Volume 24 No. 1 Summer 2014

Gastroenterology Today

In this issue

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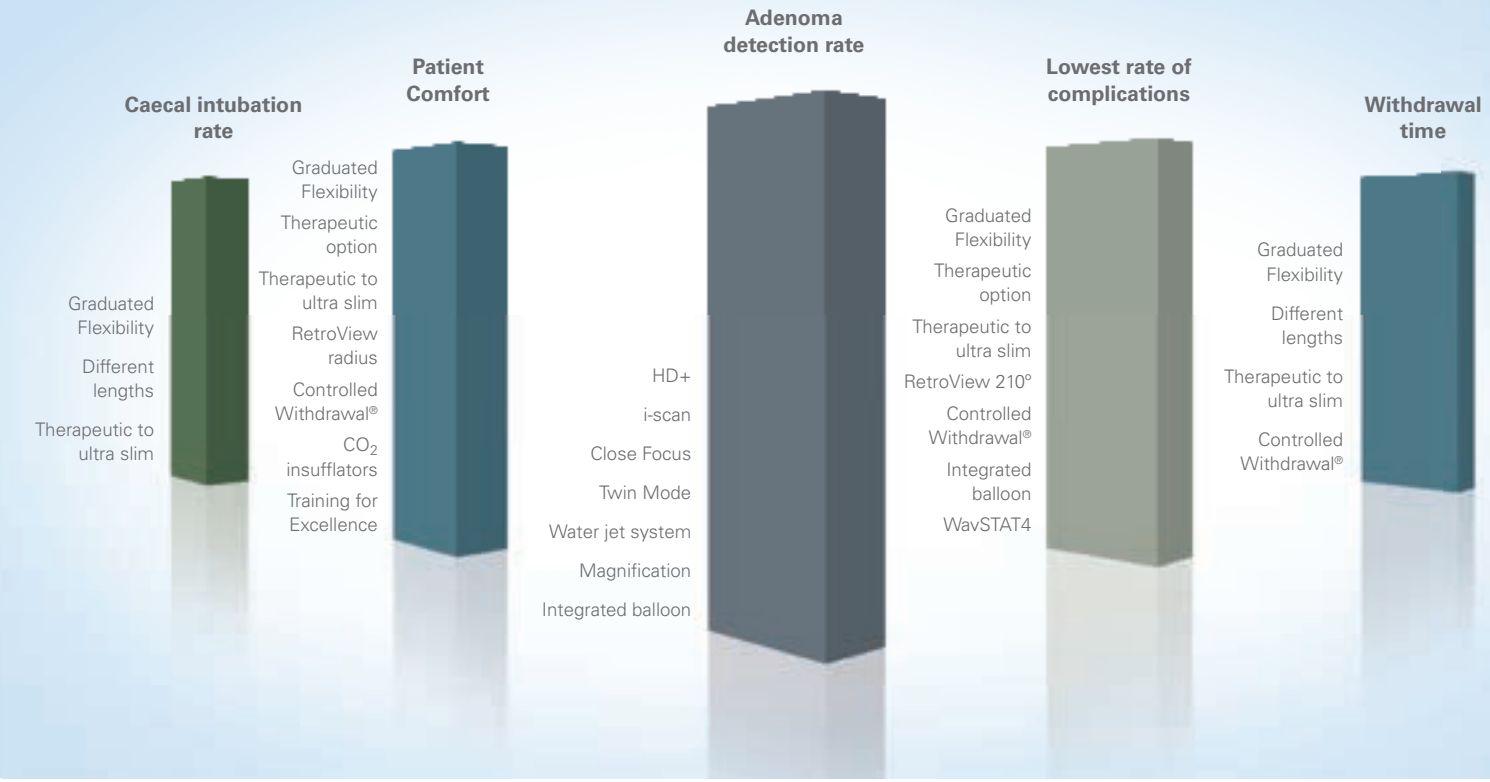

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CONTENTS

COVER STORY

Gastroenterology Today

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EDITORS COMMENT

No Waterloo for the UK pharmaceutical giant (yet)

At the time of writing, it had just become public that Pfizer, a US based pharmaceutical company had abandoned its efforts (for now) to take over AstraZeneca. All media were recently filled with negative speculation, indicating that from the UK viewpoint, the success of such a venture would eventually be not such good news for the national pharmaceutical industry. As part of the various pieces of information that were floated in public was the suggestion that the takeover was not so much a strategic business decision to build the business of Pfizer, but was a method of avoiding taxation and finding a home for monies that Pfizer wanted to keep out of the clutch of the taxation system. (I have not personally reviewed the official documentation, and am reliant on my interpretation of the broadsheet press and broadcasting services). I have not spoken to anyone from either company, but I am guessing that the people in AstraZeneca may feel that they now have some breathing space.

"There is no doubt that the global pharmaceutical industry has been responsible for some incredible new therapeutic ideas, even if they originated initially in academia. If R and D efforts are to be maintained there needs to be a certain minimum critical mass to keep the show on the road"

So why should we be interested? My personal interest relates to the fact that Astra, and latterly AstraZeneca were the people that brought us omeprazole and esomeprazole to the global market. This evolved into the triple therapy regimes that were used for the treatment of Helicobacter infection and peptic ulcer disease. There is one other product that catches my eye from AstraZeneca which is the use of budesonide for inflammatory bowel disease. This originally was a respiratory drug, and is part of the armamentarium of non-absorbable steroids for use rectally.

Pfizer are not known in this country for their involvement in the gastroenterology market, and their biggest product, in fact once the biggest selling patent medicine, was atorvastatin (now off patent I believe).

You only have to look at the advertising pages of this and other European gastroenterology journals to reflect on the fact that there don't seem to have been any blockbusting new medicines in gastroenterology for some time. Most of the newer mainline products are variations on existing themes or may turn out to be products that do not stand the test of time. Whilst consulting family doctors for GI symptoms is extremely common, there has been a sad lack of new ideas that change the practice of medicine in the recent past. Many of the significant advances have been in rare conditions and cancer therapy. These products are intended for limited specialist use, and inevitably are expensive initially. Coupled with the difficulties that the UK and other European countries create for pricing and reimbursement of new (and older) medicines, it has become a trickier environment for the UK pharmaceutical industry to work in. In the eyes of shareholders there is little justification for inventing expensive new medicines, no matter how clever, effective and safe, that government bodies place prescribing restrictions on. There have also been more restrictions placed on what pharma companies can do to promote their medicines to prescribers, all making the generating of profit increasingly difficult. The pharma industry may be castigated for making money out of the sick, but it is entitled (until nationalised) to make profits. Whilst not suggesting that the world should revert back to the old days of promotional excesses, it is somewhat demeaning to doctors to be told indirectly that a notepad or pen could unduly influence their prescribing patterns and treatment pathways.

There is no doubt that the global pharmaceutical industry has been responsible for some incredible new therapeutic ideas, even if they originated initially in academia. If R and D efforts are to be maintained there needs to be a certain minimum critical mass to keep the show on the road (not quite a monkey and typewriters analogy, but sometimes you simply need mass effort to brings things through research projects). When pharma companies merge, there is an immediate knee-jerk to reduce costs by eliminating those things that don't appear to be generating ongoing profits. Research is an easy target. What never gets spelled out is that while the process of merging goes on, job paranoia sets in – no one is truly safe. Researchers take their eye off the ball, and things may come to a grinding halt whilst no one is looking to spend money that may not exist in the future. The best talent will jump ship, sometimes breaking up well-established research teams, or creating a skill vacuum that disrupts process. I can go on and on about this, but the simple matter is that it is no fun at all being a pawn in a merger or takeover process and the speculation about loss of research in the UK if an American company acquire a UK company just sounds a bit too near the truth.

I think we can breathe a sigh of relief for now. What the UK needs is a nationally based effective profitable research based pharmaceutical industry. Even better would be the development of safe effective medicines with pricing policies that did not need constant debating.

UNUSUAL CAUSE OF MUCOSAL HAEMORRHAGE IN CAECAL POLE

Wright Gavin[1,2] MS Islam[3]

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Henoch Schonlein Purpura (HSP)

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None of the authors have anything to disclose.

Text

A 49yr old gentleman, following a 4 week prodromal illness associated with a lower limbs ulcerative vasculitic-type rash, central abdominal pain, microcytic iron-deficient anaemia (Hb 9.3 g/dL, MCV 69.3 and plasma iron 11 umol/L) and diarrhoea was diagnosed with acute kidney injury secondary to Henoch-Schonlein Purpura (HSP) confirmed by skin and renal biopsy. Despite good symptomatic resolution after 3 months of high-dose steroids, persistence of anaemia with a (then uncovered) 3 year history of intermittent loose stools culminated in colonoscopy. This showed an otherwise macroscopically normal colon, but acute mucosal haemorrhage from prominent superficial vessels in caecal pole (see Figures 1 and 2). In addition to his established vasculitis, histology findings were consistent with microscopic colitis. He eventually made a complete recovery after a prolonged tapering steroid regimen with a return to normal bowel functioning at 6 months.

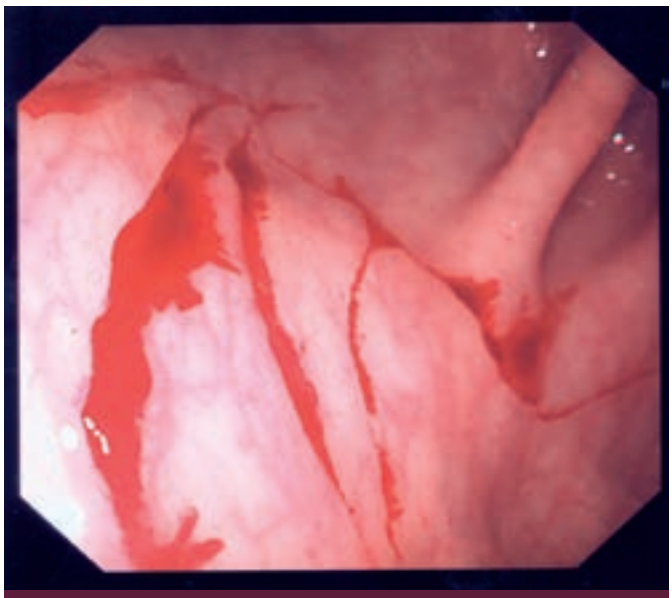

Figure 1

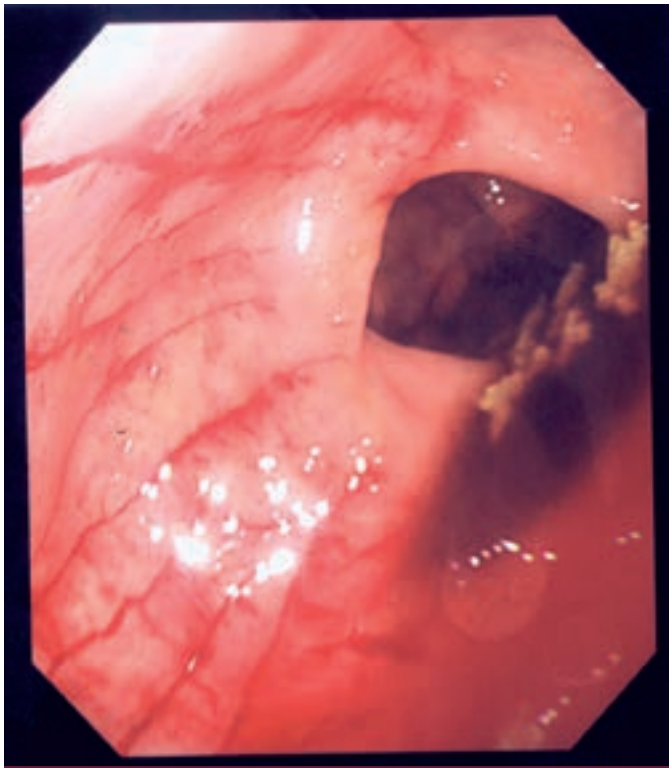

Figure 2

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[2] Department of Gastroenterology, Basildon & Thurrock University Hospital, Essex, UK
[3] Department of Acute Medicine, Basildon & Thurrock University Hospital, Essex, UK

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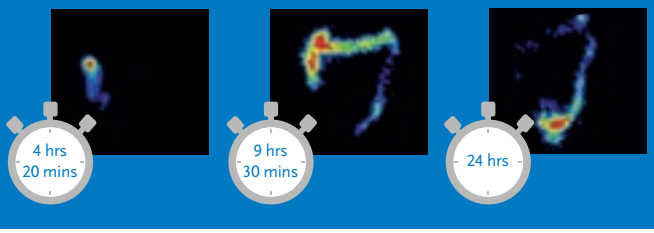

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Date of preparation: January 2014 DrF 13/186

THE IMPORTANCE OF QUALITY IN COLONOSCOPY

The NHS has announced the successful roll-out of its first phase of bowel scope screening centres in England, offering scope screening to men and women from the age of 55[i]. This is great news, particularly coupled with the results of a study which analysed the first one million test results from the NHS Bowel Cancer Screening Programme in England, which showed it is on track to cut bowel cancer deaths by 16 per cent.[ii]

As a result, the NHS needs to plan for a year on year increase in lower GI Endoscopies of around 120,000 extra procedures.[iii] Funding has been given to support this, however, it is important that the quality of endoscopy is not reduced, ensuring patient safety and keeping complications to a minimum. Colonoscopy is the gold standard for early detection and prevention of colorectal cancer (CRC) and delivering quality in colonoscopy is vital to ensure all procedures are safe and effective.

