

PTU-011 IDENTIFYING THE LEARNING NEEDS OF BSW COLONOSCOPISTS USING AN ACTIVE LEARNING DIARY DURING SCREENING LISTS

¹N Hawkes*, ²J McDonald. ¹Gastroenterology, Cwm Taf University HB, Llantrisant, UK; ²Medical Education, Cardiff University, Cardiff, UK

10.1136/gutjnl-2014-307263.85

Introduction In the Bowel Screening Wales (BSW) programme screeni, UKng colonoscopists must meet specified performance criteria and pass both a knowledge-based and practical skills assessment. As such they are highly skilled endoscopists who engage in self-directed learning. We aimed to determine the nature and frequency of ongoing learning opportunities arising on BSW screening lists and practicality of using a structured learning diary.

Methods A stratified randomisation identified six BSW colonoscopists (one from each Health Board). A structured diary recording 'active' learning opportunities and self-reflection on learning events (after Knowles) was combined with semi-structured interviews after data collection (minimum 4 BSW lists). A deductive approach to data analysis using a modified grounded theory approach described by Burnard *et al.* (2008) was used.

Results BSW colonoscopists identified lesion assessment and decision-making (cognitive skills) as the most common learning points. Technical challenges (skills based) and aspects of team performance (attitudinal) were also common. Problems requiring 'situational awareness' or where things were not going to plan (including equipment failure) were less common but prompted more active reflection by colonoscopists. Cumulative entries recorded 35 distinct learning points (some duplicated by more than one colonoscopist) in the following domains; polyp detection and assessment; optimising field of view and access; polyp pre-treatment or lifting; snare selection/technique; diathermy modes and settings; complications; situational awareness and teamwork; judgement and decision-making. All participants felt the data recorded was representative of their normal screening lists (making the learning points transferable to other colonoscopists) and felt that using the diary was feasible and helpful. Participants did not always translate recorded reflections into discernable action plans with specific learning goals mainly due to time constraints – where behaviour changed this was facilitated by local opportunities to discuss with near-peers or during formal endoscopy-based multi-disciplinary meetings. A variety of learning resources were used.

Conclusion The structured learning diary proved to be a practical and useful tool to identify learning opportunities in the context of routine BSW screening lists. Participants identified a number of learning needs – most commonly reported were cognitive skills related to lesion assessment and decision-making. Active reflection promoted by using this kind of tool is most effective when leading to the setting of specific goals and linked to supportive local collaborative working patterns.

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Disclosure of Interest None Declared.

PTU-012 DEVELOPMENT OF STANDARDS FOR DELIVERY OF TRAINING IN GASTROENTEROLOGY: DEFINING QUALITY AND PROVIDING ACCURATE ASSESSMENT OF UNITS

¹E Britton, ¹S Sarkar, ²PK Flanagan*. ¹Gastroenterology, Royal Liverpool University Hospital, Liverpool, UK; ²Gastroenterology, Arrowe Park Hospital, Wirral, UK

10.1136/gutjnl-2014-307263.86

Introduction Training in Gastroenterology is currently defined by the JRCPTB curriculum. Whilst some guidance is provided on composition of clinical sessions its main focus is on overall training structure and expected clinical competencies and knowledge levels. Delivery of training is commonly arranged locally but there are currently no defined standards to describe the expected structure and standard of training within hospital placements. Consequently quality of training can be extremely variable. For the first time we present comprehensive standards detailing the delivery of high quality training in Gastroenterology.

Methods Aims

To develop and validate standards for delivery of training in Gastroenterology.

Methods

Standards were developed by consensus opinion by trainees and consultants including those with relevant subspecialist interests. Refinement of the standards was achieved by further peer review and pilot studies. In all there were 10 domains (inpatients, outpatients, endoscopy, HPB, IBD, luminal, nutrition, GIM, education, teaching) each with 5 possible grades (unacceptable, minimum, average, good, excellent). All points within the lowest grade had to be achieved before higher grade could be awarded. All units were then assessed against the standards with completion of the form by consensus trainee opinion. Overall assessment of individual units was also performed by consensus opinion and using a likert scale.

Results 9 hospitals were assessed and significant variations in training quality were identified with large variation in overall grade attainment (range 22–94%). Overall grade and% grade attainment correlated accurately with overall consensus opinion on the relative strengths of units. Poorly performing units were reliably identified and relative strengths of units highlighted. Likert scale assessment was shown to be unreliable with consistently high scores across all units even when overall assessment was poor.

Conclusion Formal standards define how to deliver high quality training, allow objective assessment of units and highlight specific deficiencies in training enabling targeted improvement in delivery. The standards were more reliable than existing methods of assessment. These standards hold the potential to significantly improve training in Gastroenterology in the UK.

Disclosure of Interest E. Britton: None Declared, S. Sarkar: None Declared, P. Flanagan Grant/research support from: Awarded a Shire innovation fund for SpRs.

PTU-013 SIMULATION-BASED HUMAN FACTORS TRAINING IN ENDOSCOPY – PUTTING THE TEAM IN THE SPOTLIGHT

¹S Webster*, ²W Howson, ²A McKay, ²G Smith. ¹Gastroenterology, West Middlesex University Hospital NHS Trust, UK; ²Gastroenterology, Imperial College Healthcare NHS Trust, London, UK

10.1136/gutjnl-2014-307263.87

Introduction Human factors play an important role in adverse incidents and complaints in healthcare. Simulation is increasingly recognised as a safe and effective platform for human factors training. We propose that multiprofessional team-based simulation courses could enhance staff training, staff engagement, patient safety and patient experience in the endoscopy unit.

