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BRITISH SOCIETY OF GASTROENTEROLOGY

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January 2023

The Official e-Newsletter of the Association of GI Physiologists

<u>Welcome</u>

Welcome to the **January 2023** edition of NewWave! If you have any relevant articles or papers that you would like to be included in future editions, please email <u>elisabeth.kirton@nhs.net</u>

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INTRODUCING A NEW CATHETER BASED IMPEDANCE/PH MONITORING SYSTEM





The alpHaFLEX catheter based Impedance/ pH Monitoring System combines the very latest in sensor and data visualisation technologies to bring an unprecedented level of accuracy and simplicity to oesophageal

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Upcoming Events: 2023			
March 2023	UKCS 2023 (Sheffield) <u>United Kingdom Continence Society - 2023 ASM (ukcs.uk.net)</u> 19th —31st March 2023		
May 2023	Digestive Diseases Week® 2023 (Chicago + Virtual) <u>Home Page - DDW</u> 6th—9th May 2023		
June 2023	BSG LIVE 2023 (Liverpool) <u>Home - BSG 2023 Live!</u> 19th—22nd June 2023		
November 2023	UEG Week 2023 (Copenhagen + Virtual) <u>Week UEG - United European Gastroenterology</u> 14th—17th October 2023		



Are you interested in becoming a UKAS Independent Technical/Peer Assessor for the IQIPS scheme?

Accreditation for Physiology services is rapidly expanding and UKAS urgently need practising physiologists or consultants within Gastrointestinal Physiology to become assessors for the scheme. Participation will contribute towards your CPD portfolio.

The IQIPS standard has been developed by the Accreditation Clinical Advisory Group (ACAG) originally in partnership with The Royal College of Physicians as a patient focussed, nationally recognised measurement of quality for physiology services. It gives confidence to patients, purchasers, staff and managers about safety, effectiveness and sustainability of your physiology service. Physiological Science accreditation is recognised by the Care Quality Commission (CQC) as a valuable source of information to support its regulatory function.

We, the United Kingdom Accreditation Service (UKAS) have been appointed by government under a memorandum of understanding to manage and deliver the scheme and is looking to increase our assessment capacity in line with growing demand.

Qualifications and experience

Ideally you should have at least four years practical experience, preferably at a senior level, in your specific physiology discipline.



Training

You will receive in depth training to prepare you for completing assessments. It also provides valuable insight into the accreditation process should your service be preparing for accreditation or is accredited. Training is funded and provided by UKAS.

Assessments

Each assessment consists of a 1-2 day(s) assessment either on site or remotely accompanied by 0.5-1 day reviewing evidence and formulating a report annually.

UKAS contracts independent technical assessors on a day rate basis, either as self-employed contractors or through their current employer. The level of work is dependent on the needs of our customers and therefore UKAS cannot guarantee specific levels of work. Some travel in the UK and overnight stays may be required. And reasonable expenses are reimbursed.

Further information:

If you would like to discuss the role further, please contact Laura Booth, UKAS Senior Assessment Manager on 01784 429000

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From the Editor

Welcome to the January 2023 issue of NewWave! A (slightly belated) Happy New Year to you all.

In this issue, Patricia Vales and Dr Mark Scott have kindly written a moving tribute to Professor David Evans, the former chair of AGIP who sadly passed away in June 2022 (<u>Page 5</u>). The memoriam highlights his outstanding contributions to AGIP and the GI Physiology profession during his career.

The Royal London Hospital at Barts Health NHS Trust have advertised a job vacancy for a Clinical Scientist in Lower GI Physiology in this issue (<u>Page</u> <u>7</u>). Please do share this with GI Physiology



colleagues, and anyone you know who may be interested in applying.

In 2023, NHS England are running a national survey of physiological science services. The data questionnaire for GI Physiology services will be open between **Monday 13th February 2023** and **Friday 10th March 2023**, and all NHS Trusts providing GI Physiology services have been asked to participate. For further information about the data collection survey and contact information, please see <u>Page 8</u>.

