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BRITISH SOCIETY OF GASTROENTEROLOGY

New Wave

The Official e-Newsletter of the Association of GI Physiologists

AGIP Council 2025

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July 2025

Welcome

Welcome to the **July 2025** edition of NewWave!
If you have any relevant articles or papers that you would like to be included in future editions, please email Gemma Willis

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From the Editor

Hello, and welcome to the summer issue of NewWave!

This edition is packed with fantastic review articles following delegate attendance at BSG Live! last month, as well as information regarding future training courses, AGIP updates and an exciting job opportunity!

Before we dive in, I have some news of my own to share! I got married!! I am currently in the process of changing my name and will now be known as Gemma Willis! Currently, all of my contact details remain the same and so you will still be able to get in touch via the usual channels. I will of course, update further as this changes.

Kicking off this issue with updates from AGIP, we have the Chair's report on page 3, where Samantha Scott provides an interesting overview of AGIP activities and progress so far this year. Page 4 provides a handy roundup of upcoming events, courses, and conferences—a perfect place to plan your CPD. Following on from this, on page 5, you'll find details of the Small Bowel Capsule Endoscopy Reading Course, endorsed by the BSG. This is an excellent learning opportunity for those looking to enhance their diagnostic skills and aid in capsule reporting. If you're looking for your next career move, we have information regarding a recently posted vacancy for a Practice Educator role in Huddersfield—Please see page 6 for details on how to apply. Finally, page 7 provides a round up of the discussions which took place at the most recent AGIP Council meeting on 9th June 2025. Head over to find out about the ongoing work going on behind the scenes!

Moving onto our feature articles, this issue is packed with BSG Live! content! These articles have been put together by colleagues from across the UK and highlight interesting areas of research and ongoing debates that are shaping practice in GI Physiology services. We begin on page 8, where Catherine Comrie assesses the current opinions regarding whether small bowel manometry can make a difference in clinical practice. On page 13, Gianni Raise explores "The Value of EndoFLIP", providing an excellent insight into how this technology is shaping oesophageal diagnostics. Hannah Darbyshire follows on page 16 with "Management in Primary Care of Patients Under 50 Presenting with Symptoms of Food Bolus Obstruction or Dysphagia"—essential reading for understanding early patient pathways. Kendra Hall delves into "The Effects of Opioids on Oesophageal Motility" on page 19, highlighting an increasingly important topic for both diagnostics and patient management, and on page 22, Liam McKay, weighs the roles of EndoFLIP when compared to High Resolution Manometry. On page 27 Lottie Keyse summarises a lively debate on whether breath testing is essential for managing patients with symptoms suggestive of SIBO, and on page 32, Luisa Keen further examines the impact of opioid use on upper GI function. Page 36 sees Naomi Rune shed light on patient and administrative barriers in relation to Capsule Sponge testing before Samantha Scot closes the issue on page 40, by offering a fascinating look at a potential shift in surveillance strategies to utilise Capsule Sponge testing to monitor patients with Eosinophilic Oesophagitis.

I would like to extend a huge **THANK YOU** to everyone who submitted content for this issue of NewWave.

As always, if you'd like to contribute to a future issue, share feedback, or highlight your own department's work, we would love to hear from you.

Happy reading!

Gemma Willis

AGIP Updates:
Chair's Report

Since our last issue of New Wave , AGIP has had a particularly productive period. A major highlight was our successful joint session with the Neurogastroenterology & Motility Committee (NGM) at BSG Live 2025 in Glasgow. This collaborative format allowed us to showcase key clinical innovations and service development projects in GI Physiology, reinforcing our visibility within the broader BSG community. We're extremely grateful to John Hayman for leading the delivery of the session and to all who contributed.

Planning is now well underway for the AGIP Masterclass, taking place on Friday 21st November 2025 in Manchester. The programme will focus on current and emerging areas of practice. We're pleased to have secured financial support from BSG to ensure the sustainability of this and future events.

Alongside this, we continue to build on recent governance changes within the committee itself, with clearer role descriptions, voting eligibility, and term limits now in place. We've also welcomed two new members to the AGIP committee: Samantha Morris (National Standards Officer) and Samuel Ndaa (Trainee Representative), both appointed through our first formal voting ballot via the BSG's Civica platform.

AGIP's updated name (Association of Gastrointestinal Physiology Professions) has now been in place for several months, reflecting the breadth of our profession. A new visual identity and logo are still pending and will be launched shortly - watch this space!
As AGIP Chair, I'll be starting maternity leave in September 2025 and have been working closely with the committee to ensure a smooth handover. Warren Jackson will act as Interim Chair, with John Hayman and John Gallagher continuing to represent AGIP at national level. Thank you to the committee and wider membership for your support. It's been a year of real momentum, and I look forward to seeing AGIP continue to thrive during my leave.

Upcoming Events 2025

September 2025	**Impedance/pH Reflux Testing & High Resolution Manometry** London 3rd September 2025 Clinical Training Seminar **Faecal Incontinence: Diagnosis and Management** 30th September 2025 at 1.30-3pm Webinar
October 2025	**UEG Week 2025** 4th – 7th October 2025 Berlin Week | UEG - United European Gastroenterology **HRM Studies: Interpretation in Detail** 8th October 2025 at 11am-12pm Webinar
November 2025	**High Resolution Pharyngeal Manometry: Interpretation and Approach** 7th November 2025 at 12pm-1.30pm Webinar **AGIP Masterclass** 21st November 2025 at 8.30—5pm **Manchester** The British Society Of Gastroenterology Conferences & Events **Impedance-pH Studies: Interpretation in Detail** 26th November 2025 at 10-11am Webinar
December 2025	**Chronic Constipation: Pathophysiology, Investigation and Management** 9th December 2025 at 1.30-3pm Webinar

BSG Endorsed Event: Online Small Bowel Capsule Reading Course 2025

Online

06-10-2025 at 09:50am - 15-12-2025 at 09:50am

This is a web based small bowel capsule reading course designed to train aspiring practitioners to perform and read full small bowel capsule studies reliably. The entire curriculum can be completed part time from work or home conforms to the standards recommended by European and American authorities

This web based training is especially suitable for GI consultants, colorectal surgeons, specialist trainees and nurses with endoscopy experience.

BSG members will also receive a 30% discount on fees when registering for the course. You will be asked for your BSG membership number.

RCP CPD Accreditation: RCP CPD 30 (external category 1) Credits

Course Event page: Our Professional Courses | IMIGe

Course Fee: £1,750.00 BSG members are entitled to 30% discount when registering for the course. You will be asked for your BSG membership number.

Contact: info@imige.co.uk

For further details, including the course programme and registration, please visit the BSG website

Job Vacancy: Practice Educator, Huddersfield

We are pleased to share an upcoming secondment opportunity for a **Practice Educator** to support the training of a prospective ASP trainee undertaking the **Lower GI Physiology modules** in **Huddersfield**.

This secondment will focus on training the individual in performing **High-Resolution Anorectal Manometry (HR-ARM)** and **Endoanal Ultrasound (EAUS)**.

Key details:

- **Banding:** Band 8a
- **Commitment:** 0.4 WTE (2 days per week)
- **Duration:** September 2025 – April 2026
- **Note:** You will continue your usual responsibilities at your normal rate for the remainder of the working week.

If you are interested in this opportunity, or if you would like to find out more, please contact **John Gallagher**

Expressions of interest must be submitted by Tuesday 13th August 2025.

AGIP Council Meeting 9th June 2025

The AGIP committee met recently on 9th June 2025, to discuss a number of developments.

One of the key conversations focused on the introduction of new committee roles to reflect the growing scope of GI physiology. We were delighted to formally welcome Sam Ndaa (trainee Clinical Scientist at Hull Teaching Hospitals NHS Trust) as the new trainee representative, who will serve a one year term and bring a valuable perspective from the next generation of clinical scientists. The committee also agreed to introduce a National Standards Officer role, which will take responsibility for reviewing guidelines, standard operating procedures, and clinical reporting standards. This role is intended to ensure a consistent and evidence based approach across the UK and will be offered to Samantha Morris (Clinical Scientist at University Hospitals of Derby and Burton NHS Foundation Trust).

Further discussions explored the potential creation of an IQIPS representative role to support services navigating accreditation, as well as the ongoing debate around the future of the New Wave publication —whether this should remain entirely in house or be shared with external partners. The committee also reflected on the current three year term for accreditation roles, which does not align well with CPD cycles. A proposal to move to a four year staggered term, creating a “conveyor belt” model whereby one member trains the next to reduce bias and maintain continuity, will be revisited at the next meeting for a final decision.

Another key update centred on the transition of CPD submissions to the BSG website. The committee acknowledged the need to simplify the process and considered a shift towards a 10% spot check model, similar to the HCPC approach, to reduce the burden on members while maintaining quality assurance. A subgroup will now work on the finer details of this process, with a focus on clear guidance, reminders, and the role of reflective practice.

Planning is also well underway for the AGIP Masterclass 2025, which will be held at the Hilton, Manchester. Bursary support will be available, and the event promises to be a valuable opportunity for professional development and networking.

Standardisation of GI physiology reports was another key agenda item, with recognition that the quality and format of reports can vary significantly between centres. A working group, led by the new National Standards Officer and supported by committee members, will draft a set of minimum national reporting standards, drawing on existing ARTP templates where appropriate.

Finally, the committee discussed the importance of calibration and verification for medical devices in the context of IQIPS and BS7000 standards. A coordinated approach will see manufacturers providing verification documentation, which will be shared nationally to support services in meeting accreditation requirements.

The next AGIP Committee Meeting will be held on **Monday 8th September 2025.**

Event Review: Can Small Bowel Manometry Make a Difference in Clinical Practice?

by Catherine Comrie, Trainee Clinical Scientist
Glasgow Royal Infirmary

During the Small Bowel and Nutrition Session at the BSG 2025, Dr Carolina Malagelada, Associate Professor and Gastroenology Consultant at Vall d'Hebron University Hospital in Barcelona presented an engaging and informative talk on the clinical significance of small bowel manometry (SBM).

As a first year STP trainee, I had limited knowledge of SBM before I attended this presentation. During our first-year teaching at Newcastle university, SBM was introduced to us during a lecture on the small bowel, but it was not a topic that we covered in any great depth. SBM is not performed at Glasgow Royal Infirmary, nor does it appear to be widely available across many other UK Trusts. It was therefore a pleasure to attend Dr Malagelada's talk and learn about SBM in more detail.

Disorders and Diagnosis of Small Bowel Manometry
Carolina began her presentation by describing the disorders and diagnosis of small bowel dysmotility. The most severe motility disorder, chronic intestinal pseudo-obstruction (CIPO), is diagnosed radiologically whereas functional gastrointestinal disorders are diagnosed from symptom assessment, as tests are usually normal in these patients. She referred to small bowel manometry as the 'gold-standard' test for diagnosing enteric dysmotility.

Conventional Small Bowel Manometry
Carolina went on to introduce conventional SBM, which was previously used in practice and had fewer sensors along the catheter compared to high-resolution manometry used today. This mirrors recent advancements in GI physiology testing for oesophageal and anorectal manometry. She explained that SBM involves the insertion of a catheter into the small bowel via the nose or mouth and allows motility measurements to be recorded for up to 5-6 hours. During the test, motility differences can be observed during fasting and postprandial periods and Carolina talked through a useful diagram to illustrate these differences. During a fasted state, cycling from the migrating motor complex (MMC) enables the walls of the small bowel to contract and 'flush' digestive residue for emptying. After the ingestion of a meal, motility in the small bowel switches to post-prandial motility which is characterised by irregular contractions for food mixing and to aid absorption.

High-Resolution Small Bowel Manometry
Many centres, including the Vall d'Hebron University Hospital, have recently progressed from conventional manometry to high-resolution small bowel manometry in practice. High -resolution small bowel manometry involves an increased number of sensors along the catheter, allowing for much more information to be obtained and for measurement of propagation and contraction waves down the small bowel.

Limitations to Small Bowel Manometry
Carolina described the drawbacks of SBM, including its invasive and prolonged (5-8 hours) nature, its limited availability in centres around the world, its requirement for expertise interpretation, and the variability between centres regarding indications and

criteria for abnormalities. A survey completed in 2020 involving 154 clinicians with an interest in CIPO and enteric dysmotility, showed the limited use of SBM in practice, with only 20% of clinicians reporting they used it for most patients with suspected intestinal dysmotility. Carolina proceeded to address claims that question SBM for diagnosing small bowel dysmotility and made a strong point in support of its use by asking the audience if oesophageal motility disorders would be diagnosed without manometry in current practice, and opined that SBM may not yet be widely used in practice due to its complex nature and extended testing time.

Clinical Usefulness of Small Bowel Manometry
For the next part of her presentation, Carolina discussed the clinical usefulness of SBM for diagnosing myopathic and neuropathic dysmotility compared to radiological measurement of transit time in the small bowel. She explained that, typically, patients with myopathic dysmotility present with a dilated bowel and delayed intestinal transit time that can be identified effectively using small bowel scintigraphy. In contrast, patients with neuropathic dysmotility often present with a non-dilated bowel and normal transit time and therefore require small bowel manometry for diagnosis.

To illustrate that merely measuring transit time is not enough to effectively diagnose small bowel dysmotility, Carolina presented a recent paediatric study that measured small bowel transit time using small bowel scintigraphy compared to SBM in patients with suspected intestinal dysmotility. Interestingly, scintigraphy only identified some CIPO patients with delayed transit time and others without, whereas SBM was abnormal in all CIPO patients, proving there are CIPO patient populations that do not present with abnormal transit times and emphasising the limitations of scintigraphy in diagnosing intestinal dysmotility compared to SBM.

Small Bowel Motility Disorders: Pathophysiology
Carolina then delved into the pathophysiology that occurs during small bowel motility disorders. Primary small bowel motility disorders originate in the small bowel at the muscle fibre level or within the enteric nervous system. Secondary small bowel motility disorders can arise from other parts of the body such as the autonomic nervous system, which regulates small bowel motility, or stem from central nervous system disorders which can affect how the bowel moves.

Carolina then discussed the main aetiologies of small bowel motility disorders, summarised in figure 1.

