period.

**ABSTRACT 17 (16S101) POSTER PRESENTATION**

**Malnutrition in the cirrhotic in-patient: An audit of prevalence, protein-energy requirement and the impact of clinical nutrition.**

**Author(s):** Dr Ciara Kelly, Dr Anna Tierney (Interns), Dr Grace Chan, Dr Cara Dunne, Dr Sara Naimimohasses (Specialist Registrars in Gastroenterology), Professor S. Norris, Professor S. McKiernan (Consultants in Gastroenterology/Hepatology)

**Department(s)/Institutions:** Gastroenterology/Hepatology Department, St. James's Hospital, Dublin 8, Ireland.

**Introduction:** Cirrhosis is frequently complicated by protein-energy malnutrition (1), which is associated with high morbidity and mortality. Clinical nutrition input is essential in the management of these patients. The 2006 ESPEN (European Society for Clinical Nutrition and Metabolism) Guidelines on Enteral and Parenteral Nutrition in Cirrhosis recommend clinical nutritionists use simple bedside tools to identify patients at risk of under-nutrition (2). The guidelines recommend an energy intake of 35-40 kcal/kg body weight/day, and a protein intake of 1.2-1.5g/kg body weight/day. Supplemental enteral nutrition should be used where patients cannot meet their nutritional requirements orally. Parenteral nutrition is recommended in moderately or severely malnourished patients who cannot otherwise meet requirements (3).

**Aims/Background:** Aims: To audit against the following standards: all



patients with cirrhosis should be assessed for risk of under-nutrition. Recommended protein-energy intake and use of supplemental nutrition should reflect ESPEN guidelines.

**Method:** All patients with cirrhosis admitted from 31/10/15 to 31/12/15 under the Gastroenterology/Hepatology teams were included. Data was obtained from patients' charts and the electronic patient record.

**Results:** 18 patients were identified (15 male, 3 female, mean age 59). All were assessed for malnutrition. Mean follow up was 16 days. On admission, 72% and 94% of patients were not meeting their calorie and protein requirements respectively. 83% required supplemental enteral nutrition. On discharge, 56% and 44% of patients were not meeting calorie and protein requirements respectively.

**Conclusions:** Most subjects were not meeting nutritional requirements on admission when assessed by a clinical nutritionist, despite being assessed as having a low risk of malnutrition according to the Malnutrition Screening Tool (MST) performed by nursing staff. This highlights a potential limitation in the efficacy of the MST as a screening tool in this population.

Use of supplemental nutrition in these patients reflects ESPEN guidelines. Protein-energy intake improved after nutritional consultation. However many patients were still not meeting nutritional requirements on discharge.

In 2013, HIPE data recorded 987 in-patient admissions in Irish hospitals due to 'cirrhosis and alcoholic hepatitis.' Therefore the results of this 'snapshot' audit infer there is potentially a larger cohort of in-patients with cirrhosis whose nutritional requirements are not being optimised.

**ABSTRACT 18 (16S102) POSTER PRESENTATION**

**Compare APC to other treatments modalities in patients with GAVE syndrome**

**Author(s):** Ammar Shahin, Hassan Zaid

**Department(s)/Institutions:** Department of Gastroenterology, St. James's Hospital, Dublin 8

**Introduction:** GAVE syndrome, or watermelon stomach, though is a rare condition, but a cause of recurrent admissions with symptomatic anaemia that requires blood transfusion. It usually presents with iron deficiency anaemia due to overt gastrointestinal (GI) bleeding. Several treatment options are available with different outcome and success rates.

Argon Plasma Coagulation (APC), has been considered the treatment of choice with growing opinion using alternative methods with better outcome including Radio- Frequency Ablation (RFA) and Endoscopic Band Ligation (EBL).

**Aims/Background:** To compare the Haemoglobin levels, blood transfusion requirements and iron studies in our panel of GAVE patients who required frequent blood transfusions who are treated with Argon Plasma Coagulation (APC) versus other available modalities, i.e. Endoscopic banding ligation and radiofrequency ablation.

**Method:** APC has been used more frequently as the treatment of choice for GAVE in our hospital The charts of the patients whose OGD revealed GAVE syndrome were reviewed. Their haemoglobins, blood transfusion requirements and the frequency of receiving APC treatments were recorded.

Findings were compared to the results of the patients who were treated with other available interventions, i.e. RFA or EBL

**Results:** Changes of GAVE was found in 35 patients who has OGD within 1 year.

The majority of these patients were either elderly females with idiopathic GAVE or younger patients with chronic liver disease either alcohol or hepatitis C related.

18 patients had APC during the year of whom 8 had more than 3 sessions. 14 patients received 56 units of bloods during this year,

2 patients were referred from another hospital, who were received APC before, treated with Radio-Frequency Ablation (RFA), with significant reduction in blood transfusion requirement.

10 patients were treated with EBL which resulted in improvement of HB an reduction in blood transfusion requirement

**Conclusions:**

1. GAVE though rare condition but may cause a recurrent anaemia with frequent blood transfusion requirement.

2. APC is more effective in mild to moderate disease.

3. Other treatments method:s like EBL and RFA may be superior to APC in reducing anaemia and blood transfusion.

4. Patients with recurrent admissions with low Hb, who were treated before with APC alternative method:s should be considered.

**ABSTRACT 19 (16S104) POSTER PRESENTATION**

**Anaemia as indication for colonoscopy in single endoscopy unit**

**Author(s):** Ammar Shahin, Hassan Zaid

**Department(s)/Institutions:** Gastroenterology, St. James's Hospital

**Introduction:** Iron-deficiency anaemia (IDA) has a prevalence of 2–5% amongst adult men and post-menopausal women, the commonest cause being bleeding from the gastrointestinal tract. Other types of anaemia caused by other etiologies and GI investigations are not indicated.

For IDA the BSG guidelines recommend that all men and all post-menopausal women undergo gastrointestinal investigations with OGD, colonoscopy, and coeliac serology.

Pre-menopausal women under 50 years of age should have coeliac serology only checked; in this group, colonoscopy and/or OGD is reserved for symptomatic patients or those with a strong family history. Hypoferritinaemia (low ferritin without anaemia) is more common than IDA, but opinion is divided on the need for investigations;

**Aims/Background:** Anaemia is a frequent referral for endoscopic investigation, not infrequently colonoscopies are performed. Our aim to review the appropriateness of colonoscopy referrals with the BSG guidelines.

**Method:** The data of the patients who had colonoscopies performed in 3 months were reviewed, this includes FBC, ferritin and endoscopy results.

**Results:** 136 patients had colonoscopies done in our endoscopy unit in 3 months to investigate anaemia. The patients age range from 35- 91 years of age, Haemoglobin ranges from 6.3-14.9. 47 patients had low MCV, (26 males and 21 females of whom 12 were premenopausal), 36 patients had low ferritin, 27 patients had both low MCV and low ferritin (15 males and 12 females of whom 5 were premenopausal). 2 patients were found to have colorectal cancer both had microcytic anaemia, 1 patient had newly diagnosed colitis, one patient diagnosed with gastric cancer on OGD and the procedure was incomplete in 4 patients in whom CT colonography was unremarkable.

**Conclusions:** Frequently endoscopic referrals to investigate of anaemia do not suggest iron deficiency anaemia.

Patients may have gone through invasive investigations unnecessarily.

The 2 patients who had colorectal cancer, had microcytic anaemia.



This may subsequently lead to delay in diagnosis of other causes of anaemia like serious haematological conditions.

We are changing our endoscopy referral template to include red blood cells indices, and inform GPs and staff of the result of this audit.

**ABSTRACT 20 (16S107) POSTER PRESENTATION**

**Incidence Rate and Predictors of Progression in Patients' With Barrett's Esophagus: Experience From a Large Irish Tertiary Centre**

**Author(s):** Grace Chan, Jun Liang Chin, Marie O'Brien, Cian Muldoon, Ravi Narayanasamy, John Reynolds, Dermot O'Toole

**Department(s)/Institutions:** Department of Clinical Medicine and Gastroenterology, Pathology and Surgery, St James's Hospital.

**Introduction:** Low- (LGD) and high-grade dysplasia (HGD) are known risk precursors for development esophageal adenocarcinoma (EAC) in Barrett's esophagus (BE). The significance of indefinite for dysplasia (IND) on histology is poorly characterised with limited data on risk of progression.

**Aims/Background:** To identify the incidence and rate of progression of BE-IND to LGD, HGD and EAC, in a large homogeneous cohort of patients followed in a dedicated BE programme. We also assessed the predictors of progression for patients diagnosed with BE-IND.

**Method:** Data was extracted from a prospective electronic patient record cohort in our Barrett's registry. Patients diagnosed with BE-IND at diagnosis or follow-up since January 2006 were included (patients with previous grade > IND excluded). All pathology specimens (Vienna classification) were reviewed by two expert GI pathologists. Following a diagnosis of BE-IND, twice daily proton-pump inhibitors were prescribed with surveillance endoscopy performed between 6 to 12 months by senior endoscopists (using NBI, FICE and quadrantic biopsies every 1cm).

**Results:** 110 of 1383 patients (8%) were diagnosed with BE (49 at initial endoscopy and 61 patients developed IND during surveillance period) with a mean age of 63.1 ± 11.4 years (70%, were males with a mean BMI of 28.8 ± 5.9 kg/m<sup>2</sup>). The mean follow-up duration was 70.8 ± 63.4 months. The incidence rate for development of BE-IND in patients who initially had non-dysplastic BE was 9 new cases per 1000 persons/year. Over this period, 31 (28.2%) patients progressed from BE-IND: 24 (21.8%) to LGD; 1 (0.9%) progressed to HGD and 6 (5.5%) to EAC. The progression rates to LGD, HGD and EAC were 2.5, 0.1 and 0.6 per 100 person/years, respectively. Higher BMI (30.9 kg/m<sup>2</sup> for progressors vs 27.5 kg/m<sup>2</sup> for non-progressors, p=0.022) was associated with significant risk of progression of IND. Age, gender, smoking history, alcohol consumption and length of BE did not significantly increase the risk of IND progression in this cohort.

**Conclusions:** In our single center homogeneous cohort of BE, the incidence of IND and rates of progression to LGD/HGD/EAC were similar to those reported elsewhere. Higher BMI was found to be a predictor of progression and should be targeted in risk stratification in surveillance and management of BE.

**ABSTRACT 21 (16S110) POSTER PRESENTATION**

**Small Intestinal Bacterial Overgrowth in Post Oesophagectomy and Gastrectomy Patients**

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**Department(s)/Institutions:** GI Function Unit, St James's Hospital

**Introduction:** Small Intestinal Bacterial Overgrowth (SIBO) may contribute to GI Symptoms and malnutrition in post oesophagectomy and gastrectomy patients.

**Aims/Background:** The aim of this study was to look at the incidence of Small Intestinal Bacterial Overgrowth and create an optimal Hydrogen Breath Test (HBT) protocol with the hope of improving patient compliance and reducing clinic waiting times. Factors such as lifestyle, multimodal therapy, tumour morphology, and gender were analysed in relation to positive HBT results in this patient group.

**Method:** Following a strict 12 hour fast and pre-procedure instructions, the patient's HBT was conducted. A glucose solution was consumed and samples were taken every 15 minutes over a two hour period.

**Results:** A total of 87 patients were tested for SIBO using glucose substrate. Of these, 53% were positive for SIBO. When broken into time frames, 45% were positive when tested within 1-6 months of surgery. 73% were positive for SIBO when tested within 7-12 months of surgery and 50% were positive when tested for SIBO 1 year post surgery. Of those patients positive for glucose breath tests, 96% had a positive rise within 75 minutes, 93% within 60 minutes, 85% within 45 minutes, 59% within 30mins and 24% within 15 minutes. The average time that patients were likely to show a positive result was 36.52 minutes.

Lifestyle factors including smoking and drinking habits as well as BMI had a statistically significant effect on the outcome of HBT results. Those patients who had a history of previous malignancy and post-operative complications showed a higher tendency towards a positive glucose HBT result, but this was not statistically significant. In addition to the above statement, patients who had a longer post-operative hospital stay following their gastrectomy or oesophagectomy also tended to be positive for HBT using glucose substrate.

**Conclusions:** It is recommended that the testing protocol for glucose Hydrogen Breath Testing is reduced from 2 hours to 60 minutes for this group of patients if there is no rise in hydrogen levels. It is also recommended that symptomatic patients who have a negative Hydrogen Breath Test be referred for a SeHCAT test.

**ABSTRACT 22 (16S112) POSTER PRESENTATION**

**Exploring the microbiological basis of ulcerative colitis as an energy deficiency disease**

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**Introduction:** The short chain fatty acid (SCFA) butyrate is the primary energy source for the colonic mucosa. Reduced abundance of this SCFA has been reported in the setting of ulcerative colitis (UC) and a lack of butyrate has been proposed as a potential aetiological factor in colonic inflammation. Commensal microbes, such as *F. prausnitzii* are involved in the production of butyrate. Other commensals are thought to have an inhibitory effect on butyrate, possibly through the production of toxic metabolites. One such metabolite is Hydrogen sulphide (H<sub>2</sub>S), believed to inhibit butyrate oxidation.

**Aims/Background:** This study aimed to determine the relative



abundance of butyrogenic *F. prausnitzii* and microbes with the ability to produce H<sub>2</sub>S (*Desulfohalobacter*, *Desulfohalobacter* and *Bilophila wadsworthia*) within the MGL of the colitic colon.

**Method:** Paired mucosal brushings and biopsies were obtained from a cohort of 20 patients with active colitis and healthy controls and 14 patients with quiescent colitis. RT-PCR specific for *F. prausnitzii*, *Desulfohalobacter*, *Desulfohalobacter* and *B. wadsworthia* was used to determine the abundance of each bacterial target in the MGL.

**Results:** *F. prausnitzii* was significantly more abundant in health compared to quiescent and active UC. The H<sub>2</sub>S-producing *B. wadsworthia* species was reduced in UC. No difference in the abundance of *Desulfohalobacter* and *Desulfohalobacter* was observed between cohorts.

**Conclusions:** These data suggest that the reported deficiency of colonic butyrate in the setting of UC may be due to a primary deficiency, related to reduced microbial butyrate production, rather than inhibition of butyrate oxidation by microbial by-products.

### ABSTRACT 23 (16S115) POSTER PRESENTATION

#### HRAM highlights the prevalence of defecatory dyssynergia

**Author(s):** Barry L1, Quinlivan L1, McCarthy J2 & Buckley M1&2

**Department(s)/Institutions:** GI Function Laboratory, Mercy University Hospital, Cork  
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**Introduction:** Defecatory Disorders are a common problem in the community; the advent of HRAM not only allows for measurement of anorectal sphincter function but also allows for a better understanding of the dynamic processes of defecation. Biofeedback has been identified as an appropriate treatment in those who suffer from defecatory disorders, HRAM may allow for better selection of patients for this intervention.

**Aims/Background:** We aim to investigate the incidence of defecatory dyssynergia among patients attending a large tertiary lower GI Physiological laboratory

**Method:** We retrospectively reviewed HRAM tracings of 29 consecutive patients attending our GI Function Laboratory between October 2015 and January 2016. Patterns of simulated defecation were analysed and classified as per Rao classification of dyssynergic defecation.

#### Results:

Faecal Incontinence

23 of the 29 (79.4%) patients had symptoms of Faecal Incontinence (FI) (79.3% F). Mean ano-rectal resting pressure 75.7mmHg+/- 27.47mmHg. 17% of FI patients were reported with hypotensive resting pressure. Mean ano-rectal squeeze pressure 131.84mmHg+/-46.6mmHg. Hypotensive Squeeze was reported in 48% of those with FI. HRAM pressure topography plots of simulated defecation were reviewed and were assigned a Rao classification.

Constipation

6 of 29 (20.6%) patients presented with constipation (66% female). Mean ano-rectal resting pressure 80.45mmHg+/-17.18mmHg. All patients with constipation were reported with normal ano-rectal resting pressure. Mean ano-rectal squeeze pressure 173.3mmHg+/-55.65mmHg

**Conclusions:** 89.6% of patients presenting with faecal incontinence show evidence dyssynergic defecation. 100% patients presenting with constipation show evidence of dyssynergic defecation. Disordered

defecation is a common finding among patients presenting with either Faecal Incontinence or Constipation. These patients may benefit from embarking on a biofeedback programme.

### ABSTRACT 24 (16S117) POSTER PRESENTATION

#### Increasing BMI leads to increased incidence of GORD in an Irish Setting

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**Introduction:** Gastro-oesophageal reflux disease (GORD) is a prevalent disease worldwide particularly in the developed world. It's increased prevalence may be attributed to the increase of obesity in the general population. 60% of the Irish population have been classified as either overweight or obese in 2015.

**Aims/Background:** We aim to identify how many patients seeking diagnostics from a busy GI Lab are overweight and obese and if this is likely to significantly influence their DeMeester score and number of reflux events with the aid of combined pH & impedance monitoring.

**Method:** BMI data of 122 consecutive patients undergoing HRiM and 24 hr Impedance pH between 09/15 and 01/16 was evaluated. The study consisted of 72 females (59%) and 50 males (41%). 5 patients out of the 122 did not have full studies and so were excluded. 117 studies were completed successfully.

We applied chi-squared tests of dependence to evaluate the relationships between being overweight and obese and (i) abnormal acid reflux exposure with a raised DeMeester score and (ii) abnormal number of reflux episodes by using impedance measurements.

**Results:** 37/117 (32%) patients were classified normal weight of these 23 were female. 51/117 (44 %) (24F) patients were classified overweight. 25/117 (21%) patients were classified as obese (19F).

65% patients were either overweight or obese, 57% of these were female. There was a statistically significant (p<0.05) relationships between both increased DeMeester score and number of reflux events in those presenting to our laboratory who are classified as being overweight and obese.

**Conclusions:** Our study demonstrates a significant association between physiologically gastro-oesophageal reflux and BMI

### ABSTRACT 25 (16S118) POSTER PRESENTATION

#### Anorectal Manometry: Conventional vs. HRAM

**Author(s):** Quinlivan L<sup>1</sup>, Barry L<sup>1</sup>, Yousif K<sup>2</sup>, McCarthy J<sup>2</sup> & Buckley M<sup>1&2</sup>

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**Introduction:** Defecatory Disorders are a common problem in the community; ano-rectal manometry allows profiling of the strength of the internal and external an sphincters as well as allowing the identification of defecatory disorders. High resolution ano-rectal manometry (HRAM) catheters were introduced in 2007 and have increasing come to be used



in routine clinical practice.

**Aims/Background:** We aim to investigate the advantages of HRAM over conventional manometry (CM) particularly multiple circumferential sensors with limited spaces between them, with the use of oesophageal pressure topography HRAM allows for a greater appreciation of the dynamic processes of defecation.

