experienced endoscopists thereby enabling the full potential of this novel imaging technology to be realised.

OTH-005 PROSPECTIVE MULTI-SITE AUDIT OF ACUTE UPPER GASTROINTESTINAL BLEEDING DELIVERED ACROSS MULTIPLE REGIONS BY TRAINEE-LED NETWORKS

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Introduction Trainee-led networks were developed to support improvements in patient care by delivering audit, quality improvement and research projects across multiple sites. The Midlands was the first UK region to establish gastroenterology trainee research networks: WMRIG in 2015 and the GARNet in 2016. North West trainees established GasTRIN NoW in 2017. Here, we report the first project in the UK to be delivered simultaneously by trainee physicians through multiple networks.

Methods We audited the care of patients with acute upper GI bleeding (AUGIB) against national quality standards (NICE QS38 and JAG GRS) and collected data on patient and process outcomes. Patients aged ≥ 16 years admitted with suspected AUGIB who underwent an inpatient OGD were prospectively identified in a consecutive 30 day window from November 2017. Anonymised data and outcomes to 30 d were collected using common proformas and protocols.

Results 471 patients were identified across 30 sites (EM: 157, 8 sites, WM: 193, 12 sites, NW: 121, 10 sites). We report the population characteristics and selected audit and outcome measures for 455/471 (97%) with complete data available. The mean age was 65 years (SD 18.1, range 17–100) and 54% were male. 45% presented on weekdays 7am–7pm, 32% on weekdays outside these hours and 23% at weekends. The median time from presentation to OGD was 22.5 hour (IQR 12.7–43.9 hour), with 54% performed within 24 hour (range at sites 22%–88%; $>50\%$: 18 sites, $>75\%$: 5 sites). Glasgow Blatchford scores were recorded pre-OGD in 47% (range at sites 8%–100%), with median score 7 (IQR 1–12; ≥ 8 : 46%, ≥ 12 : 26%). Endoscopic findings were: 63% non-variceal, 11% variceal, 8% other, 18% no lesion identified. 116 patients required endotherapy (25%; 80 non-variceal, 34 oesophageal and 4 gastric varices). A rebleed plan was documented in 36% (range at sites 0%–81%). Rebleeding within 8 d occurred in 36 patients (7.9%). 29 died (6.3%) within 30 d of OGD. Median length of stay was 5 d (IQR 3–9 d).

Conclusions Collaboration between gastroenterology trainee-led research networks can successfully deliver projects across multiple sites and regions. This audit shows wide variations in practice. Local action plans are still needed to meet JAG quality measures. However, we propose to harness the enthusiasm of trainees to drive improvements in the quality of care received by patients with GI bleeding – regionally, through the BSG national QI agenda, and in partnership with patients

via Core. We encourage our peers to establish their own trainee-led research networks.

PTH-129 EVALUATION OF SIMULATION-BASED INDUCTION PROGRAMME TO ENHANCE ACQUISITION OF HANDLING SKILLS FOR UPPER GI ENDOSCOPY

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Introduction Endoscopic training pathways in the UK need to support efficient development of complex motor skills. Previous studies have demonstrated benefit from use of simulators in the early phase of training. However a target of a 25% improvement performance should be demonstrated to remain cost effective. The SPRINT induction programme aims to provide a structured sequence of training elements to optimise and accelerate the early phase of training in upper GI endoscopy. We hosted a Tri-deanery simulation training event using the Surgical Science EndoSIM.

Methods Baseline data on previous training experience was obtained from 20 trainees attending the SPRINT induction. Pre-course self-assessed competency scores in 12 upper GI handling skills domains were provided and mapped to the Joint Advisory Group on GI Endoscopy (JAG) DOPS assessment forms. Domain scores were given a rating from 0–10 on a Likert scale (0=not at all competent, 10=very competent). Trainees completed a structured curriculum of simulator training and a series of small group teaching seminars on technical aspects of endoscopy and lesion recognition. At the end of the course trainees provided further self-assessed competency scores and rating scores for small group teaching sessions. Differences in the competency scores were determined by the Mann Whitney U test with an alpha value of 0.01. The proportion of trainees with less (0–25 procedures) and more experience (26–50 procedures) reporting greater than 25% domain score change was tested using the Chi-squared statistic.

Results Paired scores (n=20) showed a significant increase across all 12 upper GI handling skills domains following the training intervention ($p<0.01$, alpha=0.01, two-tailed). The proportion of trainees reporting $>25\%$ difference in domain scores was greater for trainees with less experience compared to more experienced trainees [$p<0.05$ for all domains]. All trainees rated good/excellent small group sessions in scope handling, lesion recognition, and endoscopic non-technical skills.