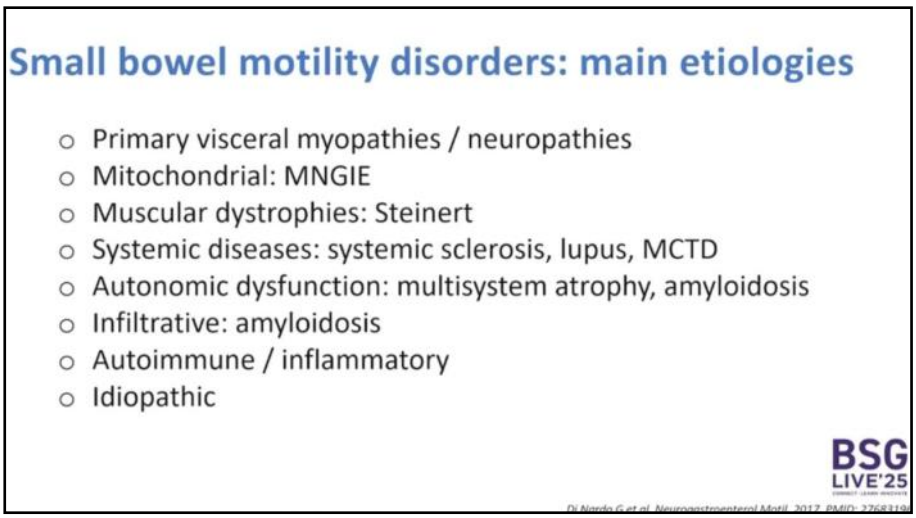

Figure 1: *The main aetiologies associated with small bowel motility. Image taken from Dr Malagelada's presentation.*

When Should Small Bowel Manometry Be Used?
The topic of when SBM should be used in practice was then addressed. Carolina stated that SBM has been shown to be clinically useful for patients with:
- Systemic diseases (collagen disease, neurological disease, diabetes) with digestive symptoms indicative of an intestinal motor disorder.

- Recurrent sub-occlusive episodes, without evidence of mechanical obstruction.

- Segmental motility disorders (colonic inertia, gastroparesis) to determine small bowel involvement and for considering surgery (gastrectomy, colectomy).

- Chronic digestive symptoms with signs of severity, in the absence of a structural cause.

Carolina presented data from her hospital unit in Barcelona during 2019-2022, which showed the proportion of patients with suspected intestinal dysmotility that manometry successfully identified abnormalities in. SBM was particularly effective at identifying abnormalities in 100% of patients with CIPO and identified abnormalities in other intestinal dysmotility disorders as shown in figure 2.

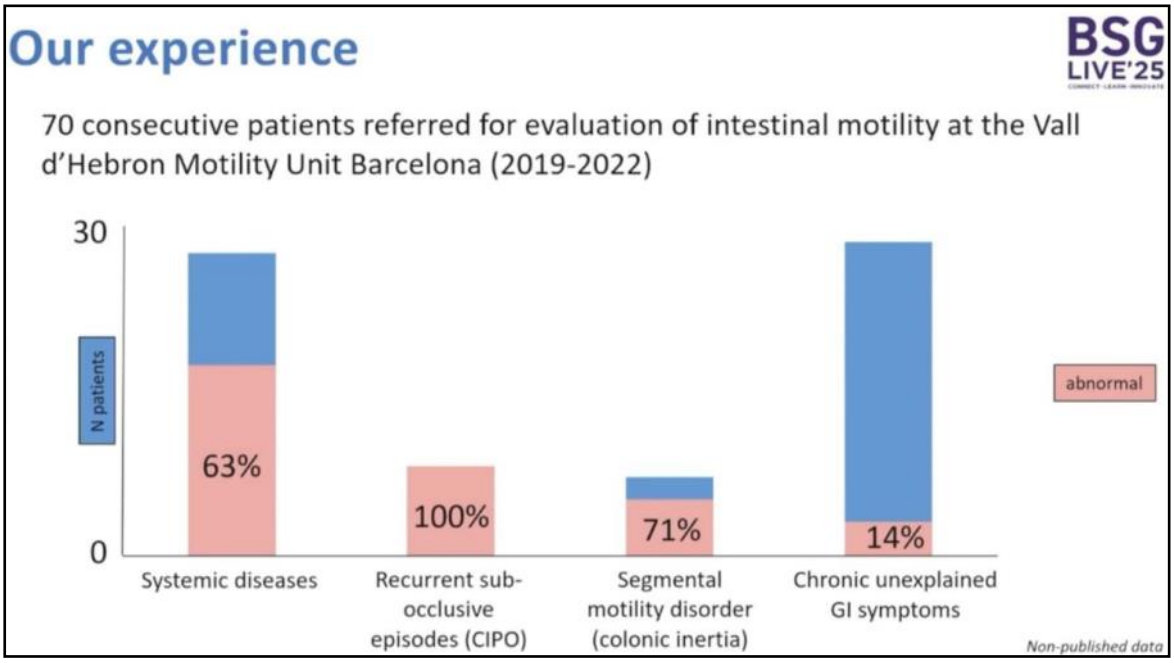

Figure 2: *Data collected from the Vall d'Hebron Motility Unit in Barcelona between 2019-2022 in 70 patients referred for intestinal motility evaluation. Small bowel manometry successfully identified intestinal motility abnormalities in 63% patients with systemic diseases, 100% with recurrent sub-occlusive episodes (CIPO), 71% with segmental motility disorder (colonic inertia), and 14% with chronic unexplained GI symptoms. Image taken from Dr Malagelada's presentation.*

Small Bowel Manometry Examples
Carolina then presented examples of clear-cut abnormal SBM patterns as shown in figures 3&4. I found the inclusion of these images very useful during the presentation, and I felt they helped me understand SBM better. SBM traces are similar to those of oesophageal and anorectal manometry, that show colourful patterns which represent pressure distribution along the small bowel.

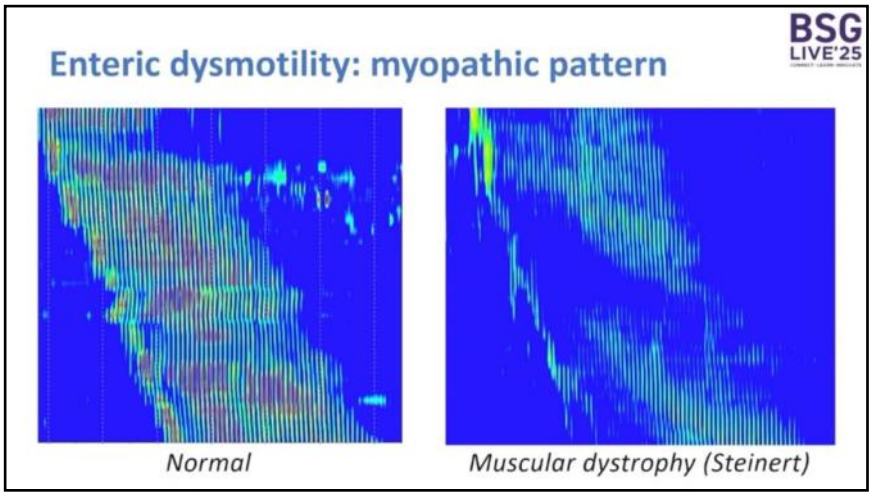

Figure 3: *Small bowel manometry traces for a typical normal small bowel motility pattern (left) and during enteric dysmotility with myopathic pattern (right). Typically, patients with muscular dystrophy seen in Steinert disease present with a myopathic pattern of low amplitude phase 3 contractions. Image taken from Dr Malagelada's presentation.*

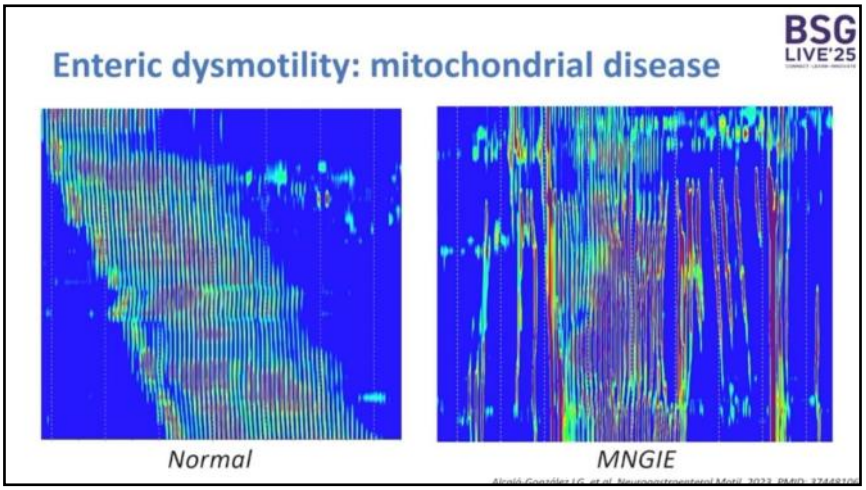

Figure 4: *Small bowel manometry traces showing a normal small bowel motility pattern (left) vs enteric dysmotility in mitochondrial disease (MNGIE). Small bowel manometry in MNGIE presents with large, simultaneous and spastic contractions along the small bowel. Image taken from Dr Malagelada's presentation.*

Small Bowel Manometry in Systemic Sclerosis

Systemic sclerosis is known to affect the GI tract and is associated with a poor prognosis in patients. Carolina has been performing SBM systematically in patients with systemic sclerosis and digestive symptoms. She has found that 40% of these patients presented with a hypomotility pattern, 30% showed uncoordinated neuropathic motility patterns, and 31% showed normal motility. She explained that these results show prognostic implications that can indicate effective treatment before severe symptoms and malnutrition occurs in these patients. Furthermore, Carolina emphasised that neither symptom assessment alone nor oesophageal manometry or gastric scintigraphy tests in isolation can be used to effectively predict small bowel dysmotility.

Conclusion
Carolina concluded the talk with a slide that highlighted when SBM can be clinically relevant. SBM can confirm small bowel involvement in systemic diseases, diagnose CIPO in patients with recurrent sub-occlusive episodes, allow surgical decisions for patients with megacolon or colonic inertia, and enable dysmotility diagnosis in patients with unexplained severe digestive symptoms.

In conclusion, Carolina's talk provided valuable insight into the clinical usefulness of SBM. I thoroughly enjoyed learning about SBM and its success in Barcelona. It appears to be a great test for diagnosing intestinal dysmotility disorders however, the reality of its use in practice, with the length of the catheter used and the lengthy procedure time, creates challenges for patient durability. It is a test that requires further specialised training for GI clinical scientists and is currently not included in the STP programme. It is therefore apparent that more research is needed for its acceptance and utility in clinical practice. Notwithstanding these, its established use in Barcelona proves SBM can be successful, and Carolina did a great job at promoting its usefulness. As a trainee, it is exciting to look forward to the potential introduction of SBM into clinical practice in clinics across the UK in the future and I am looking forward to learning about future developments in this area.

Event Review: The Value of EndoFLIP

by Gianni Raise, Clinical Scientist
Sheffield Teaching Hospitals

Dr Jamal Hayat is a consultant gastroenterologist and honorary senior lecturer based at St George's University Hospitals. During the AGIP Physiology session, he presented a talk on "The Value of EndoFLIp" as part of the future of GI physiology testing. He started his talk by outlining his appreciation for oesophageal manometry and also some of the challenges it can present; sedation isn't routinely given, 5-10% unable to tolerate, it can be challenging to complete, issues with constant swallowing. Dr Jamal Hayat then went on to discuss the EndoFLIP (Endoscopic Functional Luminal Imaging Probe) device. EndoFLIP is composed of a balloon along a catheter with 16 impedance sensors and is positioned across the GOJ with a few of the impedance sensors residing within the stomach. The impedance sensors give a diameter and cross-sectional area, and the pressure sensors provide the distensive pressure. The relationship between the two provides the distensibility (see figure 1). This enables the EndoFLIP to measure oesophageal topography which is used as an indicator of oesophageal motility based on secondary peristalsis.

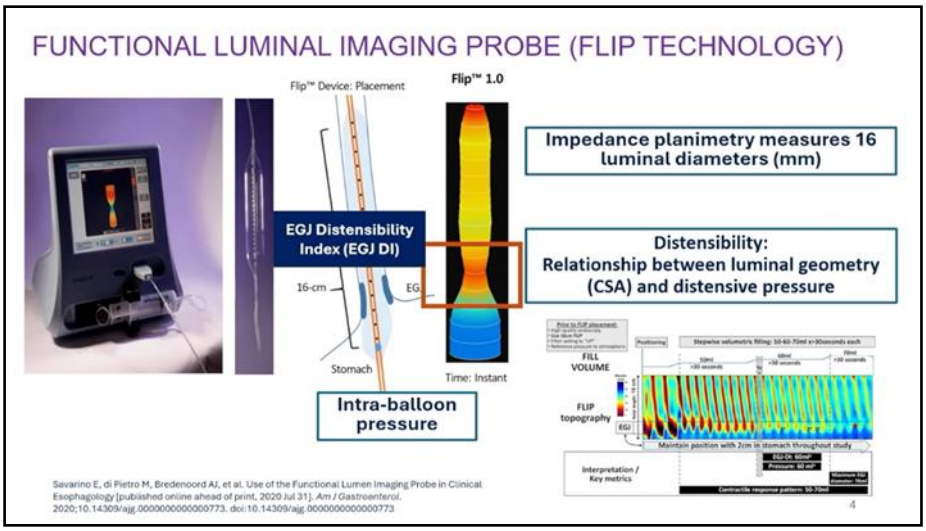

Figure 1: *Dr Jamal Hayat's slide on EndoFLIP measurements*

The Role of EndoFLIP

Chicago classification V4.0 (2021) advocates the use of EndoFLIP alongside oesophageal manometry to aid in the diagnosis of patients with EGJOO and type I achalasia. Dr Jamal Hayat discussed the possible use of EndoFLIP in relation to reducing waiting times and saving money on the routine diagnostic pathway for dysphagia, by potentially using EndoFLIP earlier in the pathway, at the time of the routine diagnostic endoscopy (see figure 2.).