**Method:** We compared 23 (95.6% F) patients with symptoms of faecal incontinence (FI) who attended our laboratory between May and October 2015 for conventional water perfused ano-rectal manometry with 23 (74% F) patients also with FI symptoms who underwent HRAM in our laboratory between October 2015 and January 2016

**Results:** Mean ano-rectal resting pressure in those undergoing CM was 43.9mmHg +/- 19.4mmHg vs. 75.7mmHg +/- 27.47mmHg in those who underwent HRAM. 65.2% of CM patients were reported as having a hypotensive resting pressure. 17% of HRAM patients were reported with hypotensive resting pressure. CM mean squeeze pressure was 106mmHg +/- 42.41mmHg vs. 131.84mmHg +/- 46.6mmHg of those who had HRAM. 34.7% of CM patients were reported with hypotensive squeeze pressure, while hypotensive Squeeze was reported in 48% of those who has HRAM.

**Conclusions:** Conventional Manometry appears to overestimate resting anal sphincter pressures when compared to HRAM. This may be due to greater distance between sensors which leads to a higher false positive rate. Defecation is a dynamic process where the mode of assessment needs to be considered carefully.

**ABSTRACT 26 (16S121) POSTER PRESENTATION**

**The association between 25-hydroxyvitamin D and upper gastrointestinal cancer survival, and modificatory role of weight loss.**

**Author(s):** Fiona O' Sullivan, Martin Healy, Sinead King, Jacinta O' Sullivan, John Reynolds, and Lina Zgaga.

**Department(s)/Institutions:** Department of Public Health and Primary Care, Trinity College Dublin, Republic of Ireland.

**Introduction:** There is a growing body of literature supporting a beneficial role of vitamin D (vitD) in the survival of cancer. Contrary to this however, there is some evidence demonstrating an inverse relationship in oesophageal and gastric cancer. Weight loss in cancer patients has previously been associated with higher mortality. It has also been demonstrated that weight loss is associated with an increase vitD concentration.

**Aims/Background:** The aim of this study was to examine the role of vitD in the survival of gastric and oesophageal cancer in patients particularly investigating the impact of weight loss.

**Method:** 270 blood samples were taken from the Oesophageal and Gastric Centre within the Trinity College Dublin from 2008-2014. There were 215 oesophageal and 55 gastric cancer cases. Serum 25-hydroxyvitamin D (25(OH)D) was measured using liquid chromatography tandem mass spectrometry. 25(OH)D was May-adjusted to account for variances in month of blood draw. Cox regression hazard ratios and Kaplan Meier curves were performed to estimate adjusted hazard ratios (HRs) for cancer-specific and all-cause mortality comparing those with and without weight loss symptoms.

**Results:** In total, 36% died from disease and 7% died from other causes (median follow up: 2.4 years). 49% experienced weight loss symptoms

prior to surgery. Overall, we found that vitD had no significant effect on cancer-specific or all-cause mortality, however there was a suggestive association with those having higher vitD experiencing higher all-cause mortality (HR=1.6, P-val=0.052). During stratified analysis it was found that those who experienced weight loss had significantly poorer survival than those who did not (HR=1.67, P-val=0.02). Moreover, higher VitD concentration was found to be associated with poorer survival in those who lost weight in cancer-specific (HR=4.15, P-val=0.0002) and all-cause mortality (HR=3.67, P-val=0.0001), while it has no effect on those who did not have weight loss symptoms (p-val=0.49 and 0.65, respectively).

**Conclusions:** The role vitD in the survival of oesophageal and gastric cancer was found to differ depending on weight loss symptoms. Possible mechanisms need to be explored as to why weight loss impacts upon the role of vitD in survival.

**ABSTRACT 27 (16S122) POSTER PRESENTATION**

**A Game Changing new METAL STENT (Hot Axios) FOR EUS-GUIDED DRAINAGE AND NECROSECTOMY OF PANCREATIC FLUID COLLECTIONS**

**Author(s):** V.Parihar, P.Maheshwari, R.Stack, A.Alakkari, L.Kumar, F.Carville, BM Ryan

**Department(s)/Institutions:** Department of Gastroenterology, Tallaght Hospital

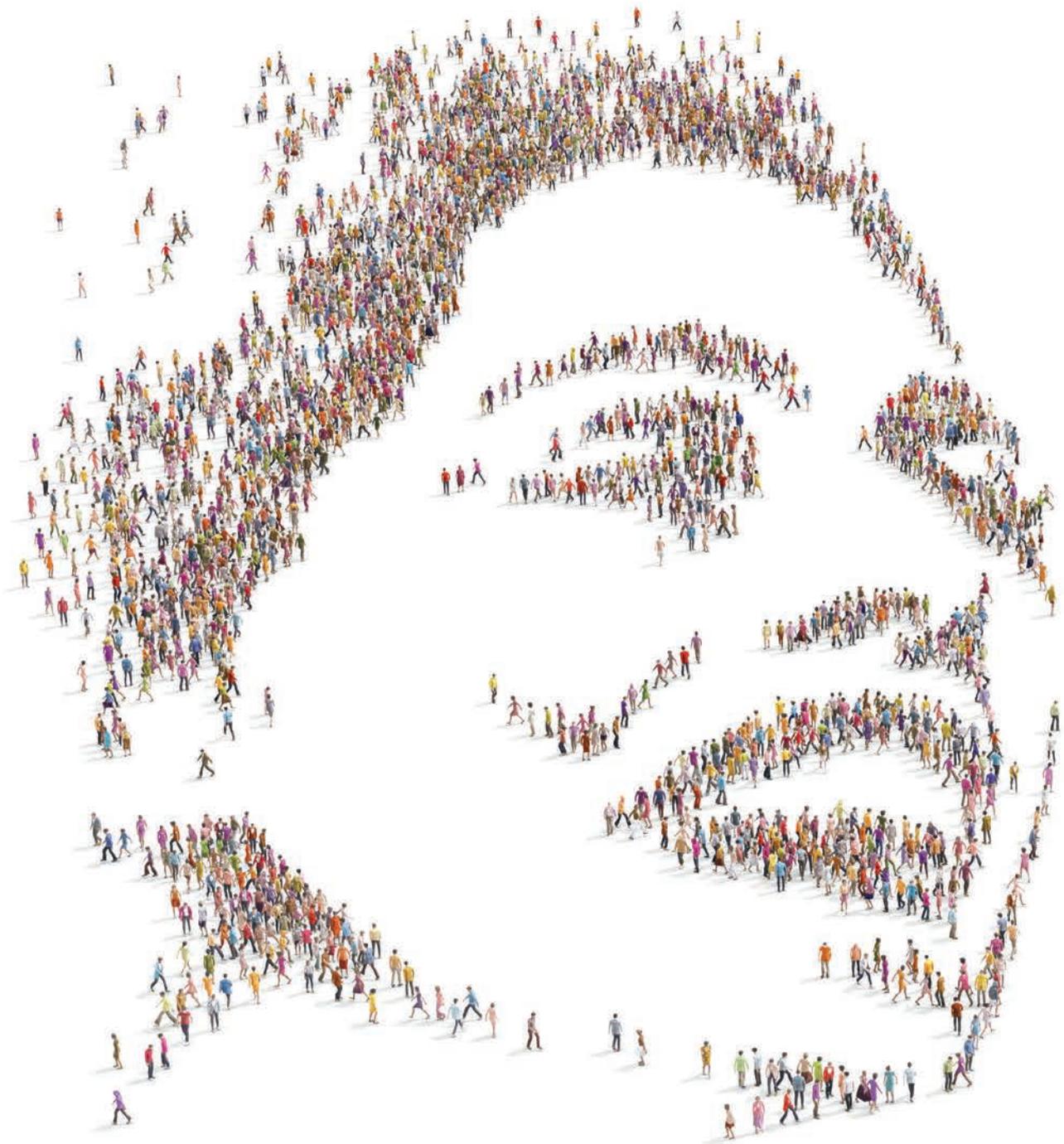
**Introduction:** Endoscopic ultrasound (EUS)-guided drainage of Pancreatic Fluid Collections (PFCs) has been carried out for almost two decades. Methods involving placement of plastic pigtail stents have been the mainstay of treatment until recently. we previously presented our experience of PFC drainage with plastic stents (ISG November 13). Recently, a new lumen-apposing, covered self-expanding metal stent (LAMs) has become available (Hot AXIOS, Boston Scientific) which may have some advantages over plastic stents.

**Aims/Background:** The aim of this prospective study was to evaluate the success and complication rates associated with Hot Axios System in our institution to date and to compare with our experience with pigtail plastic stents

**Method:** All adult patients who had EUS-guided Hot AXIOS stent placement for PFC since December 2015 were included. Results were compared with historic data for EUS-guided plastic stent insertion at our institution. The primary endpoint was the technical success of the procedure, with secondary outcomes being complication and reintervention rates. Serious Complications specifically checked were bleeding, perforation, superinfection and stent migration.

**Results:** Four patients (2 males and 2 females), mean age 55 years (range 49-60) underwent Hot AXIOS stent insertion. The indication was symptomatic Walled off Necrosis, WON (n=1) or Pseudocyst (n=3). The mean size of the PFC on EUS was 9 cm (6-12 cm). 3 had trans-gastric and 1 trans-duodenal stent insertion. 1 patient underwent complete necrosectomy at the index procedure. Procedures were technically successful in all patients. However, one stent (25%) required reintervention at 7 days due to blockage. Procedures were done under conscious sedation and 2 were day cases. There were no serious complications and no cases of stent migration. The average duration of the procedure was 45 minutes.

**Conclusions:** Hot AXIOS system is safe and effective in draining PFC with a technical success rate of 100% and low serious adverse event rate.



# When selecting a treatment,

RBV=ribavirin. \*SVR was the primary endpoint to determine the HCV cure rate in the Phase 3 studies and was defined as unquantifiable or undetectable HCV RNA 12 weeks after the end of treatment (SVR<sub>12</sub>).<sup>1,2</sup>  
<sup>†</sup>In patients who received the recommended regimen. <sup>‡</sup>In Phase 2 and 3 clinical trials.

**VIEKIRAX<sup>®</sup> ▼ 12.5 mg/75 mg/50 mg film-coated tablets & EXVIERA<sup>®</sup> ▼ 250 mg film-coated tablets** **PRESCRIBING INFORMATION PRESENTATION:** Each Viekirax film-coated tablet contains 12.5 mg of ombitasvir, 75 mg of paritaprevir and 50 mg of ritonavir. Each Exviera tablet contains 250 mg of dasabuvir. Please refer to the respective Summary of Product Characteristics (SmPC) before prescribing. **INDICATION:** For treatment of Chronic Hepatitis C (CHC) in combination with other medicinal products in adults. **DOSAGE AND ADMINISTRATION:** Oral. Treatment to be initiated and monitored by physician experienced in CHC management. See SmPC for full posology. **Dosage:** The recommended dose of Viekirax is two 12.5 mg/75 mg/ 50 mg tablets once daily with food. The recommended dose of Exviera is one 250 mg tablet twice daily (morning and evening) with food. **Recommended Co-administered medicinal product(s) and Treatment Duration:** Genotype 1b without cirrhosis or with compensated cirrhosis: Viekirax + Exviera for 12 weeks. Genotype 1a without cirrhosis: Viekirax + Exviera + ribavirin for 12 weeks. Genotype 1a with compensated cirrhosis: Viekirax + Exviera + ribavirin for 24 weeks. See SmPC for details. Genotype 4 without cirrhosis: Viekirax + ribavirin for 12 weeks. Genotype 4 with compensated cirrhosis: Viekirax + ribavirin for 24 weeks. See SmPC for dosing instructions. **Special Populations:** HIV-1 Co-infection: No dose adjustment required. For dosing with HIV antiviral agents refer to SmPC for additional information. Liver Transplant recipients: Viekirax + Exviera + ribavirin for 24 weeks in liver transplant recipients with genotype 1 HCV infection. Viekirax + ribavirin in genotype 4 infected recipients. Elderly: No dose adjustment required. Renal impairment: No dose adjustment required. Hepatic impairment: No dose adjustment recommended in patients with mild hepatic impairment (Child-Pugh A). Viekirax is not recommended in patients with moderate hepatic impairment (Child-Pugh B). Viekirax is contraindicated and Exviera should not be used in patients with severe hepatic impairment (Child-Pugh C). Paediatric Population: No data available. **CONTRAINDICATIONS:** Hypersensitivity to any of the active substances or excipients. Ethinylestradiol-containing medicinal products such as those in most combined oral contraceptives or contraceptive vaginal rings. **Viekirax** is contraindicated in patients with severe hepatic impairment (Child-Pugh C). **Viekirax** in combination with **CYP3A4 substrates;** examples include; alfuzosin hydrochloride, amiodarone, triazolam, pimozide, quetiapine, quinine, salmeterol, sildenafil (when used for the treatment of pulmonary arterial hypertension) and ticagrelor. **Viekirax with or without Exviera** in combination with **grapefruit juice;** examples include; carbamazepine, phenytoin, phenobarbital, efavirenz, nevirapine, etravirine, enzalutamide, mitotane, rifampicin, St. John's Wort (*Hypericum perforatum*). **Viekirax with or without Exviera** in combination with **CYP3A4 inhibitors;** examples include; zalcitabine, indinavir, lopinavir/ritonavir, saquinavir, tipranavir, itraconazole, ketoconazole, posaconazole, voriconazole, clarithromycin, telithromycin and conivaptan. **Exviera** is contraindicated in combination with **CYP2C8 inhibitors;** example includes; gemfibrozil. **SPECIAL WARNINGS AND PRECAUTIONS:** Viekirax and Exviera are not recommended as monotherapies. Hepatic decompensation and hepatic failure, including liver transplantation or fatal outcomes, have been reported postmarketing in patients treated with Viekirax with and without Exviera and with and without ribavirin. Most patients with these severe outcomes had evidence of advanced or decompensated cirrhosis prior to initiating therapy. Although causality is difficult to establish due to background advanced liver disease, a potential risk cannot be excluded. The efficacy of Viekirax has only been established in patients with Hepatitis C Virus (HCV) genotypes 1 and 4. The efficacy of Exviera has only been established in patients with HCV genotype 1 only. There are no data on the use of Viekirax and ribavirin in patients with genotype 4 infection with compensated cirrhosis, therefore optimal treatment duration has not been established. Co-administration of Viekirax with other antivirals other than Exviera and/or ribavirin has not been evaluated. For patients with cirrhosis: Monitor for clinical signs and symptoms of hepatic decompensation (such as ascites, hepatic encephalopathy, variceal haemorrhage). Hepatic laboratory testing including direct bilirubin levels should be performed at baseline, during the first 4 weeks of starting treatment and as clinically indicated thereafter. Discontinue treatment in patients who develop evidence of hepatic decompensation. When used in combination with ribavirin, women of childbearing potential or their male partners must use an effective form of contraception during the treatment and for 6 months after the treatment as recommended in the SmPC for ribavirin. Refer to the SmPC for ribavirin for additional information. Although ALT elevations associated with

**References:** 1. viekirax<sup>®</sup> Summary of Product Characteristics, available on [www.medicines.ie](http://www.medicines.ie) 2. exviera<sup>®</sup> Summary of Product Characteristics, available on [www.medicines.ie](http://www.medicines.ie)

**Date of Preparation:** May 2016  
 IREVIEW160387a



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WITH AND  
WITHOUT CIRRHOSIS<sup>1,2</sup>**



**FOR  
GT1a PATIENTS  
WITH AND  
WITHOUT CIRRHOSIS  
+ RBV<sup>1,2</sup>**



**HIGH  
TOLERABILITY<sup>§</sup>  
DISCONTINUATION DUE  
TO ADVERSE REACTIONS  
WITH VIEKIRAX<sup>®</sup> + EXVIERA<sup>®</sup>  
+/- RBV<sup>1,2</sup>**

## optimise the opportunity for cure\*

Viekirax and Exviera have been asymptomatic, patients should be instructed to watch for early warning signs of liver inflammation, such as fatigue, weakness, lack of appetite, nausea and vomiting, as well as later signs such as jaundice and discoloured faeces, and to consult a doctor without delay if such symptoms occur. Routine monitoring of liver enzymes is not necessary in patients that do not have cirrhosis. Early discontinuation may result in drug resistance, but implications for future therapy are not known. Use caution when administering Viekirax with fluticasone or other glucocorticoids that are metabolised by CYP3A4. Concomitant use of inhaled glucocorticoids metabolised with CYP3A can increase systemic exposures of the glucocorticoids, and cases of Cushing's syndrome and subsequent adrenal suppression have been reported with ritonavir-containing regimens. The safety and efficacy of Viekirax and Exviera have not been established in Hepatitis C/Hepatitis B co-infection patients. **INTERACTIONS:** See SmPCs for full details. **Viekirax in combination with Exviera:** **Not Recommended:** darunavir in patients with extensive PI resistance, fluvastatin and pitavastatin not recommended. Use caution and dose decrease may be needed for repaglinide. **Use Caution:** sulfasalazine, erythromycin, trazodone (lower dose of trazodone may be considered), fexofenadine, diltiazem, verapamil, rilpivirine once daily should only be used in patients without known QT prolongation, and without other QT prolongation co-medications. **Monitor Levels:** digoxin, warfarin (INR), **Adjust Dose:** Monitoring and dose reduction recommended for valsartan and imatinib. Monitoring and dose adjustment may be needed for s-mephenytoin and levothyroxine. Reduction in colchicine dose or interruption of colchicine treatment is recommended in patients with normal renal or hepatic function. Decrease amlodipine dose by 50% and monitor. Decrease nifedipine dose and monitor. Furosemide decrease of up to 50% may be required upon monitoring. 300 mg dose of atazanavir recommended to be administered at the same time as Viekirax with Exviera, 800 mg darunavir once-daily without ritonavir recommended to be administered at the same time as Viekirax with Exviera in the absence of extensive PI resistance. Do not exceed 5 mg/day rosuvastatin. Reduce pravastatin dose by 50%. When starting co-administration, give one fifth of the total daily dose of ciclosporin once daily, monitor ciclosporin levels and adjust dose and/or dosing frequency as needed. When starting co-dosing, administer 0.5 mg tacrolimus once every week, monitor and adjust dose and/or dosing frequency as needed. Use higher doses of omeprazole if clinically indicated. Higher doses of esomeprazole/lansoprazole may be needed if clinically indicated. A decrease in alprazolam dose can be considered based on clinical monitoring. **Viekirax without Exviera:** As per combination with Exviera with following exceptions. **Use Caution:** dabigatran etexilate **Not Recommended;** Atazanavir and darunavir are not recommended with Viekirax without Exviera. **Adjust Dose:** Decrease digoxin dose by 30 – 50% and monitor. Do not exceed 10 mg/day rosuvastatin. **PREGNANCY AND LACTATION:** Extreme caution must be taken to avoid pregnancy in female patients and female partners of male patients when co-administered with ribavirin. See the ribavirin SmPC for information. There is only limited data on the use of Viekirax and Exviera in pregnant women. The potential risk to humans is unknown. Viekirax and Exviera should not be used in pregnancy. It is not known whether Viekirax, Exviera and their metabolites are excreted in human breast milk. **SIDE EFFECTS:** See SmPC for full details on side effects. **Side-effects identified with Viekirax in combination with Exviera** **Common side effects** ( $\geq 1/100$  to  $< 1/10$ ): pruritus **Side-effects identified with Viekirax in combination with Exviera and ribavirin** **Very common side effects** ( $\geq 1/10$ ): insomnia, nausea, pruritus, asthenia and fatigue. **Common side effects** ( $\geq 1/100$  to  $< 1/10$ ): anaemia. **HCPs are asked to report any suspected adverse reactions via HPRC Pharmacovigilance, Earlsfort Terrace, IRL - Dublin 2; Tel: +353 1 6764971; Fax: +353 1 6762517. Website: www.hpra.ie; E-mail: medsafety@hpra.ie. Suspected adverse events should also be reported to AbbVie Limited on 01-4287900. LEGAL CATEGORY: POM. MARKETING AUTHORISATION NUMBERS/PRESENTATIONS:** EU/1/14/982/001 - Viekirax 12.5mg/75 mg/50 mg film-coated tablets; daily blister packs containing 2 film-coated tablets, inner cartons containing 14 film-coated tablets in multipack presentation containing 56 (4 packs of 14) film-coated tablets. EU/1/14/983/001 - Exviera 250 mg film-coated tablets; daily blister packs containing 2 film-coated tablets, inner cartons containing 14 film-coated tablets in multipack presentation containing 56 (4 packs of 14) film-coated tablets. **MARKETING AUTHORISATION HOLDER:** AbbVie Ltd, Maidenhead, SL6 4UB, UK. Further information is available from AbbVie Limited, 14 Riverwalk, Citywest Business Campus, Dublin 24, Ireland. **DATE OF REVISION:** February 2016. **PI/982+983/003**



The procedure was on average 1.5 hours shorter duration than EUS-guided plastic stent insertion and with significantly less sedation.