Conclusion This study demonstrates significant benefit from the EndoSIM simulator across all upper GI technical skills domains. Simulation training is best targeted in the early stages of endoscopy training (0–25 cases), but there remains some benefit to more experienced trainees. Small group training provides additional value during the SPRINT induction. These findings further support inclusion of simulation as part of the JAG certification pathway for upper GI endoscopy.

PTH-130 GENOMIC MEDICINE IN GASTROENTEROLOGY, PRESENT AND FUTURE: A NATIONWIDE SURVEY OF HIGHER SPECIALTY TRAINEES

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Introduction Genomics and personalised medicine are increasingly important for patients with gastroenterological conditions. The higher training curricula of other specialties (e.g. cardiology and oncology) have been revised with the addition of modular training in genomics. Our aim was to capture the present state of genomics training in gastroenterology to review current trainee understanding, clinical experience and long-term training needs, and to assess their preparedness for future consultant practice.

Methods A web-based nationwide survey of all UK Gastroenterology specialty trainees was carried out in November and December 2017, supported by the British Society of Gastroenterology national training committee.

Results 100/658 UK Gastroenterology trainees (15.2%) across 17/18 deaneries and all specialty training levels responded to this survey.

Only 9% and 16% of trainees believe that their local training adequately prepares them for future clinical practice utilising genomic medicine and personalised medicine respectively. Barriers identified (% agreeing or strongly agreeing) include the need for greater trainee education (95%), inadequate clinical guidance to base interventions on results of genomic testing (53%), concerns over misinterpretation by patients (43%) and overuse/misuse of testing by clinicians (34%).

When assessing current mainstream genetic and personalised tests, trainees felt prepared to interpret *HFE* genotyping (98%), *TPMT* status (97%), and coeliac disease HLA subtyping (85%). However, only a minority of trainees felt prepared to interpret gene tests in patients with polyposis (34%), hereditary pancreatitis (30%), Lynch syndrome (33%), and *KRAS* in colorectal cancer (20%). For their future clinical practice, 76% of trainees did not know what mainstreaming of genomics would entail, with only 6% of trainees having recruited patients for the 100 k Genomes Project.

Most trainees would support having dedicated training days on genomic medicine (83%), formal training provisions for mainstreaming of genomic testing (64%), an update to the gastroenterology JRCPTB curriculum and SCE examination (57%), and better-defined pathways for referral to local genomic services (91%).

Conclusions Most UK gastroenterology trainees feel ill-equipped to practice genomic or personalised medicine as consultants, at a time of progressive mainstreaming of genomic practice in our specialty. We propose that the gastroenterology specialty curriculum requires specific revision to prepare trainees for genomics in their future clinical practice.

PTH-131 TAPPING INTO KNOWLEDGE: IDENTIFYING KNOWLEDGE GAPS TO IMPROVE CARE OF PATIENTS WITH SPONTANEOUS BACTERIAL PERITONITIS

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Introduction Early recognition and treatment of spontaneous bacterial peritonitis (SBP) in patients with liver cirrhosis is essential. This was emphasised in the care bundle produced by the British Society of Gastroenterology and British Association for the Study of Liver to improve management of patients with decompensated liver disease who have been acutely admitted to hospital.¹ Our trust has also incorporated a simplified version of the care bundle into the medical admissions clerking proforma. These patients are likely to be clerked by non-gastroenterologists at the point of admission. The aim of our study was to identify knowledge gaps to improve care of patients with SBP.

Methods A paper questionnaire was distributed to non-gastroenterology doctors of different grades (FY1, FY2/CT and StR) within the medical and emergency department. The questionnaire was completed at the point of distribution with no conferring of answers. Respondents were assessed on: 1) their awareness of the care bundles, 2) when they would perform a diagnostic ascitic tap, 3) contraindications to ascitic taps, 4) the diagnostic criteria for SBP, 5) their confidence in performing the procedure and 6) whether they were aware of the usage of human albumin solution (HAS) in patients diagnosed with SBP.

Results There were a total of 45 responses (6 F1s, 30 FY2/CT, 8 StRs). 53% were aware of the trust's care bundle and 40% were aware of the national care bundle. 64% of the respondents would perform a diagnostic ascitic tap in patients with decompensated liver cirrhosis who present to hospital with symptoms of abdominal pain and features suggestive of sepsis (pyrexia, tachycardia and raised inflammatory markers) but only 27% would routinely perform a diagnostic ascitic tap irregardless of their presenting complaint. 56% of respondents regard thrombocytopenia as a contraindication to an ascitic tap (citing platelet cut-off values with a range of 20150 *10⁹/L) and 58% regard a raised international normalised ratio (INR) as a contraindication (citing INR cut-off values with a range of 1.33.5). Only 62% were confident in performing an ascitic tap unsupervised. 64% knew the value of the ascitic fluid cell count diagnostic for SBP although 3 of these respondents gave the wrong answer. 44% were aware that patients with SBP should also be treated with HAS.