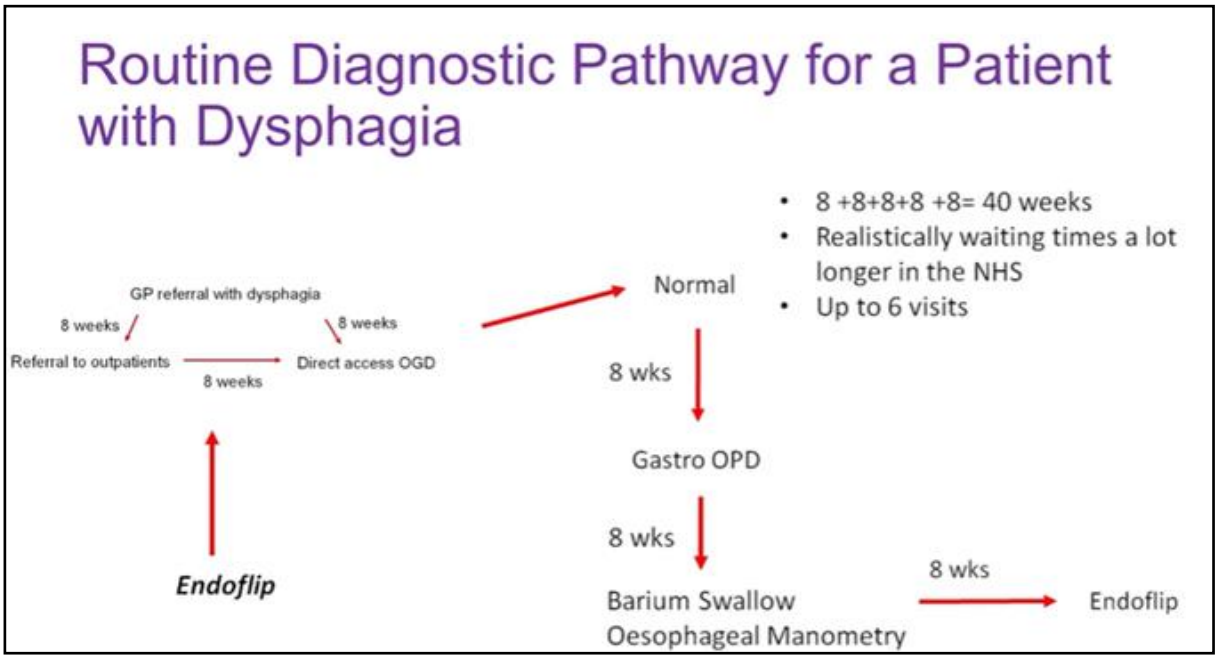

Figure 2: *Potential use of EndoFLIP earlier on in the diagnostic pathway for dysphagia*

The Relationship of HRM and FLIP Panometry.

Dr Hayat summarised the results of Carlson et al, 2016 (Evaluation of Esophageal Motility Utilizing the Functional Lumen Imaging Probe) which showed good agreement between HRM and EndoFLIP in diagnosing EGJOO and achalasia in 145 patients. He then presented data which showed EndoFLIP has strong negative predictor values and can be used to rule out conditions such as achalasia. Furthermore, EndoFLIP can also help phenotype subgroups of achalasia by demonstrating no peristaltic response for type I, heterogenous contractile response for type II and strong occluding contractions and repetitive retrograde contractions (RRCs) in type III. Dr Hayat outlined the use of EndoFLIP alongside a Barium swallow examination to help define treatment approaches for EJOO and achalasia.

Dr Hayat moved on to discuss the use of EndoFLIP for assessing oesophageal motility. Normal oesophageal motility is defined on FLIP by the presence of 6 repetitive antegrade contractions (RACs) within 60 seconds, a distensibility index of >3mm^2/mmHg and the absence of RRCs. The recent Dallas Consensus (2025) was shown which enables FLIP findings to be categorised and guide treatment options (see figure 3.) The Dallas consensus showed good correlation with HRM Chicago classification v4.0 and presented data from Carlson et al, (2021) which showed those who had a normal FLIP panometry had a 95% chance of having a normal manometry or ineffective motility, which was deemed a low actionable diagnosis, as it unlikely to change a clinician's practice. Regarding disorders of EGJOO there was a 92% chance of agreement with a positive finding.

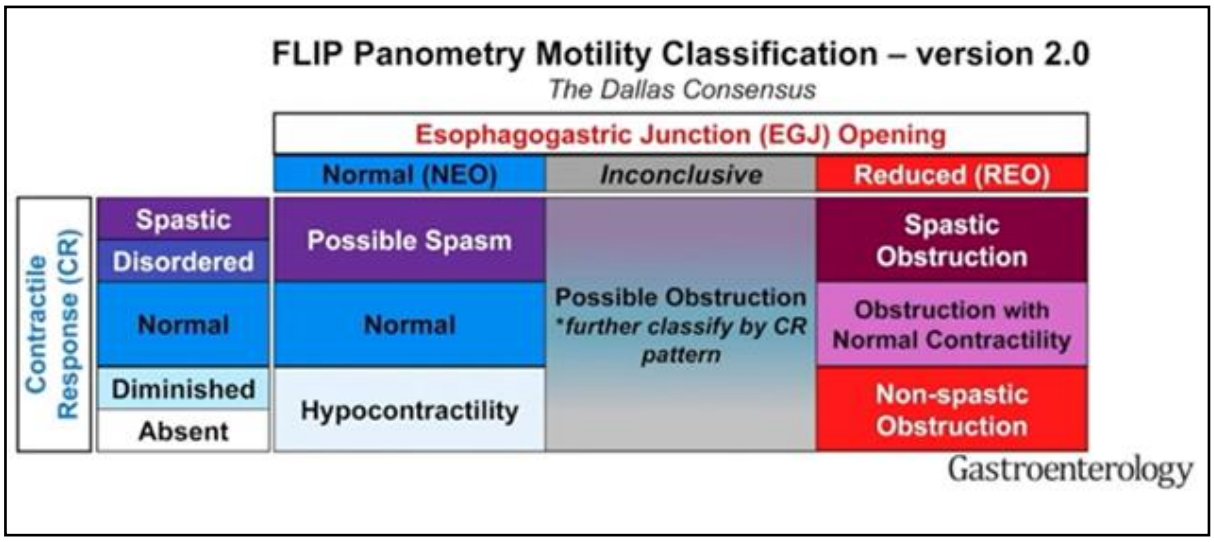

***Figure 3: The** Dallas Consensus (2025)*

Dr Hayat also touched on the use of EndoFLIP in patients with GORD. A small study on 25 patients who had undergone a 96h Bravo and FLIP showed weak correlation between AET and EGJ distensibility, but potentially a slight relationship between acid clearance and RACs.

Intraprocedural use

Dr Hayat suggests that EndoFLIP can really be unique in its role surgically, as it can be used to tailor surgical techniques and predict surgical outcomes. For example, he notes patients with a low distensibility index post fundoplication are more likely to present with post operative dysphagia.

Summary

FLIP is having an increasing and important role in assessing motility and EGJ dynamics.

It compliments/helps to clarify inconclusive HRM evaluations.

It provides an alternative diagnostic tool for patients who are unable to tolerate HRM.

There is potentially a role for its use in patients with non-obstructive dysphagia.

It can be used during primary endoscopy, intra-procedurally and post-procedurally.

It has a role in assessing fibrostenotic disease, such as in Eosinophilic oesophagitis.

Event Review: Management in Primary Care of Patients Under 50 Presenting with Symptoms of Food Bolus Obstruction or Dysphagia

by Hannah Darbyshire, Clinical Scientist
University of Southampton NHS Foundation Trust

Dr Nosheen Umar is a Gastroenterology Research fellow at the Dudley Group NHS Foundation Trust. Her work reports on the management in primary care of patients under 50 presenting with symptoms of food bolus obstruction or dysphagia.

Dr Umar explains that symptoms of dysphagia are common in the community and that younger patients may not be referred for investigation (gastroscopy) if their symptoms are not suggestive of a malignancy. The aim of this study was to examine the management of dysphagia and food bolus obstruction in patients under 50 years of age, who present in the primary care sector.

This research was a follow-on study from Dr Umar's previous research into the time taken to obtain a diagnosis of Eosinophilic Oesophagitis (EoE) for patients presenting with upper GI symptoms in the primary and secondary care settings, where she found that the median time was 3.6 years from symptoms to diagnosis.

Dr Umar's follow-on study was designed using a population based retrospective open cohort with data obtained from both the primary care and hospital databases over a 12-year period (2010-2022).

Inclusion criteria
Adults aged 18-50 who had been registered with a primary care practice for at least 1 year presenting with dysphagia or food bolus obstruction.

Exclusion criteria
Any patient diagnosed with an upper GI cancer.

Final cohort
58,807 patients presented with dysphagia and 1053 patients presented with food bolus obstruction. Of these patients, 696 (1.2%) were diagnosed with EoE. 92% of which initially presented with dysphagia and 8% with a food bolus obstruction.

Results

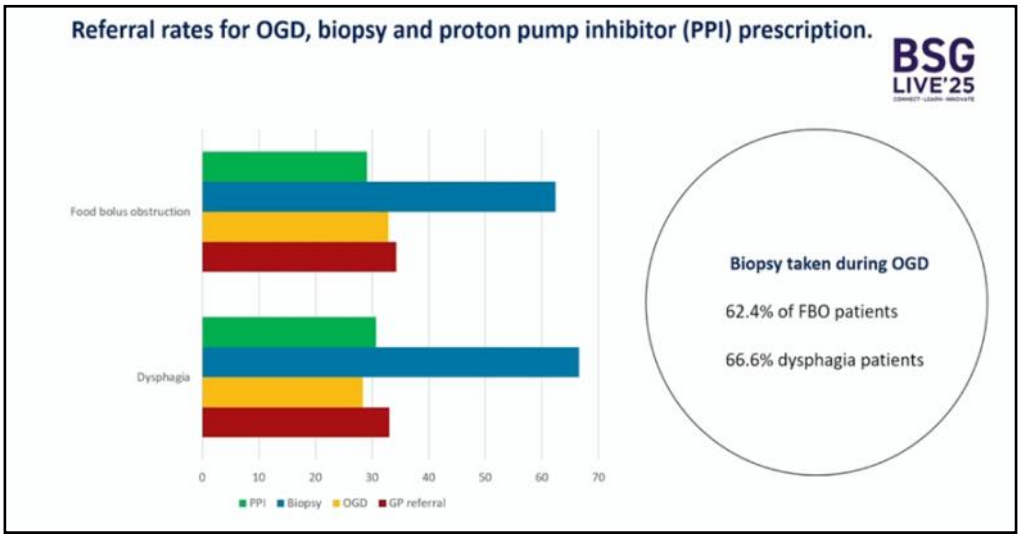

Figure 1: *Shows the percentage of patients' who were referred for a gastroscopy by the GP and subsequent percentage of biopsies taken per patient group and percentage given PPI in primary care*

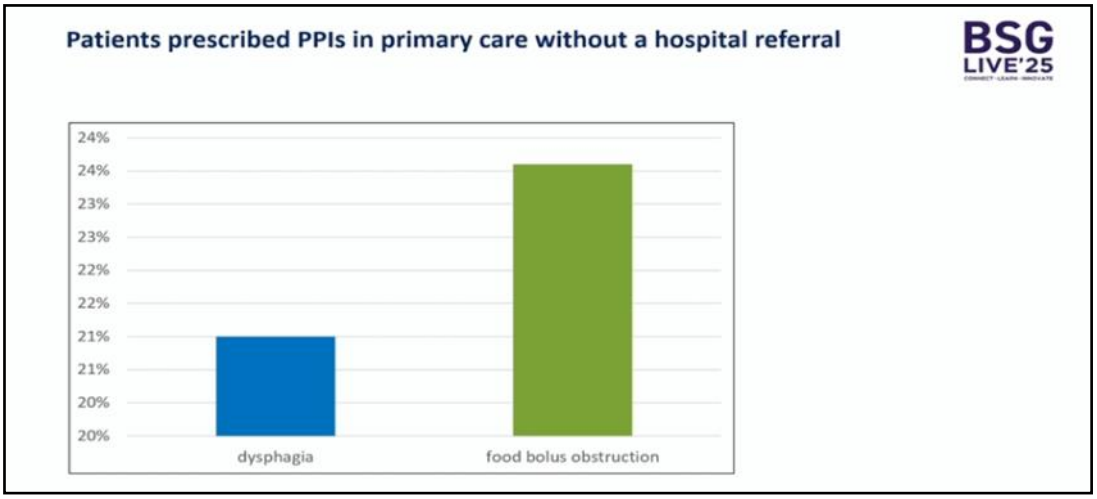

Figure 2: *Shows percentage of patients who were prescribed a PPI by the GP but did not receive a hospital referral.*

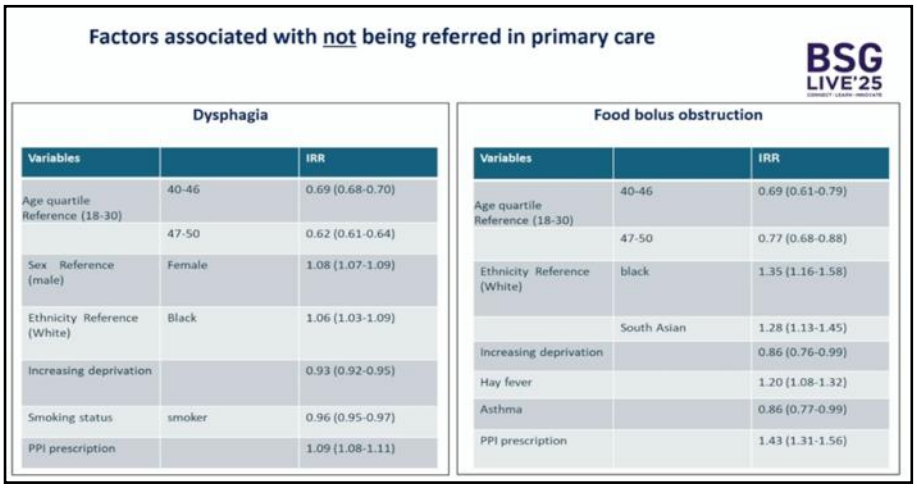

Figure 3: *Results of a multi variable model showing demographics of patients' who are most at risk of not receiving a hospital referral.*

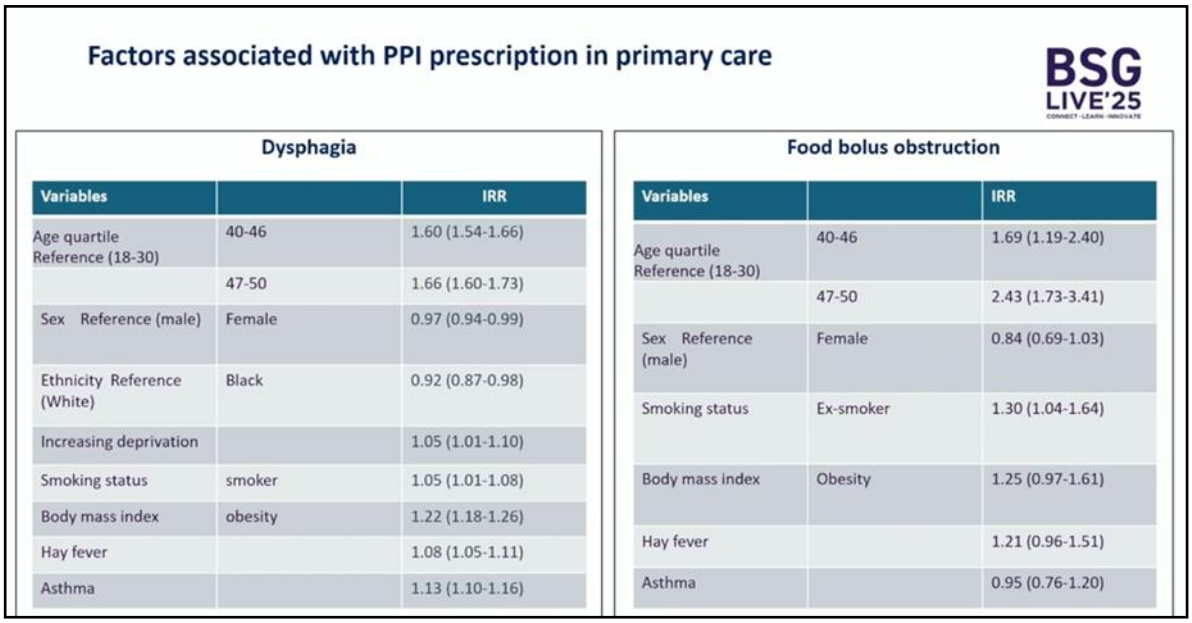

Figure 4: *Results of a multi variable model showing demographics of patients' who were prescribed PPI in the Primary care*

Conclusion

The study identified the characteristics that are associated with lower hospital referral rates for patients presenting with dysphagia and food bolus obstructions. These consisted of female sex, minority ethnicity and PPI prescription. The study also identified the characteristics that are associated with increased PPI prescription in primary care. These consisted of increasing age, smoking, obesity and those who are predisposed to developing allergic diseases such as hay fever and asthma (atopy).