According to the Quality Assurance Guidelines for Colonoscopy, from the NHS BCSP[iv], some of the quality indicators include: safe sedation and comfort, caecal intubation rate, withdrawal time and adverse events. The adenoma detection rate (ADR) is also an important quality marker of colonoscopy as higher ADR leads to reduced interval cancers.

Improving Adenoma Detection Rate

Several key studies are taking place looking at how key technologies can help improve adenoma detection rate, improve quality in colonoscopy and patient outcome.

The first is being undertaken by Dr Matthew Banks, Consultant Gastroenterologist with University College London Hospitals, who published a paper from a pilot study in the World Journal of Gastroenterology back in 2011,[v] which highlighted the effectiveness of using HD+ endoscopes, with enhanced image quality, for better polyp detection.

Following on from this initial pilot, Dr Banks has been working on a two-year, multi-centre study: "A randomised control trial comparing two optical technologies in the bowel cancer screening programme." The full results are due to be published later this summer.

Dr Banks said: "Four centres have been involved in the trial across the UK – UCLH, Cambridge, Cardiff and Bradford and we have been comparing the PENTAX Medical high definition i10 colonoscopes and i-scan technology with the Olympus 260 range of colonoscopes. When we undertook the pilot study comparing the two systems, we found that the polyp detection rate was superior in the PENTAX group but this study was not randomised and was conducted in one centre. In order to corroborate these results, it was important to design a randomised trial across several centres.

"Based on the assumption that the results of the RCT are in line with the pilot study, and assuming we can demonstrate that higher definition scopes with i-scan technology improve the adenoma detection rate (ADR), this has important implications to patients. We know that ADR varies between colonoscopists. A higher ADR demonstrates a better quality colonoscopy and a lower missed cancer rate.

"There are several factors which lead to a higher ADR including the caecal intubation rate, withdrawal time and the skill set of the colonoscopist. We have proposed that the high resolution i10 scopes also improve the ADR. We know from recent data that those colonoscopists with higher ADRs have lower rates of missed or interval colorectal cancers. We expect that the i10 scopes and i-scan technology will improve the detection rate."

A revolutionary technology

Also examining Adenoma Detection Rate is Prof Sauid Ishaq, from Russell's Hall Hospital, Dudley, who is involved with a current prospective multi centre randomised controlled trial to compare the ADR of PENTAX Medical's novel G-EYE™ HD+ endoscope, with standard HD Colonoscopy.

He said: "Although colonoscopy is the gold standard for CRC prevention, we know that there are too many missed pre-cancerous polyps (adenomas). This has been demonstrated in various studies which show that up to 30% of the adenomas are missed in routine standard colonoscopy, including lesions that are located behind haustral folds in the colon, and obscured during standard colonoscopy. Hence there is need to develop new techniques to improve adenoma detection rates.

"There are already several studies investigating the performance of the G-EYE™ endoscope, either in a stand-alone colonoscopy, or having a comparison to standard colonoscopy. All of these studies demonstrate similar results where the G-EYE™ endoscope detects substantially more adenomas, and increases the ADR by up to 56% vs. the standard colonoscope."

Prof Ishaq explains the key benefits of the G-EYE endoscope which has a unique built-in balloon: "The Unique Controlled Withdrawal™ of the G-EYE™ endoscope with the balloon moderately inflated, the colon haustral folds are straightened, the endoscope optics is centered within the lumen, bowel slippage is avoided in difficult positions and the overall visibility is improved."

The growing body of evidence from these studies demonstrates that enhanced imaging and emerging technologies are not only improving the quality of endoscopic procedures, but in doing so are detecting cancers and other abnormalities early on, improving patient outcomes and helping to save lives and reduce the financial burden to the NHS.

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[i] Press release: "Latest bowel cancer screening technique reaps benefit" published 31 March 2014:www.gov.uk/government/news/

[ii] www.cancerscreening.nhs.uk/bowel/news/010.html

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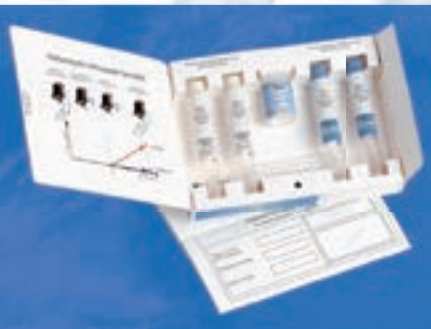

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A tricky balancing act: antibiotics versus the gut microbiota

Antibiotics are valuable, potentially life-saving tools that have significantly reduced human morbidity and mortality. Unfortunately, antibiotics may also have unintended consequences from their off-target effects that may increase the risk of many long-term conditions. Recent epidemiologic studies have detected a possible link between antibiotic use in childhood and weight gain[1] — with disruption to the normal gut microbiota considered the most likely cause.

"Infancy is an important time in the development of the human microbiota and these studies provide evidence that early exposure to antibiotics may disrupt the early-life microbiota and lead to changes in growth and metabolic development," says Dr Laura Cox (New York University, USA). "In animal studies, we are carefully trying to understand how the intestinal microbiota influences body composition and metabolism and what impact antibiotics might have." Her talk was one of the topics presented at the Gut Microbiota for Health World Summit in Miami, FL, USA. On March 8–9, 2014, internationally leading experts discussed the latest advances in gut microbiota research and its impact on health.

Antibiotics came into widespread use after the Second World War, with substantial public health benefits. Use of antibiotics has increased markedly, with infants and children averaging one course of antibiotics every year. Longstanding concerns over the broadening and sometimes inappropriate use of antibiotics (e.g. self-medication, use in viral infections, empirical use of broad-spectrum agents in cancer patients with neutropenia) have focussed primarily on the development of bacterial resistance, but it seems clear that antibiotics can also affect the bacteria we need in our guts, as well as those we want to eradicate. This, it seems, could have serious long-term consequences to our health.

Microbiota beyond the gut

The intestinal microbiota, composed of trillions of microbial cells, undertakes many vital immune, hormonal and metabolic functions. Disruption to normal colonization — through the over-use of antibiotic therapy — could, it has been suggested, be fuelling the dramatic increase in conditions such as obesity, type 1 diabetes, inflammatory bowel disease, allergies and asthma, which have more than doubled in prevalence in many populations. Evidence is also mounting that microbiota resilience decreases with each subsequent course of antibiotics[2] and that, once disrupted, the normal microbiota may never recover completely or it may be replaced by resistant organisms.[3,4]

"We are just beginning to understand the roles that the intestinal microbiota plays in normal growth and development," says Dr Cox, "and further studies in both humans and experimental animal models are needed to characterize the potential impact of antibiotics on the microbiota and host physiology."

Body composition and metabolism

The spotlight has recently fallen on the role of the gut microbiota in normal growth and development, with scientists now concerned that altering the microbial balance in the gut with antibiotics may lead to weight gain. Low doses of antibiotics have been used for decades in the agricultural industry to promote weight gain in farm animals, and researchers have reported similar changes in body fat and tissue composition in laboratory animals given low-dose antibiotics.[5] Studies are currently underway using sub-therapeutic antibiotic treatment as a tool to disrupt the microbial ecosystem and alter host body composition with the aim of identifying organisms within the microbiota that could either promote or protect against obesity.

"We are working hard to understand the link between antibiotic exposure, gut microbiota and body composition," explains Dr Cox. "Ultimately, our aim is to develop microbiota restoration strategies following antibiotic treatment to rebalance the gut microbiota and promote healthy growth and development."

The microbial communities that reside in the human gut and their impact on human health and disease are one of the most exciting new areas of research today. To address the most recent advances in this rapidly developing field, scientists and health-care professionals from all over the world came together at the Gut Microbiota for Health World Summit in Miami, Florida, USA, on March 8–9, 2014. The meeting was hosted by the Gut Microbiota & Health Section of the European Society of Neurogastroenterology and Motility (ESNM) and the American Gastroenterological Association (AGA) Institute, with the support of Danone.

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Nature. 2012 Aug 30;488(7413):621-6.

Risk of Developing Diverticulitis Lower Than Thought

Only about 4 percent of patients with an incidental finding of diverticulosis progress to acute diverticulitis in the long term, according to research published.

Kamyar Shahedi, M.D., of the University of California in Los Angeles, and colleagues retrospectively analyzed data from the Veterans Affairs Greater Los Angeles Healthcare System from January 1996 through January 2011 to measure the long-term risk of acute diverticulitis among patients with diverticulosis discovered incidentally during colonoscopy.

The researchers found that 95 of 2,222 patients with diverticulosis (4.3 percent) developed diverticulitis during the 11-year follow-up period. Among these patients, 23 (1 percent) met the rigorous definition of diverticulitis. The median time-to-event for the development of diverticulitis was 7.1 years. For each additional decade of age at the time of diagnosis of diverticulosis, the risk of developing diverticulitis was reduced by 24 percent (hazard ratio, 0.76).

"These results question the traditional teaching about the rate of progression from incidental diverticulosis to acute diverticulitis,". "Moreover, they also suggest that patients who are diagnosed with diverticulosis at a younger age may incur more risk of developing diverticulitis."

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BNF, Mesalazine, May 2014

Prescribing information can be found overfleaf

Feeding the gut microbiota: nutrition and probiotics are key factors for digestive health

A healthy and balanced diet, as well as probiotics, have been known to be helpful in preserving gastrointestinal health for quite a long time. But it is only recently that the underlying mechanisms have become somewhat clearer. A rapidly increasing body of knowledge promises to further clarify the effects of our daily food on the gut microbiota and to indicate more targeted applications of probiotics in the near future.

This was one of the topics presented at the Gut Microbiota for Health World Summit in Miami, FL, USA. On March 8–9, 2014, internationally leading experts discussed the latest advances in gut microbiota research and its impact on health.

"Diet is a central issue when it comes to preserving our gastrointestinal health, because by eating and digesting we literally feed our gut microbiota, and thus influence its diversity and composition," says the distinguished microbiota expert Professor Francisco Guarner (University Hospital Valld'Hebron, Barcelona, Spain). "If this balance is disturbed, it might result in a number of disorders, including functional bowel disorders, inflammatory bowel diseases and other immune mediated diseases, such as coeliac disease and certain allergies. Also, metabolic conditions, such as type 2 diabetes, and perhaps even behavioural disorders, such as autism and depression, can be linked to gut microbial imbalances. Although a disrupted microbial equilibrium can have many causes — infectious pathogens or use of antibiotics among them — the role of our daily food and lifestyle is crucial. Thus, the maintenance of our gastrointestinal health is to a considerable extent in our own hands."

What makes probiotics beneficial?

What does this mean with regard to our daily diet? According to Prof. Guarner, an increased intake of foods with high amounts of animal fat, as well as of greasy and fried foods is not recommended, while a diet rich in vegetables, salads and fruits has proven to be beneficial to digestive health under normal circumstances. The same applies to fermented dairy products containing probiotics. These are defined by the World Health Organization (WHO) and the Food and Agriculture Organization of the United Nations (FAO) as live organisms which, when ingested in adequate amounts, confer a health effect on the host.

"The crucial challenge is to clearly determine which organisms are beneficial and exert a preventive or therapeutic effect. And for those that can duly be termed 'probiotics', the range of applications has to be defined more precisely than has been done so far," says Prof. Guarner.

However, he points out that important steps in this direction have already been made: "The mechanisms underlying the beneficial outcome of probiotics are becoming increasingly clear. Through different molecules, probiotics interact with the host via various mechanisms and pathways. Some probiotics, for example, can hold pathogens at bay: by improving the intestinal barrier function, they defend the host against disease-causing microorganisms trying to invade."

According to Prof. Guarner, further useful "services" of probiotics include strengthening the immune system by stimulating immune mechanisms inside and outside the gut, helping to regulate the gut motility, and acting as anti-inflammatory compounds in the gut, with an impact beyond the gut. A generally important ability of probiotics that affects various digestive disorders consists in improving the gut's microbial composition and preserving its stability. Meanwhile, medical societies, such as the World Gastroenterology Organisation (WGO) and the European Society for Primary Care Gastroenterology (ESPCG), have provided doctors with guidelines informing them about which probiotics have beneficial effects on which gastrointestinal conditions.