In our feature articles, Andres Vales has shared the findings of his recently published research study "The Use of Alginates During Pre-Investigation Proton Pump Inhibitor Washout: Impact on Symptom Burden" (Page 10). I encourage anyone who asks patients to discontinue PPIs as part of preparation for a test to read Andres' findings, as they show how proactive alginate use can help reduce symptoms for patients during this time.

Vicky Ritchie was also awarded an AGIP bursary to attend United European Gastroenterology (UEG) Week 2022 virtually, and has provided an engaging review of an interesting session discussing non-cardiac chest pain (<u>Page 13</u>).

For the April issue of NewWave, I'm particularly interested in any information we can include about upcoming regional GI Physiology meetings and working groups. GI Physiology is a small profession, and these can be an excellent source of local support and networking. Any event reviews, patient case studies, research results and trainee experiences are also all welcomed.

As always, please do get in touch (<u>elisabeth.kirton@nhs.net</u>) with any ideas for articles, or information you would like to share with the GI Physiology community via NewWave!

Elisabeth Kirton

In Memoriam

Professor David Frederick Evans 12th August 1946 — 19th June 2022

Mrs Patricia Vales and Dr Mark Scott

David was Chair of AGIP during a period of change and expansion of our Association in the mid to late 1990's. While Chair, our profile was enhanced within the BSG and externally within the broader Healthcare Science community. Also during his tenure, our Educational Pathway was approved by the Chief Scientific Officer at the Department of Health and we became a Professional Body.

David already had a well-respected profile within the BSG before he became Chair and used his many contacts to ensure that we became fully integrated into the BSG family by forging close contacts with other sections such as the Oesophageal Section. Our



presence at the BSG Annual Conference became well established, and by inviting prestigious guest speakers such as Professor Janet Wilson*, who is one of our Honorary Fellows, our seminars became well attended by the wider BSG community. David also introduced the Margaret Marple Prize** to encourage and recognise research being carried out by our members and to give them a platform to present at a national level.

David's own career in gastrointestinal physiology blossomed under the tutelage of Professor Jack Hardcastle at Queens University Hospital in Nottingham. In the early 90's, he moved to London to take up a Senior Lecturer position at the GI Science Research Unit, Queen Mary University of London in Whitechapel (which subsequently became the 'Wingate Institute for Neurogastroenterology'), and together with Mark Scott and Etsuro Yazaki set up the clinical GI Physiology Unit at the Royal London Hospital. In the early 2000's, David became the second Director of the Wingate Institute following the retirement of Professor David Wingate, and received a personal Professorial Chair. He welcomed individual members of the Association to the Wingate Institute / GI Physiology Unit to observe techniques not available in their immediate locality and to get an unbiased opinion and access to new equipment coming on stream which he was evaluating. He also invited "guest" speakers to in-house research meetings, giving those members an opportunity to present to an informed but supportive audience. David also, very generously, hosted our Annual General Meeting at the Wingate Institute before it became an integral part of our seminar during the BSG. This served the purpose of being a relaxed social event and facilitated membership networking as well as a fulfilling our obligation to hold an AGM.

David taught at our annual courses at Coventry University, introducing our trainees to the intricacies of upper GI physiological measurement. He was our initial contact with the nascent Registration Council for Clinical Physiology and was one of the first to register when it opened. In his capacity as a recognised authority on upper GI physiology, he was invited by the Department of Health to sit on Consultant Clinical Scientist interview boards and proved himself to be a fair but true "prisoner's friend". He had an excellent academic publication record, and pioneered techniques such as radiotelemetric pH and pressure measurement from within the GI tract (an early 'SmartPill' device), static and ambulatory catheter pH monitoring, and also gut motility measurement using MRI. He expanded his interests to include areas such as the relationship between gastro-oesophageal reflux and dental erosion, and gastrointestinal dysfunction in athletes. Together with Graham Buckton, David edited the first 'bible' of oesophageal diagnostic measurement: "Clinical measurement in gastroenterology - Vol. 1: The oesophagus" (Blackwell Science Ltd, Oxford, UK, 1997).

