

Haemostasis Experience on Completion of Specialist Training in Gastroenterology: Analysis of the JETS e-Portfolio

Keith Siau^{1,2}, John Morris³, A Muruganathan⁴, Brian McKaig⁴, Paul Dunckley⁵

1 Joint Advisory Group on Gastrointestinal Endoscopy, London, 2 University of Birmingham, Birmingham, 3 Glasgow Royal Infirmary, Glasgow, 4 New Cross Hospital, Wolverhampton, 5 Gloucestershire Royal Hospitals NHSFT, Gloucester.



INTRODUCTION

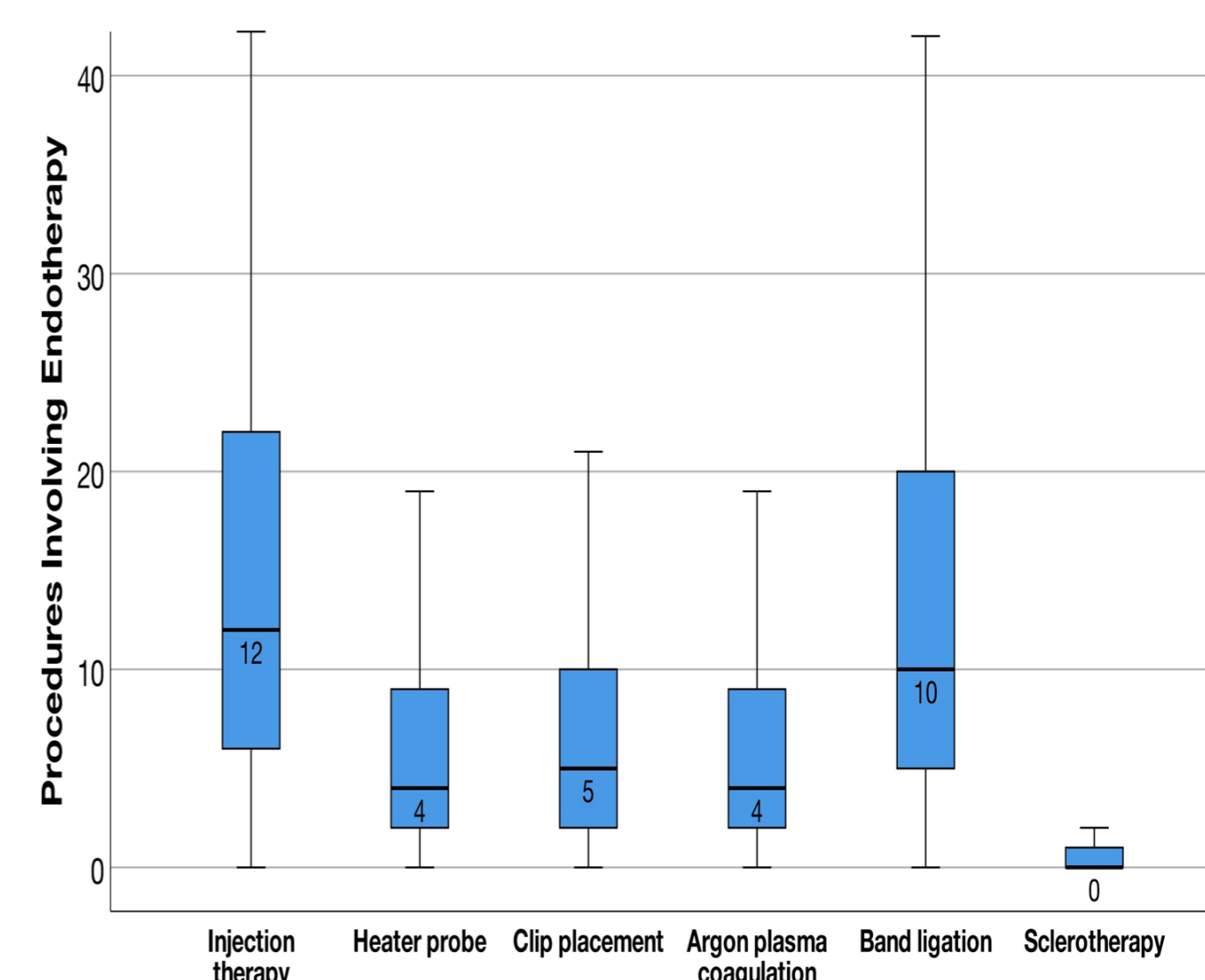
- Gastroenterologists are typically expected to be competent in delivering therapeutic treatment for bleeding from the upper gastrointestinal tract, with the Certificate of Completion of Training (CCT) often heralding the onset of participation in on-call upper gastrointestinal bleeding (UGIB) rotas.
- We aimed to analyse the volume of haemostasis (cessation of bleeding) experience recorded by UK gastroenterology CCT holders on the JAG endoscopy training system (JETS) e-Portfolio and to compare experience across Deaneries.
- The JETS e-portfolio is used by all endoscopy trainees in the UK to record their endoscopic experience and demonstrate their competency progression.