Useful already early in life

Probiotics have beneficial effects at all stages of life, including the very early ones. Professor Brent Polk (University of Southern California and Children's Hospital Los Angeles, California, USA) points to studies that show the beneficial effect of certain probiotics on gastroenteritis, colic, eczema, diarrhoea and necrotizing enterocolitis (a condition in premature children that leads to tissue death in parts of the bowel) in children. Moreover, according to several prevention studies, probiotics, such as the thoroughly investigated

Lactobacillus rhamnosus, may support disease prevention in children who tend to have a reduced microbiota diversity as they are not breast-fed, have been exposed to antibiotics or are born via Caesarean section. In all these cases, the development of a rich and balanced gut microbiota is likely to be delayed or impeded.

As Prof. Polk points out, for the treatment of certain patients, such as immuno-compromised individuals, who are prone to bacterium-associated infections, it can also be advisable to replace probiotic bacteria with probiotic-derived products. First achievements in this line of research have already been gained. Prof. Polk and his colleagues identified a probiotic bacteria-derived soluble protein (p40) from Lactobacillus rhamnosus, which they tested in mouse trials. They could show that the probiotic-derived substance prevented a certain form of cell death — induced by malfunctioning proteins that normally regulate the cells' growth and differentiation — in the epithelial cells of the colon. As p40 activates specific receptors in the intestinal epithelial cells, it protects the bowel from inflammation.

The microbial communities that reside in the human gut and their impact on human health and disease are one of the most exciting new areas of research today. To address the most recent advances in this rapidly developing field, scientists and health-care professionals from all over the world came together at the Gut Microbiota for Health World Summit in Miami, Florida, USA, on March 8–9, 2014. The meeting was hosted by the Gut Microbiota & Health Section of the European Society of Neurogastroenterology and Motility (ESNM) and the American Gastroenterological Association (AGA) Institute, with the support of Danone.

About the Gut Microbiota For Health Experts Exchange website

The www.gutmicrobiotaforhealth.com Experts Exchange, provided by the Gut Microbiota & HealthSection of ESNM, is an online platform for health-care professionals, scientists, and other people interested in the field. Thanks to being an open, independent and participatory medium, this digital service enables a scientific debate in the field of gut microbiota.

Connected to www.gutmicrobiotaforhealth.com, the Twitter account @GMFHx, animated by experts, for experts from the medical and scientific community, actively contributes to the online exchanges about the gut microbiota. **Follow @GMFHx on Twitter. You can follow the Twitter coverage of the event using #GMFH2014**

About the Gut Microbiota & Health Section of ESNM

ESNM stands for the European Society of Neurogastroenterology and Motility, a member of United European Gastroenterology (UEG). The mission of the ESNM is to defend the interests of all professionals in Europe involved in the study of neurobiology and pathophysiology of gastrointestinal function. The Gut Microbiota & Health Section was set up to increase recognition of the links between the gut microbiota and human health, to spread knowledge and to raise interest in the subject. The Gut Microbiota & Health Section is open to professionals, researchers, and practitioners from all fields related to gut microbiota and health. www.esnm.eu/gut_health/gut_micro_health.php?navId=68

Biomarker combinations improved IBD measurements

Shortcomings in current methods to analyse inflammatory bowel disease and the potential for inaccurate conclusions regarding extent of inflammation in Crohn's disease and ulcerative colitis can be overcome by using several biomarker mechanisms simultaneously, researchers determined.

"This exploratory biomarker study identified combinations of biomarkerincluding faecal calprotectin, serum MMP9 and serum IL-22 that were correlated with objective measures of disease activity," the researchers wrote. "In addition, this study highlights the importance of cross-sectional imaging in compensating for the shortcomings of ICO [ileocolonoscopy] in accurately quantifying disease burden in patients with CD [Crohn's disease]."

For the study, 107 ulcerative colitis (UC) and 157 CD patients underwent ICO, after which 66 CD patients underwent computed tomography enterography (CTE), and a combined ICO-CTE score was determined.

Researchers then analyzed serum and faecal biomarkers for association with ICO or ICO-CTE in CD patients and Mayo Clinic endoscopy scores in UC patients. Biomarkers demonstrating moderate correlation were further studied with multivariate analysis. The analysis determined the combination of faecal calprotectin and serum matrix metalloproteinase 9 demonstrated the strongest association with UC inflammation as determined by imaging and/or endoscopy.

For CD patients, researchers determined the use of combined ICO and CTE increased biomarker performance, and a combination of faecal calprotectin, serum MMP9 and serum interleukin-22 resulted in the strongest association as seen in imaging and/or endoscopy.

"These biomarker combinations will need to be prospectively validated to establish optimal cut-offs and determine their potential role in the care of patients," the researchers concluded. "However, this study holds the promise that understanding the function of identified biomarkers in tissue injury, remodeling and repair, may provide new insights into the pathogenic mechanisms common to both UC and CD."

Bolton alcohol care team in running for national award

Dr Kieran Moriarty, centre front, with Dr Jackie Bene, chief executive Bolton NHS Foundation Trust, and Dr Stephen Liversedge, and the alcohol and gastroenterology team

Bolton NHS Foundation Trust's gastroenterology and alcohol care team is hoping to win the British Medical Journal's award for gastroenterology team of the year.

The team, which was launched 24 years ago, has celebrated a number of successes including saving the trust £250,000 annually by introducing specialist alcohol nurses.

It has also reduced mortality rates by five per cent by having daily consultant ward rounds.

Dr Kieran Moriarty, consultant physician and gastroenterologist at Royal Bolton Hospital, said: "Winning would be a stimulus to people. Recognition is always a nice thing.

"The alcohol care team is the best example of the 'invest to save' strategy in the NHS. The alcohol nurses pay for their salary five to 10-fold in reducing admissions and improved quality of care.

"The local authority, public health, the clinical commissioning group and the trust are committed to delivering liver as well as alcohol care.

"In particular they are looking to provide care to patients locally with hepatitis C and B.

"In the past, these patients had to go to Manchester for treatment and many failed to attend. We are currently looking to appoint more liver and alcohol specialist nurses to develop viral hepatitis care as well as alcohol care in Bolton."

The team has the backing of Dr Stephen Liversedge, a leading Bolton general practitioner, who is a world leader in health screening.

He introduced questionnaires for patients at all practices in the borough to gauge how much alcohol people are drinking and to support those drinking to excess.

Dr Moriarty said: "Our patients, families and carers are a constant source of inspiration.

"Specialist alcohol care can pull people back from the brink of the most devastating consequences of alcohol misuse, restore their self-respect and return them to their families and communities."

The team has received more than 100 accolades and awards since it was launched in 1990.

It was been shortlisted with four other trusts and hospitals.

Europe is falling behind America in the fight against Colorectal Cancer due to low screening uptake say experts

Annual incidence of Europe's second most lethal cancer killer is predicted to rise by 12% by 2020 warns Europe's largest body of gastroenterology experts, United European Gastroenterology (UEG). Colorectal cancer is estimated to claim the lives of 214,675 adults in Europe and is expected to affect 502,000 Europeans a year by 2020.

Colorectal cancer is extremely lethal in its advanced stages yet early detection can result in a 90-95% survival rate. Early signs of colorectal cancer do not exist or are difficult to spot but can be detected via a simple screening test (the Faecal Occult Blood Test) that can be performed at home. Widely available across Europe, the FOBT is generally offered to men and women over the age of 50 via an invitation from their doctor or a national screening programme. However, uptake throughout Europe has been surprisingly low, with the percentage of eligible adults screened in many countries falling way short of the 65% rate considered desirable by the European Commission and already achieved in the USA.

While Europe's promotion of organised national screening programmes is seen as preferable to America's 'opportunistic' approach, UEG experts say Europe can learn from the USA when it to comes to pushing CRC to the forefront of public life. Annual campaigns fronted by Meryl Streep and other Hollywood stars, nationwide 'Dress in Blue Days' and a White House colorectal cancer statement issued by President Obama earlier this month are all helping to raise the profile of the disease and the importance of screening across the Atlantic.

"United European Gastroenterology has campaigned for screening for colorectal cancer to be available to all European citizens; we are now urging the European population to participate and to be aware that FOBT screening reduces the risk of dying from colorectal cancer by 20-30%. Colorectal cancer is treatable when detected early, yet it is estimated to claim the lives of over 500 Europeans every day," says British gastroenterologist and UEG President, Professor Michael Farthing.

UEG has launched a new awareness campaign, 'Screening Saves Lives', urging all European men and women over 50 to talk to a healthcare professional and undertake screening for colorectal cancer.

Colorectal cancer is estimated to claim the lives of 214,675 adults in Europe and is expected to affect 502,000 Europeans a year by 2020.

High-Fat Diet Linked to Fewer Gallstones

Action Points

- In a meta-analysis of randomized controlled trials of participants undergoing weight loss, ursodeoxycholic acid use was associated with a reduced risk of gallstones.
- Diets high in fat content also were associated with fewer gallstones, compared with those with low fat content.

Patients undergoing rapid weight loss who either received ursodeoxycholic acid (Ursodiol) or ate a high-fat diet had a reduced risk of gallstones, researchers found.

Compared with control treatments, risk for gallstones was significantly reduced among patients who received daily supplements of ursodeoxycholic acid (RR 0.33, 95% CI 0.18-0.60), according to Frank Lammert, MD, of Saarland University Hospital in Homburg, Germany, and colleagues.

There was also a significant reduction in gallstone formation in patients who consumed a high-fat diet versus a low-fat diet (RR 0.09, 95% CI 0.01-0.61), they wrote online in the journal Clinical Gastroenterology and Hepatology.

A study printed in the journal Hepatology in July 2013 showed a causal relationship between high body mass index (BMI) and gallstones, particularly among women.

Similar findings were reported in the Journal of Pediatric Gastroenterology and Nutrition in August 2012 among overweight or obese children and teens; those who were moderately obese had more than four-fold risks for gallbladder disease compared with normal-weight pediatric patients.

The authors noted that these risks were also present in patients who underwent rapid weight loss or who underwent weight cycling.

The authors reviewed randomized controlled trials of nonsurgical gallbladder stone preventive interventions in adult patients who underwent rapid weight loss through bariatric surgery or with diet alone, an analysis that included 13 studies and 1,837 obese participants combined.

Outcomes included in the analysis were formation of ultrasonically-verified gallstones, mortality, and adverse events. Secondary outcomes included quality of life, cholecystectomy, bile lithogenicity, and weight loss.

Control interventions included placebo treatment, no intervention, or pharmacological and nonpharmacological interventions.

Low- versus high-fat diets were examined in two studies, which included groups receiving 3 g versus 12.2 g of fat, and 2 g versus 30 g of fat, each in daily quantities. Participants in the remaining 11 studies received 300 to 1,200 mg daily of ursodeoxycholic acid at a median 750 mg per day.

Participants were treated from 6 weeks to 18 months and were followed up with for 6 weeks to 24 months.

In the studies of ursodeoxycholic acid, 5% of those in a treatment arm developed gallstones versus 23% of those in the control arm. No deaths occurred in either arms of the studies. Treatment with ursodeoxycholic acid was associated with a reduced risk of cholecystectomy (RR 0.20, 95% CI 0.07-0.53).

Weight loss was equal among groups in all of the ursodeoxycholic acid trials. Among those who received bariatric surgery as their weight-loss intervention, type of surgery did not affect ursodeoxycholic acid-related outcomes, nor did dosage of ursodeoxycholic acid. Quality of life was not assessed in these studies.

In studies comparing high- versus low-fat diets, no patients in the high-fat groups developed gallstones, compared with 45% of control patients. There was no significant difference in weight lost. Quality of life was not assessed. Bile lithogenicity did not differ significantly between the two studies.

There were no adverse events reported with the high- versus low-fat diet studies.

Few serious events were reported related to ursodeoxycholic acid consumption; gastrointestinal-related complaints were the most common adverse events.

The authors noted that the small number of identified trials and low sample sizes in each trial limited their study. In addition, high risk of attrition bias may have also limited outcomes. The research was limited by an inability to perform a meta-analysis of other interventions that reduce cholesterol precipitation in bile.

Suffering in silence - the psycho-social impact of IBD on young lives

Survey shows young people are isolated and fearful for their futures

Based on the findings of a survey of nearly 1,100 adolescents (16 – 29 yrs the most likely age of diagnosis), the new Report reveals that a third of young people living with IBD (inflammatory bowel disease) are seriously isolated and fearful for their futures as a result of their overwhelming symptoms.

Welcoming the publication of the new Report, Crohn's and Colitis UK CEO David Barker explains, "Too many young people in the UK are suffering in silence. These findings remind us all that a diagnosis of IBD brings with it not just a medical impact but a very significant psychological and social impact.

Thirty two per cent (32%) of the young people responding to our survey live isolated, limited lives as a result of their acutely embarrassing and sometimes life-threatening symptoms. Greater awareness, understanding and acceptance of these devastating conditions amongst teachers, education professionals and within the general public is what we need if we are to begin to reduce some of the challenges they face."