As well as being a very effective Chair, David was hugely enthusiastic and very kindly, with a real drive for mentoring juniors in the field. He made our Council meetings opportunities to engage with each other and work well together for the benefit of our members and to promote the reputation of our Association both within and externally to the BSG.

Our sympathy goes to his wife Kate and his family at this sad time.

* Prof Janet Wilson, Chair in Otolaryngology Head and Neck Surgery, University of Northampton. Janet originally worked with Dr Robert Heading at Edinburgh on cricopharyngeal motility and was one of the original team setting up measurement standards for our newly formed Association.

** Margaret Marple (RIP), Lead Physiologist, Surgical Investigation Unit, Salford Royal Hospital. Margaret was a lead in establishing our original education pathway and promoting standardisation of our protocols

JOB VACANCIES



NHS Trust

Clinical Scientist in Lower GI Physiology Band 7 The Royal London Hospital

We are looking to recruit an enthusiastic and motivated qualified clinical physiologist / clinical scientist in GI physiology, ideally with previous experience, to take up the position of Clinical Scientist in Lower GI Physiology. This is a new permanent position created to expand the existing team.

You will have a proven track record in performing lower GI physiological investigations, and either have qualified through the NHS Scientist Training Programme or have achieved equivalence. This is a rare and exciting opportunity for career fulfilment and progression, which can be tailored to your profession, clinical skills and interests. Our renowned and long-established Unit provides a clinical service for in excess of 1,000 patients per year. Consequently, we also have an active research programme, in which the successful applicant will be expected to participate.

The postholder will primarily be responsible for undertaking the full range of diagnostic colorectal physiological investigations, analyse findings and complete clinical reports. You will also have a role within the wider Functional Bowel Team, where you can run sacral nerve stimulation (SNS) and percutaneous tibial nerve stimulation (PTNS) outpatient clinics.

Ideally you are an Accredited Independent Practitioner with the Association of GI Physiologists, and registered with the HCPC, or if not, close to achieving the required experience to do so.

Informal enquiries can be made to Samantha Morris, Lower GI Physiology Unit Manager, RLH at <u>samantha.morris5@nhs.net</u> or Dr Mark Scott, Director of the GI Physiology Unit, QMUL, at <u>m.scott@qmul.ac.uk</u>.

Salary: £49,036 – £55,049 per annum incl. For full job description and details of how to apply, please visit: https://www.bartshealth.nhs.uk/jobs/#!/job/v4967361 Job reference number: 259-3539318RLH-P

News

NHS England: National GI Physiology Data Collections

As recommended within the Richards review of diagnostic services, NHS England will be running a national survey to gather baseline information for 8 disciplines of physiological science services. The data will underpin local and national transformation programmes for physiological sciences.

From Monday 13th February 2023 to Friday 10th March 2023 the data questionnaire for **gastrointestinal physiology** services will be open and all trusts within England that provide gastrointestinal physiology services will need to submit data about their services. Data will be collected via a web portal that can be accessed via NHS England data collections framework web portal and will cover the following areas:

- Activity/waiting lists (data from November 2022)
- Service info
- Facilities (equipment age and contracts)
- Workforce (numbers and costs broken down by substantive, agency and bank)
- Supervision and training
- Estates
- Digital and data connectivity

The National Physiological Science Transformation Programme is asking for trusts to submit the contact details of the people who will be responsible for completing the collection. This request was sent to NHS England Diagnostics teams, Regional Medical Directors and Regional Diagnostic Leads on the 16th December 2022. **If department leads have not received a copy of the contact form, this can be requested by emailing england.pmprogramme@nhs.net**.

In advance of the survey webform platform going live, the national programme team will be hosting a webinar on **Thursday 2nd February 2023 at 10:30**. The webinar will provide a technical walkthrough of the data collection and what will be collected. Invites and further information will be forwarded to department leads who have been identified to complete this.