METHODS

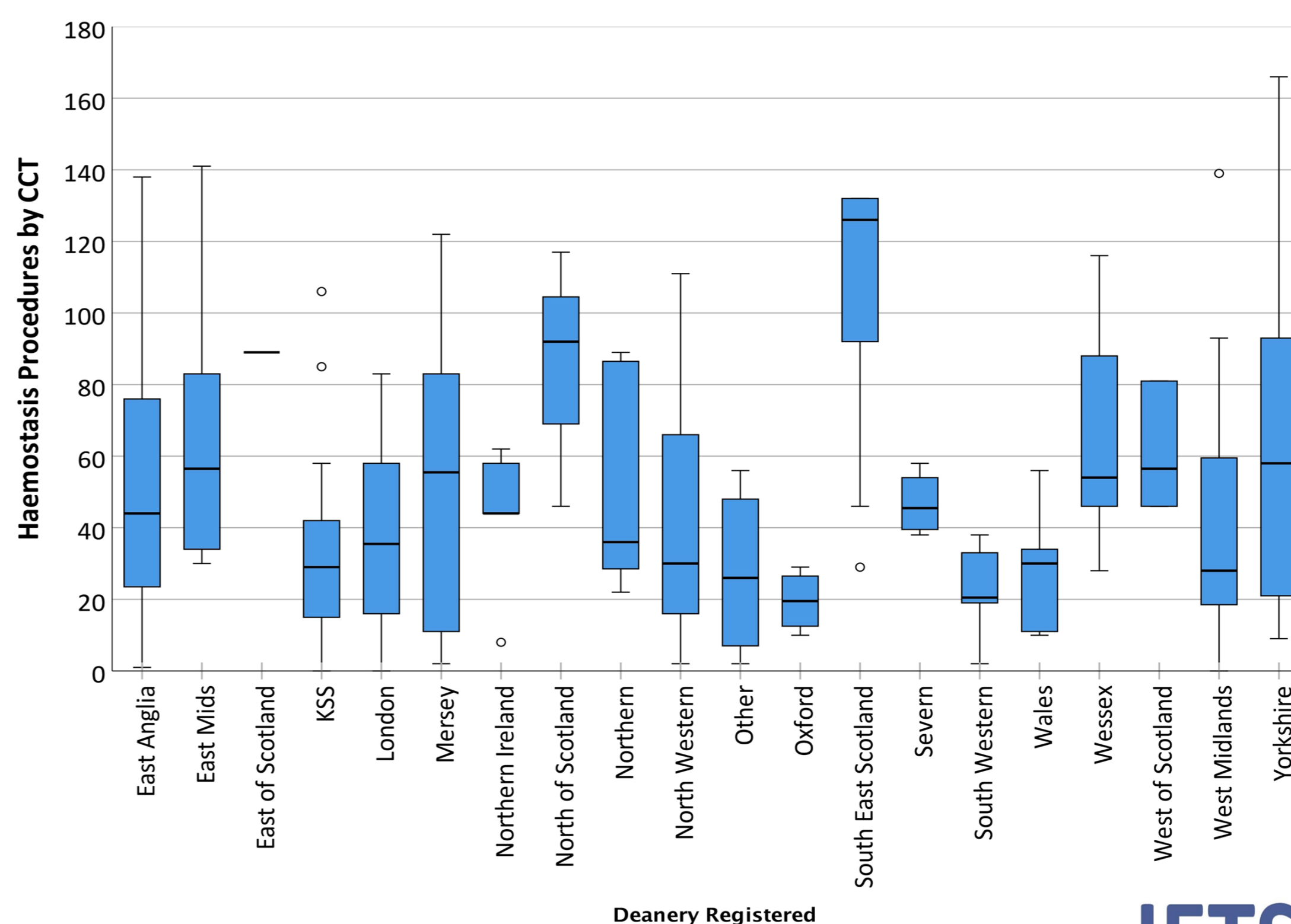
- Retrospective UK-wide study, gastroenterologists awarded CCT between April 2014-April 2017 were identified from the GMC specialist register.
 - Credentials were cross-referenced with JETS to retrieve UGIB endotherapy experience prior to CCT.
 - Subjects without JETS involvement or those not identified on cross-referencing were excluded.
- Sensitivity analyses were undertaken using the lifetime gastroscopy count to evaluate validity of JETS data.
- Haemostasis experience was measured only for JETS-supported modalities and collated according to variceal and non-variceal therapies.
- The outcome measured was the number of recorded procedures requiring haemostasis, e.g. a procedure in which 3 clips were applied was considered as 1 procedure.
- Comparisons of continuous variables were made using Mann-Whitney (2 groups) and Kruskal-Wallis tests (>2 groups).

RESULTS

- Over the 3-year study period, 241 gastroenterologists were awarded CCT.
 - After exclusions (N=9), 232 were included for analysis.
 - Sensitivity analysis revealed a median lifetime gastroscopy count of 854 (IQR 601-1214), without variation over the three years (P=0.817), attesting to data integrity.
- A total of 12,932 endotherapy procedures for UGIB were recorded
 - Each gastroenterologist recorded a median of 42 (IQR 21-71) endotherapy procedures by CCT.**
- Exposure to non-variceal modalities (median 28, IQR 15-52) was more frequent than variceal therapies (median 11, IQR 5-22; P<0.001).
- By modality, adrenaline injection (median 12, IQR 6-23) and variceal band ligation (median 10, IQR 5-20) were most commonly recorded, whilst sclerotherapy experience was rare (median 0, IQR 0-1):



- Exposure to UGIB haemostasis did not differ by year of CCT (P=0.130).
- However, there was significant variation by deanery (P<0.001), with medians of pre-CCT endotherapy procedures ranging from 19-126:
- On subgroup analysis, this variation was found for non-variceal (P=0.003) and variceal (P<0.001) modalities.



JETS JAG Endoscopy Training System

CONCLUSION

- Haemostasis experience by CCT appears to vary by training deanery and by type of endotherapy.
- National survey data may help to elucidate the reasons for differences in training across the UK.
- Implementation of standardised UGIB hands-on training courses and plans for UGIB certification may help to support and quality assure training in endotherapy.