Welcome

As you aware we endeavour to provide information to AGIP members regarding development in the arena of GI physiology. We also attempt to provide articles which are current, relevant and interesting! I would appreciate submissions of articles, letters etc as this is of vital importance in order to keep NewWave current, relevant and interesting!

In addition, advertising by suppliers and manufacturers is also imperative as this goes towards granting bursaries for AGIP members to attend meetings. Therefore, please feel free to pass on my details to any company representative (pharmaceutical or medical equipment supplier) you may meet. If it helps you could show them recent NewWave publications which are on the BSG website. Regards, Warren

warren.jackson@hey.nhs.uk

Elisa Wrightham FAGIP

After several years of hard work - many congratulations to Elisa Wrightham for recently being nominated (and excepted) as a Fellow of ‘The Association of GI Physiologists’

Profile for Fellowship of the Association of GI Physiology

I have been working in the field of GI Physiology for 15yrs and my current role is Departmental Manager, Salford Royal Hospital NHS Trust. I lead a team of dedicated physiologists, providing a regional upper, mid and lower GI diagnostic service. The unit provides a very successful therapeutic pelvic floor retraining service and I have recently developed this to include rectal irrigation and PTNS to
improve our patient’s pathway.

The unit also recently underwent an IQIPS pilot visit, which I felt was very successful. This has given me confidence in the process and how the unit will perform against these quality standards. I continue to undertake the range of physiological investigations; an important role to ensure I understand both the need of the team and the challenges we have ahead.

In 2004 I joined the AGIP council as Education Secretary, a role I undertook for 5 years, representing AGIP at RCCP and PBEC. Since relinquishing this role I have remained on the AGIP Education sub-committee where I am currently the year 4 specialist lead (BSc) and give advice to the committee on new training pathways. I am also part of a team involved with the MSC STP curriculum and training and I am now dipping my toe in to the HSST curriculum development. I represent AGIP on the Healthcare Science School Board and I am the AGIP application scrutineer on the RCCP council.

I feel my experiences allow me to contribute to AGIP and I am honoured to have been nominated as a Fellow by the committee.

Elisa Wrightham
Chief Clinical Physiologist (GI)
Department Manager
Salford Royal NHS Foundation Trust,

The High Resolution Manometry (HRM) working group first met in San Diego at Digestive Diseases Week 2008 in order to critique the current evidence and develop a practical classification to describe oesophageal motility disorders. Following a series of seminal publications from the Northwestern University group the ‘Chicago Classification’ was developed. The initial version was published in 2008. This was updated in 2009, and after an excellent 5 day meeting in Ascona, Switzerland in 2011, the latest version was published in 2012. (Figure 1)

The Chicago Classification 2012; present and future
Rami Sweis, Terry Wong, Angela Anggianah, Roy Anggiansah, Guiping Sui, Andres Valdes, Mark Fox

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Figure 1. Chicago Classification 2012 diagnostic algorithm. Hierarchical breakdown whereby the OGJ is considered first. Oesophageal dysfunction is divided into those with Major and Minor motility disorders.
The Chicago Classification is based on HRM devices comprised of 36 closely spaced pressure sensors less than 1cm apart. Only one transnasal position of the catheter is required to achieve a single view of both upper and lower sphincter regions thereby capturing the entire deglutitive response from the pharynx to the proximal stomach. A compact, visually intuitive spatiotemporal representation of oesophageal function is produced whereby changes in pressure are represented as changes in colour. Thus the functional segmental character of the oesophageal motor function is presented in real time. (Figure 2) This HRM display of oesophageal function and structure has been shown to improve accuracy and speed of recognition of motility disorders even in manometry-naive individuals. Furthermore, complex software algorithms calculate ‘novel’ parameters which are either impossible or very difficult to achieve with conventional manometry. Such parameters can reliably predict the efficiency of oesophageal function as biomechanics of bolus transport are based on the premise that a well coordinated peristalsis accompanied by a positive pressure gradient between the bolus and stomach with no resistance at or above the oesophago-gastric junction (OGJ) should achieve successful bolus transport.

Figure 2. Spatiotemporal representation of oesophageal pressure activity whereby pressure is represented as changes in colour. UOS – Upper Oesophageal Sphincter, OGJ – Oesophago-gastric Junction.

The 2012 version of the Chicago classification is based on 2 important concepts. (Figure 1) Firstly the classification is hierarchical whereby dysfunction at the OGJ is considered first because obstruction to flow within this region is likely to impact on motor activity above. Secondly the new classification scheme divides oesophageal motor disorders into those that are never seen in health, are more commonly associated with symptoms and are highly likely to impair bolus transport (Major motility disorders) versus those that can be seen in healthy individuals and may be simply ‘outside of the normal range’ (Minor motor disorders). This is an important distinction because in the former, therapy is directed at correcting the underlying pathology while in the latter treatment is often more geared towards targeting symptoms.