Further details about the National Physiological Science Transformation Programme can be found on NHS Futures <u>Physiological Science Programme - FutureNHS Collaboration</u> <u>Platform</u>.

Please find an example copy of the contact form on the following page

To submit the contact details of who will be completing the data collection, please email a completed form to <u>england.pmprogramme@nhs.net</u>

Trust Name					
Trust ODS Code					
Are you completing this on behalf of -		Gastrointestinal physiolog necessary)	Gastrointestinal physiology / neurophysiology (remove as necessary)		
Does your trust service?	provide a gastrointes	tinal physiology / neurophysiology	Yes / No (remove as necessary)		
If yes please prov	ide contact details belo				
Name		Role	Email Address		
lf 'No' is <u>another</u>	<u>trust providing</u> the se	ervice on <u>vour behalf</u> ?	Yes / No (remove as necessary)		
If yes please prov	ide contact details belo	0W			
Trust Name	Name	Role	Email Address		
Does <u>your trust</u> services to <u>anot</u>	<u>provide</u> gastrointestii <u>her trust</u> ?	nal physiology / neurophysiology	Yes / No (remove as necessary)		
If yes please provide contact details below					
Trust Name	Name	Role	Email Address		

Feature Articles

Research: The Use of Alginates During Pre-Investigation Proton Pump Inhibitor Washout: Impact on Symptom Burden

Andres Vales – Clinical Scientist The Functional Gut Clinic, London

Many patients find it difficult to stop their reflux therapy before pH monitoring. Some will have given up on traditional antacids long ago and will be dependent on Proton Pump Inhibitors (PPIs) to control their symptoms. To compound matters, stopping PPIs can cause a period of rebound hyperacidity (1). This effect can even be produced patients without reflux in symptoms, where a previous study showed that healthy volunteers on a 4-8 week course of PPIs developed reflux symptoms when the course was stopped abruptly (2). This situation has been further complicated since the global recall of ranitidine (3) and other H2 Receptor Antagonists (H2RAs) being in short supply.



British Society of Gastroenterology guidelines require PPIs to be stopped for 7 days before the test to allow for parietal cell turnover (4). This can increase patient anxiety about the test and many can recount stories of previous times they were left without PPIs and the discomfort it caused. Patient quality of life is not the only issue, however, and concern exists that patients may surreptitiously take PPIs during the washout period, thereby reducing diagnostic accuracy and efficacy.

Pre-investigation information sheets can present patients with an overload of information to absorb. Although guidelines allow antacids to be taken until the day before the test, patients may overlook this option or simply disregard it due to previous experience that antacids are not as effective at reducing symptoms. Alginates are also allowed until the day before; these have raft-forming properties (5) and have been demonstrated to provide topical protectant effects (6).

Research is scant as to whether using regular alginates can reduce rebound symptoms during PPI cessation. A few studies have used alginates as part of PPI reduction / deprescription initiatives, but none were randomised control trials (7-9). We therefore performed a study to give patients a simple and proven way to reduce symptoms during PPI withdrawal.

Methods

Study participants were already established on \geq 4-weeks of PPI therapy and being referred for manometry and 24-hour pH/impedance testing. All participants received pre -investigation information consisting of stopping PPIs and H2 receptor antagonists for 1 -week, but antacids and alginates could be taken up to the night before the test. Participants were randomised to follow either this information (control group), or the same information with the provision of Gaviscon Advance and specific instructions to take it 4 times per day; after meals and at night (treatment group). The primary outcome assessed change in Gastroesophageal Reflux Disease Health Related Quality of Life Score (10) between the start and end of the PPI-washout period.

Key Results

See Figure 1. Data for 48 patients were available for assessment of the primary outcome. Whilst patients in the control group had a significant increase in symptoms upon stopping PPIs (median score increased from 10 to 16.5, p<0.05), there was no change in symptom severity in patients in the treatment arm (symptom score 19 vs 17.5, p=0.54).