**ABSTRACT 28 (16S123) POSTER PRESENTATION**

**The effect of biosimilars in the management of Acute Severe Ulcerative Colitis.**

**Author(s):** Grace Harkin, Áine Keogh, Eoin Slattery

**Department(s)/Institutions:** Gastroenterology Department, University Hospital Galway

**Introduction:** Biosimilars are an almost identical copy of biologic drugs that exhibit high molecular complexity manufactured by a different company. Because of potential cost savings they are of interest to health care policy makers. In 2015 our hospital became the first in Ireland to introduce a biosimilar (i.e. Inflectra®, Hospira, Lake Forest, IL, USA) for all new patients starting infliximab(IFX). Acute severe ulcerative colitis (ASUC) is a serious potentially life threatening illness requiring in-hospital rescue therapy with intravenous steroids and where unsuccessful a second line agent (commonly IFX) to prevent need for colectomy. While some data exists of the effectiveness and safety of biosimilars in general Inflammatory Bowel Disease (IBD) cohorts, no data exists on its use in ASUC.

**Aims/Background:** To assess the impact of biosimilar IFX in patients presenting with ASUC needing rescue therapy.

**Method:** We performed a retrospective observation-based cohort study on patients admitted to our institution with ASUC (as defined by Truelove and Witt's criteria and Mayo score). Patients who failed to respond to intravenous steroid and then received biosimilar IFX as "rescue" therapy were included. Dosing was at the discretion of the individual clinician. Patients were followed-up in the usual clinical manner.

**Results:** A total of 8 patients (5 female) have received biosimilar IFX for "rescue" therapy with ASUC. Median age was 36years (28-47years). All patients were admitted with severe disease as evidenced by a median Mayo score of 11, median CRP 86 (8-370), Albumin 31 (29-40) and Hb 10.7 (7.3-12.6).

Median duration of disease prior to presentation was 1.9years (0.3-20.3years). Patients were followed-up for a median of 9.1months (range 1.5-12.9). Five patients were treated with combination therapy with Azathioprine. To date no patients receiving biosimilar IFX have undergone colectomy. No serious adverse events (infections etc.) were noted.

**Conclusions:** ASUC is a unique subset of IBD where evidence is evolving surrounding important differences in treatment regarding immunogenicity and pharmacokinetics. In this small cohort of ASUC patients, biosimilar IFX appeared to be at least as effective as its originator. No adverse events were noted or warning signals re: lack of effectiveness was demonstrated. Further follow-up and increasing experience is required.

**ABSTRACT 29 (16S124) POSTER PRESENTATION**

**Vitamin D and bone health in Inflammatory Bowel Disease**

**Author(s):** Grace Harkin, Aoife Murray, Áine Keogh, Rahim Khan, Andrew Smyth, Eoin Slattery

**Department(s)/Institutions:** Gastroenterology Department, University

Hospital Galway

**Introduction:** Vitamin D deficiency impacts on bone health. Evolving evidence suggests its role in perpetuating chronic inflammation. Epidemiological studies suggest an association between Vitamin D and inflammatory bowel disease (IBD); although causative linkage remains elusive for numerous reasons. European guidelines suggest screening for bone health as per the general population (particularly cumulative steroid use>3months).

**Aims/Background:** To assess the quality of management of bone health in patients with severe IBD in a busy tertiary referral hospital. A secondary aim was to assess the prevalence of Vitamin D insufficiency.

**Method:** We performed a retrospective cohort study of patients with IBD attending Galway University Hospitals currently receiving a biologic agent (infliximab, adalimumab, golimumab and vedolizumab). Patient's records were interrogated for evidence of bone health screening (Vitamin D, Parathyroid Hormone (PTH), Serum Calcium, Phosphate, Magnesium, and Dual-Energy X-Ray Absorptiometry (DEXA) scans).

**Results:** Of 158 patients (75 female) currently receiving a biologic agent, 74.7%(n=118) have Crohn's Disease (CD). Mean age is 39 (13)years with median disease duration of 7 (4-14)years. Vitamin D level (within the last 3years) was measured in 66.5%(n=105) of patients. Overall mean Vitamin D level was 57.5IU (27.0IU), with no difference between patients with CD (mean 57.0IU (28.0IU)) and Ulcerative Colitis (UC, mean 59.3IU (23.4IU))(p=0.72). Of those with measured Vitamin D, 72.4%(n=76) were either deficient (<50IU) or insufficient (50-75IU). Mean calcium (n=153) was 2.33mmol/L(0.09mmol/L), Alkaline Phosphate (n=153) 71u/l(21u/l), phosphate (n=146) 1.10mmol/L(0.19mmol/L), magnesium (n=41) 0.83mmol/L(0.09mmol/L) and median PTH (n=7) was 34pg/ml(19.7-61.9pg/ml). There were no differences between CD and UC, or by Vitamin D deficiency. DEXA scans were performed in 12.7%(n=20).

**Conclusions:** The overwhelming majority(72.4%)of our patients assessed for bone health are Vitamin D insufficient/deficient using conventional methods of assessment. No difference was seen between patients with CD and UC. A third of patients had not been screened for Vitamin D status (within the last 3years) with only a minority having DEXA scans performed(due to logistical reasons). The true role of Vitamin D in the aetio-genesis and future health of IBD remains unclear, nevertheless efforts should be undertaken to improve bone health assessment given the frequency of Vitamin D insufficiency, and particularly increased uptake of DEXA needs to be addressed.

**ABSTRACT 30 (16S128) POSTER PRESENTATION**

**Perspective and self-efficacy of adolescents with Inflammatory Bowel Disease post transition to Adult Care**

**Author(s):** A. Yadav, M. Forry, A. O'Toole, S. Patchett

**Department(s)/Institutions:** Beaumont Hospital, Dublin, Ireland

**Introduction:** IBD is a chronic disease and approximately a quarter of patients are diagnosed before 20 years of age. A well-structured transition pathway can increase their self-efficacy and independence. Patients transitioning to Beaumont IBD services attend a structured transition clinic in pediatric hospital and at Beaumont hospital.

**Aims/Background:** The objective of this cross-sectional study was to assess adolescents' perspective and self-efficacy with IBD post transition to Adult care.

**Method:** Adolescents who transitioned through the structured pathway



were eligible for the study. Data on patient's age, gender, IBD type, disease history and treatment were retrieved from the medical records. A questionnaire (including VAS and Likert scale) on patient's perspective and self-efficacy containing items on knowledge of disease, diagnostic tests, medications, and transition process was rated by the adolescents over the phone. Collected data was analysed with SPSS software.

**Results:** Of 23 eligible adolescents 19 (82.6%) participated in the study. Patient demographics: Mean age (years): 17.52 +/- 0.90, Male: 8 (42.1%), Female: 11 (57.9%), Crohn's Disease (CD): 11 (57.9%), Ulcerative colitis (UC): 8 (42.1%). The domains on the self-efficacy questionnaire showed good internal consistency (Cronbach's  $\alpha$ : 0.72). The median for the domains of independence, knowledge of disease, diagnostic tests, treatment and medication use were >70% of max score. Domains of comfort with adult IBD service, independence with OPD visits and transition process had median of >90% of max score. There was no statistically significant difference in mean scores for general independence and general comfort between male vs female; and between CD vs UC on unpaired t-test ( $P > 0.10$ ). 7 (36.8%) stated that their disease will improve, 2 (10.5%) stated stay the same and 10 (52.6%) don't know how their disease will evolve.

**Conclusions:** Adolescents who recently transitioned to the adult IBD services rated high levels of independence, knowledge of IBD, diagnostic tests, treatment, self-efficacy in medication use and independent OPD visits. Also there is no correlation between gender, type of disease and patients' independence and comfort scores. However more than half of the participants showed uncertainty about their future with IBD.

#### ABSTRACT 31 (16S129) POSTER PRESENTATION

##### Pre-assessment of patients awaiting endoscopic procedures while on anti-coagulation therapy

**Author(s):** R. Stack, F. Lindsay, V. Parihar, N. Breslin, D. Mc Namara, A. Alakkari, B. Ryan.

**Department(s)/Institutions:** AMNCH, Tallaght, Dublin 24. Trinity College Dublin, College Green, Dublin 2.

**Introduction:** Anti-coagulation therapy is commonly encountered in patients who are referred for endoscopy. Pre-assessment of such patients helps to ensure clear instruction is given to patients with regards to withholding of medications and instigation of bridging therapy where indicated. We believe this contributes to safer patient management and may potentially reduce numbers of cancelled or repeat endoscopy procedures.

**Aims/Background:** In 2013, a nurse-led pre-assessment clinic for endoscopy was established to review patients on anti-coagulation therapy who were waiting endoscopy procedures. Patients were risk-assessed depending on indication of anti-coagulation and likelihood of intervention at time of endoscopy. Patient were counselled by telephone whether to hold or continue anti-coagulation medication. Patients who warranted bridging therapy were reviewed in the nurse-led clinic and educated regarding administration of LMWH.

**Method:** We undertook a retrospective review of 615 patients who have been assessed in the pre-assessment clinic from 2013 to date. Patients were referred to the clinic by the doctor ordering the endoscopy procedure. Anti-coagulation drug, whether the medication was held and whether the patient required bridging was recorded. Indication for anti-coagulation was documented in 212 out of 612 patients, including atrial fibrillation, valvular disease, thrombotic disease, TIA/stroke, ischaemic heart disease and heart failure.

**Results:** 615 patients were reviewed in the pre-assessment clinic. 472 patient were on warfarin, 80 patient on rivaroxaban, 26 on dabigatran, 25 on apixaban and 12 on LMWH. In total, 317 patients had their anti-coagulation medication held prior to endoscopy and 129 patients were commenced on bridging therapy. 119/129 commenced on bridging therapy were on warfarin, 3 patients each on rivaroxaban and dabigatran and 2 patients each on LMWH and apixaban respectively. The percentage of patients referred on NOACs in 2013 and 2016 were 7% and 28%, respectively.

**Conclusions:** The number of patients referred on NOACs has increased since 2013. Each NOAC has a different half-life and requires different management. Identification and active management of these patients avoids unnecessary cancellations and ensures safe anti-coagulation peri-endoscopy. The number of patients requiring bridging therapy also supports the need for contact with medical staff for implementation and

#### ABSTRACT 32 (16S131) POSTER PRESENTATION

##### Assessment of Clinical Nutrition Knowledge Amongst Newly Qualified Medical Doctors

**Author(s):** David Mullins, John O'Grady, Orla Crosbie

**Department(s)/Institutions:** Department of Gastroenterology, Cork University Hospital

**Introduction:** Malnutrition refers to a deficiency, excess or imbalance of a wide range of nutrients, affecting body composition and function. Recognition and appropriate management leads to improved patient outcomes, regardless of presenting complaint.

Clinical nutrition is a key part of overall disease prevention and management. While many patients and physicians often realise this intuitively, in clinical practice it is often inadequately addressed (1). Less than fifteen percent of American physicians, for example, feel capable of providing nutritional counselling to patients (2, 3).

**Aims/Background:** We conducted an audit to assess clinical nutrition knowledge of newly qualified doctors in our hospitals to determine the level of understanding of nutritional practices relevant to physicians.

**Method:** First year qualified doctors were asked to complete a 21 question questionnaire assessing knowledge on nutrition at organised teaching sessions across multiple sites. 11 clinical and 10 theoretical questions were devised. All completed questionnaires were corrected and assessed for inclusion.

**Results:** 32 questionnaires were suitable for analysis. The average age was 26 (range 23-32). The average score was 10.16/21 (48.36%) (range 5- 15). There was a wide variation in individual answers. For example, 31/32 knew BMI units, while nobody answered correctly for initial NG tube placement assessment. Clinical question average was 4.53/11 (41%) and theoretical question average 5.63/10 (56%) ( $p=0.005$ ).

**Conclusions:** An understanding of clinical nutrition has an important impact on management of chronic conditions such as cancer, diabetes and obstructive airway disease. It influences effective prevention of malnourished states. Suboptimal training may account for physician's lack of confidence and competence in providing necessary nutritional support (1).

Our audit suggests newly qualified doctors knowledge of nutrition, as well as application of its clinical uses, is suboptimal. This may reflect under resourced or undervalued teaching time, in keeping with known research (1, 3, 4), but further study is required to elucidate this.

There is a clear need for dedicated education on malnutrition prevention



and management at medical schools and healthcare facilities. Optimising nutrition improves clinical outcomes for both acute and chronic conditions (3), as well as reducing length of hospital stay and warrants more focused education for and from physicians.

**ABSTRACT 33 (16S132) POSTER PRESENTATION**

**Is colonoscopy quality impacted by source of referral?**

**Author(s):** Ghanem Alsalem, Khairul Nawawi, Senthil Kumar, Eoin Slattery

**Department(s)/Institutions:** Department of Gastroenterology, University Hospital Galway, Ireland

**Introduction:** The performance of colonoscopy on in-hospital patients can be fraught with frustration. Not only do these patients have multi-organ system failure and take multiple medications, they also tend to have poor preparation and mobility status. Effectiveness of colonoscopy ultimately depends on the quality of the examination.

**Aims/Background:** To assess the effectiveness of inpatient colonoscopy and to identify reasons for poor performance. Using a priori reasoning that colonoscopy preparations would be poor, we also aimed to assess the feasibility of performing requested inpatient colonoscopy as an outpatient.

**Method:** We recruited consecutive patients undergoing inpatient colonoscopy in a tertiary referral hospital. Basic demographics, indication for procedure, quality of preparation, and validated quality markers of endoscopy were collected. Inpatient colonoscopy requests were triaged by the gastroenterology team.

**Results:** 99 patients underwent inpatient colonoscopy (May 2015 - December 2015). The mean age of patients was 68 years (53% male). Anaemia was the most common indication for colonoscopy (n=43), followed by change of bowel habit (n=19), an abnormal radiology finding (12). Physician assessment of preparation was deemed excellent/good in 15 patients, satisfactory in 47 patients and poor or inadequate in the remainder (n=37). Colonoscopy was incomplete in 18% of patients, majority related to poor prep (78%, n=14). Polyp detection rate in patients with adequate bowel prep was 45% (28/62), and in inadequate bowel prep was 24% (9/37). The commonest reason necessitating request of an inpatient procedure surrounded travel difficulties and problems with tolerating prep due to social exclusion (75%).

**Conclusions:** Inpatient colonoscopies at our institution failed to reach minimum quality standards with caecal intubation rates of only 82%. Inadequate bowel preparation was the single biggest reason for this. The reasons for this can likely be explained by: inadequate knowledge surrounding standard cleansing regimes by referring physicians, inadequate toilet facilities in ward areas based on Victorian-era ward structure, difficulties re: timing of prep and subsequent scheduling of procedure. A greater effort to avoid inpatient colonoscopy should be made where possible, given the logistic difficulties and potential risk of inadequate colonoscopy in this ill cohort of patients.

**ABSTRACT 34 (16S135) POSTER PRESENTATION**

**Audit of Bile Duct Cytology Reporting at Tallaght Hospital**

**Author(s):** Brianan McGovern\*, Pardeep Maheshwari<sup>1</sup>, BM Ryan<sup>1</sup>, Michael Jeffers\*

**Department(s)/Institutions:** Departments of \* Histopathology and <sup>1</sup>Gastroenterology, Tallaght Hospital, Dublin 24

**Introduction:** Biliary brush cytology can be notoriously difficult to interpret. Recently the Papanicolou Society recommended a 6-tier system to standardise disease categorisation in biliary cytopathology reporting. We wanted to assess reporting in Tallaght Hospital and to compare to international norms.

**Aims/Background:**

1. To determine the prevalence of each diagnostic category (non diagnostic, benign, atypical, suspicious, malignant) in our sample group and to correlate with clinical data
2. Review the reporting terminology at AMNCH in view of the proposed standardised terminology for pancreaticobiliary cytology samples
3. Assess inter-observer and intra-observer variation in the context of the proposed major criteria for diagnosis of malignancy

**Method:** All biliary brushing samples received between January 2012 and March 2013 were identified using the laboratory information system. All patient reports were reviewed. Clinical follow-up for each patient sampled was obtained. Diagnostic cytology slides of all cases were retrieved and reviewed. Results were compared to published data.