The key findings from the survey show:

- One third of young people felt that their IBD affected their ability to attract a girlfriend or boyfriend and that the illness had negatively affected a long-term relationship with a partner.

- Many young people with IBD can suffer with particularly aggressive disease, involving multiple surgeries which can negatively impact on their relationships and their futures, including their potential fertility.
- 20% stated that their symptoms of extreme tiredness made it hard to have a social life.
- 11% of the young people stated their future fertility was their main concern, often as a side effect of multiple abdominal surgeries.
- With the added challenge of reduced access to fewer public toilets, more than 1 in 10 were fearful of being incontinent while out.
- One in ten was unable to tolerate alcohol, adding further pressure to social situations at college/work.

Every year an estimated 10,000 young people are diagnosed with an inflammatory bowel disease (IBD), the collective term for Crohn's Disease and Ulcerative Colitis. These life-long, potentially life-threatening bowel conditions are on the increase and in young people in particular, IBD is often manifest in more aggressive forms.[1]

The wide-ranging, negative impact on a young person's life is summed up by one survey correspondent who wrote "I don't just need medication - I need some help to cope with being ill. It is destroying me psychologically."

Summing up David Barker states "We have a significant job ahead of us if we are to reduce some of the psycho-social challenges faced by young people with IBD. Most importantly, we all have a part to play in helping and this report begins to give us a greater understanding of the everyday challenges that young people face, and the impact this can have on them, for the rest of their lives.

Download the Report on Me and IBD website www.MeandIBD.org.uk or from the charity's main website www.crohnsandcolitis.org.uk

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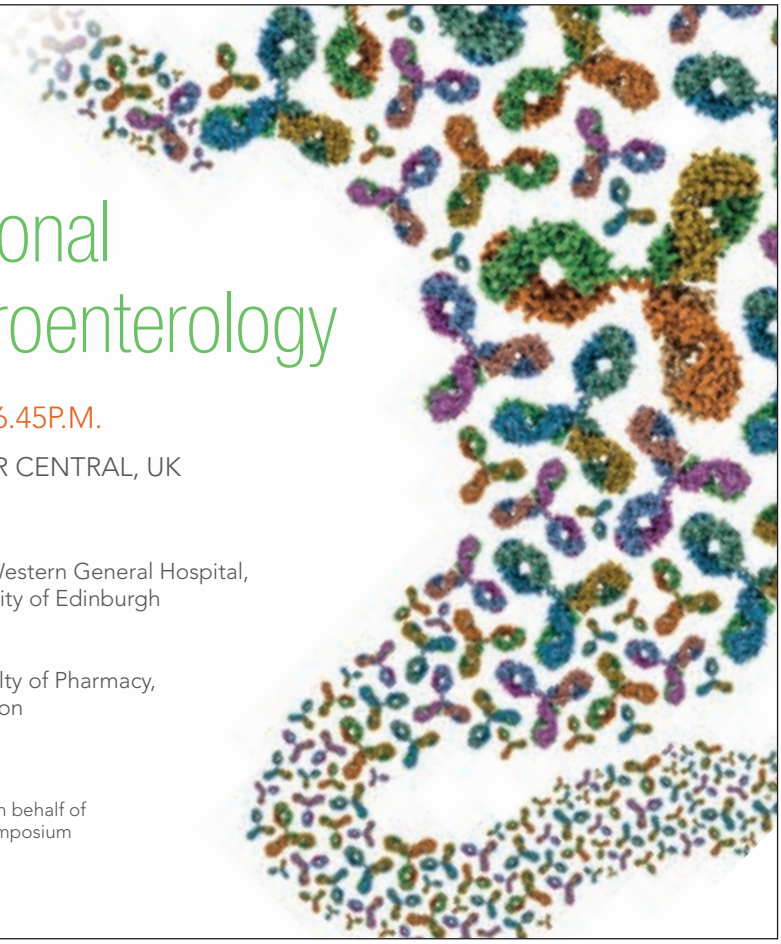
"Too many young people in the UK are suffering in silence. These findings remind us all that a diagnosis of IBD brings with it not just a medical impact but a very significant psychological and social impact."



Lacking Data, Physicians Attempt To Manage Non-Celiac Gluten Sensitivity

by Ted Bosworth

Berlin—After ruling out a diagnosis of celiac disease, the evidence base for managing patients with gluten sensitivity is limited. A diagnosis of non-celiac gluten sensitivity (NCGS) is based on the observation of symptom relief associated with a gluten-free diet, a step that many patients with gluten sensitivity have already taken. Physicians who are asked to confirm and manage a diagnosis of NCGS, which is rising in prevalence, may be better guided by common sense than any available data.

"There does appear to be a growing number of individuals who believe themselves to be gluten sensitive, but we are missing the data to tell us whether all of these patients need to be on a lifetime gluten-free diet," reported David S. Sanders, MD, of Royal Hallamshire Hospital, University of Sheffield, United Kingdom. Delivering a state-of-the-art lecture on the subject at the 2013 United European Gastroenterology Week (UEGW) meeting, Dr. Sanders attempted to sort through the trends in NCGS and what it all means for physicians and their patients.

NCGS or Celiac Disease?

NCGS is remarkably common. In a population-based survey presented at the UEGW meeting by Imran Aziz, MD, also of Royal Hallamshire Hospital, the self-reported prevalence of gluten sensitivity was 13%. Of 1,002 individuals who were surveyed at a shopping mall, 3.7% said they were following a gluten-free diet but only 0.8% reported a diagnosis of celiac disease. This latter figure is consistent with National Heath and Nutrition Examination Survey (NHANES) data from the United States, where the prevalence of celiac disease is estimated at 0.71% (Rubio-Tapia et al. Am J Gastroenterol 2012;107:1538-1544).

With gluten sensitivity often self-diagnosed, presumably confirmed with an observation of diminished symptoms after starting a gluten-free diet, many patients consult physicians for help with their condition rather than a diagnosis. However, Dr. Sanders recommended that clinicians start at the beginning, by first testing for unrecognized celiac disease and then confirming that symptoms are related to gluten exposure.

"We need to reassure the patient and ourselves that celiac disease, which poses a greater risk for serious complications than non-celiac gluten sensitivity, is not the underlying issue," Dr. Sanders said. "Because so many individuals are now taking gluten-free diets, it is essential that clinicians verify that patients are back on a normal diet before conducting the diagnostic studies."

Show Me the Data

If celiac disease is ruled out, then NCGS is the default diagnosis for those with a positive correlation between gluten exposure and symptoms. But the mechanism behind gluten sensitivity in these individuals remains unclear. An immune-mediated response to wheat proteins is a logical assumption, but the correlation between a gluten-free diet and symptom control is often imperfect. Many patients are seeking more information, but there is little.

"We should explain [to patients] that we, as doctors, are still in the middle of the learning curve. Gluten-free diet makes sense when it provides symptom relief, but the diets can be restrictive and the foods often cost more," Dr. Sanders said. "At some later date, patients may want to gradually increase their gluten intake to confirm that the sensitivity persists."

The growth in prevalence of NCGS appears to parallel an increase in the availability of gluten-free foods, raising concerns that advertising of these products has created a market independent of a health benefit; however, data dispelling the correlation is lacking. Noteworthy in the U.K. survey findings is that gluten sensitivity was highly correlated with symptoms of irritable bowel syndrome (20% vs. 3.89% in individuals without gluten sensitivity; odds ratio, 6.23; $P<0.0001$).

According to Dr. Sanders, who noted that wheat has only been part of the human diet for about 4,000 years, there have been reports of growing rates of NCGS in many parts of the world where wheat is not a major diet staple, such as India and China. Still, the mechanism behind NCGS is elusive and deserves further study.

Joseph A. Murray, MD, professor of medicine in the Division of Gastroenterology at Mayo Clinic, Rochester, Minn., said that the data from the United States indicate a much lower penetration for gluten-free diets. However, Dr. Murray agreed that only small fraction of U.S. individuals, as those in the United Kingdom, are eliminating gluten because of diagnosed celiac disease. Nevertheless, in patients who report that they are avoiding gluten, he, like Dr. Sanders, first rules out celiac disease.

"There are several strategies," Dr. Murray said. "One is gluten challenge and then testing for antibodies for celiac disease. The second is to check for genetic susceptibility for celiac disease. If the genes are absent then celiac disease is extremely unlikely."

FODMAPs

For the large proportion of patients who report a reduction in gastrointestinal symptoms with a gluten-free diet but who do not have celiac disease, Dr. Murray suggested that it may be useful to test for other diet-related causes, for example, by following an elimination scheme such as the low-FODMAP (fermentable oligo-, di- and monosaccharides and polyols) diet. He suggested it is reasonable to test alternative causes while the patient is following a gluten-free diet, and to rechallenge with gluten if an alternative cause is identified.

Surveillance in Barrett's Lacking

by Caroline Helwick

San Francisco—Surveillance of patients with Barrett's esophagus (BE) requires a more systematic approach that incorporates risk stratification, and although that paradigm is still a work in progress there are ways that endoscopists can make the most of the tools they currently have, said Rebecca Fitzgerald, MD, of the MRC Cancer Unit, University of Cambridge, United Kingdom, in a presentation at the 2014 American Society for Clinical Oncology Gastrointestinal Cancers Symposium.

Dr. Fitzgerald chaired the recent revision of the guidelines on BE diagnosis and management of the British Society of Gastroenterology (Fitzgerald RC et al. Gut 2014;63:7-42).

"Both the American Gastroenterological Association and the British Society of Gastroenterology agree that endoscopic surveillance is recommended for Barrett's, but our evidence is rather weak," Dr. Fitzgerald said.

Although the "rationale is straightforward" (i.e., detection of esophageal cancer at an early stage improves survival), studies of surveillance are largely retrospective, vary in size, use poor methodology and lack quality control. "Therein lies part of the problem with the quality of the data," she said.

"Nevertheless, studies generally show some association between performing surveillance and diagnosing cancer at an earlier stage, and some association with improved survival," Dr. Fitzgerald noted.

Surveillance Setback

Recently, a study from Corley et al (Gastroenterology 2013;145:312-319) sounded a somber note. These researchers evaluated 38 patients who died of esophageal cancer after a diagnosis of BE and matched them with 101 living patients with BE. They found that surveillance within three years of a diagnosis of esophageal cancer was not associated with a reduction in cancer-related deaths.

"A closer look at the data showed that nearly half had advanced disease, and clearly that is a problem," Dr. Fitzgerald said. "Of those with a prior diagnosis of BE, only half had undergone surveillance, showing that all patients eligible for surveillance are not getting it. Of patients who went on to develop cancer, almost half had previous dysplasia, including patients who underwent surveillance. In spite of multiple prior endoscopies, eight had a negative endoscopy just 10 months prior to a cancer diagnosis.

"The study tells us that, in practice, surveillance doesn't work. However we are doing it, we are not doing it right," she continued. "We should not look at the Corley paper and think that surveillance is a waste of time, but we need to find a better way. Meanwhile, we need to make the most of the tools we have."

She suggested that outcomes can be improved with a more stringent approach to patient selection, optimization of current endoscopic tools, and better pathology reporting and use of biomarkers.

"I hope in the future we will see more risk stratification, taking into account clinical and demographic characteristics. Perhaps in time we can also take into account inherited genotypes and molecular biomarkers," she said.

Deciphering Intestinal Metaplasia

Intestinal metaplasia confers an increased risk for cancer and is present in the vast majority of long-segment BE, according to many studies.

"Perhaps we can use this somehow for risk stratification," Dr. Fitzgerald said.

The correlation with other risk factors, such as male gender, is less clear, and recommendations should not be based on those data, she said.

A meta-analysis (Desai TK et al. Gut 2012;61:970-976) and a large study from Ireland (Bhat S et al. J Natl Cancer Inst 2011;103:1049-1057) reported an annual risk of 0.33% and 0.38%, respectively, for the progression of intestinal metaplasia to cancer. A Danish study reported a lower risk (0.12%), but this population likely included many patients with short-segment BE. Short-segment BE was associated with a much lower risk for progression in the meta-analysis and the Irish study (0.19% and 0.11%, respectively).

The characteristics of Barrett's tissue (e.g., presence of intestinal metaplasia, BE segment length) should be a component of risk stratification, as stated by the British Society guidelines.

"We don't say that intestinal metaplasia is a prerequisite but we do say that if the segment is short—less than 3 cm—and you only have gastric metaplasia on biopsy, you should be suspicious that you have biopsied a hiatal hernia and you should repeat the endoscopy," she said. If the results are confirmed, the patient probably has no increased risk for progression to cancer and can be dismissed.

When intestinal metaplasia is confirmed, the BE segment length should dictate surveillance intervals: Endoscopy should be repeated every three to five years for short segments, and every two to three years for long segments.

"For the first time, we have begun to introduce some concept of risk into these guidelines," Dr. Fitzgerald said.