Fig 1. Box plot of gastroesophageal reflux disease health related quality of life scores before and after the PPI washout period (intention to treat population). No change was seen in the treatment group, but the control group experienced worse symptoms one week later. Data are expressed as median (interquartile range).

Discussion

This study shows that regular, structured use of alginates can prevent symptom exacerbation whilst discontinuing PPIs before diagnostic testing. Pre-investigation instructions focus on the medications patient must stop and generally do not offer advice on what can be taken to reduce symptoms. Also, some patients may disregard traditional reflux therapy. However, our study suggests that specifically and proactively telling patients to take an alginate-based preparation, and to start this before symptoms develop, helps to reduce symptom rebound. This is likely to improve patient wellbeing during PPI withdrawal and may positively impact adherence with the PPI washout period. The findings of this study are limited to the 1-week washout period but can still benefit the thousands of patients undergoing gastroscopy, H. pylori and reflux investigation each year. Further research is required to assess if this effect is seen in other settings, such as sustained PPI deprescription. The study protocol was approved by a research ethics committee and is EudraCT registered: 2019-004561-41. The trial was funded by Reckitt Benckiser.

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The published research by Vales *et al.* (2023) is now available online here: <u>BMJ</u> <u>Open Gastroenterology.</u>

Event Review: United European Gastroenterology (UEG) Week 2022

Vicky Ritchie – Clinical Scientist NHS Grampian

I was delighted to be supported by AGIP to attend UEG Week 2022 virtually. It was an exciting programme with a multitude of presentations of interest to attend. It was delightful to reflect on the volume of talks containing high resolution manometry and the various pH testing modalities mentioned (compared to when I started attending back in 2006, when you were lucky to see them in a few talks). Hopefully this means exciting developments in our field in the years to come, as new metrics and tests are developed.



I very much enjoyed and was inspired by the

session on non-cardiac chest pain (NCCP). It brought together two of my current interests: disorders of brain gut interaction and behavioural therapy. I am an advocate for the biopsychocial model and holistic treatment of patients.

Dr Monica Velosa gave an informative presentation in relation to the differentiation of NCCP from angina, and the pathways used for this. She stressed the importance of testing for costochondritis in these patients, due to it being a common cause for NCCP. The physical exam involves manipulation of the breast bone and rib cage to assess pain levels. Treatment for this would be a simple anti-inflammatory, and thus may prevent treatment with inappropriate medications such as an expensive proton pump inhibitor (PPI) or neuromodulators. I wondered whether this was a test that we could be trained to undertake (either routinely in the lab setting for investigation of NCCP, or whether Clinical Scientists can expand their role into undertaking assessment of these patients at clinic when cardiac aetiology has been excluded). This would improve the continuity of care for these patients and ease the burden for medical colleagues. I am currently training to undertake consultations for return gastro-oesophageal reflux disease (GORD) patients and achalasia patients, so this would certainly be possible in a centre where the Clinical Scientist was supported by a consultant with an interest in this area.

The use of high resolution oesophageal manometry was also discussed as a means of ruling out distal oesophageal spasm as a cause of NCCP (there was nothing new in this area). We were reminded that GORD is the most common cause of NCCP, and that a good trial of PPI should have been undertaken. An impedance-pH study is necessary in order to determine whether there is an abnormal acid exposure time (AET), and to determine the relationship between the symptom, the presence of a reflux event and the nature of the event.

Professor Sifrim presented on the treatment of NCCP. He reminded the audience of the old provocation tests that physiologists and physicians undertook that has fallen out of favour. He strongly advocated for a return of the Bernstein test, and I wondered whether it should. This test is a means of provoking the chest pain by introducing acid into the oesophagus, with the patient blind to what is being given. A good correlation gave evidence of the causation of the symptom in terms of acid reflux. Prof. Sifrim also touched on the Endoflip as a possible future tool for assessment of the gastro-oesophageal junction. However, most of the work being undertaken with the Endoflip presently is in the field of achalasia (and to a lesser extent, eosinophilic oesophagitis). I did wonder whether this is a tool that scientists in the UK should be looking to utilise in their own research and collaborate with colleagues across the UK in a multi-centre study, since numbers are small.