Conclusions Our study demonstrated that there was a lack of awareness of the available care bundles for management of patients with decompensated liver disease. It has also highlighted knowledge gaps which will be addressed with education and training sessions.

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PTH-132 UK MEDICAL STUDENT PERCEPTIONS ON DIET AND NUTRITION EDUCATION: RESULTS OF A NATIONAL SURVEY

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Introduction Dietary modification is a fundamental component of preventing and managing many gastrointestinal conditions and lifestyle-related diseases. Questions about diet are often the primary concern of patients and great attention is drawn to this field by scientists and non-scientists in popular and social media. This national survey explored UK medical students' views on the responsibility of doctors, confidence in their current knowledge and ability to give advice, and the perceived quality of their medical school education regarding diet and nutrition in health and disease.

Methods An online survey of Likert-type questions and free-text spaces was distributed to medical student unions and medical school societies of UK medical schools via email and social media platforms.

Results 181 (91 pre-clinical, 90 clinical) students from 11 UK medical schools completed the survey. 96% felt doctors have a responsibility to provide the best available evidence-based dietary advice to patients. Overall, 63% reported being asked about diet and nutrition by patients 'occasionally' or 'often'. 40% of students had confidence in their current knowledge and 32% did not. Confidence was generally low (21% confident, 55% not) regarding knowledge of UK dietary guidelines. Awareness of many popular dietary philosophies that patients might enquire about – such as the Mediterranean, intermittent fasting and low-carb-high-fat diets – was high but students did not feel confident in advising patients regarding these. Only 14% of students (16% of pre-clinical, 10% of clinical), felt they were receiving a comprehensive and relevant education in diet and nutrition from their medical school [Graph 1]. Over two-thirds (68%) would appreciate more teaching in this area and 25% had already sought further education themselves.

Conclusions There is some feeling amongst medical students that UK medical schools are failing to provide an adequate education in clinical nutrition and dietetics. This is despite a desire for better education in this area and a widespread belief that doctors have a responsibility to impart high quality dietary advice to their patients. Medical student confidence in their own knowledge varied but was generally low regarding official UK guidelines and some of the more popular dietary philosophies that patients may enquire about. The main limitations of this study are its small sample size and risk of sampling bias. Medical school faculties might consider canvassing their students with a view to improving their teaching on diet and clinical nutrition.

PTH-133 FIVE YEARS OF HIFIVE (HUMAN FACTORS IN VIRTUAL ENDOSCOPY): AN ENDOSCOPIC NON-TECHNICAL SKILLS SIMULATION PROGRAMME

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Introduction Endoscopic non-technical skills (ENTS) are increasingly recognised as a vital component of endoscopic ability. The

Joint Advisory Group on GI endoscopy (JAG) have included them in their updated direct observation of procedural skills (DOPS) assessments of endoscopy competency and therefore competence in these skills is required for accreditation. However, a formal framework for teaching these skills has not yet been established. Here we describe our centre's five year experience of running a one-day multidisciplinary immersive simulation course aimed at developing ENTS matched to the JAG curriculum.

Methods From 2012–17, we have run 8 simulation days involving 5 standardised scenarios based on real life serious incidents, using simulated patients, an endoscopy simulator (GI Mentor Express Symbionix) and vital signs consoles (iSimulate). Doctors, nurses and healthcare assistants from endoscopy units attended. From 2012–16 post course questionnaires were completed by attendees focussed on learners' perception of usefulness of the course on a 4 point Likert scale. From 2016–17 these questionnaires were updated to include pre and post course confidence scores in eight domains reflecting ENTS scored on a 3 point Likert scale. Student's t-test was used to calculate statistical significance between pre and post scores in Microsoft Excel. Qualitative statements on what attendees had learned and how it would impact practice were also collected.

Results We retrospectively analysed the questionnaire responses of 22 doctors, 21 nurses and two healthcare assistants. From 2012–16 weighted averages of responses across all 21 statements indicate acceptability of simulation as a technique for teaching ENTS (median number of respondents=38).

From 2016–17 the average confidence across all eight domains increased (median number of respondents=16). Three of these achieved statistical significance ($p < 0.01$) – 'I can manage an emergency clinical care scenario using time and resources efficiently', 'I can manage complaints effectively with positive outcomes' and 'I can understand the human factors that play a role in complex clinical care situations' (Chart 1).

Abstract PTH-133 Figure 1

Qualitative statements of lessons learned indicated that attendees found debriefing with the actor giving a patient perspective a very informative experience, increasing patient centeredness and discovering useful strategies for future practice.

Conclusions Over the last 5 years, this course has attracted attendees within our own deanery and nationally. We have shown that a one-day ENTS simulation course is feasible and can have a significant impact on trainees' confidence in their non-technical skills. We believe this is a good model for delivering ENTS training for other centres to follow.