training on safety-related issues in endoscopy, provide an update on ISREE activity and develop new ideas for future strategies.

Methods The workshop consisted of didactic and interactive sessions. Didactic sessions focused on safety metrics in endoscopy, simulation training, learning from incident and anaesthesia in endoscopy. Facilitated group sessions reviewed key areas where renewed focus was required: utilising patient feedback, digital innovation and supporting colleagues.

An interactive electronic voting system and field notes were used to collect data. Measured outcomes were pre and post-workshop knowledge of ISREE-related patient safety topics and self-rated confidence scores against 8 pre-defined statements. Wilcoxon signed rank test was used to assess differences in scores. Thematic analysis was conducted on transcribed data from group discussion and participant feedback.

Results There were 22 attendees from a multidisciplinary background, including gastroenterologists, surgeons, nurses, trainees and human factors/patient safety experts. Globally, there was significant improvement in knowledge scores ($p < 0.001$) and confidence scores following the workshop (see table 1).

Three major themes were identified: developing repositories of good practice through patient feedback, standardising digital referral data and developing coaching and mentoring strategies to support colleagues. The majority (90.9%) of participants felt that the workshop had increased their understanding of strategies to improve safety in endoscopy.

Conclusions The ISREE workshop improved knowledge and confidence in areas of patient safety relevant to endoscopy, with positive engagement from participants. Novel ideas were generated that have informed current and future ISREE strategies.

| P404 | JAG CORE ENDOSCOPY PROGRAMME: A DESCRIPTIVE STUDY OF E-LEARNING ENGAGEMENT |

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Aim The Joint Advisory Group on Gastrointestinal Endoscopy (JAG) core endoscopy e-learning course is designed to provide essential basic training to all endoscopy staff. This study is the first to analyse learners' use of the e-learning platform and engagement with content.

Method Data was extracted from the e-learning for healthcare (e-LFH) platform between Dec 2015 and Dec 2019. The core endoscopy course has 11 individual modules. Data regarding user type, user activity and engagement were collated. Outcomes variables were time per session and completion rates. Descriptive statistics are reported as median and interquartile range (IQR). Statistical differences were assessed using the Kruskal-Wallis test and correlation by Spearman's rank.

Results Between December 2015 and 2019, there were 1835 users of the core endoscopy programme. The top 3 regions based on users were: Midlands (20.6%), North East and Yorkshire (14.9%) and London (12.4%). There was a median of 32 new users per month (IQR 19.5 – 47.5) and 47 active users per month (IQR 30.5 – 71.0). Users included nurses (47.5%), training doctors (16.1%), non-training doctors (11.2%) and healthcare assistants (HCAs; 2.9%). There was no significant difference in active users by month ($p = 0.88$).
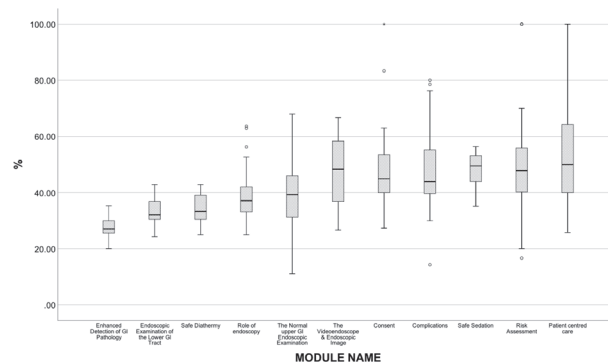
Abstract P404 Figure 1

There were 12,122 session launches with a median of 28 session launches per month (IQR 17.0 – 46.0). The 'role of endoscopy' was the most launched module with a median of 54 launches per month (IQR 31 - 81). Globally, the median completion rate was 42.1% per module (IQR 35.2 – 50.0), which is lower than other similar e-LFH modules (median 48–52%). There were significant differences in completion between modules ($p < 0.001$) with 'patient centred care' having the highest median completion rate (50.0%), as shown in figure 1:

The median time spent per module was 21 minutes (IQR 16 – 28) but there was significant variability in the amount of time spent per module ($p = 0.03$). There was no significant correlation between module completion rate and time spent ($p = 0.05$) or number of assessment questions ($p = 0.12$), but weak correlation with module length (r_s 0.35, $p < 0.001$).

There were significant differences between user types and duration of activity ($p = 0.001$), with HCAs spending the least amount of time per session (median 10 mins, IQR 1 - 20). However, there was no significant difference between staff type and completion rate ($p = 0.56$).

Conclusions There are comparably low completion rates and variability in activity by user groups. These results will inform further changes to the e-LFH endoscopy programme particularly in promoting module completion and improving engagement with specific modules.

| P405 | ENDOSCOPY IN-SITU SIMULATION: EVALUATION OF A NOVEL PROGRAMME IN A TERTIARY ENDOSCOPY UNIT |

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Introduction We developed a pilot programme to learn from adverse events in our unit, using in-situ simulation (ISS). Our programme focuses on Endoscopic Non-Technical Skills (ENTS) development as a means to improve learning.