Optimizing Current Technologies

Although current technologies should be sufficient for surveillance, they are not always used appropriately, Dr. Fitzgerald pointed out.

"The key thing is to use our current tools—white light, high resolution—well. Perform a high-quality endoscopy, look for recognizable landmarks and use the Prague classification to document BE length. Look carefully for visible lesions, which can be subtle and easily missed, and use the Paris classification for these."

Pathologic assessment can be made more accurate through consensus reporting of dysplasia, as the British guidelines now recommend.

"You need to know your pathologist. In my opinion, this is specialist's work," she said.

Abnormal p53 by immunohistochemical staining can be a useful adjunct in the assessment of dysplasia, and also has been incorporated into the revised guidelines.

Commentary

Thomas L. Vaughan, MD, MPH, professor of epidemiology at the Fred Hutchinson Cancer Research Center, in Seattle, commented on Dr. Fitzgerald's remarks.

He noted that of approximately 10,000 esophageal adenocarcinomas diagnosed annually in the United States, only 500 are identified as a result of current approaches to cancer control.

"There are numerous extrinsic and intrinsic risk factors with substantial effects," Dr. Vaughan said. "Most of these appear to act in the development of BE. Drivers of progression to esophageal adenocarcinoma are less clear, but are likely to be inflammation-related," he said.

Dr. Vaughan agreed with Dr. Fitzgerald that approaches to screening and surveillance can greatly benefit from more accurate risk stratification.

"We cannot afford to put so many individuals under surveillance, but we could use information we already have to risk-stratify them."

He said efforts are under way to determine how best to incorporate risk factors into a screening and surveillance algorithm.

New Jill Roberts Institute for Research in Inflammatory Bowel Disease Established at Weill Cornell Medical College

Immunologist Dr. David Artis to Lead Institute Designed to Rapidly Translate Research Discoveries in Inflammatory Bowel Disease from Bench to Bedside

Institute Made Possible Through Generosity of the Jill Roberts and the Jill Roberts Charitable Foundation

NEW YORK (June 05, 2014) - Weill Cornell Medical College announced today that through the generosity of longstanding benefactor Jill Roberts and the Jill Roberts Charitable Foundation it is establishing the Jill Roberts Institute for Research in Inflammatory Bowel Disease. Dr. David Artis, one of the world's leading immunologists, was recruited from the University of Pennsylvania School of Medicine to direct the institute, which is dedicated to understanding the molecular underpinnings of inflammatory bowel disease with the goal of translating basic research breakthroughs into the most advanced therapies for patients.

Mrs. Roberts' gift will also enable Dr. Artis to recruit a team of leading scientists to work at the institute and pursue innovative research to improve treatments and preventative therapies for patients who suffer from IBD and other chronic inflammatory diseases. The institute builds off the successes of Weill Cornell's already robust research and clinical care programs for IBD under the auspices of the Jill Roberts Center for Inflammatory Bowel Disease, the Joan and Sanford I. Weill Department of Medicine and the Department of Surgery. It will be housed in the new Belfer Research Building and will collaborate closely with the center, which was established at Weill Cornell and NewYork-Presbyterian Hospital in 2006 with a gift from Mrs. Roberts to treat patients with IBD.

Dr. Artis is currently an associate professor in microbiology at the University of Pennsylvania Perelman School of Medicine and program director of inflammation for the Penn Institute of Immunology. He is also an associate professor of pathobiology at the University of Pennsylvania School of Veterinary Medicine. A distinguished investigator who is funded by the National Institutes of Health, the Burroughs Wellcome Fund and the Crohn's and Colitis Foundation, his research focuses on the body's immune system, how it fights infection and how its normal function can become dysregulated, leading to the development of chronic inflammatory diseases including psoriasis, arthritis and inflammatory bowel disease.

"We are deeply grateful to Jill Roberts for her dedication and remarkable foresight, which have enabled Weill Cornell to assemble a world-class team and establish us as a leader in inflammatory bowel disease research and patient care," said Dr. Laurie H. Glimcher, the Stephen and Suzanne Weiss Dean of Weill Cornell Medical College. "We are delighted to have preeminent scientist Dr. David Artis join us to lead the new Jill Roberts Institute for Research in Inflammatory Bowel Disease. With the incidence of diseases like Crohn's and ulcerative colitis on the rise, it is incumbent upon us to develop new therapies and ultimately a cure for these devastating diseases. Jill's vision and David's expertise will enable us to make transformative research breakthroughs, and I'm very excited about what we can accomplish together."

"With the development of innovative new approaches and technologies, we have the opportunity to revolutionize our thinking about the diagnosis, treatment and prevention of diseases like inflammatory bowel disease," said Dr. Augustine Choi, the Sanford I. Weill Chairman of the Joan and Sanford I. Weill Department of Medicine at Weill Cornell. "I can think of no better person than Dr. Artis to spearhead these efforts and revolutionize patient treatment for the millions of people who suffer from IBD."

"It is vital that we find a cure, and I am certain that this new research institute, working in tandem with the Jill Roberts Center for Inflammatory Bowel Disease, will bring us closer to that goal," Mrs. Roberts said. "I am thrilled that Dr. Artis will lead our efforts to make great strides against these diseases."

"The opportunity to establish and lead the Jill Roberts Institute for Research in Inflammatory Bowel Disease will allow us to develop innovative new approaches to understand how these diseases develop and identify how we can translate these findings into the clinic to better treat patients," Dr. Artis said. "Jill Roberts has a lifetime commitment to supporting basic and translational research in inflammatory bowel disease, and I am honored to have the opportunity to build a larger community of multidisciplinary researchers who are focused on inflammatory bowel disease and related inflammatory diseases."

Inflammatory bowel disease is a group of inflammatory conditions of the intestine that affects an estimated 1.4 million people in the United States, according to the Centers for Disease Control and Prevention. The main forms of IBD are Crohn's disease and ulcerative colitis. Symptoms include intestinal bleeding and severe abdominal pain and discomfort.

The mission of the research institute is to establish a multidisciplinary center of excellence that will accelerate new scientific discoveries, enabling personalized translational medicine to better prevent and treat inflammatory bowel disease in patients. Dr. Artis will recruit a team of top-flight investigators from multiple fields to focus on basic discovery efforts, translate findings into patient-based studies and train the next generation of researchers in this field.

As part of Weill Cornell's expansion in IBD research, it has recruited Dr. Gregory F. Sonnenberg, an immunologist and research associate in the Department of Medicine at the University of Pennsylvania School of Medicine. Dr. Sonnenberg's research focuses on why the immune system sometimes overreacts to good bacteria in the intestinal tract, potentially causing inflammatory bowel disease.

A multidisciplinary team of basic, clinical and translational scientists within the institute will investigate how these diseases are influenced by patient genetic factors, the body's immune system, beneficial microbial communities that live in the intestine, and other environmental factors. Their collaboration with the Jill Roberts Center for Inflammatory Bowel Disease at Weill Cornell and NewYork-Presbyterian Hospital, led by Dr. Ellen Scherl, the Jill Roberts Professor of Inflammatory Bowel Disease and professor of clinical medicine at Weill Cornell, will

establish a new patient tissue biobank and employ patient-oriented basic research and clinical trials to investigate the factors that influence the development of inflammatory bowel disease. Using model systems to develop discovery efforts, coupled with patient-based clinical studies and trials, researchers hope to develop innovative translational treatments and therapies for inflammatory bowel disease.

"I look forward to leading the new institute at Weill Cornell and being on the frontlines of developing the next generation of innovative basic discoveries and translational clinical studies that will revolutionize our approaches to treat and prevent inflammatory bowel disease and other inflammatory diseases," Dr. Artis said.

Background Information on Dr. David Artis

Dr. Artis is a member of the American Association of Immunology and the British Society for Immunology. He has authored more than 70 peer-reviewed articles and 40 review and book chapters. Dr. Artis serves as an ad hoc reviewer for multiple publications, including Nature, Science and Cell. He has also served as a consulting editor for the Journal of Clinical Investigation, an associate editor for Mucosal Immunology and sits on the International Journal for Parasitology Editorial Board. Dr. Artis has also reviewed for or served on several national and international study sections, including for the National Institutes of Health, the Crohn's and Colitis Foundation of America Senior Investigator Panel, the Broad Foundation, the Agence Nationale de la Recherche in France, Cooperation Europeenne dans Ledomaine de la Recherche Scientifique et Technique in the European Union, and the Wellcome Trust in the United Kingdom.

He is the recipient of numerous awards, including the AAI-BD Biosciences Investigator Award (2013), the Stanley N. Cohen Biomedical Research Award (2012), the Lady Barbara Colyton Prize for Autoimmune Research (2011), Burroughs Wellcome Fund Investigator in Pathogenesis of Infectious Diseases (2008), International Cytokine Society Junior Faculty Award (2007), AAI Junior Faculty Award (2006) and the Crohn's and Colitis Foundation of America Young Investigator Award (2005).

Dr. Artis received his B.Sc. degree in parasitology in 1995 from the University of Glasgow in Scotland and a Ph.D. in immunology in 1998 from the University of Manchester Medical School in England. After receiving the Wellcome Trust International Prize Traveling Research Fellowship in 2000, he completed his postdoctoral research at the University of Pennsylvania School of Medicine and earned a position on Penn's faculty in 2005.

Weill Cornell Medical College

Weill Cornell Medical College, Cornell University's medical school located in New York City, is committed to excellence in research, teaching, patient care and the advancement of the art and science of medicine, locally, nationally and globally. Physicians and scientists of Weill Cornell Medical College are engaged in cutting-edge research from bench to bedside aimed at unlocking mysteries of the human body in health and sickness and toward developing new treatments and prevention strategies. In its commitment to global health and education, Weill Cornell has a strong presence in places such as Qatar, Tanzania, Haiti, Brazil, Austria and Turkey. Through the historic Weill Cornell Medical College in Qatar, the Medical College is the first in the U.S. to offer its M.D. degree overseas. Weill Cornell is the birthplace of many medical advances -- including the development of the Pap test for cervical cancer, the synthesis of penicillin, the first successful embryo-biopsy pregnancy and birth in the U.S., the first clinical trial of gene therapy for Parkinson's disease, and most recently, the world's first successful use of deep brain stimulation to treat a minimally conscious brain-injured patient. Weill Cornell Medical College is affiliated with NewYork-Presbyterian Hospital, where its faculty provides comprehensive patient care at NewYork-Presbyterian Hospital/Weill Cornell Medical Center. The Medical College is also affiliated with Houston Methodist.

For more information, visit weill.cornell.edu.

Vibrating capsule found to help with constipation

Millions of people suffer from constipation - sometimes so bad it can go on for months or years. Medications are effective, but as many as half of all those with chronic constipation get little relief or suffer significant side effects, studies show.

Now an Israeli company, Vibrant, is testing a capsule that would vibrate in the colon, rather than deliver medications.

Adding movements inside the lower intestine mimics peristalsis, the biological process that pushes waves of waste through the bowel. The researchers hope it will break up clumps of waste and encourage the system to work more normally.

They have only just begun to test the multivitamin-sized pill, releasing results Saturday showing it was safely tested in 26 patients who have bowel movements just twice a week on average.

Much bigger, longer trials are needed to show whether the pill will be effective, said Yishai Ron, the research leader and a gastroenterologist at the Tel-Aviv Sourasky Medical Center. But early tests showed promising results, said Ron, who treats a handful of the patients and presented his results at Digestive Disease Week, in Chicago.

"Some of them did stop medication. Some of them really resolved constipation," he said. "In some of them the constipation returned, but they were able to not use those medications anymore."

Eamonn Quigley, chief of gastroenterology at Houston Methodist Hospital in Texas, said he's never heard of any other device-based approach to treating constipation.

"It's completely novel," said Quigley, who's been hired by Vibrant to design its next research trial, comparing the effectiveness of the vibrating pill against a placebo that does nothing. "I think it's an intriguing technology, which deserves some further study," he said.

The idea of using a pill to mimic the normal movements of the bowel makes biological sense, said Douglas Drossman, founder of the Center for Functional GI and Motility Disorders at the University of North Carolina and a gastroenterologist in private practice in Chapel Hill. Drossman, who is not involved in the work, said he was impressed with their early results.

"This is enough information to say they really should study it further and identify a target group who might benefit," he said.

Constipation is a common problem, affecting 10% to 15% of people, particularly women, and increasing with age.

The patients' quality of life can be poor, Drossman said. "They may not travel because they're fearful of needing to know where the bathroom is. They feel bloated, uncomfortable."

Patients taking laxatives generally need an increasingly large dose over time, potentially leading to serious side effects, Ron said. It's too early to know whether the capsule will have long-term side effects.

Ron said the capsule is designed to pulsate three times a minute, roughly the same pace the colon contracts to move waste products through. It starts vibrating 6-8 hours after being swallowed - roughly the time it takes for food to reach the lower part of the digestive system - so the vibrations are not perceptible, he said.