Ultimately, it is important to note that the Chicago Classification is based on small volume water
swallows in the supine position. This does not represent normal function and rarely triggers symptoms. Apparent dysmotility not associated with symptoms runs the risk of reducing specificity and considering therapy which may not be appropriate. (Figure 3)

Figure 3. 5ml water swallows of a healthy volunteer with no symptoms. Left panel – normal spatiotemporal plot. Right panel – repetitive segmental spasms; according to the Chicago Classification this is Diffuse Oesophageal Spasm, a major motility disorder. Such a finding in a healthy subject implies that we should always exercise caution when attributing ‘any’ dysmotility observed with dysfunction if symptoms have not been reproduced.

Most patients complain of symptoms when eating and drinking. This negates the need for ambulatory HRM as normal behaviour can be reproduced during stationary testing. HRM studies performed while swallowing solids, during a standardised test meal, while drinking freely or during the postprandial period (Figure 4) have not entered routine clinic practice. This is probably because of the difficulty in interpreting the complex pressure activity, the paucity of a standardised methodology and the lack of normal values. Recently we published normal values for small volume water and bread swallows in the upright and supine position. Furthermore, normal values for 200ml water swallows as well as during and after a standardised test meal are in their final stages of preparation. Also we have shown that such ‘physiological challenge swallows’ can help identify dysfunction not seen during standard 5ml water swallows and can induce relevant symptoms which can be associated with dysmotility. In addition, 2 year follow up studies of patients who underwent physiological challenge swallows suggest that these techniques can help guide management (also in the final stages of preparation).
Modern technological advances and novel methodology are rapidly changing our appreciation of what has often been considered a simple conduit connecting the mouth to the stomach. HRM studies and in particular the Chicago Classification, are evolutionary; apart from just producing ‘pretty pictures’ such advances appear to help us differentiate between dysmotility and dysfunction. However outcome and natural history studies are lacking and should be the focus for future research.


We are pleased to announce that

Neurophysiology and Gastro-Intestinal Physiology are

open for registration!

Please visit [www.iqips.org.uk](http://www.iqips.org.uk) to register and start using the Self Assessment and Improvement Tool (SAIT).

The SAIT is a web based tool which supports the first stage of the service accreditation journey. The SAIT contains key measures from the standards material to provide a mechanism for quality improvement and also helps assess readiness for accreditation as well as supporting the maintenance of the standard. The SAIT includes guidance, example evidence, references and a knowledge management system to support users and share good practice.

You will be asked to complete an application pack which includes information about you, your services, and where they are located (your sites). Once registration is complete you will be sent a service agreement, an invoice and a user login and password for the SAIT.

Please note that there is a cost incentive to sign up for more than one specialty.
Forthcoming Events:

We hope to publicise forthcoming meetings and educational events. We would like to invite interested parties to contact the NewWave editor (warren.jackson@hey.nhs.uk) to have their details included in future issues.

Feb - Dec 2013

**Medical Measurement Systems (MMS) web seminar schedule for 2013:**

- 27th Feb 2013: High Resolution Manometry (HRM)
- 20th March 2013: Paediatric Impendence-pH Studies
- 18th April 2013: Anorectal manometry (HRAM) & Colonic manometry
- 15th May 2013: Paediatric High Resolution Manometry (HRM)
- 18th June 2013: Impedance-pH studies
- 11th Sept 2013: High Resolution Manometry (HRM)
- 22nd Oct 2013: Anorectal manometry (HRAM) & Colonic manometry
- 18th June 2013: Paediatric Impedence-pH Studies
- 15th May 2013: Paediatric High Resolution Manometry (HRM)
- 18th June 2013: Impedance-pH studies
- 4th Dec 2013: Paediatric High Resolution Manometry (HRM)

Each session has a limited enrolment and is FREE of charge; see their website for further information:

http://www.mmsinternational.com/int/1599/mms-education-web-seminars-2013

26th April 2013

‘Upper GI Day’ Benign Disease in the GI Tract
Royal College of Physicians, London (Flyer contained within this e-newsletter)
To register email info@diagmed.co.uk

8th - 10th May 2013

**Short Course in Lower GI Physiology**
Newcastle University
Enquiries, fees and information contact Naomi Virgo on 0191 222 7223 or email pgcvrs@newcastle.ac.uk

