

Improving the radiology resident-led acute intervention service at University

College London Hospitals

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Background

- At UCLH, residents lead a daily 'acute intervention' service providing urgent ascitic and pleural drains, as well as other basic ultrasound-guided aspirations/drainages

Issues raised

- Challenges meeting expected interventional competencies (Table 1)
- Increasing complexity of listed procedures
- Inconsistency in the escalation process for challenging and/or complex cases

Aim

- Evaluate the acute intervention service to identify and quantify the issues
- Recommend and implement initiatives targeted at improving the safety and quality of the service, and assess the impact

Methods

- Two cycles of data collection, each over 1 month
- Quantitative data on workload/procedures
- Qualitative and quantitative survey data from residents on their competencies

Milestones and procedures	ST1	ST2	ST3	ST4	ST5
Basic image guided drainage	1	2	2	3	4

Table 1: Minimum expected progress level at the end of each stage of training (1).
1 – Observe only, 2 – Act with direct supervision, 3 – Act with indirect/minimal supervision, 4 – Act unsupervised.

Initiatives

- Simulation sessions facilitated by interventional radiology (IR) trainees organised for all residents
- New residents now receive dedicated interventional exposure during ST1 (not done previously)
- Consensus reached in collaboration with IR regarding procedures appropriate for resident-led vs interventional radiology-led intervention
- Dedicated IR consultant rota as point of contact/support during lists

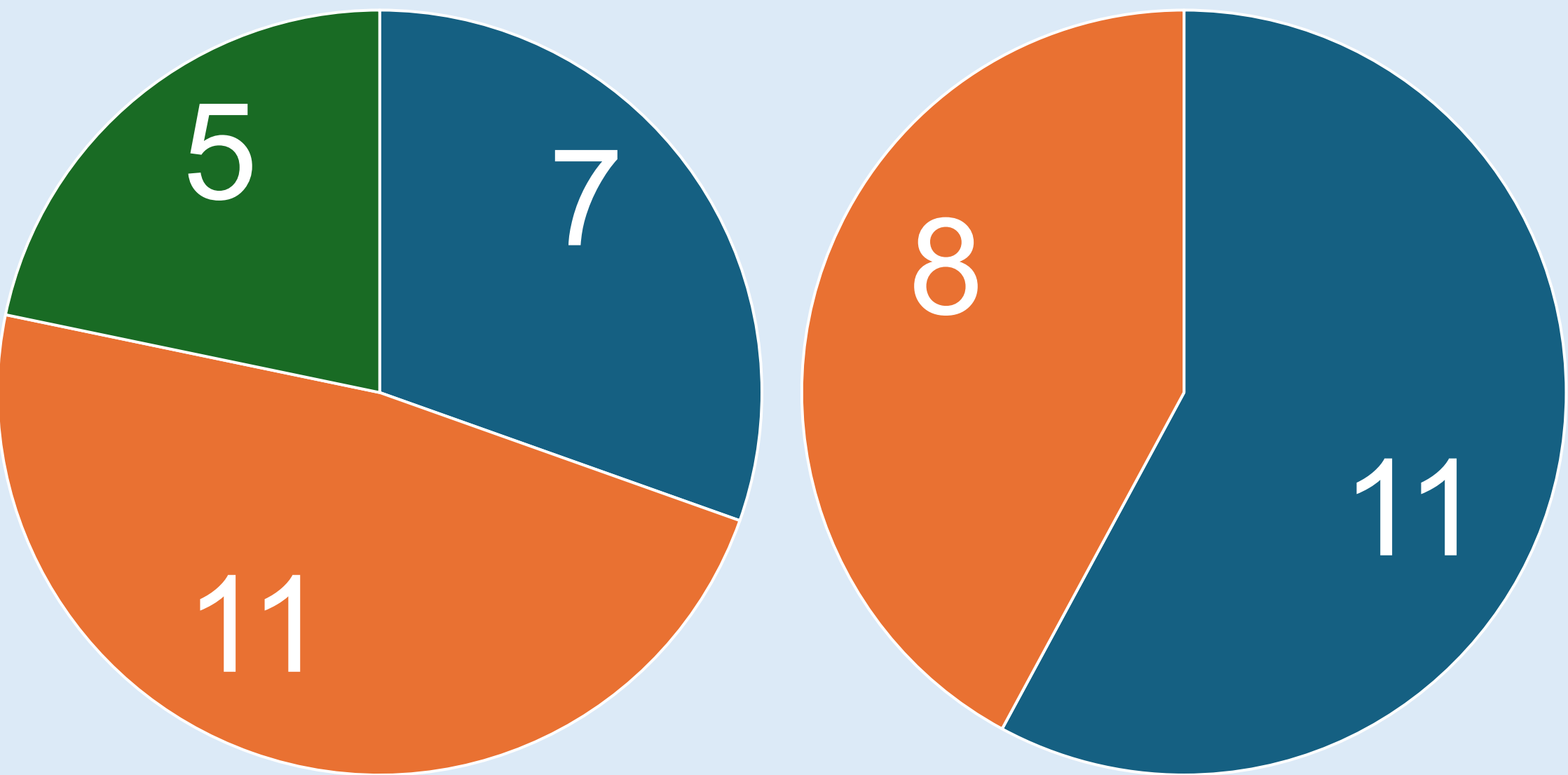


Figure 1: Numbers and types of procedures before and after initiatives.
Orange – ascitic; blue – pleural; green – intra-abdominal/abdominal wall.

	Before initiatives (number/total (%))	After initiatives (number/total (%))
Competence for pleural drainage	10/13 (77%)	7/8 (88%)
Competence for ascitic drainage	12/13 (92%)	8/8 (100%)

Table 2: ST4/5s reaching expected competencies before and after interventions.

Results

- Improvement in registrars meeting competencies (Table 2)
- Decrease in the number of complex interventions on registrar-led intervention (Fig. 1) - now done on IR lists
- Decrease in volume of cases that 'usually or sometimes' need senior support (50% vs 78%)

Conclusions

- The implemented initiatives have been successful in improving resident competencies and the safety of the sessions
- The initiatives used were sustainable, cheap, and relatively straightforward to implement; these could be used as a framework for the improvement of similar services elsewhere
- Ongoing reassessment aims to ensure positive trends continue

References

- The Royal College of Radiologists. Clinical Radiology Specialty Training Curriculum. London: The Royal College of Radiologists, 2019.