Patients in the trial took the capsules twice a week for two weeks. It is too early to know how much the pills will cost or how long a patient would need to take the single-use capsules to clear up constipation.

"Constipation is a common problem, affecting 10% to 15% of people, particularly women, and increasing with age."

The Vibrant vibrating capsule is being tested for treatment of constipation that hasn't responded to normal therapy.

Simple Intervention Improves Outcome in Delivery of Parenteral Nutrition

PSE Davies [1], J Bowness [1], C Whittingham [2], A Bassi [3]
[1]Surgery, [2]Dietetics, [3]Gastroenterology
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Background

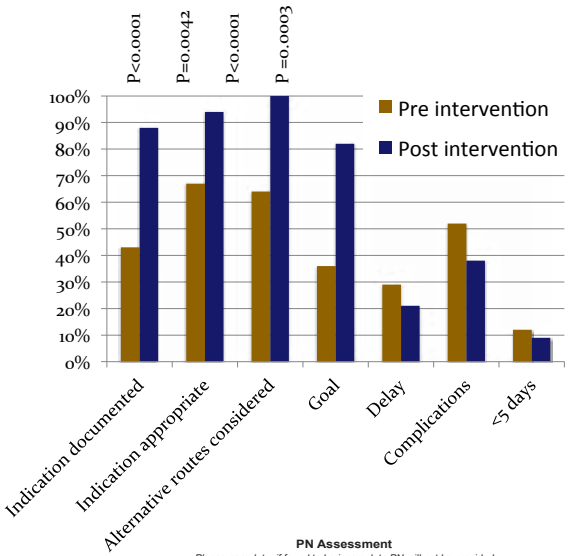
- NICE guidelines on parenteral nutrition (PN) in 2006.
- NCEPOD reviewed practice in England & Wales, suggesting only 19% adult patients received good PN care (2010).
- Recommendations made to improve practice (e.g. accurate documentation of indication, goal of PN, consideration of alternative feeding).

Methods

- A retrospective six month audit in Whiston Hospital highlighted a lack of quality control at the point of initiating PN.
- A mandatory request sticker was introduced for requesting PN, requiring the clinical team to document information regarding PN.
- A prospective re-audit was performed over the same six month period, one year later.

Results

- First loop: N=42 (23M v 19F), mean age 65 yr, 71% emergencies.
- Second loop: N=34 (14M v 20F), mean age 59 yr, 65% emergencies.
- Significant improvements were seen at the commencement of PN:
  - Indication documented: 43% vs 88%.
  - Indication appropriate: 67% vs 94%.
  - Alternative route considered: 64% vs 100%.
  - Goal of PN documented: 36% vs 82%.
- Fewer delays in initiating TPN when appropriate.
- Fewer complications seen – all minor complications and all managed appropriately with no harm caused.
- Fewer patients received TPN for <5 days.



Conclusion

- Simple intervention, involving no additional cost, vastly improved the delivery of PN in our hospital.
- Mandatory documentation of information prior to requesting PN helped focus the thoughts of requesting clinicians.
- This simple win-win strategy can be easily adopted in other hospitals to improve delivery of PN.

PN Assessment

Please complete, if found to be incomplete PN will not be provided

What is the indication for PN? _____

_____

Why is Enteral Nutrition inappropriate? _____

_____

Treatment Goal of PN _____

Time the patient has been NBM/inadequate enteral intake? _____Day(s)

Likely time patient will remain NBM/inadequate enteral intake? _____Day(s)

Expected duration of PN: _____<5 days ❑

_____1-2 weeks ❑

5 days - 1 week ❑

_____>2 weeks ❑

Dietitian informed? _____Yes ❑ No ❑

If No, bleep 7273 before 11am

Dietitian will arrange IV access if necessary

Have bloods been taken? Yes ❑ No ❑ *(U+Es, LFTs, CRP, Mg^{2+}, Ca^{2+}, PO_4^{3-}, lipids)*

Time Requested: _____ Date Requested: _____

Requested by: _____Grade:_____ Bleep: _____

THE NEW WHISTON HOSPITAL
YOUR CHOICE, CHOOSE EXCELLENCE

Psychosocial impact of food and nutritio

L. D. Hughes [1,*], J. O. Lindsay [2], M. C. Lomer [3,4], S. Ayis [5], L. King

INTRODUCTION

Food and eating can be a source of pleasure, means of social interaction and peer acceptance. Having Inflammatory Bowel Disease (IBD) may alter these psychosocial factors because of painful or embarrassing symptoms and/or undernutrition resulting in activity limitation. However little is currently known about the impact of IBD on the pyschosocial factors of food and quality of life.

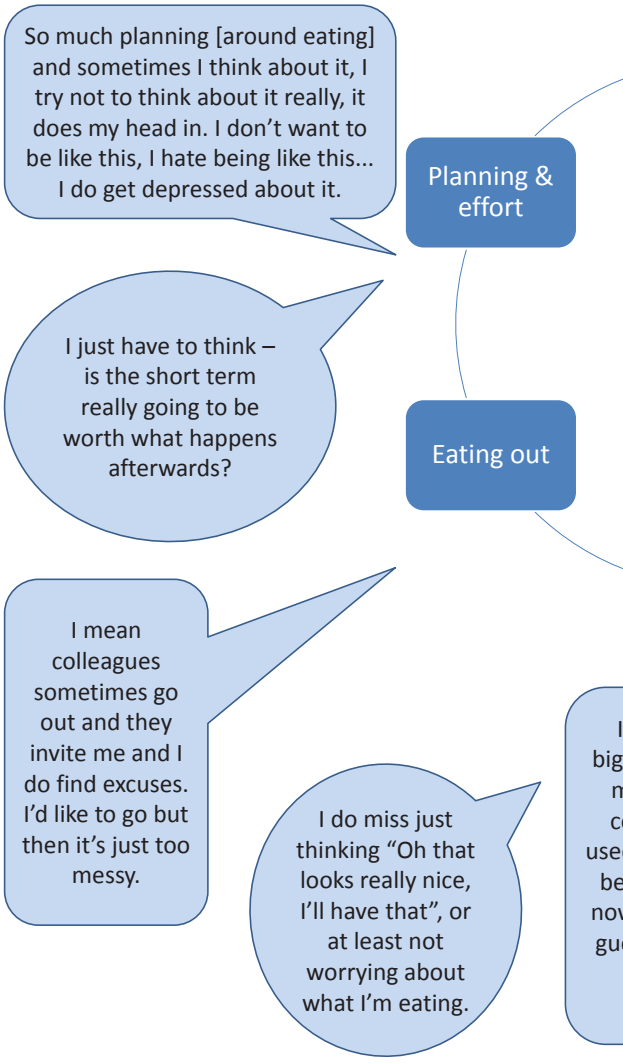
AIMS

This study aimed to determine patients' experiences of the social and psychological impacts of food on people with IBD.

METHODS

Semi-structured interviews were carried out with 28 patients regarding their experiences of food and eating in relation to their IBD. Interviews were recorded and transcribed verbatim. Concepts were labelled through line by line coding using a constant comparative approach based on grounded theory.

Disease Type	Male (%)	Age (Mean, SD)	Yea (Me
Crohn's Disease	43.75%	37.59 (12.06)	10.
Ulcerative Colitis	50%	37.26 (12.48)	10.



[1]IoP, *King's College London (KCL), [2]Gastroenterology, Barts Health NHS Trust, [3]Nutrition

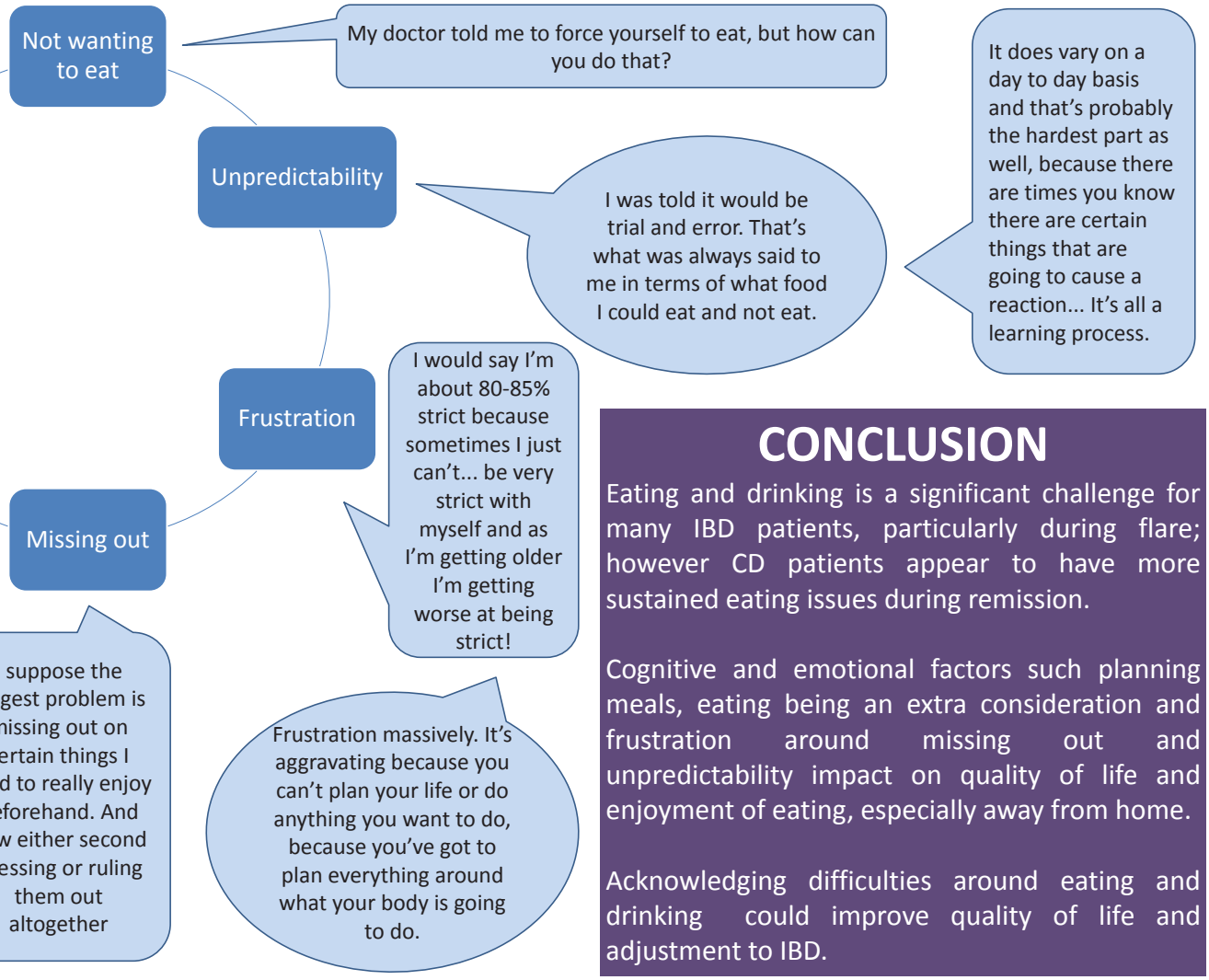
This study was funded by a grant from Crohn's & Colitis UK (CCUK). L.D.H. Was supported by a travel gra

n in people with IBD: a qualitative study

[4], M. Morgan [5], K. Whelan [4]

RESULTS

rs since diagnosis ean, SD)	Surgery (%)	Active disease (%)	BMI (Mean, SD)	MUST score		
				Low (%)	Medium (%)	High (%)
34 (10.86)	43.75%	56.25%	23.33 (5.58)	63.63%	18.18%	18.18%
41 (10.80)	8.30%	25%	23.22 (5.67)	50%	40%	10%



CONCLUSION

Eating and drinking is a significant challenge for many IBD patients, particularly during flare; however CD patients appear to have more sustained eating issues during remission.

Cognitive and emotional factors such planning meals, eating being an extra consideration and frustration around missing out and unpredictability impact on quality of life and enjoyment of eating, especially away from home.

Acknowledging difficulties around eating and drinking could improve quality of life and adjustment to IBD.

& Dietetics, Guy's & St Thomas' NHS Foundation Trust, [4]DNS, [5]PCPHS , KCL, London, UK

ant from the British Psychological Society (BPS).

Barts and The London
Queen Mary's School of Medicine and Dentistry

The changing face of *Clostridium diffici*

N.M.Joshi[1], J.S

[1] Centre for Digestive Diseases, Blizard Institute of Cell and Molecular Science, Barts
[2] Department of Medical Microbiolog

Introduction

C.*difficile* infection(CDI) is the most common identified cause of antibiotic associated diarrhoea and carries a significant mortality. Several reports have demonstrated that exogenous infection plays an important role in the spread of CDI. Ribotype 027 has previously been responsible for large outbreaks of CDI and is associated with a poorer outcome.