**Results:** 100 consecutive sample were reviewed and results are as follows:

Fifty five percent of cases at AMNCH were reported as Benign/Negative as compared to 53.3 % in published data. While Atypical were 22% (11% in published data) , Malignant 12% (16.5% in Published data), Suspicious for malignancy 9% (18.2% in Published data) and 2% (0.8% in Published data) were reported as Inadequate sample . Compared to clinical outcomes, there was a sensitivity of 40.4%, specificity of 100%, positive predictive value of 100% and negative predictive value of 65%. Clear cytology category was given as headline or bottom line result in only 44% of cases. There was 95% concordance between study pathologists and original reports (5% inter-observer variability).

**Conclusions:** The prevalence of each diagnostic category for biliary brush cytology at our institution is comparable to published data. Diagnostic sensitivity and specificity rates compare well to the prevalence in the literature. Provision of more clinical and imaging data on request forms could be improved to enhance diagnostic accuracy. On foot of this audit, we are considering implementation of the proposed 6-tier standardised terminology for reporting of bile duct cytology specimens and introducing standardised request forms for biliary cytology to ensure minimum information for the reporting cytologists

**ABSTRACT 35 (16S136) POSTER PRESENTATION**

**Detection of high-risk alcohol behavior in hospital inpatients using the WHO AUDIT-C screening tool**

**Author(s):** C. Murphy, R. Kearns, A. O’Sullivan, Y. Malik, O. Crosbie

**Department(s)/Institutions:** Department of Hepatology and Gastroenterology, Cork University Hospital.

**Introduction:** In 2013 alcohol-related illness cost the HSE €800 million. The National Alcohol Diary Survey of 2013 showed that 54% of adult drinkers in the population are classified as harmful drinkers, using the WHO AUDIT-C screening tool. The National Confidential Enquiry into Patient Outcome and Death report of 2013 into alcoholic-liver disease related deaths in the UK made the key recommendation that all



patients presenting to hospital services should be screened for alcohol misuse with a view to both identifying patients with or at risk of developing alcoholic liver disease. Brief intervention has been shown to be some-what effective in reducing alcohol consumption patterns.

**Aims/Background:** 1) To investigate recording of alcohol consumption patterns on admission.

2) To apply the AUDIT- C tool to assess recognition of and appropriate referral and treatment of high-risk alcohol consumers.

**Method:** A chart review of 82 medical and surgical admissions on four wards was undertaken over a two-week period. Details of alcohol consumption patterns documented on admission were recorded. The patients were then screened for high-risk alcohol consumption using the validated WHO AUDIT- C screening tool.

**Results:** 82 patients (48% female, 52% male) were studied with a mean age of 70 years. Alcohol consumption patterns were recorded in 30% of patients on admission. Upon patient questioning using AUDIT-C, 51% of patients admitted to drinking alcohol at least once a month. 36% of these were subcategorized into people with high-risk drinking behavior. 60% of these high-risk drinkers had no alcohol history recorded on admission. 13% of this cohort were reviewed by liaison psychiatry. 60% of extremely heavy drinkers (AUDIT-C score 12) at risk of development of acute alcohol withdrawal were not identified or treated appropriately on admission.

**Conclusions:** An acute hospital admission remains an opportunistic time to firstly identify and then intervene in patients displaying high-risk alcohol behavior who are at risk of developing alcoholic liver disease. Unfortunately recording, identification and treatment of patients with high-risk drinking patterns presenting at CUH is currently inadequate. Use of the validated WHO AUDIT-C screening tool on admission would help stratify patients into groups in need of further assessment by the liaison psychiatry.

#### ABSTRACT 36 (16S138) POSTER PRESENTATION

##### Glasgow Blatchford Score (GBS): Raising The Bar

**Author(s):** Dr Etimbuk Umana, Dr Olayiwola Amoran, Dr Pardeep Maheshwari, Dr Carol Goulding.

**Department(s)/Institutions:** Galway University Hospital, Ireland  
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**Introduction:** Upper GI bleed (UGB) is a common presentation to the emergency department (ED). It accounts for three percent of all hospital admission. The GBS has been found to be superior to both the Rockall and AIM65 score for risk stratification of UGB. A GBS score of  $\leq 0$  has been shown to have a sensitivity of  $>99\%$  for stratifying low risk bleeds, however recent studies show a GBS of  $\leq 1$  is equally sensitive and therefore could be considered as an appropriate cut-off for stratifying patients as low risk.

**Aims/Background:** The aim of this study was to a) determine the frequency of use of the GBS score in the ED and b) to assess the relationship between GBS and esophagogastroduodenoscopy (OGDs) findings and need for intervention.

**Method:** Retrospectively, data was obtained from both ED and endoscopy unit from the 1st January to 31st of July 2015 of all patients presenting to University Hospital Galway with UGB. Patient's demographics, GBS, OGD findings and intervention were recorded. Patients  $<14$  years of age and those presenting with lower GI bleeding were excluded from this study.

**Results:** A total of 109 patients were identified but data was available for 86 patients who fulfilled our criteria. In this study 47(55%) were males and 39(45%) were females, mean age 59 and 65 respectively. Only 12(14%) had their GBS documented on admission. Sixty four patients had normal (non-active bleeding) OGD's, six had active bleeding on OGD, while sixteen patients had no data available. Of the seventy patients who underwent OGD's, nine patients required intervention. Seventeen patients(20%) had a GBS  $\leq 1$  who underwent OGD's, none had active bleeding or required intervention. A GBS $\leq 1$  had a sensitivity and specificity of 100% and 30% respectively. It also had a NPV of close to 100% in predicting active bleeding and need for intervention.

**Conclusions:** Using a GBS of  $\leq 1$  was shown to be sensitive for identifying low risk UGB which could therefore be offered OGD as out-patients, there by reducing admission for UGB by 20%. Education of first responders and appropriate referral system for outpatient management of patients presenting with a GBS of  $\leq 1$  should be facilitated.

#### ABSTRACT 37 (16S139) POSTER PRESENTATION

##### In vitro systems to study natural resistance to HCV-infection

**Author(s):** Lena Fischer, Ann Byrne, Mark W. Robinson, Cliona O'Farrelly

**Department(s)/Institutions:** School of Biochemistry and Immunology, Trinity Biomedical Science Institute, Trinity College Dublin, Dublin 2

**Introduction:** In 1977-79 batches of anti-D immunoglobulin used to prevent Rhesus isoimmunisation in pregnant women were contaminated with HCV from a single donor. Interestingly, up to 40% of the women who received HCV-contaminated anti-D show no evidence of infection. We presume that these women are naturally resistant to HCV due to a highly effective innate immune response that allowed them to clear the virus without mounting an adaptive immune response. These women are potentially of considerable value in the examination of mechanisms that define resistance to HCV-infection.

**Aims/Background:** So far, the study of innate immune mechanisms in the liver relied on primary hepatocytes which are difficult to obtain and show a restricted life-time. Both multi- and pluripotent cells (MSCs and iPSCs, respectively) are powerful tools to generate patient-specific models to examine host-pathogen interactions. Differentiation of iPSCs into hepatocytes from women who were exposed to HCV during anti-D immunisation (natural resistance, cleared and chronic infection) allows the study of innate host responses in the liver.

**Method:** MSCs were previously detected in liver perfusates in our lab and were characterised by flow cytometry and their potential to differentiate into osteocytes and adipocytes. To generate MSC-derived hepatocytes, cells were successively exposed to different growth factors that mimic liver development. Morphological changes were observed and gene expression profiles of MSC pre and post differentiation were assessed by qPCR. Expression of both pluripotency (sox2, klf4) and hepatocyte (albumin, ck18) markers was determined and gene expression of liver biopsies used as control.

**Results:** Isolated MSCs from liver perfusate were CD90+/CD105+/CD166+ and CD45-/CD34- and could differentiate into adipocytes and osteocytes. Gene expression profiles of MSCs showed upregulation of stem cell markers and absence of liver markers. Hepatocyte differentiation will be further optimised.

**Conclusions:** In vitro systems that use iPSC-derived hepatocytes will



allow the examination of patient-specific immune responses while circumventing the need for primary cells

### ABSTRACT 38 (16S140) POSTER PRESENTATION

#### Selective Necrosectomy For infected Pancreatic Necrosis

**Author(s):** Ola Ahmed, Claire Donohoe, Niall Hardy, Daragh Murphy, Gerry McEntee

#### Department(s)/Institutions:

Department of Hepatobiliary and Pancreatic Surgery  
Department of Radiology

**Introduction:** Until recently, a diagnosis of infected pancreatic necrosis (IPN) warranted necrosectomy, which was associated with high morbidity and mortality rates greater than 20%. Pre-operative percutaneous drainage using radiologically guided techniques delayed the need for necrosectomy and the associated mortality with IPN improved considerably with recognition of the importance of delaying or avoiding operative intervention until initial organ impairment had resolved

**Aims/Background:** In 2008 this institution changed its approach to the management of cases of IPN opting instead for percutaneous drainage with selective deferred necrosectomy rather than routine open necrosectomy in all patients. This paper seeks to examine the result of this change in practice.

**Method:** Data on consecutive patients over the age of 18 with pancreatitis were collated prospectively in an institutional database between the dates of January 2008 and December 2014. Patient stratification was performed using the Acute Physiology and Chronic Health Evaluation (APACHE II) and Sequential Organ Failure Assessment (SOFA) scoring systems.

**Results:** Infected pancreatic necrosis was confirmed in 38 patients. All 38 underwent percutaneous radiological drainage and selective necrosectomy was performed on 15 where the infected necrosis did not completely resolve. 23 patients did not require surgery and were managed with pancreatic drain insertion, optimal nutritional and critical care interventions. Median peak APACHE and SOFA scores were 10 (range 0- 18) and 3 (range 0-10) prior to radiological intervention. The median total hospital stay was 41.5 days (range 5 – 262 days). Overall mortality was 5% (n=2).

**Conclusions:** The change in practice from routine to selective necrosectomy facilitated a much faster discharge with both medical and personal benefits and resulted in fewer surgical complications. This study demonstrates that radiological guided drainage of infected pancreatic collections can, in most cases, prove curative and, if not, facilitate delayed surgical intervention with improved outcomes

### ABSTRACT 39 (16S141) POSTER PRESENTATION

#### Expanding Use of Fully Covered Metallic Biliary Stents during Endoscopic Retrograde Cholangiopancreatography for Benign Biliary Disease

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**Department(s)/Institutions:** Department of Gastroenterology,

Beaumont Hospital, RCSI, Dublin 9.

**Introduction:** Fully covered self-expanding metallic biliary stenting via endoscopic retrograde cholangiopancreatography (ERCP) is now increasingly used for benign and malignant biliary diseases. Although the cost of fully covered metallic biliary stents (FCMBS) is substantially higher compared to plastic stents, there are several advantages of FCMBS in benign biliary conditions including adequacy of biliary drainage, reduced number of procedures for stone extraction and stricture dilatation with subsequent removal of stent. In suspected malignant biliary or pancreatic disease, these FCMBS can also be removed if malignancy is not confirmed.

**Aims/Background:** We plan to investigate the indications for fully covered self-expanding metallic biliary stent use during ERCP in a tertiary Dublin hospital.

**Method:** Data of patients receiving biliary stents during ERCP were obtained from endoscopy database (Diver and Endoraad). Patients receiving uncovered metallic stents or plastic stents were excluded.

**Results:** We retrospectively examined 65 patients who had ERCP and had fully covered metallic biliary stent inserted. In our study cohort of 65 patients, the median age was 73 (IQR 62-81) years with 61.5% (40/65) females. The majority of patients had fully covered metallic biliary stents inserted for benign biliary disease (69.2%, 45/65), while 30.8% (20/65) of patients were stented for suspected or confirmed malignant stricture. For patients receiving stent for benign disease, 84.4% (38/45) of patients had common bile duct stones; 6.7% (3/45) of patients had biliary leak after cholecystectomy; 4.4% (2/45) had benign biliary stricture; and 1 patient had Mirizzi's syndrome. The average duration for removal of FCMBS was 3.58 ±3.88 months.

**Conclusions:** Fully covered self-expanding metallic biliary stents are increasingly used to facilitate stone extraction of common bile duct stones.

### ABSTRACT 40 (16S142) POSTER PRESENTATION

#### Opportunistic infections in Inflammatory Bowel Disease: Opportunity gained or lost?

**Author(s):** Grace Harkin, Rahim Khan, Aoife Murray, Andrew Smyth, Aine Keogh, Laurence Egan, Eoin Slattery

**Department(s)/Institutions:** Gastroenterology Department, University Hospital Galway

**Introduction:** The potential for opportunistic infections (OI) remains a key safety concern for patients with inflammatory bowel disease (IBD). They can be associated with considerable morbidity and mortality. As a result, ECCO produced guidelines on appropriate screening for patients prior to biologic therapies in 2014.

**Aims/Background:** To assess the quality of screening for OI in patients with IBD attending a busy tertiary referral hospital since the advent of published guidelines. A secondary aim was to assess the uptake of vaccination for OI.

**Method:** We performed a retrospective cohort study of patients attending Galway University Hospitals currently receiving a biologic agent. Identified patient's records were interrogated.

**Results:** Of 158 patients (83 male) currently receiving biologic therapy, 74.7%



(n=118) have Crohn's Disease (CD). Agents included Infliximab in 53.5% (n=84), Adalimumab in 34.3% (n=54), Vedolizumab in 7% (n=11) and Golimumab in 5.1% (n=8). Combination immuno-modulators were prescribed in 44.2%.

Screening was completed for Hepatitis C (HCV) in 67.5% (n=104), Hepatitis B (HBV) in 70.1% (n=108), Human Immunodeficiency Virus (HIV) in 64.0% (n=98) and Varicella Zoster Virus (VZV) in 49% (n=74). Overall, 44.3% (n=70) had a complete viral screen (HBV, HCV, HIV and VZV) in advance of biologic therapy. Complete screens were completed in 25.0% (n=18) of patients commencing biologic therapy before 2014, compared to 60.5% (n=52) of patients commencing biologic therapy since 2014 (p<0.001).

One patient had a positive HCV result; all patients had negative results for HBV and HIV; only three screened patients were non-immune to VZV. Of the non-immune VZV patients, one was vaccinated, one was not and the vaccination status of the third patient was not established. No patients were vaccinated against HBV.

**Conclusions:** ECCO guidelines recommend screening for HBV and VZV prior to initiation of biologic therapies; and where negative vaccination is advocated. A significant increase in screening for OI has occurred in our institution as a consequence of published guidelines. In low prevalence areas of HBV, the benefit of routine vaccination is questionable. Timing of VZV vaccination remains problematic. Our data confirms that published guidelines are an important trigger in improvement of care provided to patients with IBD.

**ABSTRACT 41 (16S143) POSTER PRESENTATION**

**Bone Health: An often overlooked aspect of IBD care**

**Author(s):** M Syafiq Ismail, Olufemi Aoko, Sadaf Amir, Ryan Crawford, Aisling Ganahan, Yii Chun Khiew, Anna Peter, Maria Syed, Emma Anderson, Subhasish Sengupta, John Keohane

**Department(s)/Institutions:** Department of Gastroenterology, Our Lady of Lourdes Hospital (OLOLH), Drogheda

**Introduction:** Inflammatory bowel disease (IBD) is a well-known risk factor for metabolic bone disease (MBD). The aetiology is multifactorial. Current guidelines from British Society of Gastroenterology (BSG - 2007 guidelines- Osteoporosis in IBD) recommend routine measurement of bone mineral density (BMD) by dual-energy x-ray Absorptiometry (DEXA) in high risk patients and those who receive prolonged corticosteroid therapy. Treatment of MBD includes lifestyle modifications, as well as pharmacologic therapy (testosterone replacement, bisphosphonates, calcitonin and/or calcium and vitamin D supplementation).

**Aims/Background:** This study aims to review the prevalence of MBD and compliance with BSG guidelines of osteoporosis in IBD patients. We included all the patients seen in gastroenterology OPD in OLOLH, Drogheda in the year 2014.

**Method:** Data was collected from our IBD database. All patients seen in 2014 were included. We reviewed our radiology system (NIMIS) to see whether patients had DEXA scans. Data for Vitamin D and testosterone levels (males above 55yrs) was obtained from the WinPath electronic record.

**Results:** A total of 366 patients with IBD were seen in our OPD in 2014. Mean age was 48.2 (18-86). 185 (50.5%) was male and 181(49.5%) was female. 180 (49.2%) patients had Dexa, 161 (43.9%) did not, and 19 (5.2%) patients were uncontactable. Dexa demonstrated 96 (53.3%) patients had normal BMD, 17 (8.9%) osteoporosis and 67 (37.2%) osteopenia. Only 6(1.6%) patients had vitamin D levels checked and

none had testosterone level checked. 161 (43.9%) patients had at least one prolonged course of corticosteroids. Among patients who had osteoporosis 16(94%) received treatment with bisphosphonates but only 4 (23.5%) had follow up Dexa organised. Among patients who had osteopenia 60 (89.5%) received treatment in the form of calcium and vitamin D supplementation, none had follow up Dexa organised.

**Conclusions:** Metabolic bone disease is common in IBD patients and there are clear guidelines regarding management of it. In our study we have seen that compliance with the guidelines were poor. Guidelines have now been placed in all outpatient rooms to improve compliance and this will be re-audited.

**ABSTRACT 42 (16S144) POSTER PRESENTATION**

**Audit of Screening Colonoscopy Referrals for Individuals with a Family History of Colorectal Carcinoma**

**Author(s):**

1. Desmond Thong
2. Seamus O'Mahony

**Department(s)/Institutions:** Gastroenterology Department, Cork University Hospital

**Introduction:** Demand for endoscopy (particularly colonoscopy) continues to rise. GPs commonly refer asymptomatic patients with a family history of colorectal carcinoma (CRC) for screening colonoscopy. It has been our anecdotal impression that many of these referrals are inappropriate.

**Aims/Background:** The aim of this audit is to determine if our impression that many of these screening colonoscopy referrals do not meet current guidelines.

**Method:** All referrals from GPs for screening colonoscopy (based on family history) to the Gastroenterology Department at Cork University Hospital during 2014 and 2015 were gathered. Only asymptomatic patients were included in this audit. Referrals were assessed for appropriateness against the current guidelines set by the British Society of Gastroenterology, which advises screening colonoscopy in asymptomatic individuals with one first-degree relative with CRC under the age of 50, or two first-degree relatives with CRC of any age.

**Results:** Out of the 22 patients included in this audit, only 2 fulfilled the criteria for CRC screening. The commonest reason for failure to fulfill CRC screening criteria was age of first degree relatives with CRC. Of the 20 patients who did not meet the criteria of CRC screening, 3 patients had first degree relatives who did not have CRC at all, but other forms of malignancy.