Methods A pilot study was designed to evaluate outcomes from the first year of our ISS programme. We conducted a pilot high-fidelity, multidisciplinary ISS session followed by debrief, based on an established simulation model. Faculty included a simulated patient, consultant endoscopist, resuscitation officer and research fellow with a simulation interest.

Abstract P405 Table 1

ENTS Domain	PRE-ISS mean confidence	ISS 1 (Major haemorrhage)		ISS 2 (Anaphylaxis)		ISS 3 (Misidentified patient)	
		Mean confidence	*p* value	Mean confidence	*p* value	Mean confidence	*p* value
1	78.86	83.79	0.649	85.67	0.265	89	0.166
2	76.74	82.83	0.549	84.00	0.29	88.6	0.077
3	85.22	92.52	0.101	89.50	0.496	93.2	0.078
4	79.57	86.69	0.342	86.67	0.256	91.2	**0.016**
5	78.39	84.86	0.127	85.83	0.166	90.44	**0.007**
6	76.57	83.90	0.236	86.40	**0.029**	89.6	**0.007**
7	73.48	85.79	0.061	87.50	**0.012**	91.36	**0.003**
8	86.43	89.00	0.684	90.10	0.451	90.6	0.379
9	73.91	81.83	0.303	80.67	0.38	87.48	**0.025**
10	73.39	83.83	0.052	82.27	0.361	87.4	**0.02**
11	76.00	83.17	0.277	84.77	0.102	88.28	**0.007**
12	76.87	85.72	0.107	86.33	0.23	91.28	**<0.001**

An ENTS confidence score was developed and measured at baseline and after the ISS session. Participants were invited to a follow-up focus group to discuss learning opportunities. Results were collated and analysed thematically to inform the core structure of our ISS programme. Two further high-fidelity ISS sessions were run, with outcomes based on confidence scores and participant feedback. Analysis of ENTS scores was performed using pairwise Wilcoxon signed rank tests. Transcribed focus group discussions and participant feedback was analysed thematically.

Results Across all simulation sessions there was a total of 84 participants, of whom the majority were band 5 nurses (50/84; 59.2%). Focus group outcomes were split into learning, barriers to simulation and improving training. Across 12 ENTS domains there was a significant improvement between pre and post confidence scores for all 3 scenarios (*p* < 0.001). A greater number of domains reached statistical significance in the third simulation indicating improved scores with repeated simulation over time (see table 1).

Participant feedback revealed learning subthemes around teamworking, communication skills, leadership, decision-making, situational awareness, strategies for learning and personal development.

Conclusions Our pilot study identified improved confidence in 8 of the 12 ENTS domains with learning focused on non-technical skills development. This study provides the basis for further collaborative work across other centres to validate its use as a teaching tool in endoscopy.

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Introduction Current emergency endoscopy training for gastroenterology trainees is lacking. A pre-course survey of trainees within our trust demonstrated that almost 60% of registrars on the rota at Imperial College NHS Trust did not feel comfortable in emergency upper gastrointestinal (GI)therapy.

Methods All gastroenterology trainees and fellows across all three Imperial College NHS Trust sites were invited to attend an afternoon course on emergency endoscopy.

The course was supported by Pentax, Olympus and Cook who supplied equipment to help in the demonstration and practical sessions.

Section 1 of the course consisted of lecture and demonstration-based sessions including:

- management of peptic ulcer bleeding
- management of variceal bleeding
- Sengstaken-Blakemore tube insertion
- management of post ERCP bleeding
- stack set up & trouble shooting
- use of Hemospray

Section 2 consisted of practical wet laboratory sessions on ex vivo porcine models where delegates were able to manage simulated active ulcer and variceal bleeding.

Results The course was oversubscribed. 19 gastroenterology trainees and 5 nurses attended.

A post course survey was sent out to and responded by all attending trainees. The following responses were obtained:

All lecture and demonstration-based sessions scored 4.7 out of 5 and above for content and presentation.

In particular, the wet lab, practical sessions were felt to be the most useful and delegates rated this highly in terms of decision making and skills development.

Further comments highlighted that trainees valued the course as a forum to discuss specific cases and queries on the management of GI bleeding.

All trainees were happy with the overall organisation of the course scoring it an average of 4.9 out of 5. All trainees indicated that they would recommend the course to others and in addition, some suggested that the course should be mandatory prior to going on to a GI bleed rota.

Conclusions Many trainees feel unprepared prior to going on to an emergency out of hours endoscopy rota.

We have successfully run the first emergency endoscopy course at Imperial College NHS Trust with positive feedback indicating that our trainees now feel better prepared in the management of emergency upper GI bleeding.

There are few courses available in therapeutic endoscopy focused on the management of upper GI bleeding and