18th - 21st May 2013

**Digestive Diseases Week (DDW)**
Orlando, Florida, USA
Website: www.ddw.org

24th - 27th June 2013

**BSG Annual Meeting**
Scottish Exhibition and Conference Centre (SECC), Glasgow

1st - 3rd July 2013

**Association of Coloproctology of GB & Ireland 2013 Annual Meeting**
BT Convention Centre, Kings Dock, Waterfront, Liverpool
Website: www.acpgbi.org.uk/annual-conference-2013

12th - 16th Oct 2013

**United European Gastroenterology (UEG) Week**
ICC Berlin, Germany
Website: www.ueg.eu/week
Royal College of Physicians
11 St Andrews Place, Regent’s Park
London NW1 4LE
Room: Seligman Theatre

St Thomas’ Hospital
second ‘Upper GI DAY’
Benign Disease in the GI Tract

April 26, 2013
London, UK

Dr. Rami Sweis MRCP
Oesophageal lab,
St Thomas’ Hospital, London

Supportet by:

- 6 CPD credits -
Welcome
Recent advances in the investigation of upper gastrointestinal disorders are changing the way we approach and treat benign GI pathology.

At this meeting, a faculty of expert physicians and clinical academics will review the latest advances and provide pragmatic advice on the investigation and treatment of benign diseases of the oesophagus, stomach and small intestine. Lectures are aimed at the general gastroenterology consultant, specialist registrar and GI physiologist. 6 hours of CPD credits can be claimed for attending this meeting.

Key subjects that will be covered include:

1. Investigation and treatment of GORD
2. Investigation and treatment of Barrett’s oesophagus
3. Functional dyspepsia and gastric neuro modulation
4. Small bowel dysfunction and transplant

There is no fee for this meeting. If you would like to attend, please register as we have a limited number of spaces available.

Lunch will be provided

The event will take place at the at the Royal College of Physicians. Registration will take place from 9:00 – 9:30.

We look forward to seeing you there!

Dr Rami Sweis
(drramisweis@gmail.com)

Program
09:45 – 11:00  Oesophagus

Welcome - Dr. Rami Sweis

Gastrooesophageal reflux disease (Chair: Dr. Rami Sweis)
• The diagnosis of GORD; present and future - Prof. Daniel Silfrim
• Treatment of PPI refractory GORD - Dr. Terry Wong
• How to investigate and treat GORD related cough? - Dr. Jacky Smith

11:00 – 11:25  Coffee

11:30 – 12:10  Barrett’s oesophagus (Chair: Dr. Terry Wong)
• Investigation of Barrett’s oesophagus; present and future - Dr. Jason Dunn
• Barrett’s with High Grade dysplasia - EMR/Halo or Surgery? - Dr. Rehan Haldry

12:10 – 13:20  Lunch

13:30 – 14:30  Stomach
Functional disorders of the stomach (Chair: Prof. Daniel Silfrim)
• Functional dyspepsia: a diagnosis of exclusion? - Dr. Mark Fox
• Capsule endoscopy for the upper GI tract - Prof. Owen Epstein
• Who should have gastric neuro modulation? - Mr. Sridharan Kadirkamanathan

14:30 – 15:55  Coffee

15:00 – 16:00  Small Bowel
Functional small bowel disorders (Chair: Dr. Mark Fox)
• How to investigate small bowel dysfunction? - Prof. Ingvar Bjarnason
• Drug and nutritional therapy for small bowel dysfunction - Dr. Anton Emmanuel
• Management of small bowel pseudo obstruction; how to treat, who to transplant. - Dr. Giles Major

Close - Dr. Rami Sweis

Chair:
Dr. Rami Sweis MRCP
Oesophageal lab, St Thomas’ Hospital, London

Co-Chair:
Dr. Terry Wong
Department of Gastroenterology, St Thomas’ Hospital, London

Steering Committee:
Dr. Angela Anggriansah
Oesophageal lab, St Thomas’ Hospital, London
Dr. Mark Fox
NIHR Biomedical Research Unit and Digestive Diseases Centre, Nottingham University Hospitals, QMC Campus, Nottingham

Faculty:
Prof. Ingvar Bjarnason
King’s College Hospital, London
Dr. Jason Dunn
Guys and St Thomas’ Hospital, London
Dr. Anton Emmanuel
University College London Hospital, London
Prof. Owen Epstein
The Royal Free Hospital, London
Dr. Rehan Haldry
University College London Hospital, London
Mr. Sridharan Kadirkamanathan
Broomfield Hospital and Springfield University Hospital
Dr. Giles Major
NIHR Biomedical Research Unit and Digestive Diseases Centre, Nottingham University Hospitals, Nottingham
Prof. Daniel Silfrim
Barts and The London School of Medicine and Dentistry, London
Dr. Jacky Smith
University Hospital of South Manchester, Manchester