Objectives

- Investigate the prevalent ribotypes causing CDI at our Trust
- Ascertain the extent of exogenous C.*difficile* transmission
- Assess CDI related mortality

Methods

All cases of CDI over a 9 month period(ending August 2012) were cultured and typed by the London reference laboratory. Retrospective data on patient demographics, admission dates, ward and clinical team were analysed.

Conclusions

Our data demonstrates a possible shift in the epidemiology of CDI, ribotype 027 does not predominate.

There was little evidence of cross-infection and most cases were endogenously acquired indicating that infection prevention and control methods being practised are effective.

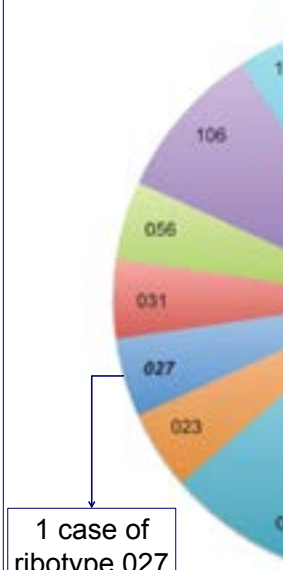
The main cause of CDI in this study arises from selection pressure secondary to antimicrobial use and emphasises the importance of antibiotic stewardship in the prevention and control of this infection.

Acknowledgements
Barts and The London Charity for funding NMJ's research. Infection prevention & control & team, Barts Health NHS Trust. *Clostridium difficile* ribotyping network laboratory, London.

Results

32 new cases of CD
age: 67 years, 27% c
all cases were comm

***C.difficile* ribotype**



Mortality

- 5(16%) overall mor
- 1(3%) colectomy –
- 1(3%) death indir ribotype 020
- The case of 027 d colorectal cancer, r

Barts Health NHS
NHS Trust

Queen Mary University of London

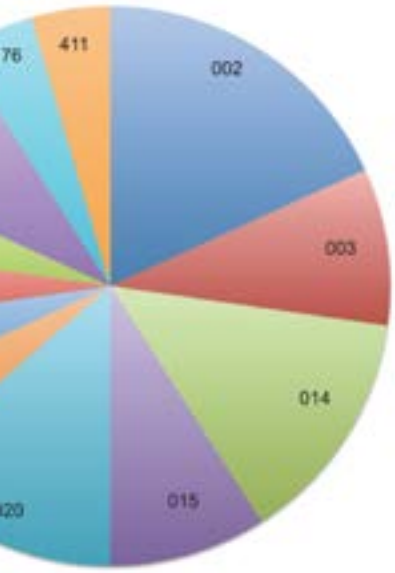
le infection, a tertiary centre experience

eale[2], S.S.Das[2]

s and the London School of Medicine and Dentistry, Queen Mary University of London
gy, Barts Health NHS Trust, London

l occurred of which 22(69%) could be ribotyped. All cases had antibiotic exposure. Average of cases were from patients admitted to critical care and 13% were under elderly care. 27% of nunity and 73% hospital acquired.

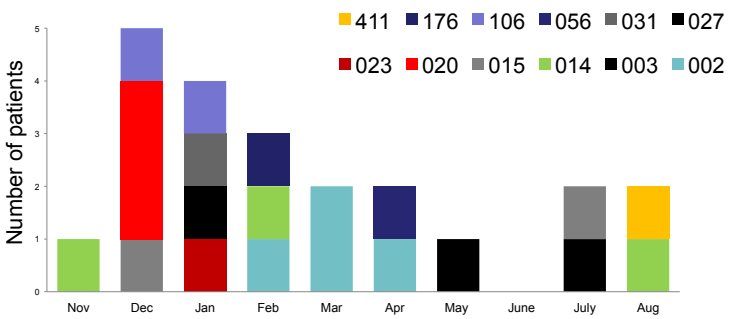
s – All sites



tality while admitted
ribotype 015
rectly attributable to *C.difficile*

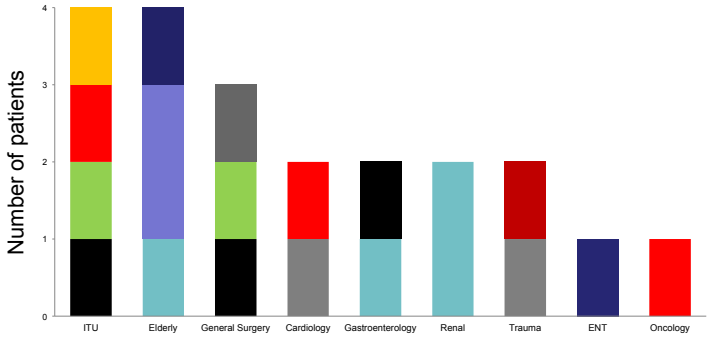
ied, acuse of death: Metastatic
no diarrhoea at time of death

CDI cases per month



December: 3 cases of 020, each from a different hospital
March: 2 cases of 002, from different wards in the same hospital and under the care of different clinical teams

CDI cases per speciality



Renal and elderly: 2 cases of same ribotype, all separated by more than 30 days. Renal patients were under the care of different clinical care teams

b+tlc BARTS AND THE LONDON CHARITY

Evaluating endoscopy trainers: how relial evaluators?

Introduction

• The training of future endoscopists is important to ensure the ongoing provision of a safe endoscopy service within the UK.
•Endoscopy training within the UK has previously been shown to be of a variable standard[1].
• Peer evaluation has been shown to improve teaching and are more reliable than trainee evaluations[2].
•Peer evaluation of endoscopy training does not regularly occur within local endoscopy units; we therefore wanted to assess the reliability of peer evaluations using an evaluation tool that is currently being developed to gain both trainee and peer evaluations.

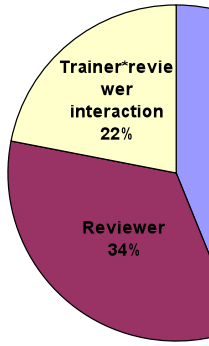
Methods

• The DOTS tool has been developed using the list of attributes described by Wells[3]
• In order to gain an assessment of its reliability the tool was trialled on JAG-approved Training the Trainer courses.
• Courses from November 2011 to March 2012 were invited to participate
• On day 2 of the course participants were asked to complete a DOTS for each of the training episodes they observed
• Mean score and Cronbach's alpha were calculated
• Reliabilty was calculated using Generalisability theory; an initial analysis performed using only trainers, peers and trainer: peer interaction as facets. A further analysis was then conducted including all possible sources of variance

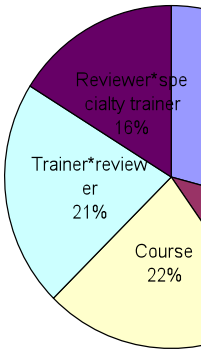
Results

•8 of 10 courses agree
course participants co
• 189 evaluations were
trainers; completed by
• Mean evaluation scor
8.6
•Cronbach's alpha 0.8

Variance components fo
using main expected sc



Variance components fo
using all possible sou



ble are peer

L. Macdougall[1], S. Corbett[1], M. Welfare[1], C. Wells[2], J.R. Barton[1]
1 Northumbria Healthcare Trust, Newcastle-upon-Tyne 2 North Tees Hospital, Stockton-upon-Tees

d to participate, all
nsented to the study
collected evaluated 45
58 different peers
re 63.3 (out of 85) s.d.

95

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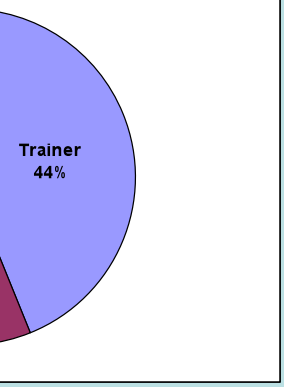

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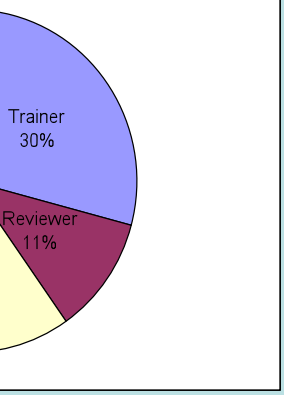

Number of reviewers	G coefficient	SEM	95% confidence interval
1	0.44	6.74	13.2
2	0.61	5.63	11.03
3	0.70	4.93	9.66

Table 1. G co-efficients for differing numbers of reviewers using expected sources of variance

Number of reviewers	G coefficient	SEM	95% confidence interval
1	0.29	7.59	14.88
2	0.383	7.08	13.87
3	0.429	6.81	13.34
4	0.457	6.64	13.01
5	0.488	6.44	12.64

Table 2. G co-efficients for differing numbers of reviewers using all sources of variance

Conclusion

- The DOTS tool showed a high level of internal consistency
- On initial analysis 3 peer reviewers were required to gain acceptable levels of reliabilty
- However on re-analysis the effect of course was responsible for 20% of the variance and if results were generalised across course then the tool showed poor reliabilty
- The effect of course was unexpected and needs to be investigated further
- The tool also needs to be trialled within local units

1.Wells C., Inglis S., et al (2009) Trainees in gastroenterology views on teaching in clinical gastroenterology and endoscopy
2.Beckman,T., et al. (2004). "A comparison of clinical teaching evaluations by resident and peer physicians." Medical Teacher **26**(4): 321-325.
3.Wells, C. (2010). High quality teaching of endoscopy: Defining the attributes of the trainer. School of Medical Education, Newcastle-upon-Tyne University. **MD**.

Northumbria Healthcare NHS
NHS Foundation Trust

First Year Results From a Virtual In
Anaemia Service at a District Gen

B. M. Shandro, R. Basuroy, L. Gamble, S. Edwards, S. Al-Shamma,

INTRODUCTION

Iron deficiency anaemia (IDA) has a prevalence of up to 5% in adult men and post menopausal women, and is a common cause of referral to gastroenterologists Important and common causes of IDA to exclude include coeliac disease (5%), gastri carcinoma (5%) and colonic carcinoma (5-10%). Despite this, IDA is not an indication fo fast track referral at our institution. Recently the British Society of Gastroenterolog (BSG) published guidelines for the investigation of IDA suggesting that all patients nee oesophagogastroduodenoscopy (OGD), colonoscopy or computerised tomography (CT) urinalysis, and coeliac serology or duodenal biopsy. By establishing a virtual IDA clini we aimed to ensure that our patients received these investigations within 4 weeks without unnecessary follow up in a formal clinic.

METHODS

All requests for investigation of IDA are vetted by a band 6 nurse, investigation arranged and the results followed up with consultant support. A prospective databas is maintained, and we report our first year results. Fisher's exact test was used t compare the prevalence of cancer in this group to all fast-track (2 week wait) case referred for endoscopy at our institution over the same period.

RESULTS

467 patients were referred with IDA: 189 male, mean age 71 years. 100% received a OGD and 96% received either a colonoscopy (81%) or CT (15%). Mean waiting time from initial referral were 24 days to OGD, 32 days to colonoscopy, and 52 days to CT 54% had documented urinalysis results, but all patients' GPs were sent a letter advisin urinalysis. 98% were investigated for coeliac disease, with serology (2%), duodena biopsy (57%), or both (39%). Carcinoma was diagnosed in 9.2% (1.5% uppe gastrointestinal carcinoma (n=7), 7% colonic carcinoma (n=31), and 1% othe malignancy (renal tract (n=3), lung (n=1), and pancreatic (n=1))). Coeliac disease wa diagnosed in 3%. A potential cause for IDA was found in 35% of patients. Notably, ther was a trend towards a higher prevalence of carcinoma in the IDA group (9.2%) than i the fast-track endoscopy group (6.6%). This did not reach statistical significanc (p=0.08); however this is likely to represent a type 2 error due to relatively sma number of patients in the study.

on Deficiency
eral Hospital

The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust

. S. D. McLaughlin

RESULTS

Tables showing results of OGD, Colonoscopy, and CT in patients referred with IDA.

OGD Findings	n	%
No Cause	361	77.3%
Oesophagitis	15	3.2%
Oesophageal Carcinoma	1	0.2%
Gastritis	15	3.2%
Peptic Ulcer Disease	21	4.5%
H.pylori colonisation	12	2.6%
Benign upper GI polyp	8	1.7%
Gastric Carcinoma	5	1.1%
GAVE	2	0.4%
GIST	1	0.2%
Portal Gastropathy	1	0.2%
Angiodysplasia	10	2.1%
Gastrectomy	1	0.2%
Coeliac Disease	13	2.8%
Crohn's Disease	1	0.2%
Total	**467**	**100.0%**
Pathology Identified	**106**	**22.70%**

Colonoscopy Findings	n	%
No Cause	297	78.8%
Incomplete	11	2.9%
Polyp(s)	26	6.9%
Colonic Carcinoma	27	7.2%
Angiodysplasia	9	2.4%
Radiation proctitis	2	0.5%
Crohn's Disease	2	0.5%
Ulcerative colitis	1	0.3%
Aphthous ulcer	1	0.3%
Pseudopolyps	1	0.3%
Total	**377**	**100.0%**
Pathology Identified	**69**	**18.30%**

Diagnostic CT findings	n	%
No cause	60	82.2%
Blind loop	1	1.4%
Diverticular disease	3	4.1%
Colonic Carcinoma	4	5.5%
Pancreatic IPMT	1	1.4%
Lung Malignancy	1	1.4%
Renal Tract Malignancy	3	4.1%
Total	**73**	**100.0%**
Pathology Identified	**13**	**18%**

DISCUSSION

The virtual IDA service at this district general hospital meets the audit standards recommended by the BSG (>90% screened for coeliac disease and >90% receiving both upper and lower GI investigation) and reduced the number of outpatient attendances required using a direct-to-test model. There was no significant difference in the prevalence of cancer in patients referred with IDA (4 week wait) than in those referred for fast-track endoscopy (2 week wait).