66% of food bolus obstructions and 67% of dysphagia patients were not referred for a gastroscopy despite having risk factors for EoE such as atopy or asthma. Thus, representing a missed opportunity to diagnose EoE. 24% of food bolus obstruction and 21% of dysphagia patients were just treated with a PPI without further investigation.

Dr Umar concluded by advocating that primary care physicians should be referring everyone presenting with either a food bolus obstruction or dysphagia to secondary care for further investigation to capture underlying benign pathology which can affect quality of life.

Event Review: The Effects of Opioids on Oesophageal Motility

by Kendra Hall, Clinical Scientist
Sandwell and West Birmingham NHS Trust

John Hayman, Consultant Clinical Scientist at Sandwell and West Birmingham NHS Trust, began by outlining the prevalence of opioid use in the UK. These medicines are widely prescribed, and older, more socially deprived patients in the north of England are at greater risk of long-term opioid use. Three quarters of opioid prescriptions for non-cancer pain in the UK are for musculoskeletal conditions (Jani *et al*. 2025).

John went on to explain the proposed mechanism of their action. Myenteric neurons in the oesophagus release acetylcholine to cause muscle contraction and nitric oxide (No) to trigger muscle relaxation. When opioid receptors on oesophageal myenteric neurons are bound by opioids, No release is inhibited leading to unopposed excitatory stimulation. Chronic opioid use (>3 months) may contribute to oesophageal symptoms such as dysphagia, gastro-oesophageal reflux and chest pain, and chronic opiate users with oesophageal symptoms are described as having Opioid Induced Oesophageal Dysfunction (OIOD).

Common manometric findings in OIOD patients include Distal Oesophageal Spasm – 49%, Oesophagogastric junction outflow obstruction (OGJOO) – 43%, Jackhammer Oesophagus – 24%, and Type III achalasia – 2% (*Murray et al (2015) ACG)*. OIOD is more prevalent with stronger opioids and with higher opioid doses.

John stated that anecdotally OIOD patients tend to report intermittent, non-progressing dysphagia (perhaps related to medication intake), differentiating it from true achalasia. If OIOD is suspected, HRM testing off opioids for at least 24 hours allows assessment of underlying disorders of OGJ outflow or peristalsis. This requires that we explicitly ask about opioid use, particularly in patients with musculoskeletal pain. However, it's important to be aware that patients may not disclose painkiller use, and as some are readily available, patients may not realise that they are taking opioids. At SWB clinicians will also consider screening for suspected opioid use or to confirm cessation.

John used case studies from his practise to demonstrate OIOD. One patient undergoing HRM testing whilst on and off opioids demonstrates both the OIOD effect and how cessation of opioids (or weaning to lowest possible dose of weakest opioid) is an effective treatment ***Fig 1***. There is limited data on opioid reversal agents.

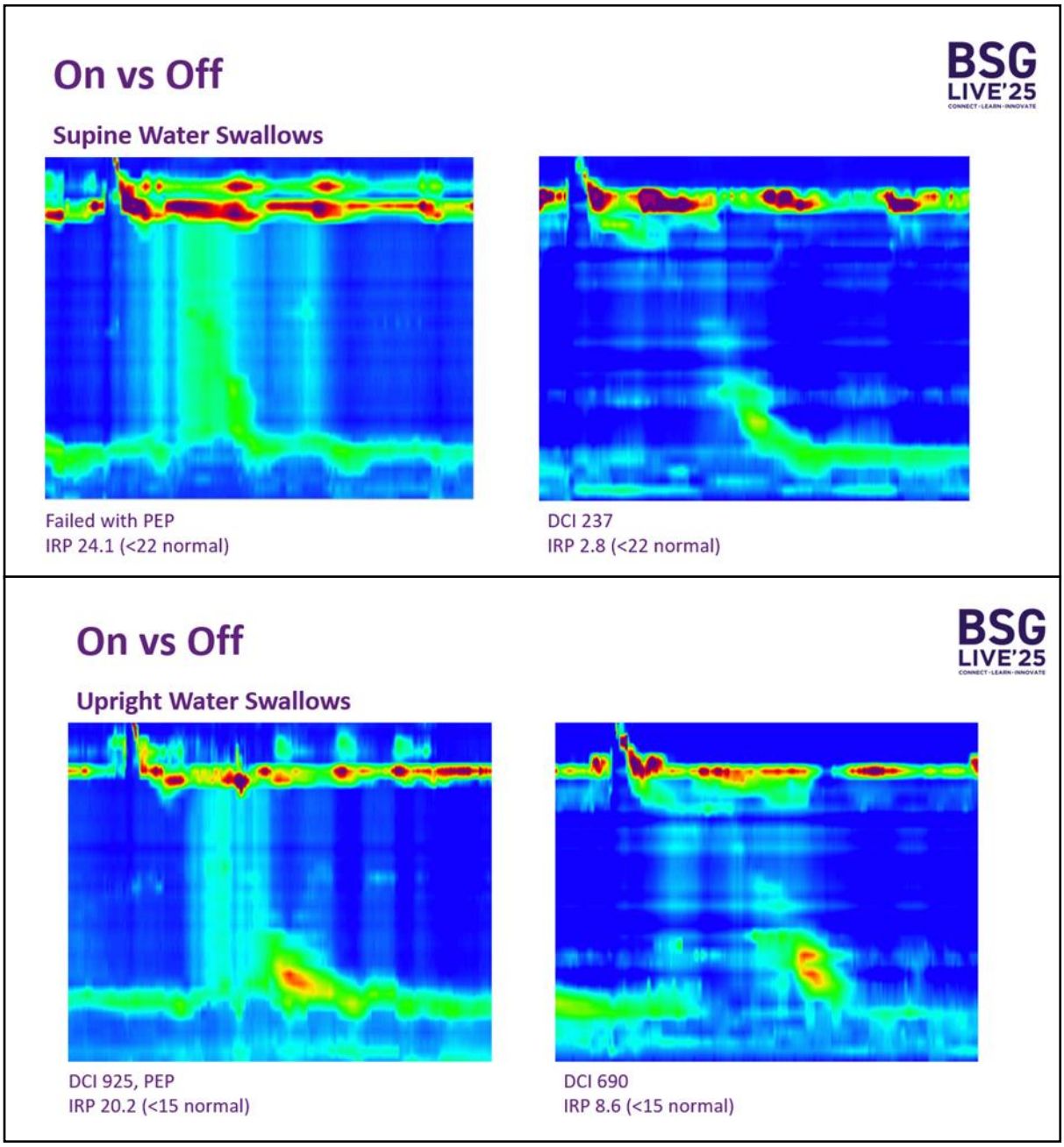

Fig 1: *On vs Off opioids. The same patient underwent HRM on opioids (left) and off opioids (right). Elevated IRP and pan oesophageal pressurisation observed with opioids compared to a normal study off opioids.*

John gave an example of an important caveat. A 55-year-old male was referred for HRM due to dysphagia, and an OGD suggestive of achalasia. The referral didn't state opioid use but upon taking his history he was awaiting a hip replacement, in considerable pain and unable to stop his 60mg daily dose of codeine, and the onset of his dysphagia symptoms coincided with him starting opioids. His HRM trace was consistent with type III achalasia but was discussed in an MDT as a possible OIOD. OIOD patients respond poorly to achalasia treatments, so in the absence of further red flags such as weight loss, it was agreed to re assess after hip surgery and opioid cessation. 3 months after complete opioid withdrawal he was still experiencing dysphagia so underwent repeat HRM testing which still demonstrated a type III achalasia pattern ***(fig 2).*** He went on to be referred for POEM.

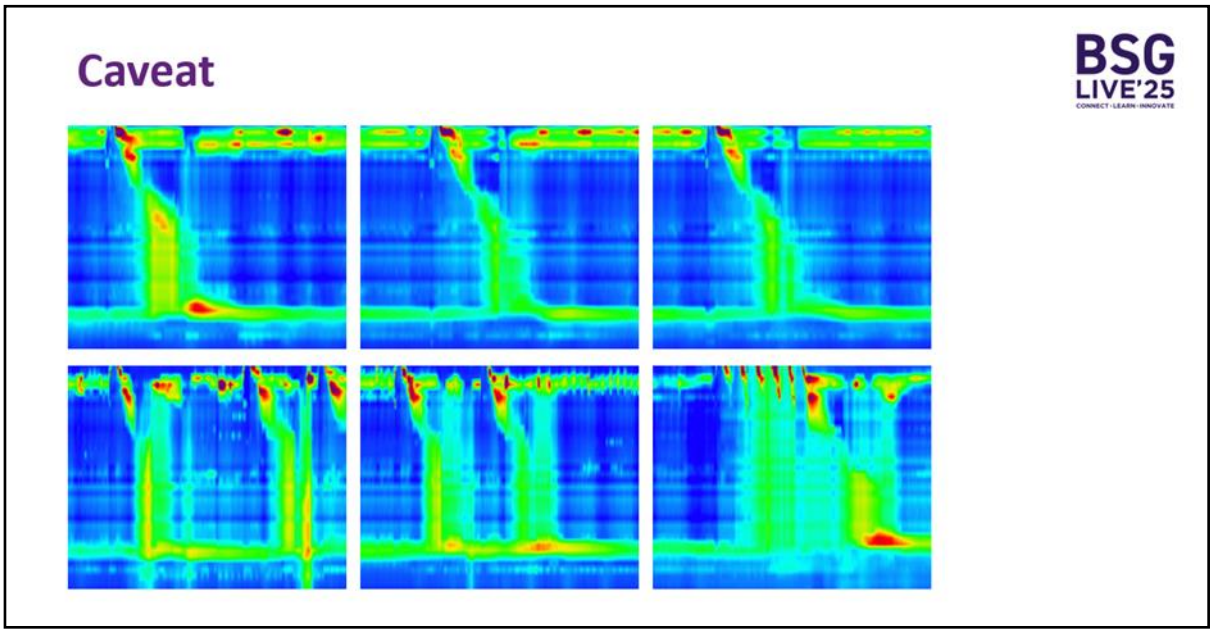

Fig 2: *Caveat. Type III achalasia pattern of non-relaxing LOS and spastic contractions seen in the same patient both on opioids and off opioids.*

John's talk triggered lively debate in the room. Dr Corsetti from Nottingham University Hospitals stressed how there is no clinical indication for long-term opioids in non-cancer pain, there are many side effects, and they increase mortality. A multi-disciplinary collaboration is needed to reduce opioid burden.

Dr Sweis from UCL stated he does not ask patients to stop opioids for HRM testing because it's difficult for patients to do so (or for healthcare practitioners to believe them) and it's not clear how long they need to be off opioids. By taking away the opioids for a couple of days but allowing the patient to go back to using them afterwards we are not testing what they are there for - symptoms relating to OIOD. He reiterated the importance of stating 'opioid induced' in diagnoses to ensure patients do not undergo invasive treatment. Dr Corseti agreed it is difficult for patients to stop chronic opioid use, but not impossible and she reiterated to never do something irreversible to an OIOD patient and to be clear about opioid use in HRM reports.

Dr Sweiss suggested anecdotally that it's not uncommon for those on long term opioids to have somehow neuromodulated and he therefore questioned whether John's caveat case was demonstrating an underlying type III achalasia or whether the type III pattern caused by opioid induced changes to motility had persisted.

Another audience question was concerned with how opioid use affects acid exposure, and whether by increasing LOS pressure they would treat GORD, or by causing spastic dysmotility they would impair acid clearance. John stated research suggests chronic opioid users are actually at greater risk of reflux, as opioids slow gastric motility and the consequent delayed gastric emptying increases the likelihood of gastro-oesophageal reflux.

I left the talk with a clear understanding of how crucial it is for us, as clinical scientists and physiologists, to recognise the links between opioid use and oesophageal dysfunction—especially given how commonly opioids are prescribed for certain patient groups. This highlights the importance of routinely and explicitly asking all patients about opioid use, as it often goes undisclosed. However, the caveat case study also reminded me that symptoms may not always be opioid-related and the importance of re-testing if things just don't seem right.

Event Review: EndoFLIP vs HRM: HRM Still Has a Place

by Liam McKay, Clinical Scientist
NHS Grampian—Aberdeen Royal Infirmary

Overview

Dr Rami Sweis, Consultant Gastroenterologist, Upper GI lead at UCLH and president of AGIP delivered an insightful presentation on why High-resolution oesophageal manometry (HRM) maintains a pivotal part of clinical practice. The presentation came secondary to Dr Hayat's presentation on the value of Endo-flip™. Dr Sweis declared to the audience that the aim of his presentation was not to talk against Endo-flip™, as he is aware that Endo-flip™ is a good tool and does have purpose but rather the aim of his presentation was focused on the utility of HRM and why HRM remains to be a very useful diagnostic test for patients.