Prof. Sifrim reminded us that there are three motor abnormalities that can occur in the setting of NCCP; namely, type 3 achalasia, sustained muscle contraction and hypermotility disorder. There was some discussion as to whether there is ischemia associated with Jackhammers and reference was made to some Doppler studies. Again, with such small numbers of patients, I wondered whether Clinical Scientists would be able to work together to look at this phenomenon with our vascular science colleagues? I think we have potential to increase the publications in these areas if we work together nationwide, as each trust is likely to have small numbers independently.

Reflux testing was also discussed, and Prof. Sifrim reiterated that an "off medication" study should be undertaken before considering an "on medication" study, to ensure there is a correct GORD diagnosis. He also indicated that wireless pH testing is gaining favour again, due to the ability to obtain a longer study and thus increase the reporting of chest pain symptoms by 21%. Additionally, there is a 10% increase in the detection of abnormal AET. There was also discussion around the fact that, in some patients, chest pain is related to weakly acidic reflux. It was demonstrated that both the degree of acidity and duration of acid in the oesophagus are important determinants of a person perceiving a reflux episode of chest pain. Proximal extent, acid burden, volume clearance and the spread of the refluxate through the oesophagus are important determinants of reflux associated chest pain. It was highlighted that the presence of a large volume of acid refluxate for a longer period of time plays a major role in perceiving a reflux episode as chest pain. On reflection, it is important for this patient cohort to be represented at MDTs and in the clinical interpretation of the report. Not every centre will be fortunate enough to have experienced medical staff with an interest in this, and I believe there is a need to develop more Clinical Scientists into consultant roles to be able to fulfil this (not only for NCCP, but also for other conditions where the clinical interpretation of the physiology tests is key).

Dr Sifrim spoke about the psychological aspects that can relate to NCCP in patients, such as anxiety, panic attacks, depression and hypervigilance. He referred to several papers that discuss the need to consider the biopsychosocial model in this disease, and to look at not only medical treatments but psychological ones too.

This led nicely on to a fantastic talk by two eminent psychologists specialising in GI disorders. Dr Laurie Keefer and Dr Livia Guadagnoli spoke eloquently about the need to treat NCCP, with the preference for a "teaching skills over pills" approach. This makes complete sense, as medication is really only reducing symptoms or masking

them; it is not dealing with the cause and drivers of the condition. We were given a crash course in behavioural treatments, using a case study to demonstrate how there could be more than one factor at play (often only one thing, such as increased work stress, may be attributed as the cause).

In the case study presented, the patient was a self-confessed "Type A" personality working 60 hours a week as a lawyer; he knew that he was stressed and missing out on important life events due to work, and developed chest pain after his work partner died following a cardiac arrest. The psychologists identified that he had altered his diet and exercise habits (a maladaptive behaviour response, avoiding possible triggers) and constantly monitored his heart (hypervigilance). He suffered from insomnia, and drank alcohol to induce sleep. It was acknowledged that there is usually more than one factor at play, and that clinicians need to ask patients more lifestyle questions at clinic. A lot of the lifestyle advice given is something that Clinical Scientists could learn to speak to patients about too. Patients are advised and encouraged to eat a balanced healthy diet, taught abdominal breathing techniques to decrease activation of the sympathetic nervous system and combat stress, and also taught aspects of good sleep hygiene.

Behavioural therapies such as gut directed hypnotherapy, cognitive behavioural therapy, mindfulness-based stress reduction in addition to relaxation techniques were discussed. It is known that nursing colleagues and counsellors can undertake further training to undertake these therapies with patients, and I wonder whether this is something that Clinical Scientists could potentially develop as advanced roles.

I found this session inspiring and thought-provoking in terms of potential for collaborative research and advancing the role of the GI Clinical Scientist.

The next issue of New Wave will be published in April 2023