**Conclusions:** The vast majority of referrals for screening colonoscopy were inappropriate. A previous audit from our unit also documented a high rate (50%) of inappropriate request for colonoscopy to investigate anaemia. There is a need to increase awareness among GPs regarding indications for screening colonoscopy.

**ABSTRACT 43 (16S145) POSTER PRESENTATION**

**Double Trouble: Pneumocystis Pneumonia and Listeria Meningitis in a patient treated with Infliximab for Ulcerative Colitis**

**Author(s):** Power, D<sup>[1]</sup>, Jackson, L<sup>[1]</sup>, Murphy, O<sup>[1]</sup>, McCarthy, J<sup>[1]</sup>, Horgan, M<sup>[2]</sup>

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<sup>2</sup> Department of Infectious Disease, Cork University Hospital., Wilton, Cork

**Introduction:** Anti-TNF- $\alpha$  therapy is associated with an increased risk of opportunistic infection in patients with Inflammatory Bowel Disease. We present the rare case of a patient with concomitant *Listeria monocytogenes* meningitis and *Pneumocystis carinii* pneumonia (PCP) following one infliximab infusion for Ulcerative Colitis (UC).

**Aims/Background:** A 55-year-old female with a 3-year history of UC, maintained on 5-aminosalicylic acid, presented with an acute episode of colitis which was confirmed endoscopically. The patient was started on IV corticosteroids and antibiotic therapy (Metronidazole and Ciprofloxacin). Following poor clinical response, she was commenced on Infliximab (5mg/kg) after usual pre-screening investigations. The patient experience a significant clinical improvement and was discharged home on a tapering corticosteroid dose.

Pre-assessment for the second Infliximab infusion revealed new onset fatigue, lower back pain and ataxia. Raised CRP [149.5] and ESR [32] were demonstrated on routine pre-Infliximab bloods. The patient was admitted acutely for septic screen which was initially negative - with normal chest radiography, MRI Spine, urine and blood cultures. The patient subsequently deteriorated, developing headache with meningism over the next 24 hours.

Lumbar puncture and MRI Brain showed evidence of severe bacterial meningitis [CSF WCC: 1917/ $\mu$ L, Blood Glucose <0.3mmol/L, Protein 1,854g/dL] - with CSF cultures positive for *Listeria Monocytogenes*. An extended course of IV Amoxicillin (2mg q4h) was commenced to good clinical response.

2 weeks into admission the patient developed new onset dry cough. CT Thorax revealed ground glass opacification of the right upper lobes. Bronchoalveolar lavage confirmed the diagnosis of *Pneumocystis Pneumonia*.

Treatment was instigated with Dapsone (100mg OD) and corticosteroids for concomitant infections and the patient experienced a successful clinical outcome.

**Conclusions:** This is the first case report in the literature of concomitant *L. Monocytogenes* meningitis and PCP in IBD. This case highlights the risk of significant opportunistic infection in patients on anti-TNF- $\alpha$  therapy[1].

Prophylactic TMP/SMX has been suggested to minimise PCP risk in those individuals on >3 immunosuppressive agents with IBD[2]. Similarly, dietary avoidance of high risk foods for *L. Monocytogenes* has been suggested for patients commenced on Infliximab[3]. Careful monitoring of patients on immunomodulatory therapy in IBD is required to enable early recognition and decreased mortality.

**ABSTRACT 44 (16S147) POSTER PRESENTATION**

**Detection of antibiotic resistance using faecal samples in *Helicobacter pylori* infection: A validation study.**

**Author(s):** Denise Brennan, Joseph Omorogbe, Mary Hussey, Donal Tighe, Colm O'Morain, Sinead Smith\*, Deirdre McNamara\*.

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

**Introduction:** The GenoType HelicoDR assay- which enables the detection of antibiotic resistant strains of *Helicobacter pylori* in gastric biopsy samples- is an attractive alternative to standard culture and

susceptibility testing, which can be troublesome. Analysis of *H. pylori* DNA from faecal samples instead of gastric biopsies represents a novel, non-invasive method: of determining antibiotic resistance. However, this method: requires validation.

**Aims/Background:** A validation study was carried out to evaluate the GenoType HelicoDR test for the detection of antibiotic resistance-mediating DNA mutations in faecal samples from *H. pylori*-infected patients.

**Method:** Following ethical approval and informed consent, DNA was isolated from gastric biopsies and stool samples from *H. pylori* positive adult patients (by histology) and from *H. pylori* negative (by UBT) patients. DNA was analysed using the GenoType HelicoDR assay (Hain Life Sciences) and resistance profiles from stool and biopsy samples were compared.

**Results:** In all, 20 stool and biopsy samples from *H. pylori* positive patients (mean age 46.8 years; 50% male) and 2 from *H. pylori* negative patients have been analysed. Firstly, the ability of the assay to detect *H. pylori* DNA in each sample was assessed. The GenoType HelicoDR assay detected *H. pylori* DNA in gastric biopsies from all (n=20) of the CLO-test positive patients tested. Concordance between results obtained using biopsy and stool samples for detection of *H. pylori* DNA was 90% (18/20). The sensitivity of the GenoType HelicoDR assay using stool samples in detecting clarithromycin and levofloxacin resistance was 50%. The specificity of the GenoType HelicoDR assay using stool samples in detecting clarithromycin and levofloxacin resistance was also 50%. The samples from 2 *H. pylori* negative patients showed no presence of *H. pylori* DNA.

**Conclusions:** Detection of antibiotic resistance in *H. pylori* infection using the Helico DR assay on DNA extracted from stool is not the optimum technique. The presence of other bacteria or substances in stool samples may impact the sensitivity of the test. Further studies are needed to optimise the detection of antibiotic-resistant *H. pylori* infection by non-invasive method:s.

**ABSTRACT 45 (16S148) POSTER PRESENTATION**

**Proton Pump Inhibitor Prescription: an inpatient point prevalence study**

**Author(s):** Aoife O'Sullivan, Clodagh Murphy, Rachel Kearns, Yusuk Malik, Syed Zulquernain

**Department(s)/Institutions:** Cork University Hospital, Department of gastroenterology

**Introduction:** Proton pump inhibitors (PPIs) are a commonly prescribed medication in the adult population. As per the British National Formulary therapeutic indications for PPIs include the treatment of gastric and duodenal ulcers, dyspepsia, gastro oesophageal reflux disease (GORD), and prevention of NSAID associated ulcers. PPIs are often over utilised. The potential adverse consequences of long term PPI prescription include hypergastrinemia, enterochromaffin-like cell hyperplasia, and parietal cell hypertrophy which can cause a rebound acid hypersecretion. There have also been links to *Clostridium difficile*-associated diarrhoea, community-acquired pneumonia, bone fracture and nutritional deficiencies.

**Aims/Background:** This cross sectional study conducted in the Cork University Hospital (CUH) sought to identify the point prevalence of PPI prescription in an inpatient adult population. A secondary aim was to identify whether there was a documented indication for PPI prescription



in the patient's medical notes.

**Method:** A chart review was conducted over the course of a week in one medical and one surgical ward in the CUH. All data collected were anonymised. PPI use was recorded, as was indication for prescription as per medical notes. Previous endoscopy procedures were also recorded.

**Results:** A total of 83 patients were included. 52% of patients in the cohort were male. 44.5% of patients were taking PPIs. 78% of patients who were prescribed a PPI did not have a documented indication in the medical notes. Of those who did have a documented indication; 1 case was for peptic ulcer disease, 4 cases were for oesophagitis, 3 cases were for GORD and 1 case was for dyspepsia. 2 taking PPIs had previous undergone endoscopy.

**Conclusions:** One of the reasons for PPI over utilisation have been reported as failure to re-evaluate the need for continuation of therapy. In this study, a relatively large proportion of the patients were prescribed PPIs. Very few had a documented indication for this. Although this is a point prevalence study, it raises the suggestion that the need for therapy is not being re-evaluated in the inpatient setting.

**ABSTRACT 46 (16S150) POSTER PRESENTATION**

**The Effect of Dietary Gluten and Intestinal Permeability on Autoimmune Myocarditis**

**Author(s):** Aoife M. Murray,<sup>1,2</sup> Eric V. Marietta,<sup>1,3</sup> David Luckey,<sup>1</sup> Chella S. David,<sup>1</sup> and Veena Taneja

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**Introduction:** Autoimmune myocarditis can lead to dilated cardiomyopathy resulting in death. Aetiology of the disease is poorly understood. Studies have shown that it can be associated with coeliac disease, an immune reaction against dietary gluten characterised by anti-tissue transglutaminase (tTG) and anti-gliadin antibodies. Recent studies have attributed the development of coeliac disease to an increase in intestinal permeability (IP) that leads to availability of luminal antigens to systemic immune response.

**Aims/Background:** The aim of this study was to determine if autoimmune myocarditis is associated with dietary gluten and/or increased IP.

**Method:** We took advantage of humanised mice expressing HLA-DQ8.Abo.NOD that develop spontaneous autoimmune myocarditis and are gluten-sensitive. Mice were fed various diets; standard (contains gluten), gluten-enriched, and gluten-free diets, to determine if it affected the frequency and age of onset of myocarditis, anti-tTG antibodies and its correlation to IP in transgenic mice. Permeability was measured at various ages using orally-administered FITC-labelled dextran. Myocarditis was identified with heart-to-body ratios and heart histopathology. Production of sera antibodies against gliadin and tissue transglutaminase (tTG) was measured by ELISA.

**Results:** No association was found between dietary gluten and development of autoimmune myocarditis. However, mice with myocarditis showed increased IP and significantly higher anti-tTG IgG antibodies compared to healthy mice.

**Conclusions:**

In conclusion, our study showed that in the absence of association of dietary gluten and myocarditis, it is pertinent to explore the role of increased gut permeability and anti-tTG antibodies in pathogenesis of disease as well as useful biomarkers.

**ABSTRACT 47 (16S151) POSTER PRESENTATION**

**The Effect of Bifidobacterium infantis Treatment on Autoimmune Myocarditis**

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<sup>3</sup>Department of Gastroenterology and Hepatology, Mayo Clinic College of Medicine, Rochester, MN 55905, USA

**Introduction:** Autoimmune myocarditis is an inflammatory disease of unknown etiology that can lead to dilated cardiomyopathy (DCM) resulting in death. Recent studies have shown that Bifidobacterium infantis, a major gut commensal bacterium colonizing humans, has immunosuppressive properties and may play an immunomodulatory role in extra intestinal autoimmune diseases.

**Aims/Background:** Previously, we have shown that the gut may play an important role in humanized mouse model of spontaneous autoimmune myocarditis. Mice expressing HLA-DQ8/ Abo/NOD, are gluten sensitive and develop DCM. The aim of this study was to determine if treatment with Bifidobacterium infantis can suppress the autoimmune response observed before disease development.

**Method:** HLA-DQ8 mice were treated with B. infantis or medium alone (control) every other day by oral gavage for 2 weeks. The effect of B. infantis treatment was studied on cellular and humoral response. Antibodies against cardiac myosin and tissue transglutaminase (tTG) were measured in sera, collected after treatment, by ELISA. Immune response to cardiac myosin was measured by in vitro T-cell proliferation and cytokine production.

**Results:** No suppression of autoreactive anti-cardiac myosin or anti-tTG antibody production was observed after treatment, suggesting B-cell response in myocarditis in humanized mice is not amenable to manipulation by B. infantis treatment. However, B. infantis treatment suppressed cardiac myosin-specific T cell response and production of pro-inflammatory cytokines.

**Conclusions:** In conclusion, our study showed that B. infantis could be a potential therapeutic treatment for autoimmune myocarditis, and it would be pertinent to further explore the protective and therapeutic role of B. infantis and other commensals in extra-intestinal autoimmune diseases.

**ABSTRACT 48 (16S152) POSTER PRESENTATION**

**Infliximab Infusion Practices in Irish Gastroenterology Departments**

**Author(s):** Egan C, Christopher B, Kennedy M, O'Sullivan M, Garry C, Kelly O, Smyth C, Farrell RJ.

**Department(s)/Institutions:** Gastroenterology Department, Connolly Hospital Blanchardstown



**Introduction:** Since its approval in 1997 Infliximab infusion therapy has become increasingly used in Irish hospitals for moderate to severe ulcerative colitis and Crohns disease. As gastroenterologists have gained experience in the use of Infliximab for IBD we have adapted and modified our practice in delivering the drug. However there are no national guidelines for infusion room practice to ensure consistent safe and efficient practice.

**Aims/Background:** The aim of this study is to investigate current Infliximab infusion practices in Irish Gastroenterology Departments.

**Method:** A questionnaire was developed in the Gastroenterology unit at Connolly Hospital and delivered to all IBD nurses who attended our unit for a national IBD study day.

**Results:** IBD nurses from 10 hospitals took part; 80% public-hospital, 20% private-hospital. The number of Infliximab infusions ranged between 1 and 30 per week. Most infusion units are independent of the Gastroenterology unit with only 30% of infusion rooms located in the endoscopy department. All hospitals perform routine bloods prior to each infusion, 70% on the day of the infusion. In 60% of hospitals the blood results are not routinely checked prior to the infusion if the patient is clinically well. 30% of hospitals routinely check trough Infliximab levels. In 70% of units Infliximab is administered at higher doses in refractory patients. Intravenous hydrocortisone is routinely given pre-infusion in 50% of units. 50% of infusions are administered by an IBD nurse or infusion nurse. All units give the induction infusions over 2 hours with 70% reducing maintenance infusion duration to between 30 and 60 minutes. The duration of post-infusion observation also varies between 0- 120 minutes for the first infusion and 0 to 60 minutes following maintenance infusions with no consistency as to when observation time should be reduced.

**Conclusions:** Only half of units surveyed had dedicated IBD or infusion nurses. Centres with a higher volume of infusions have shorter infusion times and post-infusion observation times than centres providing smaller numbers of infusions. Our study highlights significant variability in Infliximab infusion practices for Irish IBD patients and underscores the need for national guidelines to standardise Infliximab infusion practices within Irish hospitals.

#### ABSTRACT 49 (16S153) POSTER PRESENTATION

##### GI Manifestations of CVID- Scope for Change?

**Author(s):** Judge C., Lee-Brennan C., Sloan A., McKeever A., McCrea P., Kevans D., Conlon N.

**Department(s)/Institutions:** St James's Hospital, Immunology, Dublin, Ireland

**Introduction:** Common variable immunodeficiency (CVID) is a primary immunodeficiency disorder affecting approximately 1 in 50,000 adults and children. CVID is characterised by a failure in the production of adequate immunoglobulins, the absence of an effective vaccine response and, in some cases, immune dysregulation. This results in frequent bacterial infections and pathology affecting multiple organ systems.

Gastrointestinal disease affects 15-20% of people with CVID and has many different manifestations, including higher incidences of Giardia lamblia infection, inflammatory bowel disease and GI malignancy.

**Aims/Background:** We aimed to evaluate the prevalence of GI involvement in CVID patients in a single Republic of Ireland centre, and to identify the need for a standardised diagnostic approach to these patients.

**Method:** We retrospectively analysed the charts and electronic records of all patients diagnosed with CVID who attended the Immunology Department of St James's Hospital, Dublin. We recorded documentation of GI symptoms or signs found in clinical notes and patient correspondence, as well as any investigations pertaining to GI disease available on the Electronic Patient Record (EPR).

**Results:** 24 patient records were analysed, of which the majority were female (54.2%) and the median age was 44.7 years. 66.7% of patients had at least one documented GI symptom. Diarrhoea was the most common complaint, affecting 62.5% of patients. 20.8% of patients complained of pain or constipation, and 12.5% reported PR bleeding. 16.6% of patients had faecal testing for evidence of infection, with 50% found to be positive (Campylobacter, Giardia). 54.2% of patients underwent endoscopy with a variety of histological results. These included lymphocytic gastritis, colitis, tubular adenoma and nodular lymphoid hyperplasia. None of the patients had either faecal calprotectin testing, or urea breath testing.

**Conclusions:** The prevalence of GI involvement in our cohort of patients is significantly higher than that reported in other international studies. There was no evidence of a standardised approach to the investigation of GI symptoms in this cohort. The potential for GI complications among patients with CVID creates challenges for patients and healthcare providers, and our findings will be used to face these challenges by developing agreed local guidelines for the early diagnosis and investigation of gastrointestinal disease in CVID.

#### ABSTRACT 50 (16S156) POSTER PRESENTATION

##### Hepatocellular Carcinoma in Ireland: An Analysis of National Cancer Registry Data from 1994-2008

**Author(s):** Caroline Gaynor<sup>1</sup>, Masood Iqbal<sup>2</sup>, Harry Comber<sup>3</sup>, Sandra Deady<sup>3</sup>, Mary Teeling<sup>1</sup>, Aiden McCormick<sup>2</sup>

##### Department(s)/Institutions:

<sup>1</sup>School of Medicine, Trinity College Dublin

<sup>2</sup>Liver Unit, St Vincent's University Hospital, Dublin

<sup>3</sup>National Cancer Registry Ireland

**Introduction:** Hepatocellular carcinoma (HCC) is the most common primary malignant tumor of liver and the third leading cause of cancer mortality worldwide. The incidence of hepatocellular carcinoma is increasing in low prevalence countries such as the US, UK and Ireland. Over the past 2 decades diagnostic techniques have improved and new treatments have been introduced. This analysis reports on whether increasing use of surgical intervention over time has improved prognosis for liver cancer patients in Ireland over the period 1994 – 2008.

**Aims/Background:** The aim of this study was to determine whether there has been an impact on hepatoma mortality in Ireland.

**Method:** Anonymised cancer registration data from the National Cancer Registry of Ireland was used to investigate patient characteristics and trends in treatment and survival for Irish patients diagnosed with histologically confirmed HCC between 1994 and 2008. Analyses were conducted according to gender, age, stage of disease treatment received and period of incidence.

**Results:** The dataset consisted of anonymised case reports of primary liver cancer cases (n=1,609) diagnosed and notified to the NCRI between 1994 and 2008. Only patients with histologically confirmed HCC were included in the analysis. Four hundred and seventy six applicable cases notified to the registry from 1994 through to 2008 were eligible for



descriptive analysis. Males accounted for 77% of cases. 62% of the 476 patients were aged 60-79 years. Incidence of HCC in Ireland steadily increased from 1994-2008. Median overall survival was 580 days for the entire cohort with 1, 2, 3, and 5-year survivals of 56%, 46%, 39% and 36% respectively. One-year cause specific survival improved from 38% during 1994-1998, to 51% during 1999-2002 to 66% during 2003-2007. Five-year cause-specific survival also improved over time from 19% to 34% to 38% respectively. Surgery was associated with 1, 2, 3 and 5-year survivals of 92%, 82%, 78% and 78% respectively.

**Conclusions:** Prognosis improved over time in this biopsy proven cohort of patients with hepatocellular carcinoma. This improvement in survival seemed to be largely due to the effect of surgical interventions.