Methods We designed and delivered four in-situ multiprofessional simulation courses for established endoscopy teams across North West London, using recent clinical incident and complaints

data to inform scenario selection and debriefs. We developed learning resources including a faculty information sheet, pre and post course questionnaires, scenario descriptions and an introductory presentation. We procured an OGD and colonoscopy simulator and invited a patient actor to contribute to scenarios and debriefs. Video feedback was used to inform peer-led discussions. We collected quantitative and qualitative pre and post course data including participant demographics, and Likert scores for course enjoyment, usefulness, relevance and realism. Data was analysed descriptively.

Results A total of 47 endoscopy staff participated in the courses (course size 8–15), including 32 nurse assistants, 11 endoscopists, 3 health care assistants and 1 porter. 70% were female, 55% were aged 35 to 50 and 60% had less than 5 years experience in endoscopy. Post course data analysis showed high Likert scores across all measured domains (1 poor – 5 excellent): 4.74 (enjoyment), 4.81 (usefulness), 4.80 (relevance), 4.33 (realistic). 85% felt that their confidence in managing similar situations in real life had improved. Qualitative data was universally positive, and included: “quality feedback”, “makes you reflect on better practice”, “shared learning”, and “there is a real need for courses such as this”.

Conclusion Endoscopy teams value simulation based multiprofessional learning platforms for human factors training. We believe that 3 key features enhanced learning and course effectiveness: in-situ delivery of courses with established teams, empowering team members of all professional backgrounds to voice clinical concerns, and active participation with supported feedback. We believe that multiprofessional learning platforms have an important place in healthcare improvement and endoscopy teams are well placed to benefit.

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Disclosure of Interest None Declared.

PTU-014 THE USE OF KINEMATIC ANALYSIS OF BILE DUCT CANNULATION AS A MEANS OF OBJECTIVELY ASSESSING ENDOSCOPIC SKILL AT ERCP

¹SJL Ralphs*, ²O North, ²M Ristic, ¹SD Taylor-Robinson. ¹Hepatology, Imperial College London, London, UK; ²Engineering, Imperial College London, London, UK

10.1136/gutjnl-2014-307263.88

Introduction Training in ERCP has become more challenging due to a reduction in diagnostic cases following the introduction of MRCP. There is a need to explore options to assist with basic training and the assessment of competency. There are currently no validated objective tools for this purpose. Simulators have been shown to enhance surgical skill and some there is some evidence to suggest that they can assist training in ERCP.¹ Kinematics, the study of motion, has been used in the objective assessment of surgical skill and endoscopic skill during colonoscopy on simulators but no studies have been done on ERCP.²

Methods 23 candidates perform bile duct cannulation on a modified ERCP simulator. Endoscopic experience ranged from complete novices to HPB consultants. Radiofrequency sensors were attached to the duodenoscope tip and catheter, and the procedures were videoed. Six parameters were measured from a starting point at the pylorus until bile duct cannulation was achieved. These included mean speed, total distance travelled,

trajectory corrections, time to cannulation, time spent planning and number of papilla contacts. A performance score was calculated so that, with the exception of mean speed, a decrease in each parameter equated to an exponentially higher score, equating to greater skill.

Results Kinematic data showed that HPB consultants performed better than other participants at all 6 measures used to calculate the objective performance score. The greatest difference noted was for distance travelled (mean 3976 mm v 720 mm for novices and HPB consultants respectively) and procedure time (318s v 50s for the same two groups). The overall objective performance scores attained by subjects correlated well with their level of experience, and produced significant differences between the three least experienced groups ($p < 0.05$). The mean performance scores were; HPB consultants: 18.9 ($n = 5$), HPB trainees: 17.5 ($n = 5$), general gastroenterology trainees: 13.0 ($n = 7$), novices: 11.1 ($n = 6$).

Conclusion Kinematic analysis of a simulated bile duct cannulation enables the endoscopist's skill to be measured objectively. This method could be used to assist with the training and assessment of this advanced endoscopic procedure.

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Disclosure of Interest None Declared.

Endoscopy I

PTU-015 COMPARATIVE STUDY OF HYBRID TECHNIQUE (HT) VERSUS FLUOROSCOPIC TECHNIQUE (FT) FOR INSERTION OF SELF EXPANDING METALLIC STENTS (SEMS) IN NON TRAVERSABLE OESOPHAGEAL TUMOURS

A Goel*, N Ishaq, E Darling, CJ Shorrock, V Mahesh. *Gastroenterology, Blackpool Teaching Hospitals NHS Trust, Blackpool, UK*

10.1136/gutjnl-2014-307263.89

Introduction SEMS is an accepted palliation for dysphagia in patients with oesophageal cancer. Endoscopic technique (ET) for SEMS insertion has previously been shown to be safe, effective, less time consuming with improved positioning especially of the proximal end of the stent. The obvious limitation of ET is in non-traversable tumours (with standard endoscope), requiring ultraslim scopes which are not widely available. We employ a hybrid approach, using fluoroscopy for dilatation followed by direct endoscopic insertion of SEMS. Aims: To evaluate the outcomes following HT versus standard FT for oesophageal SEMS placement.

Methods Retrospective case note review of all patients undergoing SEMS placement from Nov 2011 to Oct 2013 was performed. Data was collected on patient demographics, endoscopic and other outcome variables including re-intervention rates and survival. Statistical analyses were performed on GraphPad Prism Version 6 and Epi Info 7.

Results 110 procedures were carried out on 96 patients (28 women, 68 men) with a median age 77.5 years (IQR 69–83.25, Range 52–99). 75 patients had adenocarcinoma, 19 squamous