In view of the high cancer detection rate we plan to investigate all IDA patients within 2 weeks, and recommend that other centres consider doing the same.

References: Goddard AF, James MW, McIntyre AS, Scott BB; British Society of Gastroenterology. Guidelines for the management of iron deficiency anaemia. Gut. 2011 Oct;60:1309-16

MAGNIFICATION ENDOSCOPY - THE FUTURE OF GASTROENTEROLOGY

Japanese gastroenterologists are shaping the future of endoscopy, developing techniques and in the process the technologies that speed up the process of diagnosis and treatment of upper and lower Gastrointestinal (GI) diseases.

One of the main developments that provides a marked reduction in time needed for diagnosis is magnification endoscopy. Developed back in 1993 and pioneered by Professor Kudo Shin-ei and Professor Haru Inoue (Showa University, Yokohama, Japan), magnification endoscopy allows the gastroenterologist to magnify the image transmitted from endoscope to screen with an 80-200(where does the 200x figure come from Fujifilm literature say 135x)x zoom for better visibility and diagnosis than standard scopes.

Whilst Japan powers ahead, the UK, alongside the rest of Europe, however, is slow on the uptake, creating a widening skills and knowledge gap amongst the emerging generation of gastroenterologists. One of the leaders in UK endoscope supply, Aquilant Endoscopy, is promoting best practice, citing the need for investment in training and further supply of magnification endoscopes.

The UK supplier of Fujifilm endoscopes, Aquilant Endoscopy is pushing for leaders in the NHS to consider the benefits of magnification endoscopy and begin a change in endoscopy best practice with a focus on procedures that reduce patient waiting times, improve diagnosis of malignant and benign tumours and shorten the patient recovery period. Utilising their relationship with the developers of these new technologies in Japan, Aquilant Endoscopy is able to provide access to magnification endoscopy and the training required to use such technologies. Andrew Dawe, General Manager of Aquilant Endoscopy, believes the key to increased take-up of magnification endoscopy is in the provision of training and raising awareness of this powerful technology.

Mr Amyn Haji, Consultant Surgeon and Interventional Endoscopist at King's College Hospital London, is one of the few doctors in the UK trained to use magnification endoscopy. For the past four years Mr Haji has been using the technology to help diagnose and treat patients with polyps with great success.

"Magnification endoscopy," Mr Haji says, "is the future of gastroenterology, however the majority of doctors across the UK do not have access to the technology and there are few opportunities for training. The training issues outweigh the costs of the scopes, with prices only a little higher than that of a traditional endoscope. Not only does the technique shorten the procedural pathway but it importantly enables the patient to receive much earlier diagnostic information helping to alleviate the inevitable stress associated with diagnostics and clinical prognoses."

"Traditional diagnostic procedures for upper and lower GI use endoscopes with a white light at the tip. Whilst it illuminates the mucosal layer for the endoscopist to identify abnormal growths, it is unable to magnify the vessels and pit patterns of the mucosal layer in order to determine presence of a malignancy during the procedure. Additionally, it is very useful to evaluate patients with flat polyps and also scarred lesions that have been previously biopsied or partially resected." according to Mr. Haji.

The benefits of magnification endoscopy

Large polyps in the bowel are often subjected to surgery with length of hospital stay involving bowel resection ranging typically between seven and 10 days. Magnification endoscopy allows careful examination and evaluation of such polyps providing the clinician with more accurate information helping them to decide whether the patient needs either endoscopic mucosal resection (EMR), endoscopic submucosal dissection (ESD) or major surgery. Endoscopic resection allows many of these patients treatment as a day case avoiding the need for major surgery and longer hospital stay.

According to Mr Haji more focus needs to be devoted to magnification, as a method of further analysis if an abnormality is detected, and in turn clinicians need to understand and develop the necessary skills in the techniques before the UK is left woefully behind in this area of clinical best practice. Once an initial abnormality has been identified during routine endoscopy, magnification endoscopy can then allow endoscopists to carefully analyse polyps in greater detail and if necessary focus onto a particular area of concern in order to target biopsies. These targeted biopsies allow for faster, more accurate diagnosis of polyps and thus the decision to take the route of local treatment or major surgery can be made rapidly and efficiently.

Kings College Hospital is a pioneering centre for this form of treatment.

The King's Live conference was developed in response to the lack of existing training opportunities in the UK. An annual event held at Kings College Hospital now in its 4th year the King's Live conference helps to raise greater awareness of magnification endoscopy, aiming to train more professionals in the use of using magnification endoscopy techniques. Kings College Hospital also paves the way through collaboration with Showa University, Yokohama, Japan, holding regular educational meetings to teach and promote magnification endoscopy.

Kings College Hospital is the tertiary referral service for the South East, which manages endoscopy records sent from centres at a local level to conduct further analysis of endoscopic images and organise further

procedures and treatment if necessary. In addition, the team is part of the International Magnification Endoscopy Users Group, which enables Mr Haji and his peers to meet with other professionals each year and discuss the latest hot topics, including trends, pitfalls, technology advancements and training.

Aquilant Endoscopy and Fujifilm support the King's Live event and recently showcased the new 600 series CMOS chip technology range of endoscopes, providing the conference audience with super high definition images during the live cases.

Kings College Hospital and Aquilant Endoscopy are working together to offer increased access to this new technology and training opportunities. Now it is up to NHS leaders and additional consultant gastroenterologists to invest their time in training to ensure the next generation of gastroenterologists have the skill and knowledge to perform cutting edge procedures such as magnification endoscopy.

Where does the future lie?

The future doesn't stop with magnification endoscopy. According to Mr. Haji Endocytoscopy will be the next big thing in the world of gastroenterology. Endocytoscopy provides a 400x zoom that gives a live histology, the greater detail enabling even better diagnosis. I. Currently there are only two scopes in the world, both used in Japan. Although the scopes are currently in a research phase the hope is one day to provide an optical histology thereby reducing the need for pre-stage histological biopsies.

Mr. Haji added, "Whilst it is essential that endoscopists pave the way forward through researching new technologies, this means nothing if we do not have the opportunities to train and hone our skills. Collaboration between universities, such as that of Showa University and Kings College Hospital London, and industry partners such as Aquilant Endoscopy and Fujifilm is the key to offering the training and access to these new technologiesthat is necessary if the UK and the rest of Europe is to catch up with Japan. The end result will be confident and skilled endoscopists and happy patients."

> "Magnification endoscopy is the future of gastroenterology, however the majority of doctors across the UK do not have access to the technology and there are few opportunities for training."

PENTAX Medical and Hitachi Medical Systems Europe renew and reinforce their strategic partnership in UK

Slough, UK – 14 April 2014 – PENTAX Europe ("PENTAX Medical") and Hitachi Medical Systems Europe ("Hitachi Medical Systems") have been working together for more than twenty years and today announced a renewal of their strategic partnership in UK to the benefit of their customers.

PENTAX Medical and Hitachi Medical Systems have a successful strategic partnership in the area of endoscopic ultrasound (EUS), combining the PENTAX Medical optical/ endoscopic expertise with Hitachi Medical Systems core ultrasound expertise.

A series of state-of-the-art ultrasound endoscopes were jointly developed within the framework of this collaboration; the latest one being the PENTAX EG-3270UK which takes user and patient comfort to a new level due to its exceptional slim size. PENTAX Medical and Hitachi Medical Systems have now renewed and reinforced this partnership for maximum customer benefit. Hitachi Medical Systems is the sole partner of PENTAX Medical to sell and service PENTAX ultrasound endoscopes in the United Kingdom. With its highly qualified technical and medical EUS specialists Hitachi Medical Systems offers an unprecedented level of support to clinicians.

The added value of this strategic collaboration for the clinician is exceptionally sharp and clear diagnostic images that enable them to reliably identify even very small lesions.

Further important clinical benefits such as Contrast Harmonic Imaging, Imaging Fusion like Picture-in-Picture, EUS-Fine Needle Aspiration and Hitachi Real-Time Elastography (HI-RTE) add to the superior diagnostic functionality. Highly experienced application specialists of Hitachi Medical Systems are ready to support the clinical user as required.

David Moore, Managing Director, PENTAX Medical UK Ltd, said: "I am convinced that the renewed strategic collaboration with Hitachi Medical Systems as our sole sales and technical service partner in EUS will strongly support our ambitious growth targets in endoscopic Ultrasound and in our core business."

Stephen Brookes, Managing Director, Hitachi Medical Systems UK Ltd, said: "The bundling of expert knowledge and skills enabled by this strategic partnership adds exceptional value to the clinicians by giving them the highest achievable diagnostic security – from expert to expert."

For more information please visit **www.pentaxmedical.co.uk**

The PENTAX Medical EG-3270UK

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Gut Microbiota for Health World Summit 2014:

Digital press folder #GMFH2014 with extra material now available on www.gutmicrobiotaforhealth.com

Scientists and health-care professionals from all over the world came together at the Gut Microbiota for Health World Summit in Miami, Florida, USA, on March 8–9, 2014. The meeting was hosted by the Gut Microbiota & Health Section of the European Society of Neurogastroenterology and Motility (ESNM) and the American Gastroenterological Association (AGA) Institute, with the support of Danone. The microbial communities that reside in the human gut and their impact on human health and disease are one of the most exciting new areas of research today.

In addition to the press releases that have been distributed during the summit, you can now access a digital press folder with further material at:

http://www.gutmicrobiotaforhealth.com/digital-press-folder-5639

There you will find short video interviews with speakers, expanding on the topics of the press releases. These include:

- Laura Cox (USA): A tricky balancing act – antibiotics versus the gut microbiota
- Giovanni Barbara (Italy): IBS and bloating – when the gut microbiota gets out of balance
- Francisco Guarner (Spain): Feeding the gut microbiota – nutrition and probiotics are key factors for digestive health
- Gary Wu (USA): More than just bacteria – the importance of microbial diversity in gut health and disease
- Francisco Guarner (Spain): A balanced gut microbiota is crucial for everyone's health — World Digestive Health Day on May 29, 2014
- Gail Hecht (USA): Course Director of the Gut Microbiota for Health World Summit 2014

About the Gut Microbiota For Health Experts Exchange website

The **www.gutmicrobiotaforhealth.com** Experts Exchange, provided by the Gut Microbiota & Health Section of ESNM, is an online platform for health-care professionals, scientists, and other people interested in the field. Thanks to being an open, independent and participatory medium, this digital service enables a scientific debate in the field of gut microbiota.

Connected to **www.gutmicrobiotaforhealth.com**, the Twitter account @GMFHx (#GMFH2014, # specific for the event), animated by experts, for experts from the medical and scientific community, actively contributes to the online exchanges about the gut microbiota.

About the Gut Microbiota & Health Section of ESNM

ESNM stands for the European Society of Neurogastroenterology and Motility, a member of United European Gastroenterology (UEG). The mission of the ESNM is to defend the interests of all professionals in Europe involved in the study of neurobiology and pathophysiology of gastrointestinal function. The Gut Microbiota & Health Section was set up to increase recognition of the links between the gut microbiota and human health, to spread knowledge and to raise interest in the subject. The Gut Microbiota & Health Section is open to professionals, researchers, and practitioners from all fields related to gut microbiota and health. **www.esnm.eu/gut_health/gut_micro_health.php?navId=68**

About the AGA

The American Gastroenterological Association is the trusted voice of the GI community. Founded in 1897, the AGA has grown to include more than 16,000 members from around the globe who are involved in all aspects of the science, practice and advancement of gastroenterology. The AGA Institute administers the practice, research and educational programmes of the organisation.

www.gastro.org

About Danone and Gut Microbiota for Health

Danone's conviction is that food plays an essential role in human health namely through the impact that the gut microbiota may have on health. That is why Danone supports the Gut Microbiota for Health World Summit and Experts Exchange web platform with the aim to encourage research and increase knowledge in this promising area, in line with its mission to "bring health through food to as many people as possible".

www.danone.com

The microbial communities that reside in the human gut and their impact on human health and disease are one of the most exciting new areas of research today.

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