HRM has come a long way but is Endo-flip™ jumping the queue?

Dr Sweis kick started a trip down memory lane by talking through the progression of oesophageal manometry and the enhanced development of pressure sensor catheters. Dr Sweis reminded us of the time when line tracing was interpreted based on pull-through technique of a catheter consisting of 6-8 pressure sensors, and how this was followed by the revolutionary development of HRM with water perfused catheters, consisting of 24 pressure sensors and the ability to assess the full length of the oesophageal body without the need of catheter re-positioning. Further development then came in the form of the much loved solid state catheters and subsequently, the re-emergence of the Endo-flip™ and panometry. Dr Sweis remembered using Endo-flip™ back in 2007 before it became commercially available, and queried if we are now throwing away HRM in place of panometry? Is this history repeating itself in the same way we replaced conventional manometry with HRM? Will we replace HRM with Endo-flip™ or, can HRM and Endo-flip™ both be utilised in conjunction with one another?

Endo-flip™ motive and a sprinkle of back-tracking

Dr Sweis briefly covered what the Endo-flip™ device measures, as we note this was respectfully delivered in detail by Dr Hayat within the preceding presentation. Dr Sweis mentioned that there are two different sizes of balloon; a smaller 8cm balloon and a longer 16cm balloon. The measurements include, cross-sectional area, compliance, distensibility and panometry (which measures the effects secondary peristalsis with inflation of a balloon i.e. occlusion dynamics of the oesophageal body).

Dr Sweis highlighted the positive correlations and relationships that have been reported in studies between distensibility and a normal oesophagus, non-relaxing LOS with achalasia, successfully treated achalasia and poorly treated achalasia.

The development of Panometry led to the birth of new terminology for describing secondary contractile response patterns to ballon inflations. Dr Sweis shared some of this terminology with the audience such as repetitive antegrade contractions (RACs) and normal OGJ opening (NEO) would be considered as “normal”, repetitive retrograde contractions (RRCs) and reduced OGJ opening (REO) would be classified as “type 3 achalasia”, aperistalsis and REO would be classified as “type 1 or 2 achalasia”. Dr Sweis, mentioned that this was all then put into a classification similarly to the Chicago classification which is validated for HRM analysis.

Dr Sweis reminded us of the development of the Dallas Consensus (2025) and expressed to the audience that this consensus was created by an all American cohort of authors with no input from any other professionals out with the United States. The Dallas Consensus (2025) did create a FLIP panometry classification. Dr Sweis highlighted the beneficial parts of the classification but also highlighted parts that were potentially confusing. For example, terms such as; “possible obstruction”, “diminished contraction”, “disordered contraction”, “possible spasm” led to uncertainty. In addition, the consensus changed descriptions on secondary contractile response patterns, and the previously described terminology. RRCs can be non-specific, so no longer can be utilised for classifying type 3 achalasia. There was a range of contractile patterns, which, appear to be somewhat confusing.

HRM is awake, concise and reliable - more so when stuffing our faces with food!

Dr Sweis described the benefits of HRM, including the fact that HRM measures primary peristalsis (i.e. the response of the oesophageal body on a voluntary swallow) which differs from looking at a secondary peristaltic response to the inflation of a balloon. Dr Sweis, paid tribute to how intuitive the Chicago Classification (2021) is for interpreting HRM findings with a clear and concise division of disorders of the OGJ outflow and disorders of peristalsis, with no uncertainty around terminology. Most importantly, Dr Sweis champions the inclusion of adjunctive testing in the Chicago classification 4.0 (2021) as well as post-prandial assessment of the oesophagus.

Dr Sweis highlighted that he believes it is very important to simulate eating and drinking during tests of motility, as, this can trigger symptoms (which cannot be triggered by Endo-flip™). Dr Sweis demonstrated excellent examples of the importance of the adjunctive testing and why skipping these may contribute to inaccurate diagnostic outcomes for patients. For example, in **Figure 1**, a patient demonstrated ineffective motility on single water swallows but when performing solid swallow and rapid drink challenge, there was evidence of a good contractile vigor of the oesophagus. More examples were provided, where patients demonstrated aperistaltic responses to single water swallows but subsequent solid swallows, demonstrated normal oesophageal motility. Dr Sweis highlighted the jump between abnormal findings to normal findings based on the utilisation of adjunctive testing and this is something we cannot do with the Endo-flip™. In addition to this, Dr Sweis demonstrated that the use of manometry catheters with combined impedance can highlight bolus escape, which is a useful function in assessing reflux patients and can also be correlated with symptom onsets – Endo flip™ does not offer this function.

Fig. 2: *Highlighting the difference with manometric findings with ineffective motility on single water (5ml) swallows (left side) against peristaltic waves on adjunctive testing (right side).*

Dr Sweis also touched on undercovering the elusive OGJ outflow obstruction, whereby, only 50% are clinically relevant and 50% are clinically irrelevant. Dr Sweis, shared a paper which helped to differentiate between the relevance of OGJ outflow obstruction, whereby, with the utilisation of solid swallows can uncover clinically relevant OGJ outflow obstruction with patient reproducing symptoms (**Fig. 1**). Dr Sweis, confidently advised with an evidence based paper (referenced paper at top of image on Figure 2) that with the use of adjunctive testing in the form of solid swallows has influenced treatment planning i.e. solid swallows demonstrated an achalasia variant with subsequent achalasia based treatment. Later in the presentation, Dr Sweis did touch on how HRM can aid in targeting therapy i.e. location of spasm may solely involve the oesophageal body, alternatively, may also include LOS involvement. Endo-flip™ lacks this ability.

A study published in the Lancet in 2017 was shared by Dr Sweis, where, he highlighted a comparison of giving just standard water swallows against adjunctive testing in the form of solid meal, demonstrated that you can double the diagnostic yield of a major motility disorder and more importantly reproduce onset of symptoms.

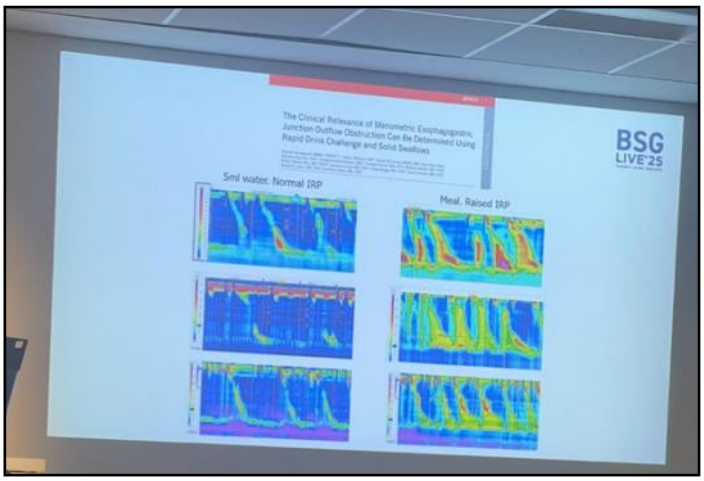

Figure 2 *– highlighting the impact of HRM studies with 5ml water swallows (on the left) against meal swallows (on right side), with clear change in manometric findings. Referenced paper at the top of image.*

Hello Endo-flip™? What about our patients with learned behaviours?

Dr Sweis, left no stone unturned. He went on to talk about the patients who present with rumination syndrome and supragastric belching. HRM with combined impedance is essential for assessing these learned behaviours in full-swing. Endo-flip™ does not possess the functionality to track bolus patterns and does not measure gastric pressures.

I cannot handle manometry, at least I can get some sedation for Endo flip™…

Dr Sweis informed the audience that patients who do not tolerate manometry on first instance can have the catheter passed via endoscopic guidance, this can allow for some sedation to be administered. This was highlighted in Dr Sweis poster, presented at the BSG last year, whereby, 63 patients underwent endoscopically guided oesophageal manometry catheter placement, and with the testing performed when sedation diminishes in the recovery area – with more than 90% tolerated the procedure. Therefore, as Dr Sweis confidently stated "concept of intolerance can be thrown out the window"

The ideal purpose of the Endo-flip™

Dr Sweis advised that Endo-flip™ can be used to tailor intra-operative treatments i.e. he often uses endo-flip™ as a tool for assessing POEM procedures. For example, you can adjust your myotomy based on the distensibility, which is something that HRM does not offer.

Putting it altogether

Dr Sweis rounded up his presentation with the pathway that is taken at UCLH (**Figure. 3**). This included the initial use of HRM. The Endo-flip™ was applied in those patients who were unable to tolerate HRM or where there was an abnormal IRP with uncertainty – panometry can help. Dr Sweis advised he would always carry out a baseline objective testing on patients with achalasia (timed barium swallow or endo-flip™ is selected). Then the appropriate treatment for that patient is provided. Endo-flip™ can be applied intra-operatively. Dr Sweis advised he would routinely undertake a follow-up objective test. Dr Sweis mentioned that this is where Endo-flip™ stands in practice.

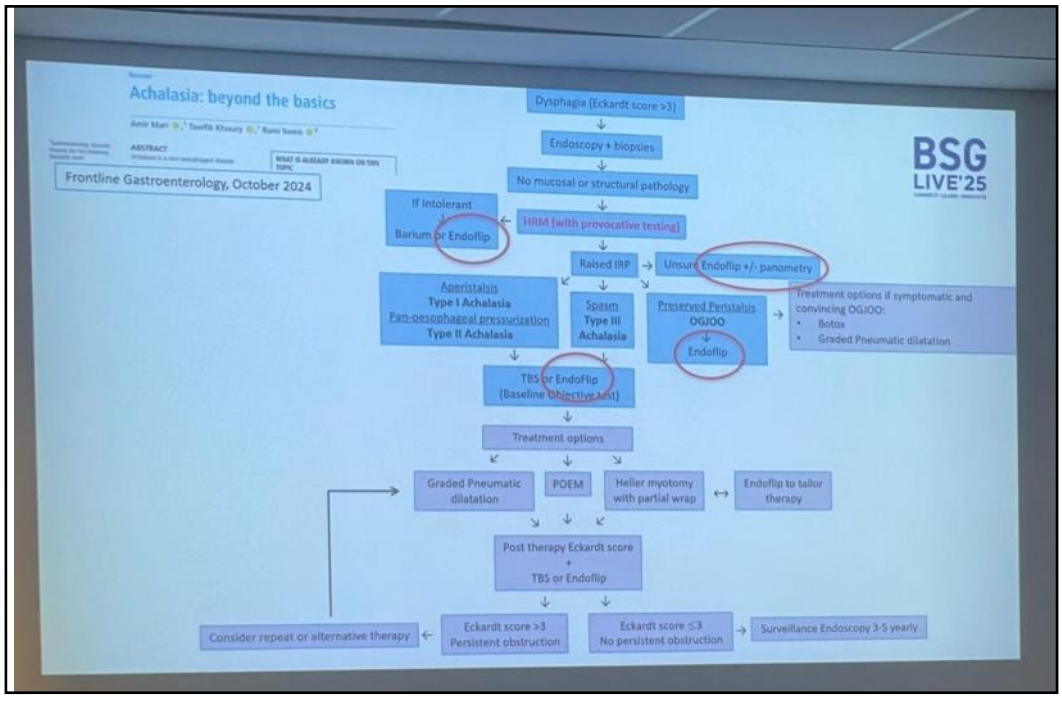

Figure 3*: Pathway undertaken by UCLH with red circles highlight where Endo-flip has a role. Note HRM in red font displaying that this test comes before Endo-flip™ with diagnostic journey for achalasia.*

Closing remarks

Dr Sweis concluded his insightful presentation reiterating the advantages and disadvantages of HRM against Endo-flip™ (**Figure.4**). Reflecting on this presentation, I am now reminded of the importance for adjunctive testing and why it is essential to undertake these extra assessments on all of our patients. Furthermore, this presentation has made me appreciate the inclusion of Endo-flip™ as a supportive tool rather than a diagnostic tool. Personally, I remain very much in favour of HRM for characterising oesophageal motility disorders. The use of HRM and Endo-flip™ together, however may help to strengthen diagnostic capability.

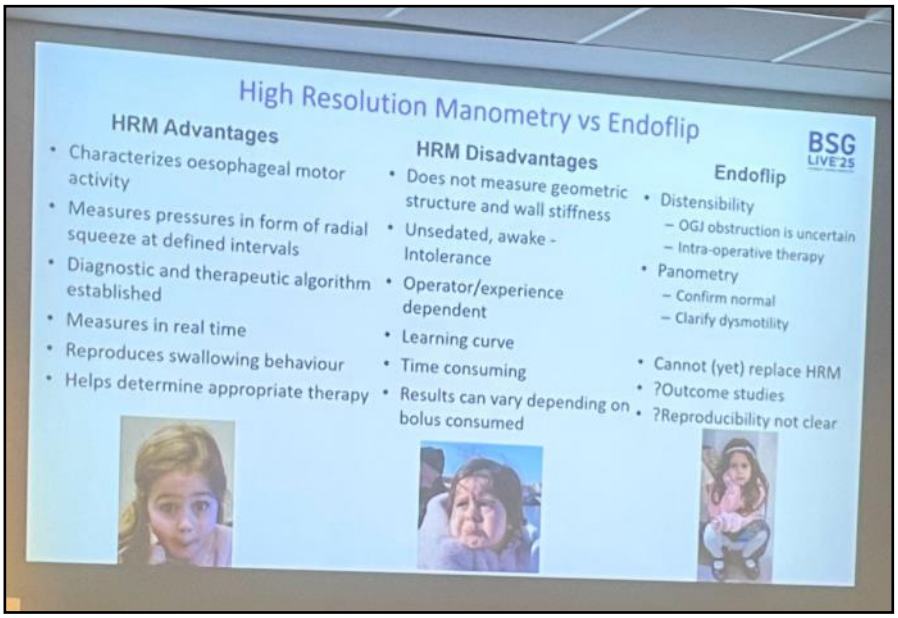

***Figure 4**: Advantages and Disadvantages for HRM versus Endo-flip™*

Event Review: This House Believes that Breath Testing is Crucial in Managing Symptoms Suggestive of SIBO

by Lottie Keyse, Trainee Clinical Scientist
Manchester University NHS Foundation Trust

Day 3 of BSG Live concluded with a lively and humorous debate surrounding the clinical relevance of breath testing in management of small intestinal bacterial overgrowth (SIBO) as part of the Small Bowel and Nutrition Session 1. In support of the motion was Prof Jervoise Andreyev from United Lincolnshire Hospitals NHS Trust, whilst against the motion was Dr Chris Black from Leeds Teaching Hospitals NHS Trust (Figure 1). A brief show of hands before the debate demonstrated that approximately half of attendees had access to hydrogen breath testing (HBT), with fewer routinely using breath testing for SIBO. This was clearly a controversial topic!