**ABSTRACT 51 (16S157) POSTER PRESENTATION**

**Recurrent bleeding from Jejunal varix in a patient with Cirrhosis and previous hepaticojunostomy treated with Histoacryl.**

**Author(s):** Geff Watson<sup>1</sup>, Ahmed Abu-Shanab<sup>1</sup>, Rory O'Donohoe<sup>2</sup>, Masood Iqbal<sup>1</sup>

**Department(s)/Institutions:**

<sup>1</sup>Liver Unit, St. Vincent's University Hospital, Dublin

<sup>2</sup>Radiology Department, St. Vincent's University Hospital, Dublin

**Introduction:** Variceal bleeding is a common complication seen in patients diagnosed with liver cirrhosis. The origin of bleeding can often be detected by direct visualisation using endoscopic procedures or radiologically. However in rare instances the source of bleeding may not be immediately apparent, and it is important to consider the possibility of ectopic varices.

**Aims/Background:** We present a case of gastrointestinal bleeding in a patient with cirrhosis where the source of bleeding was initially unclear, however push enteroscopy detected an ectopic varix at the site of a previous hepaticojunostomy.

**Method:**

Case Report:

A 44 year old gentleman was transferred to Liver Unit from a peripheral hospital with ongoing melena on a background of alcoholic cirrhosis. Furthermore three years ago he developed a biliary stricture post laparoscopic cholecystectomy that required multiple biliary stents and ultimately a hepaticojunostomy.

An oesophagogastroduodenoscopy (OGD) was performed on admission to the peripheral hospital and showed mild oesophagitis and grade 1 varices. CT Angiogram the following day reported no active bleeding. A repeat OGD after transfer to our unit confirmed grade 1 oesophageal varices and portal hypertensive gastropathy, with no source of bleeding identified. A CT four phase Liver was performed and showed a nodular liver and occlusion of the main portal vein with cavernous transformation.

He received multiple blood transfusions throughout his admission (eight in the peripheral hospital and requiring a further twenty six units in our unit).

Enteroscopy was attempted using a pediatric colonoscope and was successfully passed to the jejunal loop as far as the hepaticojunostomy. An area of mucosal erythema with prominent vessels along with a fresh clot was seen adjacent to the hepaticojunostomy. The site was injected with histoacryl. A repeat enteroscopy was performed the following week and clearly displayed a healed ectopic varix at the site of hepaticojunostomy. He was discharged few days later with no recurrence of bleeding.

**Conclusions:** Ectopic varices should be considered in a patient with cirrhosis and portal hypertension when presented with obscure

haemorrhage with a prior history of hepaticojunostomy.

**ABSTRACT 52 (16S160) POSTER PRESENTATION**

**Elevated angiopoietins independent of TNF a regulation appear to play a key role in immune mediated angiogenesis in IBD.**

**Author(s):** <sup>1,2</sup>Mary Hussey, <sup>1</sup>Grainne Holleran, <sup>1</sup>Sinead Smith, <sup>1,2</sup>Deirdre McNamara

**Department(s)/Institutions:**

<sup>1</sup>Trinity Academic Gastroenterology Group

<sup>2</sup>Department of Gastroenterology, Adelaide and Meath Hospital, Tallaght

**Introduction:** Angiogenesis has been proposed to play an important role in the perpetuation of sustained inflammation in IBD. Angiopoietins are critical angiogenic mediators & their potential role as markers of disease activity & therapeutic targets remains unclear.

**Aims/Background:** The aim of this study was to measure serum levels of ANG 1 & 2 (angiopoietin 1&2) & TNF $\alpha$  (tumour necrosis factor alpha) in IBD patients.

**Method:** Following informed consent, IBD patients undergoing a colonoscopy were prospectively recruited. Patient demographics, Clinical activity, CRP, histological & endoscopic grade were recorded. Controls with a normal colonoscopy were also recruited. Serum was collected & stored for batch analysis at -80°C. Commercially available ELISA kits were used to measure ANG1, ANG2 & TNF $\alpha$  levels according to manufacturer's guidelines. Results were expressed as a mean & compared between groups, IBD vs. Controls & Active vs. Inactive disease defined via a CRP (<5mg/dl inactive & >5mg/dl active).

**Results:** To date 31 IBD (15 Crohns & 16 UC) & 32 control patients have been recruited. The mean ages were similar. There were more females amongst the controls, 80% (n=25) vs. 56% (n=18), (p<0.04). Amongst IBD patients, 9% (n=3) were in remission, 42% (n=13) had mild, 26% (n=8) moderate & 23% (n=7) severe disease endoscopically. Mean HBI was 4 (range 0-7), mean Mayo score 8 (range 0-12) & mean CRP 29 mg/l (range 1-195mg/dl). Active patients had a mean CRP of 52mg/l vs. 2.0mg/l for inactive patients, (p<0.01, 95% CI 8.907 to 91.130). Overall mean serum levels of Ang1 were significantly higher in IBD patients vs. controls, 46401.6 vs. 41338.3pg/ml, (p=0.05, 95% CI -49.6935-9248.5), whilst ANG2 (2809.9 vs. 2858.5, p<0.9) & TNF $\alpha$  levels were similar (7.2 vs. 4.7 pg/ml, p<0.1). Of interest, mean serum ANG1 levels were significantly higher in patients with biochemically active disease, 50408.3 vs. 40229.5pg/ml (p<0.01, 95% CI 2343.8-18013.6). Similarly, within the IBD cohort, mean ANG2 levels correlated with disease activity, active 3269pg/ml vs. inactive, 2148.9 pg/ml (p<0.02, 95% CI 160.5-2079.7). Both were independent of TNF  $\alpha$  levels, active 6.6pg/ml vs. inactive 7.5 pg/ml (p<0.8). Of note, there were significantly higher levels of ANG1 (50497.7 vs. 40804.7, p<0.01, 95% CI -1766.8 -1683.3) & ANG2 (3094 vs. 2211.2, p=0.07) in UC patients, however this group had significantly more active disease (75% vs. 33%, p<0.02, 95% CI -0.75 to -0.05).

**Conclusions:** Serum angiopoietin levels are predictive of disease in IBD & may play a role as a non-invasive marker of activity. Identification of novel regulatory cytokines may identify new therapeutic targets & warrant further study



**ABSTRACT 53 (16S162) POSTER PRESENTATION**

**Clinical/biochemical predictors of response to anti-TNF $\alpha$  therapies in a tertiary referral centre.**

**Author(s):** Donal Tighe, Deirde McNamara

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

**Introduction:** Anti-Tissue Necrosis Factor-alpha (TNF $\alpha$ ) therapies have resulted in improved outcomes for patients with inflammatory bowel disease (IBD) reducing complications, hospitalisation rates, and need for surgery. However loss of response (LOR), both primary and secondary is a concern and long-term predictive factors are not well understood.

**Aims/Background:** Aim of this study was to assess response rates to anti-TNF $\alpha$  therapy, and identify any predictors associated with loss of response.

**Method:** Retrospective, observational study was designed. Inclusion criteria were all patients older than 18 years old with IBD who started treatment with anti-TNF drugs, either infliximab or adalimumab, between January 2014-2016. Treatment failure was defined as need for dose intensification because of loss of response, surgery, or therapy removal for ineffectiveness/LOR. Patient data and demographics were obtained from patients electronic patient records. **Results:** are shown as OR and 95% CI and analysed using the Chi-square test and multivariable logistic regression analysis.

**Results:** During observational period, 99 patients commenced adalimumab therapy, 61 were on maintenance infliximab therapy. In terms of patient characteristics, the cohort mean age was 40.5 years, female gender 89 (55.6%), smoking status at anti-TNF $\alpha$  induction 24 (15%). For adalimumab 80 (80.8%) had CD, 43 (70.5%) for infliximab. Mean duration of disease was 8.09 years, for adalimumab, 11.43 years for infliximab. Response rates were greater overall for patients treated with infliximab versus adalimumab (65.6% v 52.5 %, p value 0.05). There was no statistical differences in response rates, in terms of patient characteristics, disease behaviour, location, disease duration. For infliximab prior anti-TNF $\alpha$  exposure, was a risk factor for lack of response, 11/21 (52.4%) of non-responders v 10/40 (25%) for responders, p= 0.0327 (95% CI -0.52 to -0.02) Mean CRP at week 14 was a good predictor of loss of response. Adalimumab non-responders, 21 (56.7%) had CRP >5, versus 5(11.6%), p<0.000 for responders, and a similar, though not statistically significant trend for infliximab, 35.7% v 22%, p=0.19

**Conclusions:** Suboptimal or loss of response remains a concern for anti-TNF $\alpha$  therapy. Predictors of loss of response, like week 14 CRP are useful to identify patients at risk of treatment failure, and to help develop strategies to overcome this.

**ABSTRACT 54 (16S163) POSTER PRESENTATION**

**Phone triage could remove a large proportion of young non-urgent endoscopy referrals from Irish endoscopy waiting lists**

**Author(s):** B.Christopher, K.Altamimi, C.Egan, C.Garry, R.Lavelle, C.Molloy, O.Kelly, C.Smyth, R.J. Farrell.

**Department(s)/Institutions:** Department of Gastroenterology, Connolly Hospital and RCSI, Blanchardstown.

**Introduction:** The Irish public endoscopy service is facing unprecedented pressure in terms of a huge increase in endoscopy

referrals over the past 10 years with currently over 4,300 people waiting more than 3 months for a colonoscopy. Despite established referral guidelines almost one-third of patients on Irish endoscopy waiting lists are aged 45 yrs or younger, many referred from primary-care on the basis of self-limiting symptoms, with high non-attendance rates by the time their direct access endoscopy appointments are scheduled and whose endoscopies are frequently normal while older patients face delayed diagnosis of their GI cancer.

**Aims/Background:** Our aim was to assess what impact contacting all non-urgent endoscopy referrals aged 45 years or younger by telephone would have on reducing endoscopy waiting lists.

**Method:** As of March 1st 2016, 144 of the 448 patients (32%) on our priority 2 non-urgent endoscopy waiting list were aged 45 years or younger. Using a simple pro-forma questionnaire five of our registrars and SHOs attempted to contact all 144 patients by phone to assess whether they still warranted endoscopy. Patients who could not be contacted or failed to contact a call-back number were removed from our endoscopy list and posted a gastroenterology clinic appointment.

**Results:** Of the 144 youngest waiters (age 19-45), 108 (75%) were direct access referrals from general practice and 36 (25%) were referred after review in GI clinics. Forty-four patients had their endoscopy performed or scheduled throughout the month of March and were removed from the study group. Of the remaining 100 youngest endoscopy waiters we were unable to contact 50 patients (50%) despite multiple attempts to contact them. Of the remaining 50 patients who were successfully contacted and had no scheduled endoscopy 14 patients (14%) confirmed that they would be happy to cancel their endoscopy because of either symptom resolution, response to PPI, triple therapy or dietary advice. Forty-six of the 64 patients (72%) who could not be contacted by phone or whose symptoms had resolved were direct access referrals.

**Conclusions:** Simple phone triage could remove almost two-thirds of young non-urgent endoscopy referrals from our endoscopy waiting lists including 14% of patients whose symptoms had resolved while waiting for their endoscopy and 50% of patients who were uncontactable by phone and were consequently rerouted from direct access endoscopy to gastroenterology clinics. Given their high rate of non-attendance, poor contactability by phone and high symptom resolution rates young patients should be preferentially triaged to gastroenterology clinics rather than direct access referral to non-urgent endoscopy lists freeing up much sought after endoscopy slots for older patients who are more likely to attend and more likely to have significant endoscopic findings

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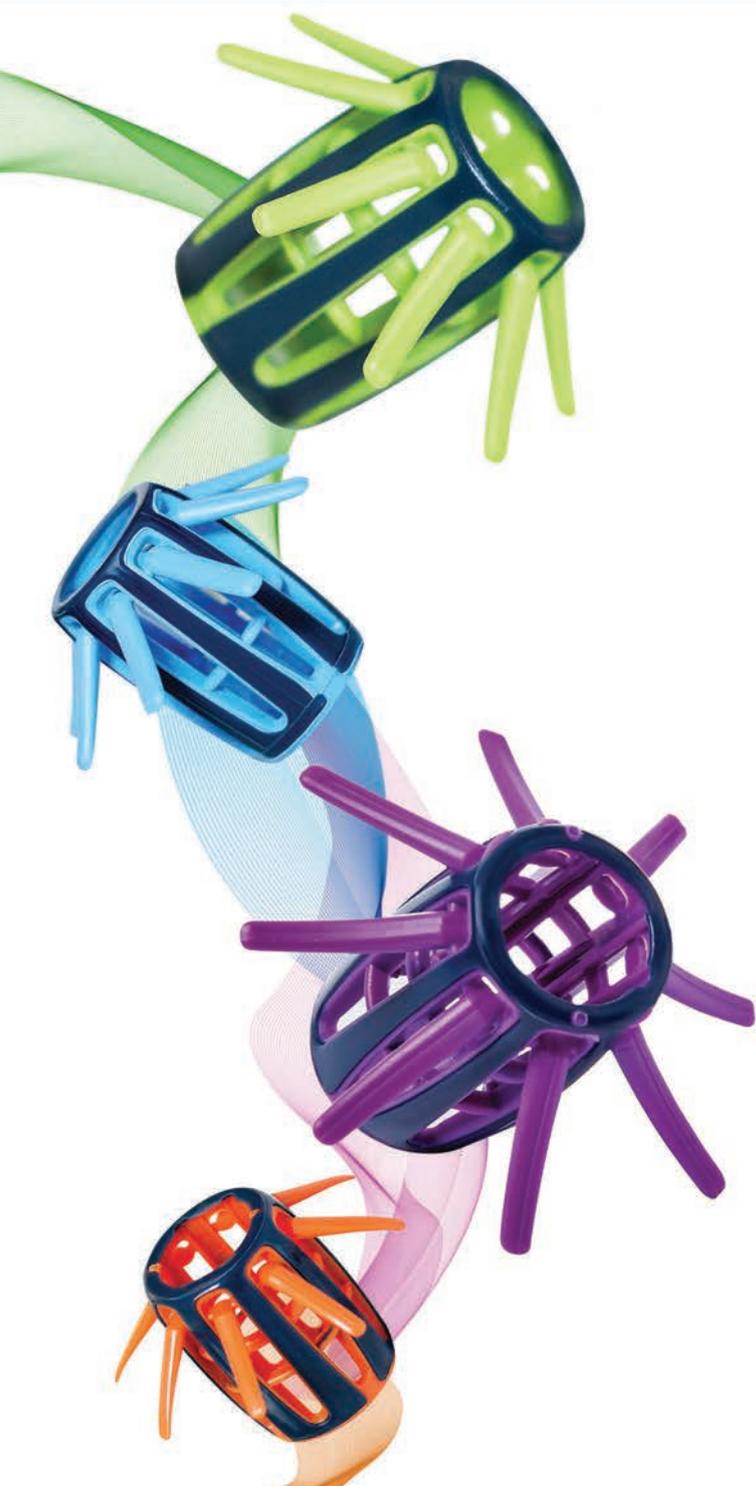
**ABSTRACT 55 (16S164) POSTER PRESENTATION**

**Faecal Calprotectin and Whole Blood Inflammatory Biomarkers as Non-Invasive Indices of Mucosal Inflammation**

**Author(s):** S. Naimimohasses, C. Drislane, A. Keane, J. O'Connell, U. Kennedy, L. Duffy, F. MacCarthy, S. McKiernan, S. Norris, D. O'Toole, N. Mahmud, V. Crowley, Martin Healy, D. Kevans

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

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**Introduction:** Faecal calprotectin is a highly sensitive and specific biomarker for the diagnosis of inflammatory bowel disease.

**Aims/Background:** To evaluate whole blood inflammatory biomarkers and faecal calprotectin levels in patients with IBD and assess correlation with mucosal inflammation.

**Method:** Faecal calprotectin (FC) was performed using a commercial assay. Levels < 50, 50 – 250 and > 250 were normal, indeterminate and elevated respectively. Subjects with IBD, available FC who had a routine blood profile performed within 1 month of FC estimation (n=132) were included. A sub-analysis was performed using IBD subjects with available FC data and endoscopy performed within 6 months (n=62). Mucosal inflammation at endoscopy was categorized as absent or present. For analysis between IBD phenotypes, UC and IBD-U subjects were grouped together. Primary endpoints were: association between blood biomarkers and FC, blood biomarkers and mucosal inflammation and association between FC and mucosal inflammation.

**Results:** N=132 subjects met inclusion criteria; age ( median: 43 (17 – 78)); 53% female; proportions with UC, IBD-unclassified and Crohn's disease: 36%, 8% and 56% respectively. Faecal calprotectin was normal, indeterminate and elevated in 12%, 25% and 63% of the cohort. There was no significant difference in FC category proportions between UC/IBD-U and CD subgroups. Faecal calprotectin demonstrated a direct association with platelet count (p=0.004) and CRP concentration (p=0.005) and a trend towards an inverse association with albumin concentration (p=0.09). The presence of mucosal inflammation was directly associated with platelet count (p=0.03) and showed a trend toward an association with WCC (p=0.09). There was a non-significant association between Faecal calprotectin and the presence of mucosal inflammation, with the proportion of subjects with normal, indeterminate and elevated faecal calprotectin in this group being 7%, 15%, 78% (p=0.2). In a multivariate binary regression WCC (p=0.043), however not faecal calprotectin (p=0.23) remained independently associated with mucosal inflammation.

**Conclusions:** Faecal calprotectin is a useful biomarker of mucosal inflammation in IBD cohorts. In a significant proportion of individuals with an indeterminate calprotectin (50 – 250) mucosal inflammation is present and this group may require endoscopic assessment to clarify mucosal inflammatory status. Whole blood inflammatory biomarkers remain important indices of disease activity in IBD populations.

#### ABSTRACT 56 (16S165) POSTER PRESENTATION

##### Faecal calprotectin a sensitive biomarker in prediction of small bowel Crohn's disease detected by Small bowel capsule endoscopy.

**Author(s):** Hamid Yousuf, Róisín Egan, Riona Walsh, Orla O'Dwyer, Pardeep Maheshwari, Umair Aleem, Catriona Gallagher, Prof Deirdre McNamara

**Department(s)/Institutions:** Department of Gastroenterology, AMNCH Tallaght, Dublin 24

**Introduction:** Small bowel capsule endoscopy (SBCE) is a useful diagnostic tool for small bowel Crohn's disease (CD), with a higher diagnostic yield than standard radiological techniques. However, the majority of patients undergoing either modality do not have CD.

**Aims/Background:** Our aim was to correlate a FC concentration to the SBCE findings in patients undergoing this examination for suspicion of small bowel CD.