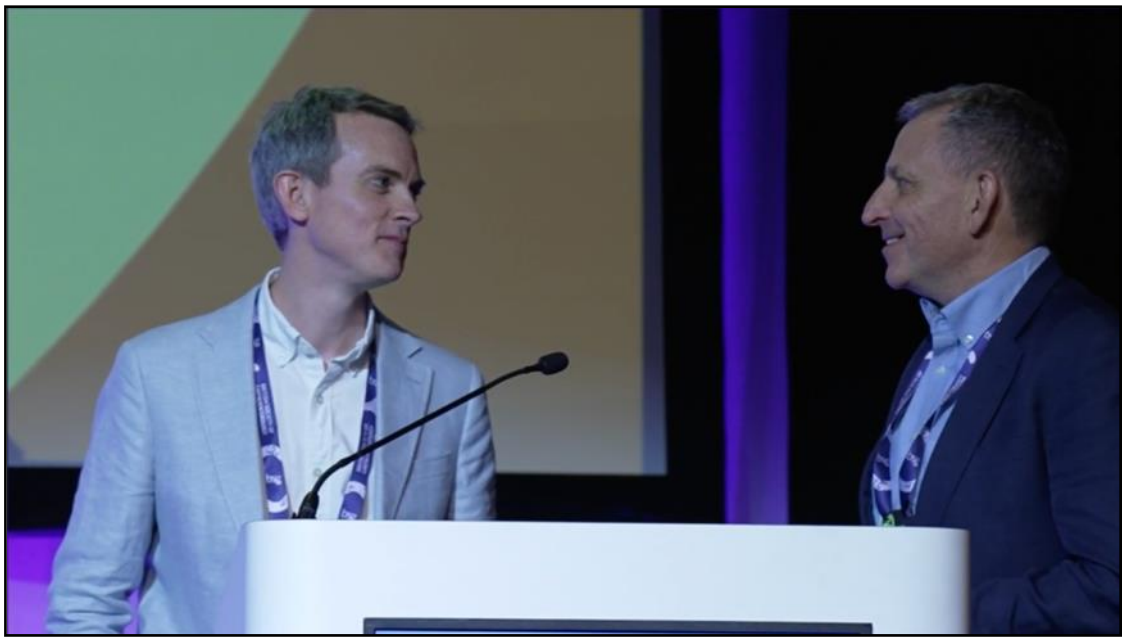

Figure 1**:** *Dr Chris Black (left) and Prof Jervoise Andreyev (right)*

Prof Andreyev kicked off his argument with some myth busting – including stating that SIBO is the most common diagnosis in gastroenterology and that is frequently ignored. He highlighted that there is currently no gold standard diagnostic test, and that antibiotic stewardship is critical in clinical decision making. Prof Andreyev cited some 'giants' in breath testing – keen to emphasise the requirement of a diagnostic test, rather than relying on a generalised symptom profile. His quote taken from Dr Satish Rao that "diagnosis of overgrowth requires testing because symptoms were poor predictors of overgrowth"[1], perhaps encompasses the crux of Prof Andreyev's argument.

Beginning to walk through his supporting data, Prof Andreyev surmised that SIBO prevalence can be divided into five patient categories: those with dysmotility, immune suppression, surgical-interventions, functional symptoms and 'other'. Whilst the range in prevalence for each of these sub-groups is broad, his caveat was that even if 10% of SIBO diagnoses are inaccurate, the prevalence was still substantial. He stressed that patients with SIBO can have any gastrointestinal symptom, ranging from diarrhoea and

bloating, through to reflux and brain fog. The similarity in presentations means reaching a differential diagnosis is extremely difficult, and so he stated, “when there are diagnostic tools to hand, it is ridiculous to rely on symptoms!”. Consequently, if response to empirical treatment fails, this could be due to several factors including poor patient compliance, incorrect dosage, antibiotic resistance, or an absence of SIBO. Prof Andreyev then delved into some “unequivocal” data regarding SIBO treatment. He cited three meta-analyses/systematic reviews demonstrating significant HBT normalisation following rifaximin treatment compared to placebo[2,3,4]. He also strengthened his argument with a study looking at 179 lactulose hydrogen breath test positive (LHBT) patients, which appeared to demonstrate symptom improvement all patients and significant improvement in quality of life[5]. Therefore, Prof Andreyev put it to the audience that making the diagnosis is worthwhile for many, but not all, patients.

A nod to other diagnostic modalities followed. In comparison to duodenal aspirate culture, Prof Andreyev presented data demonstrating overall agreement of 66% with glucose hydrogen breath testing (GHBT), but a lower correlation with LHBT (although commented that LHBT better detects distal overgrowth, particularly methanogens)[6]. Curiously, Prof Andreyev predicts that in 10-years’ time metabolomics of bacterial breakdown products in the saliva or blood will provide the gold standard for SIBO testing, and that a smart capsule bacterial detection system will break primary care. To conclude his argument, Prof Andreyev proposed a management algorithm for SIBO (Figure 2), based on a first-line approach of GHBT offering a “safe, quick, easy, and clean-cut yes/no in most patients”. He ended with a strong message using a clever anecdote of ‘how do we make progress if we don’t experiment in a standardised way?’.

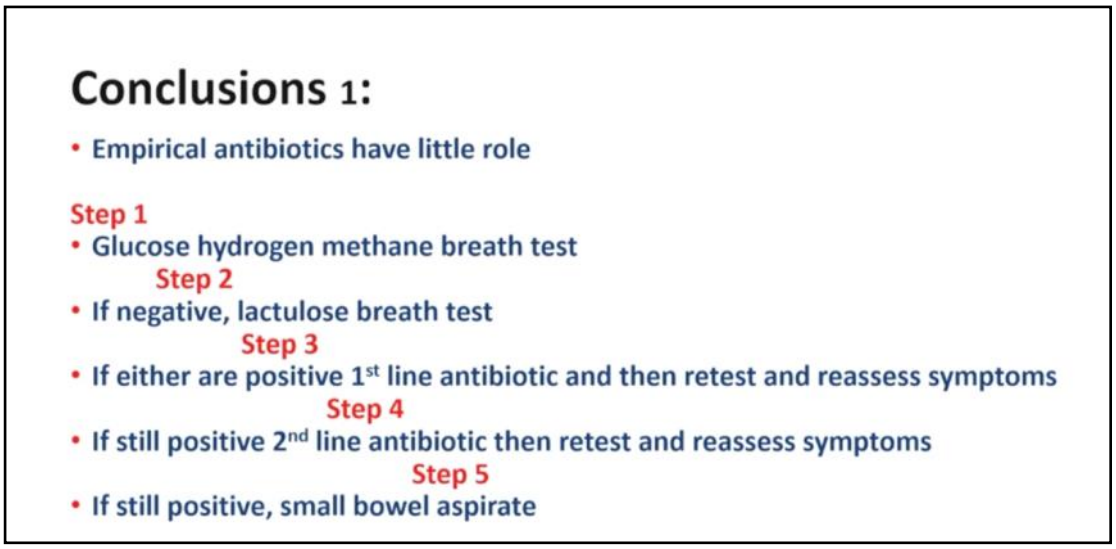

Figure 2: *Prof Andreyev's proposed algorithm for the management of SIBO symptoms, demonstrating breath testing as the first-line diagnostic tool*

Dr Chris Black took the stage with a strong opposing argument that whilst Prof Andreyev had conveyed that SIBO is a condition we should address; the debate should focus on whether HBT are misleading practice. A brief history of the concepts of SIBO and HBT followed: outlining that SIBO was defined as a condition of small bowel stasis, and occurred in certain situations such as post-surgery, scleroderma and associated with evidence of malabsorption. However, he shared frustration that the concept of SIBO appears to have evolved to include many people with disorder of gut brain interaction (DGBI) symptoms. He also noted that HBT was first developed to assess gut transit time, and so, a positive breath test is not synonymous with a SIBO diagnosis.

His distrust in HBT appeared to largely lie with the low sensitivity and specificity. Drawing from meta-analysis of 14 studies, Dr Black quoted a 42% pooled sensitivity rate for LHBT, and 54.5% for GHBT[7]. High false positive rates were also demonstrated by a further meta -analysis of case-control studies showing that the prevalence of SIBO was very similar to the prevalence of IBS in control (asymptomatic) individuals[8]. Dr Black proposed that the diagnostic cut-off of 90 minutes may explain this high false positive rate, as oro-caecal transit time can be much shorter, particularly in IBS-diarrhoea patients. Strengthening his argument by tracing back to the origins of HBT as a surrogate for transit time, Dr Black cited a study whereby LHBT with combined scintigraphy demonstrated that a rise in breath hydrogen correlated with the time of a meal reaching the caecum[9] (Figure 3). As half of these subject had a transit time of <90 minutes, they would ordinarily be wrongly diagnosed with SIBO. Similar results were seen in GHBT, even though they are supposedly less susceptible to caecal fermentation due to glucose's proximal small bowel absorption[10].

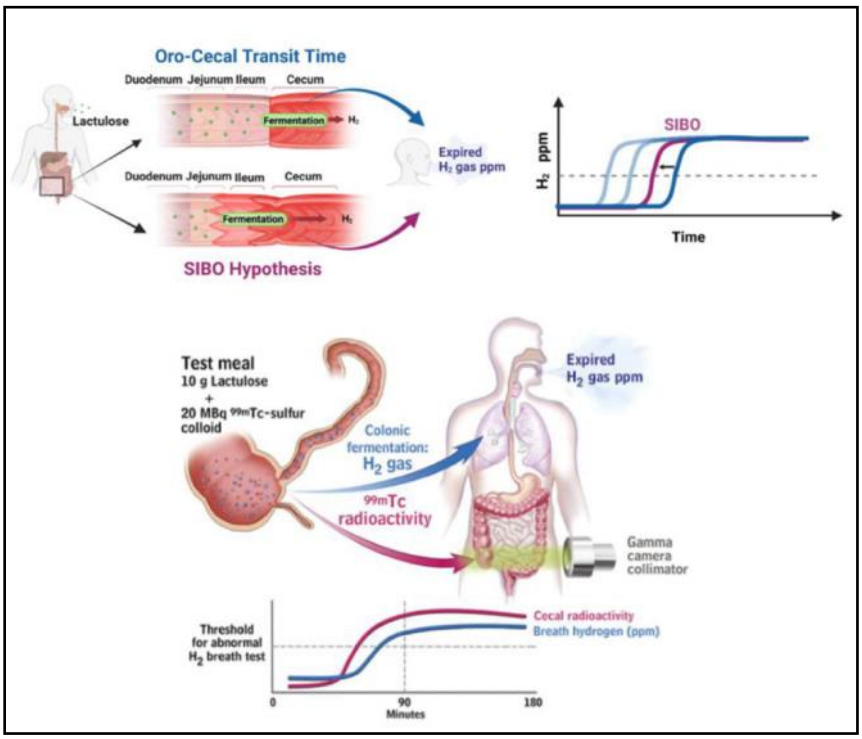

Figure 3: *Schematics demonstrating the principles of LHBT as a surrogate for oro-caecal transit times, and the methods used to show that a positive LHBT result correlates with scintigraphy*[9]

Posing a further question to the audience: 'can breath tests identify SIBO in IBS?', Dr Black then explained the movement towards performing breath testing in bloated patients. He touched on some studies by Mark Pimentel 20 years ago demonstrating high correlation between positive LHBT and IBS[11,12]. However, he commented that in hindsight these findings more likely represent fast transit. Adding to this, a large-scale recent retrospective review of GHBT in Rome IV functional bowel disorders demonstrated only a 1.6% positive rate[13]. Dr Black caveated that even with the argument of GHBT not detecting distal overgrowth and thus resulting in false negatives, the point still stands that breath testing is not a good diagnostic tool.

Dr Black finally addressed perhaps the greatest area of controversy: 'Can breath testing predicting response to antibiotics? Once again, he concluded that HBT are ineffective in predicting patients' response to treatment. He stated that response rates vary widely in the literature, due to low quality evidence from observational open-label studies. Returning to the early Pimentel studies in IBS, symptom improvement was greater in patients who normalised their HBT compared to those who did not[11,12].

With regards to the TARGET trials which enabled rifaximin to get FDA approval, only 98 of 1074 participants had an HBT, 62% were positive, and only half of these responded to rifaximin. HBT normalisation occurred in just 29% and was not predictive of treatment response[14]. Further trials demonstrated only marginal gain of rifaximin over placebo in IBS[15]. Dr Black countered that the marginal response to rifaximin could be attributed to suppression of colonic fermentation and effects on the microbiome. He supported this with a study of 124 people with negative HBT but severe bloating, who demonstrated a significant improvement in global symptom relief[16].

Concluding his counterargument, Dr Black reiterated the poor sensitivity and specificity of HBT for diagnosing SIBO in all groups, including those with pre-disposing conditions, largely due to intestinal transit times. He sent a strong message that HBT correlate poorly with other diagnostic tools such as jejunal culture. Crucially, they cannot distinguish between IBS from healthy controls and cannot predict response rates to antibiotics. Overall, Dr Black believes that we are over-interpreting breath tests and that they should not be performed in suspected SIBO. Given the high false positive rates, he made the case that you might as well treat patients empirically, as it's almost 'as good as' a breath test.

After a passionate debate which prompted further questions regarding the value of methane and the mechanisms of overgrowth, Prof Andreyev and Dr Black did share some views. Both recommended that breath testing be performed with some method of scintigraphy as a simple change of practice to reduce the false positive rate, particularly when using lactulose. Curiously, BSG are favouring a move towards glucose breath testing as appose to lactulose for this reason, and so this perhaps represents the greatest take-home message for us as physiologists. They were also both similarly suspicious that lots of GI conditions yield positive HBT and threw caution that much of the evidence base for HBT comes from groups who have made considerable financial gain from the SIBO phenomenon. Therefore, so until 'better' diagnostic tools for SIBO are developed such as metabolomics, our role as physiologists remains to perform and interpret HBT, whist considering limitations, to provide clinicians with the best evidence base for treatment.