**Method:** In this prospective study patients with suspected or known CD scheduled to have a SBCE were requested to give a stool sample for faecal

calprotectin (FC). On the day of SBCE examination CRP and Harvey Bradshaw index was calculated. SBCE was performed as standard and read by experienced gastroenterologists. A SBCE with a Lewis score of >135 or > 3 significant ulcers was considered positive for CD. FC was analysed externally and results reported as ug/g stool. The predictive value of a FC > 50 and 100ug/g for CD was calculated and overall correlation assessed with Pearson's r.

**Results:** In all 84 patients have been invited to participate and 58(69%) have FC result available at the time of analysis of which; male = 22 (38%), established CD (n=4), suspected CD (n=50), median age was 47yrs (range 17 to 75), median CRP was 1.55 (range 1 to 28.2) and median FC was 53ug/g (range 19.5 to 774). In all 48 (28/58) had a normal FC <50ug/g, and 36% (21/58) FC > 90 (median 217; range 102.8 to 774). Overall FC was weakly correlated with SBCE, with Pearson's r of 0.4401. The sensitivity, specificity and positive and negative predictive values for FC cut off's > 50 and > 100ug/g were; FC >50ug/g 67%, 53%, 31% and 83% and for FC >100ug/g 58%, 71%, 39% and 84.

**Conclusions:** In our prospective study FC was poorly correlated with SBCE findings in both suspected and known CD patients. This may reflect the lack of colonic disease in the majority of our patients > FC does not appear to be a reliable screening tool for SBCE.

#### ABSTRACT 57 (16S166) POSTER PRESENTATION

##### Comparison of bowel preparation quality between inpatients and outpatients colonoscopy, attending University Hospital Limerick

**Author(s):** Hamid Yousuf, Denise Brennan, Imran ul Haq, Magzoub Ahmed, Maeve Skelly

**Department(s)/Institutions:** Gastroenterology Department, University Hospital Limerick  
Gastroenterology Department, AMNCH Tallaght Hospital, Dublin 24

**Introduction:** Adequate bowel cleansing is essential for complete examination of the colon mucosa during colonoscopy. Adverse consequences of ineffective bowel preparation include lower adenoma detection rates, longer procedural time, lower caecal intubation rates and shorter intervals between examinations.

**Aims/Background:** To assess the quality of bowel preparation for colonoscopy in inpatients vs outpatients at University Hospital Limerick.

**Method:** Total of 86 patients with median age of 55.5 yrs (range 22 to 89), 43% male (n=37) included in this prospective study. The quality of bowel preparation was assessed by the endoscopist, who performed the procedure. Bowel preparation was assessed using The Harefield Cleansing Scale. Kleen Prep is used as standard bowel cleanser in majority of patients. A successful bowel preparation was defined as caecal intubation with a cleansing scale grade of A or B.

**Results:** Of total, 86/ 41 (48%) were inpatients and 45 (52%) were outpatients. Colonoscopy in inpatients was performed due to unexplained anaemia in 32% (n=13) of cases, altered bowel habit and/or diarrhoea in 17% (n=7) and 51% (n=21) were due to other concerning indications (per rectal bleed, polyp surveillance, abnormal CT scan etc). Colonoscopies performed in outpatients were due to unexplained anaemia in 20% (n=9), altered bowel habit and/or diarrhoea in 38% (n=17) and 42% (n=19) were due to other concerning reasons. Overall, the caecal intubation rate was 99% (n= 85), however according to the Harefield cleansing criteria, only 70% (n= 60) of procedures were determined to have successful bowel preparation (Grade A or B). Successful bowel preparation was achieved in 66% (n= 27) of inpatients and 73% (n= 33) of outpatients.



**Conclusions:** The proportion of inpatients who achieve successful bowel preparations when undergoing colonoscopy is lower than that of outpatients (66% vs 73%). Despite a higher proportion of females in outpatients group (62% vs 40%), a higher rate of successful bowel preparation is observed. The reasons for poor inpatient prep are complex, but may include existing ill health, reduced mobility and poorer adherence to bowel preparation and oral hydration.

#### ABSTRACT 58 (16S167) POSTER PRESENTATION

##### WHAT ARE THE LONGTERM SURVEILLANCE IMPLICATIONS FOR A NORMAL COLONOSCOPY (NEGATIVE SCREENING) IN A HIGH RISK POPULATION?

**Author(s):** M. Walshe, C. Kiat, J Leyden, P. MacMathúna

**Department(s)/Institutions:** Department of Gastroenterology, Mater Misericordiae University Hospital

**Introduction:** Absence of adenomas at screening colonoscopy has been shown to be predictive of absence of adenomas at follow up colonoscopy. Positive family history (FHx) of colorectal cancer (CRC) is associated with increased risk of CRC, resulting in a significant increased demand for screening full colonoscopy (FC). However, the implications of surveillance interval of a 'polyp-free' index FC in this cohort have not been clearly defined.

**Aims/Background:** To assess the long term surveillance implications for a normal index FC (negative screening) in a high risk population attending a Family Colorectal Cancer Clinic.

**Method:** We identified patients undergoing more than one screening FC from a group of 2242 patients attending the High-Risk Family CRC Screening clinic. Polyps found during FC were characterized into simple adenoma (SA) and advanced adenoma (AA). A total 1510 FC's were performed in 589 patients: median age at index FC was 46.9 years (range 18.5-75.3), a median of FC's performed was 2 (range 2-12) and the median interval to subsequent FC was 4.9 years (range 0.33-10.2).

**Results:** At index FC, 465 (78.9%) had no adenoma while 124 (21.1%) had an adenoma. Of the 124 patients with adenoma at index colonoscopy, 47 (37.9%) had AA and 77(63.1%) had a SA.

In the normal FC cohort, follow up colonoscopy was normal in 404 (86.9%) while adenomas were only detected in 61 (13.1%). This is in contrast to 48 (38.7%) patients with adenoma found on subsequent colonoscopy in the adenoma at index FC group ( $P < 0.001$ ).

47 patients had AA at index colonoscopy and on subsequent follow-up, 8 (17.0%) patients had AA. Of the 542 patients who had no adenomas or SA only at index colonoscopy, only 14 (2.6%) had AA at follow-up ( $P < 0.001$ , VS AA at index colonoscopy).

**Conclusions:** This study demonstrates that patients who are polyp free or SA only at index colonoscopy have lower risk of having an AA at subsequent colonoscopies. This could justify extending screening intervals within a high risk cohort with associated savings in resources within a limited capacity health service.

#### ABSTRACT 59 (16S168) POSTER PRESENTATION

##### Anti-TNF $\alpha$ antibody induced Psoriasis in patients with Inflammatory Bowel Disease; a prospective Irish cohort study

**Author(s):** S Kirthi<sup>1</sup>, AM Tobin<sup>1</sup>, D McNamara<sup>1</sup>

##### Department(s)/Institutions:

<sup>1</sup> Trinity Academic Gastroenterology Group (TAGG), Trinity College Dublin

<sup>2</sup> Department of Dermatology, Tallaght Hospital

**Introduction:** The increased use of anti-TNF $\alpha$  antibody in Inflammatory Bowel Disease (IBD) has generated interest regarding the paradoxical triggering of psoriatic skin lesions in its users.

**Aims/Background:** To determine the prevalence of psoriasis in an IBD cohort with reference to clinical characteristics and anti-TNF $\alpha$  use.

**Method:** Following ethical approval, a survey questionnaire that included demographic and clinical data including age, gender, smoking status, IBD type, diagnosis of psoriasis and anti-TNF $\alpha$  use was posted out to all patients attending the IBD clinic in Tallaght Hospital. Incidence rates of concomitant and reactive psoriasis were analysed using a students T-test,  $p < 0.05$  was significant.

**Results:** In all, 905 questionnaires were posted out, 34% (n=312) returned, 32% (n=286) were complete. In all, 58% (n=166) were female, 36% (n=103) and 64% (n=183) had UC and CD respectively, 55% (n=157) ever smoked, 44% (n=126) were ever on an anti-TNF $\alpha$  therapy of which 56% (n=71) had been on Adalimumab (ADA) only, 18% (n=23) Infliximab (IFX) only, 23% (n=29) on ADA or IFX, and 2% (n=3) were exposed to Symponi. In all, 55.3% (n=57) and 54.6% (n=100) of the UC and CD cohort smoked. The overall prevalence rate of IBD and psoriasis was 9.4% (n=27), mean age 48 years (range 33-66) of which 30% (n=8) had reactive psoriasis, ie psoriasis occurring after commencement anti-TNF $\alpha$  therapy. The mean duration of treatment before onset of reactive psoriasis was 2.6 years. The prevalence rate of psoriasis in the non-biologic and biologic cohort was 11.9% (19 of 160) and 6.3% (8 of 126) respectively,  $p = 0.1$ , CI = 1.82 to 12.57. There was a similar rate of the overall prevalence of IBD and psoriasis 9.4% (27 of 286) compared to reactive psoriasis 6.3% (8 of 126),  $p = 0.31$ , CI = 3.52 to 8.40 in our cohort. Interestingly, all 8 patients who had reactive psoriasis had CD and were female compared to 63% (17 of 27) CD and females in the overall psoriasis group,  $p = 0.04$ , CI = 3.93 to 57.59. There was no association between the type of Anti-TNF $\alpha$  prescribed with the occurrence of reactive psoriasis 6% (6 of 100) vs. 3.8% (2 of 52) ADA and IFX respectively, Odds Ratio (OR) = 1.5,  $p = 0.59$ , 95% CI 0.30 to 8.00 or smoking with any form of psoriasis in IBD, OR = 1.4,  $p = 0.42$ , CI = 0.6182 to 3.1560.

**Conclusions:** In our study, there was a similar prevalence rate of reactive psoriasis and background rate of psoriasis in the overall IBD cohort (6.3% vs 9.4%). Our study suggests that the risk factors associated with reactive psoriasis include a diagnosis of CD and female gender. Further work to elucidate the pathophysiology of this phenomenon is required.

#### ABSTRACT 60 (16S169) POSTER PRESENTATION

##### Related risk factors associated with steroid resistance in an Irish IBD population.

**Author(s):** Hussey M<sup>1,2</sup>, Keating D<sup>3</sup>, Whelan S<sup>3</sup>, Devitt P<sup>3</sup>, Healy J<sup>3</sup>, B Ryan, McNamara D<sup>1,2</sup>

##### Department(s)/Institutions:

<sup>1</sup> Trinity Academic Gastroenterology Group

<sup>2</sup> Department of Gastroenterology, Adelaide & Meath Hospital, Tallaght.

<sup>3</sup> Trinity College Dublin

**Introduction:**

Glucocorticoids(GCS) remain the gold standard for treating an acute flare of IBD & response rates are often unpredictable. Resistance rates have been estimated to range from 20-30%, however predictive factors associated with GCS resistance remain uncertain.

**Aims/Background:** To estimate local steroid resistance rates amongst an Irish IBD cohort & to identify related risk factors driving resistance.

**Method:** A retrospective review of patients from HIPE Data requiring hospitalisation for an acute flare of colitis from 2010-2015 was undertaken. Demographics & clinical details including phenotype, behaviour, severity, duration, therapies, CRP, length of stay (LOS) were recorded. Resistance rates were determined by a lack of improvement or deterioration in day 3 CRP or need for therapy escalation or surgery. Steroid dependence was defined as relapse of symptoms within 3 months of stopping IV GCS. Results were compared amongst responders & non-responders using a student t-test & p value of <0.05 was considered significant.

**Results:** In all 473 patients requiring hospitalisation for acute colitis were identified, of which 247 have been analysed to date. A total of 74 (29%) excluded due to insufficient information. Of the remaining 173, 99 (57%) were female, mean age was 39 yrs (15-84 yrs), mean disease duration was 4.5 yrs (0-27 yrs). There were statistically more patients with Crohn's disease (CD) 98 (57%) than UC 75 (43%),  $p=0.009$ , 95% CI 0.03-0.24. In all 52 (30%) had severe, 87 moderate (50%), 36 mild (20%) disease. Overall mean LOS was 10 days (3-49) and admission CRP 59 mg/l (1-307.9 mg/l). Mean day 3 CRP was 25 mg/l (1-260 mg/l). In all, 103 (60%) were responders, 55 (31%) were steroid resistant & 15 (9%) were steroid dependent. Overall resistant patients had more severe disease vs responders 25 (45%) vs 17 (17%),  $p<0.0001$ , OR 4.2, 95% CI 2.00-8.86. Mean CRP on day 3 for responders and non-responders was 10 mg/l vs 48 mg/l. CRP >45 mg/l on day 3 appeared to be predictive of steroid resistance, OR 20.6, 95% CI 5.78-73.37,  $p<0.001$ . Overall disease subtype, concomitant therapies or disease extent did not appear to influence resistance rates, however amongst UC patients pancolitic patients had higher resistance rates,  $n=21$  (28%) vs.  $n=8$  (7%),  $p<0.0001$ , 95% CI 0.18-0.42. In all 44 (80%) of the resistant patients required surgical intervention, of which 13 (30%) had failed rescue biologic therapy.

**Conclusions:** GCS resistance rates in our cohort are similar to previously published figures & significant at 31%. A high CRP on day 3, severe disease & pancolitis are predictive of GCS resistance. Further work on mechanisms of steroid resistance is needed as most required surgery and did not respond to a biologic.

**ABSTRACT 61 (16S170) POSTER PRESENTATION****Neutrophil Lymphocyte Ratio: A Valuable Prognostic Tool in Colorectal Cancer**

**Author(s):** RM Waldron, ME Kelly, BM Molony, C Clancy MR Joyce, MJ Kerin

**Department(s)/Institutions:** Discipline of Surgery, Lambe Institute, NUI Galway

**Introduction:** Numerous pre-operative screening tools have been reported to aid in determining prognosis of colorectal cancer, but have poor severity prediction and lack accurate estimation of postoperative complications. Assessment of the host's inflammatory response to the tumour may be easier in clinical practice. The ability of tumours to invade and metastasise is dependent both on the intrinsic characteristics

of tumour cells and on the tumour microenvironment. The systemic inflammatory response also features changes in the relative levels of circulating white blood cells. The well-recognised neutrophilia is accompanied by a relative lymphocytopenia. The neutrophil-lymphocyte ratio (NLR) has been suggested as a simple index of systemic inflammatory response in critically ill patients. We hypothesised that NLR could be used as a prognostic indicator in colorectal cancer patients.

**Aims/Background:** To evaluate the clinical utility of NLR in predicting the grade of the tumour, lymph node positivity, resection modality (elective vs. emergency) and five year survival.

**Method:** 507 patients who underwent a colorectal resection for malignancy over a 5-year period (January 2009-December 2013) were evaluated. Demographics, type of surgical intervention, biochemistry, tumour grading and staging and five-year survival were noted.

**Results:** A total of 507 patients were included in the study of which 58.4% ( $n=296$ ) were male. Median (range) age was 70 (27-95) years. There was no statistical difference in NLR across tumour staging and lymph node positivity. Median NLR was statistically different regarding elective vs. emergency resection (3.5 vs. 6.4,  $p<0.0001$ , Mann Whitney). NLR was also associated with 5-year survival. Median NLR was 3.2 in patients alive vs. 4.6 in those dead at 5-years ( $p<0.0001$ , Mann Whitney). A receiver operating characteristic (ROC) cutoff value of >3.61 was associated with higher 5-year mortality rate (sensitivity 65%, specificity 58%  $p<0.001$ )

**Conclusions:** We highlight that NLR has valuable clinical utility as a predictor of overall survival in colorectal cancer.

**ABSTRACT 62 (16S171) POSTER PRESENTATION****The Impact of Emergency Presentation of Colorectal Cancer and its Correlation with Increasing Age and Survival Outcomes**

**Author(s):** RM Waldron, ME Kelly, BM Molony, C Clancy MR Joyce, MJ Kerin

**Department(s)/Institutions:** Discipline of Surgery, Lambe Institute, NUI Galway

**Introduction:** Colorectal Cancer is one of the most common neoplasms. Reports have suggested that age and acute (emergency) presentation may be associated with poorer prognosis.

**Aims/Background:** To evaluate the composition of colorectal cancer presentation and the impact age has on survival.

**Method:** Using a single-centre tertiary referral institution database, a review of colorectal cancer operations was performed. Patient demographics, mode of presentation, and impact of age on survival were noted.

**Results:** A total of 506 patients underwent surgery for colorectal cancer between 2009-2013. 431 (85.1%) were elective with 75 (14.9%) presenting acutely. 83.2% ( $n=421$ ) were under 80 years old. Median and 5-year overall survival was 40 months vs. 50 months and 66% vs. 43% for under 80 and over 80 year cohorts respectively ( $p=0.0005$ ). 5-year survival for emergency colorectal resection in over 80 year cohort was 14% ( $p=0.001$ ) as compared to 42.4% in elective patients greater than 40 years.

**Conclusions:** Overall 15% of colorectal resection are performed in



octogenarians. Outcomes in the emergency setting are considerably poorer. Orthopaedic surgery have embraced the need for orthogeriatrician. This study highlights the need for the development of surgical-geriatrician sub-specialty, to medically optimise elderly patients having complex surgery.

**ABSTRACT 63 (16S172) POSTER PRESENTATION**

**APPROPRIATENESS OF INTRAVENOUS (IV) PROTON PUMP INHIBITOR (PPI) USE IN AN ACUTE HOSPITAL**

**Author(s):**

Tam, A<sup>[1]</sup>, Power, D<sup>[2]</sup>, Stack, W<sup>[2]</sup>, Jackson., S<sup>[2]</sup> Murphy, A<sup>[2]</sup>.

**Department(s)/Institutions:**

<sup>[1]</sup>University College Cork, College Road, Cork.

<sup>[2]</sup>Bon Secours Hospital, College Road, Cork.

**Introduction:** Intravenous proton pump inhibitors are frequently used in the hospital setting. The main indication for IV PPIs is in acute upper GI bleeding where a bleeding ulcer is suspected or established to be the cause. [1] The widespread use of PPIs has been controversial, having been linked to the development of nosocomial pneumonia in the intensive care setting [2] and to spontaneous bacterial peritonitis in cirrhotic patients [3]. There is some evidence that intravenous PPIs can be overused in hospitals where a much cheaper oral or sublingual formulation can be used.

**Aims/Background:** To record the use of intravenous PPI's at the Bon Secours Hospital-Cork and to determine if they were appropriately prescribed.

**Method:** In patients where an IV PPI was prescribed (n=30), data was recorded retrospectively including patient demographics, indications for PPI use, and whether an endoscopy was performed during the admission. Based on current internationally accepted guidelines two consultant gastroenterologists determined whether IV PPI use was appropriate or not.