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Event Review: The Impact of Opioids on Upper GI Function

by Luisa Keen, Trainee Clinical Scientist
Northern General Hospital, Sheffield

The Impact of Opioids on Upper GI Function: Insights from BSG Live 2025

At BSG Live 2025 in Glasgow, the AGIP GI Physiology session featured a standout presentation by Dr. Asma Fikree, Consultant Neurogastroenterologist and Associate Professor at University College London, who delivered a compelling and insightful lecture on the effects of opioids on gastric and small bowel function.

The Opioid Epidemic and Gastrointestinal Disorders

The UK currently faces a significant opioid epidemic. In 2019, the country reported the highest rate of opioid consumption globally. Overdose cases have surged by 87%, reaching approximately 12,000 annually, while opioid-related deaths have risen by 41%, with around 2,000 fatalities per year. Notably, opioid-related mortality is three times higher in the North East of England than in London, mirroring the geographical distribution of Disorders of Gut–Brain Interaction (DGBIs) (***Figure 1***).

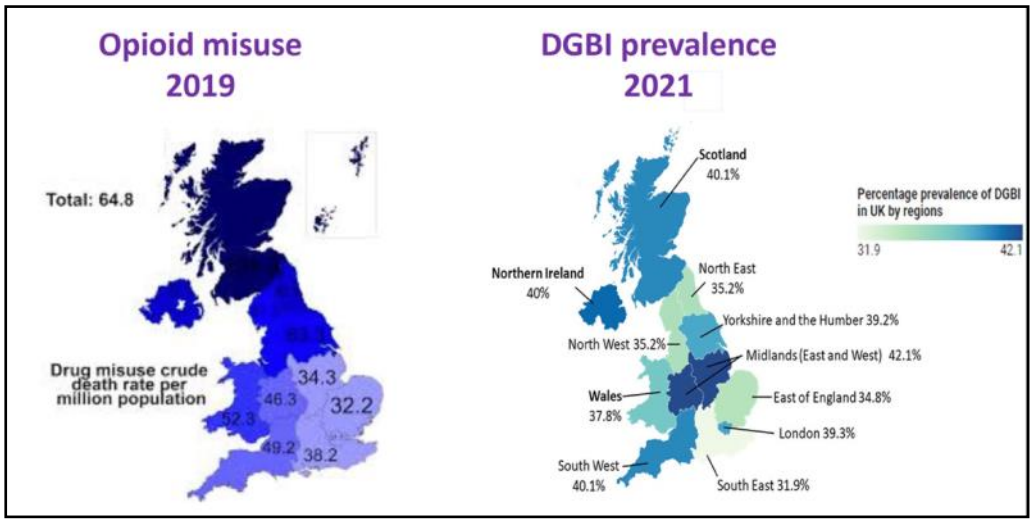

Figure 1*. Geographical distribution of opiate misuse and DGBI prevalence in the UK. Adapted from Neurogastroenterology & Motility, Volume 35, Issue 6, DOI: 10.1111/ nmo.14574 and Dr Fikree's presentation.*

Opioids and DGBIs: A Growing Clinical Concern

Evidence linking opioid use to DGBIs is increasingly robust. A study by Melchior et al. in France followed 2,933 patients with DGBIs over five years and found a doubling in opioid usage. Patients using opioids required more laxatives, antiemetics, and proton pump inhibitors and experienced significantly more vomiting [1].

In a recent UK study, Dr. Corsetti's team assessed 156 patients with functional dyspepsia, one-third of whom were on opioids [2]. Opioid use was more prevalent among

older patients with chronic pain and comorbid anxiety or depression. The study found a strong association between opioid use and symptoms such as constipation and vomiting. In a recent UK study, Dr. Corsetti's team assessed 156 patients with functional dyspepsia, one-third of whom were on opioids [2]. Opioid use was more prevalent among older patients with chronic pain and comorbid anxiety or depression. The study found a strong association between opioid use and symptoms such as constipation and vomiting. In the U.S., Jehangir et al. studied 223 patients with delayed gastric emptying, identifying chronic opioid use in nearly 20% of cases—40% for GI-related indications [3]. These patients experienced more severe and prolonged nausea (7 vs. 4 hours), increased retching and vomiting, greater upper abdominal discomfort, more frequent hospitalizations, and overall heightened symptom burden.

These studies collectively underscore a clear trend: opioids exacerbate upper GI symptoms, including nausea, vomiting, bloating, and pain—leading to increased healthcare utilization.

Does Opioid Type Matter?

Hasler et al. explored the relationship between opioid potency and clinical outcomes in 583 patients with delayed gastric emptying [4]. Of these, 41% were on opioids, primarily for abdominal pain. Potent opioids were associated with more severe gastric retention, worsened symptoms, and poorer quality of life (***Figure 2***).

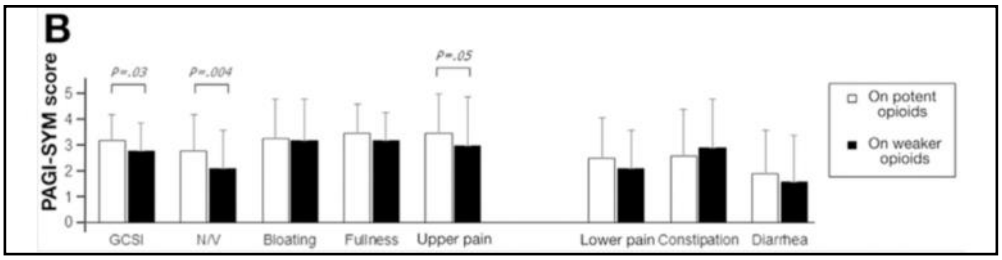

Figure 2*. Symptoms present with potent and weaker opioids. Adapted from Hasler et al. and Dr Fikree's presentation. Patient Assessment of Upper Gastrointestinal Disorders Symptoms (PAGI-SYM), Gastroparesis Cardinal Symptom Index (GCSI) scores, nausea/ vomiting (N/V).*

Mechanisms of Opioid Effects on GI Physiology

Dr. Fikree provided a detailed overview of gastric motility physiology (***figure 3***) and the modulatory effects of opioids and peripherally acting mu-opioid receptor antagonists (PAMORAs).

The stomach's pacemaker activity regulates contractions to accommodate and propel ingested food. Gastric emptying is influenced by the tone and distensibility of the pylorus, with duodenal feedback further modulating this process. These actions are coordinated through mechano- and chemosensory pathways.

Mu-opioid receptors, abundant in the antrum and duodenum, are located on enteric neurons. Opioids binding to these receptors disrupt sensorimotor function, slowing gastric emptying and altering motility patterns. PAMORAs—such as naloxegol, naldemedine, and methylnaltrexone—counteract these peripheral effects without affecting central analgesia.

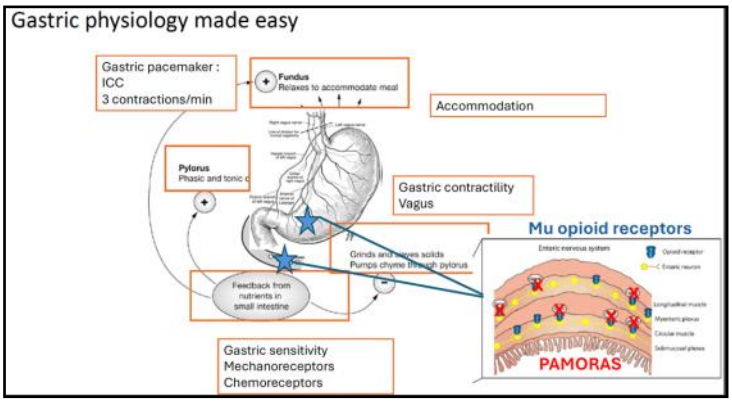

Figure 3. *Gastric physiology outline. Obtained from Dr Fikree's presentation at BSG Live 2025.*

PAMORAs: A Partial Solution

Several randomized trials have assessed the role of PAMORAs in reversing opioid-induced GI dysfunction:

- In a study of 72 healthy volunteers, codeine significantly delayed gastric emptying, and while naloxegol alone accelerated emptying, it did **not** reverse the codeine-induced delay [5].
- Morphine, in contrast, was associated with delayed emptying and increased nausea, and PAMORAs **partially** mitigated these effects [6].
- Morphine also reduced the absorption of paracetamol, with partial reversal by methylnaltrexone.

These data highlight the importance of withdrawing opioids before conducting gastric emptying studies, as PAMORAs may not fully reverse their effects. Furthermore Dr. Fikree emphasises the importance of weaning off opioids as a first line before considering the prescription of PAMORAs.

Broader Physiological Effects of Opioids

Opioids impact multiple aspects of GI motility:

- **Electrical Activity**: Fentanyl reduced gastric contractility and electrical activity in EGG studies, though individual responses varied widely [7].
- **Gastric Accommodation:** Remifentanil altered barostat-measured gastric tone unpredictably, with no known predictors of response.
- **Pyloric Function**: Opioids induce pyloric spasm, reversible by naloxegol [8].
- **Small Bowel Transit**: Codeine delays transit, partially reversed by PAMORAs, which also have an independent prokinetic effect.

Together, this evidence affirms that opioids disrupt multiple components of gastroduodenal sensorimotor function.

Reducing Opioid Use: Clinical Imperatives and Opportunities

Dr. Fikree concluded with a strong message: reducing opioid use in GI patients is both necessary and achievable.

Dr. Corsetti's team demonstrated that with education and support, 44% of functional dyspepsia patients were able to discontinue opioids, and 29% experienced symptom improvement [2]. The first step is starting the conversation—educating patients that opioids are unproductive for chronic pain and may cause worsening symptoms.
One particularly striking point for me was the phenomenon of **opioid-induced hyperalgesia**—a paradoxical effect where prolonged opioid use increases pain sensitivity. It's a powerful reminder that, while patients may believe they're alleviating their pain, long-term use can, in fact, worsen it. Moreover, 80% of patients report adverse effects when on long-term opioids, yet many remain unaware of these risks (***figure 4***).

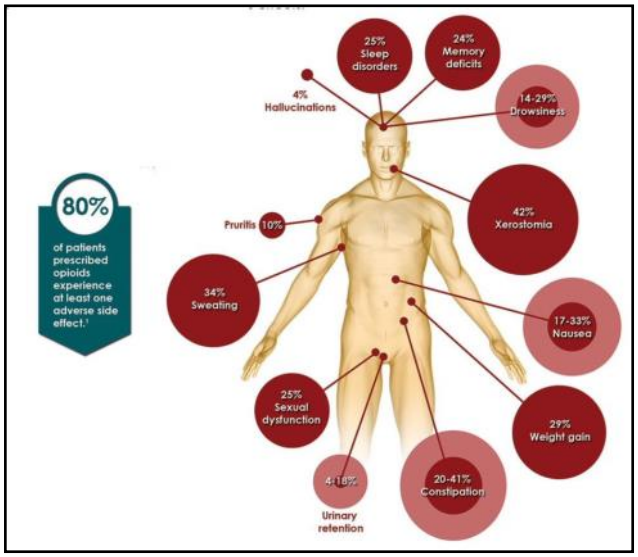

Figure 4*. Adverse effects that patients might experience if prescribed opioids. Image obtained from Dr. Fikree's presentation.*

It is also essential to recognize that doses above 120 mg of morphine equivalent daily are unlikely to confer additional analgesia and are associated predominantly with side effects. An excellent educational resource is the "Opioids Aware" campaign by the Faculty of Pain Medicine (https://fpm.ac.uk/opioids-aware), which provides printable leaflets for clinical use to share with patients and GPs. Another practical tool is the opioid reduction template from Oxford University Hospitals (https://www.ouh.nhs.uk/services/referrals/pain/opioids-chronic-pain/), which can be shared to help patient's wean off their opioid medications.

A Call for Further Research
Despite growing evidence, many questions remain. Why do some patients show flatline EGG responses to opioids while others develop bradygastria? What explains the variability in accommodation or pyloric responses? Further studies using novel tools are needed to explore these mechanisms in both healthy volunteers and patients.

What can we do as Clinical Scientists and Physiologists?
Although clinical scientists and physiologists may only see patients once for diagnostic testing, we still have an opportunity to educate and influence. By raising awareness and "planting the seed," we can contribute to reducing opioid overuse and improving patient outcomes.

Dr. Fikree's session was not only educational but also a powerful call to action. Opioid stewardship is now firmly a gastroenterological responsibility—and one in which all of us have a part to play.

Event Review: Why Do Patients with GORD Decline Capsule Sponge?

by Naomi Rune, Clinical Scientist
Oxford University Hospitals NHS Trust

As part of the 'CSSC Free Papers' session at this years' 'BSG Live' I had the pleasure of seeing the enlightening presentation delivered by Brenda Mwangi from Basildon University Hospital. In this talk she reflected upon the implementation of the capsule sponge to her service, as an alternative to direct referrals to oesophago-gasto-duodenoscopy (OGD) to screen for Barrett's and other oesophageal pathologies.
This was put into place with the intention of providing some relief to their overstretched endoscopy services (an all too familiar situation across Trusts nationwide).

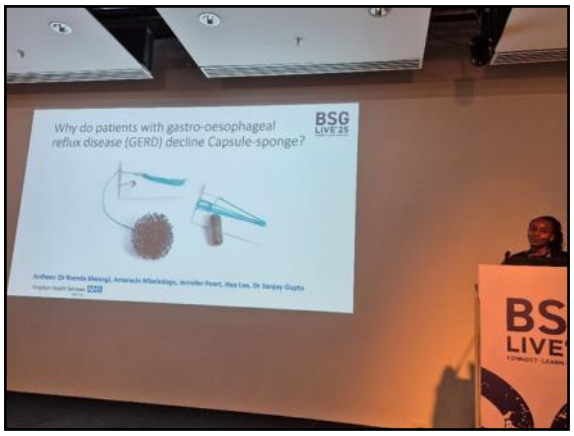

Figure 1: *Dr Brenda Mwangi (FY1) From Basildon University Hospital, presenting her talk at the 'CSSC Free Papers Session' at BSG Live*

As the capsule sponge offers such an opportunity, it became a hot topic at the conference and recent data from a number of studies can be found which supports the use of capsule sponge as a suitable and robust alterative to endoscopic studies.

The capsule sponge is minimally invasive and requires the patient to swallow a relatively small capsule which, upon entering the stomach releases the 'sponge' which is withdrawn via the attached string after 7 minutes. The sponge collects cells from the oesophageal lining in this process and is then sent to the labs to be assessed for abnormalities.