**Results:** Of 30 patients included in this study 18 (40%) were surgical and 12 were medical. Nine (30%) of patients were already on an oral PPI when an IV PPI was commenced and 21(70%) were discharged on an oral PPI. 180 IV PPI doses were administered with a mean of 6 doses per patient. Six (20%) of patients had an upper GI bleed as the primary indication for an IV PPI. Endoscopy was performed on 8 (27%) of patients and of these 1 (12.5%) had a visible vessel in an ulcer as the suspected cause of the bleed. 17 (60%) of patients were nil by mouth when commenced on an IV PPI. The choice of an intravenous PPI was determined to be appropriate in 10 (33%) cases. It was also determined that an oral PPI could have been used in 22 (73%) cases if necessary.

**Conclusions:** This indicates that significant overuse of intravenous PPIs in an inpatient setting where an oral or sublingual formulation should be considered. More stringent adherence to guidelines in relation to IV PPIs could result in possible reduced inpatient complications and also reduce hospital drug costs.

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# Winter Meeting 2015



Full House



Cork Amigos Niall & Ger



Prof Matt Rutter Speaker, Durham Univ.



Dr Conor Braniff



Dr Deirdre McEnroy



1st Prize Clinical Science ; Dr David Gibson receiving his prize from Prof MacMathuna



Drs Paul Lynch & Chris Steele



# Winter Meeting 2015



Dr Karen Hartery



IBD Nurses, Caroline Conmy Sligo, Nikki O'Neill, AbbVie, Cathy Walsh Letterkenny & Emer Anderson Drogheda



1st Prize Basic Science, Dr Francesco Caiazza receiving his award from President ISG



Sandra Flaherty, Michael Dineen, John Halpin & Michael Stafford Ferring



Prof Matt Rutter, Padraic MacMathuna Pres. ISG & Kieran Sheahan



Dr Orla Crosbie, Prof Donal O'Shea & Prof Chris Day Newcastle on Tyne. On Digestive disease



# Winter Meeting 2015



Prof Des Winter, Dr Jan Leyden & Prof Gareth Evans  
Univ of Manchester on Colorectal Cancer Genetics



Mr Ronan Cahill, Speaker  
Mater Mis Univ Hospital



Profs Glen Doherty & Laurence Egan



Prof Chris Day Newcastle Univ.



Prof Kieran Sheahan SVUH



Drs Paul Lynch & Luke O'Donnell



Nicola, Julie & Norgine Team



# Winter Meeting 2015



IBD Nurses, Denise Keegan SVUH. Emer O'Toole Tallaght, Mary Hamzawi Crumlin, & Siobhan Kiernan, Drogheda



Dr Anna Kelly & Dr S SenGupta Chairing a session



Dr Aisling O'Leary TCD presenting on Real world outcomes from the National HCV treatment registry



Drs Maeve Skelly, Manus Moloney, Susan McKiernan, & Kevin Ward



# Winter Meeting 2015



Poster awards; Loretto O'Brien AbbVie, John Fintan O'Hara, Eleanor O'Neill, Denise Brennan & Prof Padraic MacMathuna



Prof Hugh Mulcahy, outlining new database



Mr Sean Martin SVUH



Ciara Coleman, TCD



Sir Steve O'Rahilly Cambridge on Obesity & Digestive Disease



Prof Tom Clarke, Dr S SenGupta, Dr Jan Leydon & Prof Eileen Clarke



Hospira Stand



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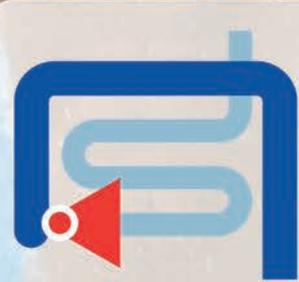
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**DATE OF PREPARATION:** February 2016. **CODE:** 2016/8.

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1. Sandborn, WJ et al. Once-daily dosing of delayed-release oral mesalamine (400-mg tablet) is as effective as twice-daily dosing for maintenance of remission of ulcerative colitis. *Gastroenterology*. 2010 Apr;138(4):1286-96.

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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.<sup>4</sup>

**Prescribing Information**

**Humira (adalimumab) 40mg solution for injection in pre-filled pen or pre-filled syringe and Humira 40mg/0.8ml solution for injection for paediatric use. Refer to Summary of Product Characteristics for full information. Presentations:** Each 0.4 ml single dose pre-filled pen or pre-filled syringe contains 40mg of adalimumab. Each 0.8 ml single dose vial contains 40mg of adalimumab. **Indications:** Rheumatoid arthritis (RA). In combination with methotrexate (MTX) is indicated for the treatment of moderate to severe, active RA in adult patients with inadequate response to disease-modifying anti-rheumatic drugs (DMARDs) including MTX. Also indicated for the treatment of severe, active and progressive RA in adults not previously treated with MTX. Can be given as monotherapy in case of intolerance to or when continued treatment with MTX is inappropriate. Humira has been shown to reduce the rate of progression of joint damage on X-ray and to improve physical function, in combination with MTX. **Polyarticular juvenile idiopathic arthritis (pJIA):** In combination with MTX for the treatment of active pJIA, in patients from the age of 2 years with inadequate response to one or more DMARDs, or as monotherapy in case of intolerance to or when continued treatment with MTX is inappropriate. **Enthesitis-related arthritis (ERA):** For active ERA in patients from 6 years of age with inadequate response to, or intolerance to, conventional therapy. **Psoriatic arthritis (PsA):** For active and progressive PsA in adults with inadequate response to DMARDs. Humira has been shown to reduce the rate of progression of peripheral joint damage on X-ray in patients with polyarticular symmetrical subtypes of the disease and to improve physical function. **Ankylosing spondylitis (AS):** Treatment of adults with severe active AS with inadequate response to conventional therapy. **Axial spondyloarthritis, non-radiographic (nr-axSpA):** 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 (NSAIDs). **Crohn's disease (CD):** Treatment of moderate to severe, active CD, in adult patients not responding 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. **Paediatric Crohn's disease:** 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. **Psoriasis (Ps):** Treatment of moderate to severe chronic plaque psoriasis in adult patients not responding to or contraindicated for, or are intolerant to other systemic therapy including cyclosporine, MTX or PUVA. **Paediatric plaque psoriasis:** 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. **Hidradenitis suppurativa (HS):** For active moderate to severe hidradenitis suppurativa (acne inversa) in adult patients with an inadequate response to conventional systemic HS therapy. **Ulcerative colitis (UC):** Treatment of moderate to severe active UC in adult patients with an inadequate response to conventional therapy including corticosteroids and 6-mercaptopurine (6-MP) or azathioprine (AZA), or who are intolerant to or contraindicated for such therapies. **Dosage and administration:** Treatment should be initiated and supervised by specialist physicians experienced in the diagnosis and treatment of the condition. Provide patients with special alert card. Patients may self-inject after proper injection training, with physician approval and appropriate medical follow-up. Optimise other concomitant therapies. RA, PsA, AS or nr-axSpA: 40mg dose every other week. RA: MTX should be continued. In monotherapy some patients who experience a decrease in their response to Humira may benefit from an increase to 40mg every week. There may be a need for dose interruption, e.g. before surgery or if serious infection occurs. Re-introduction of Humira after discontinuation for 70 days or longer resulted in the same magnitudes of clinical response and similar safety profile as before dose interruption. pJIA: Age 2 to 12 years: 24mg/m<sup>2</sup> body surface area to a maximum single dose of 20mg (for patients aged 2-4) and up to a maximum single dose of 40mg (for patients aged 4-12) administered every other week. The volume for injection is based on the patients' height and weight (see SmPC for height and weight dosing chart). For patients from 13 years: 40mg administered every other week regardless of body surface area. ERA: Age 6 years and older: 24mg/m<sup>2</sup> body surface area up to a maximum single dose of 40mg every other week. The volume for injection is based on the patients' height and weight (see SmPC). For RA, pJIA, PsA, AS and nr-axSpA, available data suggest that the clinical response is usually achieved within 12 weeks of treatment. Continued therapy should be carefully reconsidered in a patient not responding within this time period. CD: Adults: Induction: 80mg at Week 0 followed by 40mg at Week 2. For a more rapid response, 160mg at Week 0 (4 injections in 1 day or 2 injections / day for 2 consecutive days), 80mg at Week 2, can be used. Note that the risk for adverse events is higher during induction. After induction, the dose is 40mg every other week. If a patient has stopped Humira and signs and symptoms of disease recur, Humira may be re-administered. There is little experience from re-administration after more than 8 weeks since the previous dose. During maintenance treatment, corticosteroids may be tapered in accordance with clinical practice guidelines. Patients experiencing a decrease in their response may benefit from an increase in dosing frequency to 40mg every week. Patients who have not responded by Week 4 may benefit from continued maintenance therapy through Week 12 and should be carefully reconsidered in a patient not responding within this time period. Paediatric CD patients <40kg: Induction: 40mg at Week 0, 20mg at Week 2. For a more rapid response: 80mg at Week 0 (2 injections in 1 day), 40mg at Week 2; risk of adverse events higher during induction. Maintenance: 20mg every other week. If insufficient response, consider 20mg every week. Treatment beyond 12 weeks should be reconsidered if no clinical response in that time. Paediatric CD patients ≥40kg: Induction: 80 mg Week 0, 40 mg at Week 2. For a more rapid response: 160 mg at Week 0 (4 injections in 1 day or 2 injections / day for 2 consecutive days), 80 mg at Week 2, followed by 40 mg every other week. Maintenance: 40 mg every other week. Risk of adverse events higher during induction. Maintenance: 20 mg every other week. If insufficient response, consider 20 mg every week. Treatment beyond 12 weeks should be reconsidered if no clinical response in that time. Ps: Adult: Induction dose of 80mg at week 0, followed by 40mg subcutaneously given every other week from week 1. Continued therapy beyond 16 weeks should be carefully reconsidered in a patient not responding within this time period. Beyond 16 weeks, patients with inadequate response may benefit from an increase in dosing frequency to 40 mg every week. Benefits and risks should be carefully reconsidered in a patient with an inadequate response after increasing dosing frequency (see SmPC). If adequate response is achieved with increased dosing frequency, dose may subsequently be reduced to 40 mg every other week. Paediatric plaque Ps: Age 4 years and older: 0.8 mg per kg body weight (up to a maximum of 40 mg per dose) administered weekly for the first two doses and every other week thereafter. Continued therapy beyond 16 weeks should be carefully considered in a patient not responding within this time period. The volume for injection is based on the patients' weight (see SmPC). HS: Adults: 160mg initially at Day 1 (4 injections in 1 day or 2 injections / day for 2 consecutive days), followed by 80 mg two weeks later at Day 15 (2 injections in 1 day). Two weeks later (Day 29) continue with

a dose of 40 mg every week. Antibiotics may be continued if necessary. Concomitant topical antiseptic wash on HS lesions should be used on a daily basis. Treatment beyond 12 weeks should be reconsidered if no clinical response in that time. UC: Adults: Induction: 160mg at week 0 (4 injections in 1 day or 2 injections / day for 2 consecutive days) and 80mg at week 2. Maintenance: 40mg every other week. During maintenance, corticosteroids may be tapered in accordance with clinical practice guidelines. If insufficient response, consider 40mg every week. Treatment beyond 8 weeks should be reconsidered if no clinical response in that time. **Contraindications:** Active TB or other severe infections such as sepsis, and opportunistic infections; moderate to severe heart failure (NYHA class III/IV) and hypersensitivity to adalimumab or any of the excipients. **Precautions and Warnings:** In order to improve traceability of biological medicinal products, the trade name and the batch number of the administered product should be clearly recorded. **Infections:** Patients taking TNF-antagonists are more susceptible to serious infections especially if they have impaired lung function. Monitor for infections, including tuberculosis, before, during and for 4 months after treatment. Treatment should not be initiated in patients with active infections until they are controlled. The risks and benefits of treatment should be considered prior to initiating therapy in patients who have been exposed to tuberculosis or endemic mycoses. New infections during treatment should be evaluated and monitored closely. Treatment should be discontinued for new serious infection or sepsis and treated appropriately. Exercise caution when treating patients with a history of recurring infections or who are predisposed to infections. **Serious infections:** Serious infections, including those with hospitalisation or death have been reported in patients receiving treatment. Tuberculosis: Consult SmPC for details. Reactivation (of latent TB, both pulmonary and extra-pulmonary (disseminated)) have been reported. Before initiation of therapy all patients must be screened for both active or inactive (latent) TB. If active TB is diagnosed Humira therapy must not be initiated. If latent TB is suspected, a physician with appropriate expertise should be consulted and local treatment recommendations for prophylaxis followed prior to initiation of Humira. Despite prophylaxis TB reactivation has occurred on Humira. **Other opportunistic infections:** Opportunistic infections have been observed in patients receiving Humira. In patients with signs and symptoms of such infections Humira should be discontinued. Diagnosis and administration of empiric antifungal therapy in these patients should be made in consultation with a physician with appropriate expertise. **Hepatitis B Reactivation:** Reactivation has occurred in chronic carriers (i.e. surface antigen positive) tested for HBV infection before initiating treatment. Carriers should have a consultation with a specialist physician. HBV carriers should be closely monitored for signs and symptoms of active HBV infection throughout therapy and for several months following termination of Humira. If reactivation occurs discontinue treatment and initiate appropriate anti-viral and supportive treatment. **Neurological events:** Humira has a rare association with new onset or exacerbation of clinical symptoms and/or radiographic evidence of central and peripheral nervous system demyelinating disease. Caution is advised when considering Humira in patients with pre-existing or recent-onset central or peripheral nervous system demyelinating disorders. **Allergic reactions:** Reports of serious allergic reactions including anaphylaxis have been received. If an anaphylactic reaction or other serious allergic reaction occurs, Humira should be discontinued immediately and appropriate therapy initiated. **Malignancies and lymphoproliferative disorders:** A possible risk of malignancy, including lymphoma and leukaemia, in patients including children and adolescents treated with TNF antagonists cannot be excluded. All patients, and in particular those with a history of extensive immunosuppression or PUVA treatment, should be monitored for non-melanoma skin cancer prior to and during Humira therapy, caution in COPD patients, as well as in patients with increased risk of malignancies due to heavy smoking. The potential risk with the combination of azathioprine or 6-mercaptopurine and Humira should be carefully considered (hepatosplenic T-cell lymphoma has occurred). A risk for the development of hepatosplenic T-cell lymphoma in patients treated with Humira cannot be excluded. Caution should be exercised in considering Humira treatment in patients with a history of malignancy. The risk for development of dysplasia or colon cancer is unknown. UC patients and those with a prior history of dysplasia or colon carcinoma should be screened for dysplasia before therapy and throughout their disease course. This evaluation should include colonoscopy and biopsies per local recommendations. **Haematologic reactions:** Adverse events of the haematologic system have been reported with Humira. Patients should be advised to seek immediate medical attention if they develop signs and symptoms of blood dyscrasias. **Vaccinations:** Patients on Humira may receive concurrent vaccinations, except for live vaccines. Paediatric patients should be brought up to date with all immunisations prior to initiating Humira (see also fertility, pregnancy and lactation section). **Congestive heart failure:** See contraindications. Caution is advised in mild heart failure (NYHA class I/II) and treatment discontinued in patients who develop new or worsening symptoms of congestive heart failure. **Autoimmune processes:** Autoimmune antibodies may form. Discontinue treatment if development of a lupus-like syndrome with positive antibodies against double-stranded DNA. **Surgery:** The long half life of Humira should be considered when a surgical procedure is planned. Patients should be monitored for infections. **Small bowel obstruction:** Failure to respond to treatment for CD may indicate the presence of fixed fibrotic stricture that may require surgical treatment. Data suggests that Humira does not worsen or cause strictures. **Elderly:** Serious infections were higher in patients over 65 years of age, some of whom had fatal outcomes. Consider risk of infection. **Interactions:** Combination of adalimumab with other biologic DMARDs (e.g. anakinra and abatacept) or other TNF-antagonists is not recommended. **Fertility, pregnancy and lactation:** Not recommended during pregnancy. Women of childbearing potential should use adequate contraception and continue its use for at least five months after the last Humira treatment. Women must not breast-feed for at least five months after the last treatment. **Side Effects:** The most commonly reported side effects are: infections, leucopenia, anaemia, lipids increased, headache, abdominal pain, nausea and vomiting, elevated liver enzymes, rash (including exfoliative rash), musculoskeletal pain, injection site reaction. Serious, including fatal, side effects have been reported including infections/sepsis, intestinal perforation, opportunistic infections, TB, endemic mycoses, demyelinating disease, malignancies including lymphoma (including hepatosplenic T-cell lymphoma), leukaemia and skin cancer (including melanoma and Merkel cell carcinoma), cytopenias, worsening heart failure, myocardial infarction, pulmonary embolism, pleural effusion, pulmonary fibrosis, cerebrovascular accident, interstitial lung disease, lupus, Stevens-Johnson syndrome, angioedema, anaphylaxis, sarcoidosis, hepatitis, liver failure and worsening of symptoms of dermatomyositis. **Prescribers should consult the SmPC for the other less commonly reported side effects. Legal Category:** POM. **Marketing Authorisation Numbers/ Presentations:** Vial: EU/1/03/256/001; Pre-filled Syringe: EU/1/03/256/013; Pre-filled Pen: EU/1/03/256/017. Further information is available from AbbVie Limited, 14 Riverwalk, Citywest Business Campus, Dublin 24. HCPs are asked to report any suspected adverse reactions via HPRAs Pharmacovigilance, Earlsfort Terrace, IRL - Dublin 2. Tel: +353 1 6764971; Fax: +353 1 6762517. Website: www.hpra.ie. E-mail: medsafety@hpra.ie. Date of revision of PI: February 2016 PL/256/016

<sup>1</sup>Not a real patient. **References:** 1. Sandborn WJ, Douglas CW, Van Assche G et al. Rapid onset of adalimumab and long-term efficacy among week-8 responders in adults with moderate to severe active UC. Paper presented at Advances in Inflammatory Bowel Disease, Hollywood, FL Dec 1-3 2011. 2. Colombel JF, Sandborn WJ, Ghosh S, et al. Four-year maintenance treatment with adalimumab in patients with moderately to severely active ulcerative colitis: data from ULIRA 1, 2 and 3. *Am J Gastroenterology*. 2014; 109(11): 1771-1780. 3. Sandborn WJ, van Assche G, Reinisch W et al. Adalimumab induces and maintains clinical remission in patients with moderate-to-severe ulcerative colitis. *Gastroenterology*. 2012; 142(2): 257-265 e1-3. Current prescribing information is available at this stand and on www.medicines.ie 4. Humira [Summary of Product Characteristics] AbbVie Ltd.