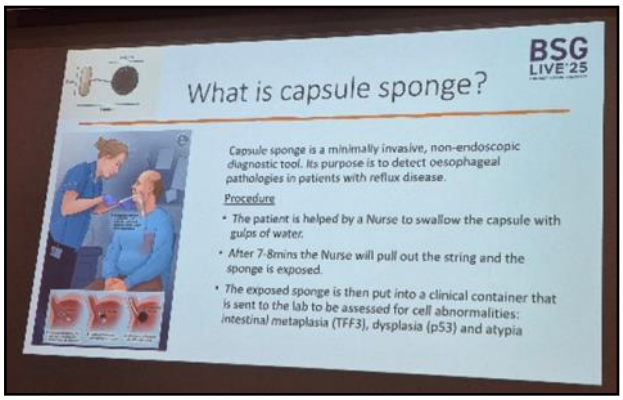

Figure 2: *Slide outlining the procedure for testing with capsule sponge*

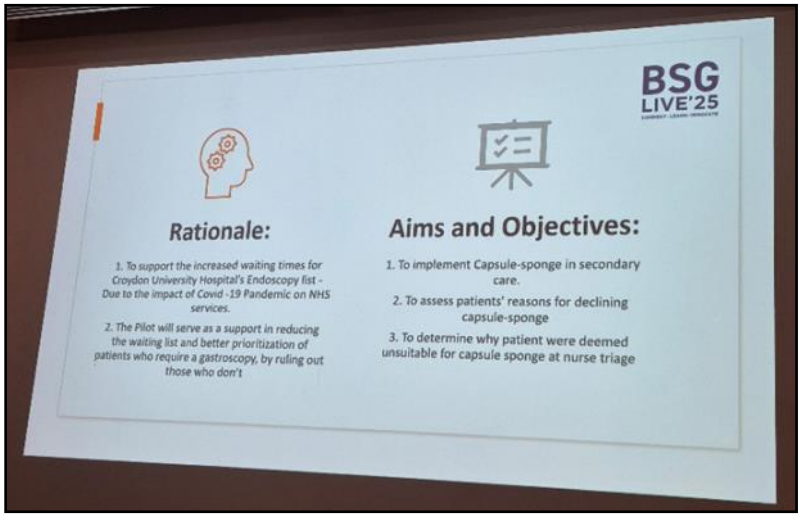

Figure 3: *Slide outlining the rational, aims and objectives of the study.*

Despite the benefit of being minimally invasive, it was found that may patients invited to participate in the new investigation pathway declined testing with capsule sponge. As you can see in the patient pathway flow diagram below: of the 222 patients invited, 96 declined testing. In addition to this, during the triage process some patients were found to be unsuitable for testing, resulting in further exclusions from the study (a further 32 from the 126 patients that accepted) leaving just 94 remaining. As a result of this, Dr Mwangi set about investigating the reasons for this.

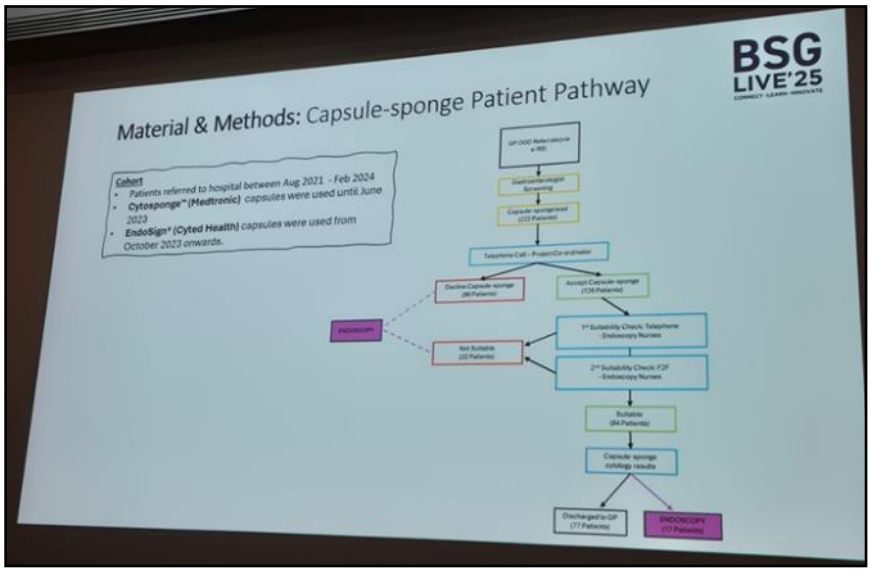

Figure 4: *Slide showing study design and patient pathway (includes patient numbers excluded at each stage)*

<u>Reasons for declining</u>

1) From the 96 patients that declined, 58 responses regarding their reasoning were gathered from the survey (23 patients did not answer and 15 were inaccessible). The reasons could be easy divided into 'patient related factors' and 'administrative factors'.

Popular answers for 'administrative factors' included a lack of visual information being provided, inconvenient timing of the test and not enough information being provided. A valuable suggestion from the audience was that the initial telephone communication with

the patient should be performed by a clinical member of staff as this would allow for the patients to have any questions about the test answered suitably at an early time point. Popular ‘patient related factors’ included lack of confidence that their condition would be detected, not remembering being asked to take part in the study and concern over the test being a ‘new procedure’. Patients also expressed further concerns over discomfort of the procedure.

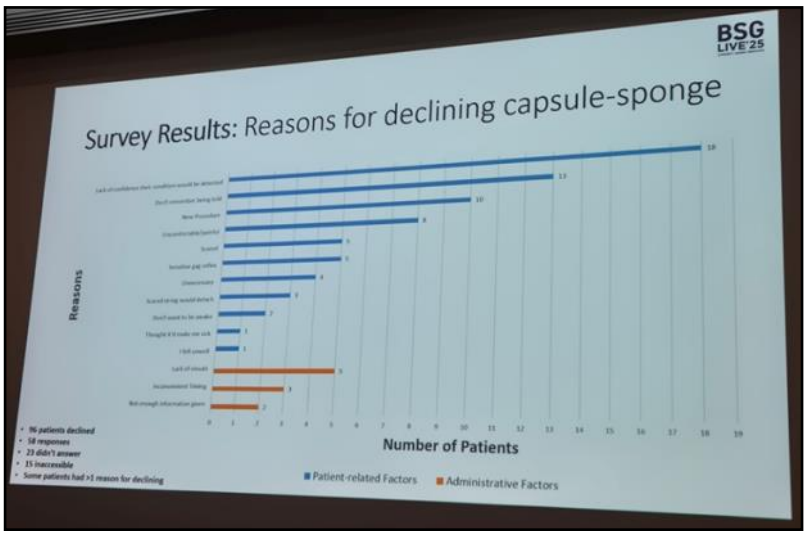

Figure 5: *Slide showing histogram of the results of the survey investigating the reasons for patients declining testing (blue bars show patient factors, red bars show administrative factors)*

2.Reasons for patients to be deemed ‘unsuitable’ at triage

There were two points in the study at which patients were triaged, one telephone consultationand the other face to face. Two primary exclusion criterias were: alarm symptoms, for which in indication straight to urgent endoscopy is indicated and dysphagia, due to the patient’s inhibited ability to swallow the capsule sufficiently. In addition, a number of patients did not attend their face to face consultation. The full range of reasons can be seen in the slide below.

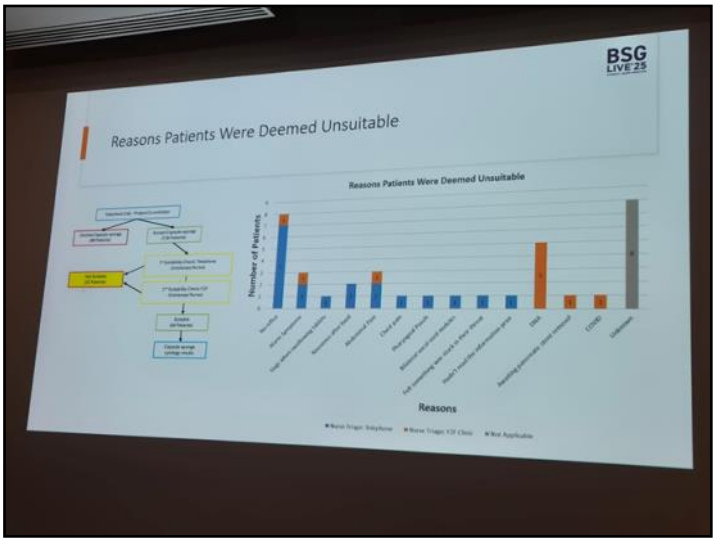

Figure 6: *Slide showing a histogram of the results of the survey investigating the reasons for patients deemed ‘unsuitable’ at triaging points (blue bars show patients excluded at telephone triage, red bars show patients excluded at face-to-face triage).*

In conclusion, the findings allowed for suggestions to be made for the study design whereby earlier and clearer information would provide reassurance to the patients about the test. Furthermore, more patients could be excluded at the earlier stages if eligibility criteria were better known.

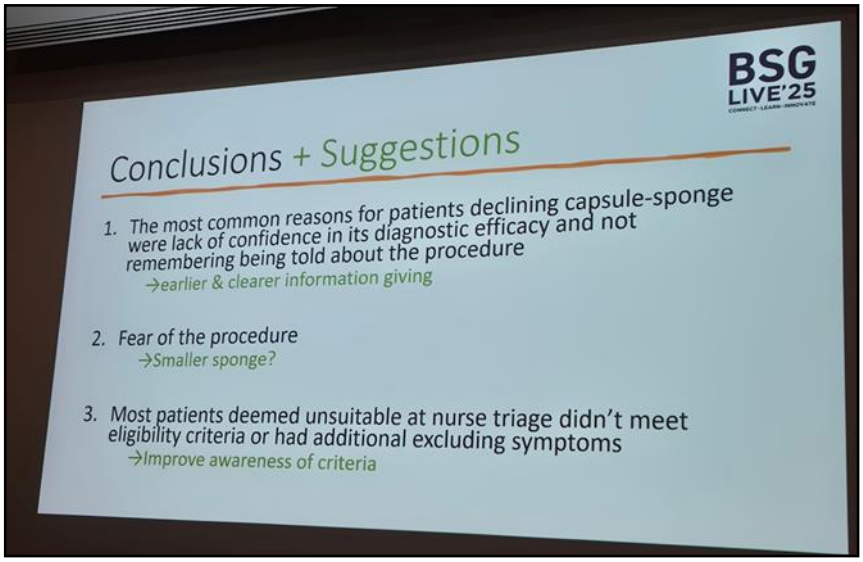

Figure 7.:*Slide to show conclusion of the main findings for patients declining the tests and suggestions towards changes to study design to minimise this.*

This was a short, yet valuable talk which provided insights on some commonly neglected topics. Including maximisation of patient engagement and critical appraisal of study design. Both of which are crucial to ensure robust data for any study and, as demonstrated can be used to tailor future studies to improve the process.

The evaluation of this new pathway, despite the apparent high drop- out rate of participants, still demonstrated the high clinical utility of the capsule sponge in its ability to minimise patients sent to endoscopy as 77 patients of the 94 patients were not required to have an OGD due to conclusively normal findings. Overall, the outcomes for the capsule sponge as a diagnostic tool are looking optimistic and can provide a more positive outlook on pathways which have for so long presented the patient with such long waiting times.

Event Review: Can We Use Capsule Sponge Sampling Instead of Gastroscopy to Monitor Patients with Eosinophilic Oesophagitis? A Multi-centre Study

by Samantha Scott, Lead Clinical Scientist
University Hospitals Bristol and Weston NHS Foundation Trust

Dr Ayesha Aslam Rai's presentation at BSG Live 2025 offered compelling early evidence that capsule sponge sampling may soon replace repeat gastroscopies in the surveillance of eosinophilic oesophagitis (EoE). Titled *"Can we use capsule sponge sampling instead of gastroscopy to monitor patients with eosinophilic oesophagitis? A multi-centre study,"* this ongoing 18-month QuBiE study explored the feasibility, safety, and diagnostic accuracy of the EndoSign® capsule sponge across two academic NHS Trusts and one non-specialist centre.

Why This Matters
EoE is a chronic immune-mediated condition that commonly presents with dysphagia and food impaction. Current disease monitoring relies on repeat endoscopy and biopsy; a process that is invasive, expensive, and poorly correlated with symptoms. Dr Rai highlighted that histological remission (defined as <15 eosinophils per high-power field) is a more accurate marker of disease control than symptom resolution alone.

Study Design
Patients were recruited if they had a new diagnosis or required a treatment change. All participants completed a dysphagia symptom questionnaire and underwent a capsule sponge test followed by same-day gastroscopy. Endoscopic findings were graded using the EREFS (**E**dema, **R**ings, **E**xudates, **F**urrows, and **S**trictures) score. Histology from both sponge and biopsy was centrally processed, and patients completed an acceptability survey.

Key design features:

- Centralised histopathology
- Standardised capsule applicator deployment

Surveillance of mucosal abrasion post-capsule

Results

- 102 patients recruited; 96% successfully swallowed the capsule
- 81% preferred the capsule sponge over gastroscopy for ongoing surveillance
- Minor abrasions were seen in a small number of cases, no significant adverse events
- Strong correlation between eosinophil counts from sponge and biopsy ($r = 0.74$, $p < 0.05$)
- Diagnostic thresholds (≥15 Eos/HPF) yielded:
  - **Sensitivity**: 80%
  - **Specificity**: 89%
  - Refined thresholds (<5 or >20 Eos/HPF) improved performance:
  - **Sensitivity**: 89%

Specificity: 93%

Interestingly, in 11% of cases, the capsule sponge detected active disease that biopsy missed, likely reflecting better sampling of the full oesophageal length.

Clinical Implications
The capsule sponge showed strong potential as a non-invasive monitoring tool for non-stenotic EoE, particularly in a follow-up context. The test was well tolerated, with the applicator design facilitating smooth swallowing even in patients with symptom burden. Dr Rai confirmed that patients with known strictures were excluded, and no instances of capsule retention were reported.

The study team advocate for inclusion of capsule sponge testing in national surveillance pathways, particularly given its potential to alleviate endoscopy burden across NHS services.

Conclusion
This exciting study supports the use of capsule sponge sampling as a viable alternative to gastroscopy for EoE surveillance. It demonstrates comparable diagnostic accuracy, improved patient experience, and significant potential to transform clinical pathways. Work is ongoing to refine its utility and explore additional biomarkers to further strengthen its value in practice.

Fig.1: *Slide image taken from Dr Ayesha Aslam Rai's presentation*

Are you attending a conference / event?

NewWave is always looking for reviews of GI Physiology events and meetings. If you have an event coming up and would like to submit a review (or advertise it in our next issue), please contact Gemma Willis

The next issue of New Wave will be published in October 2025