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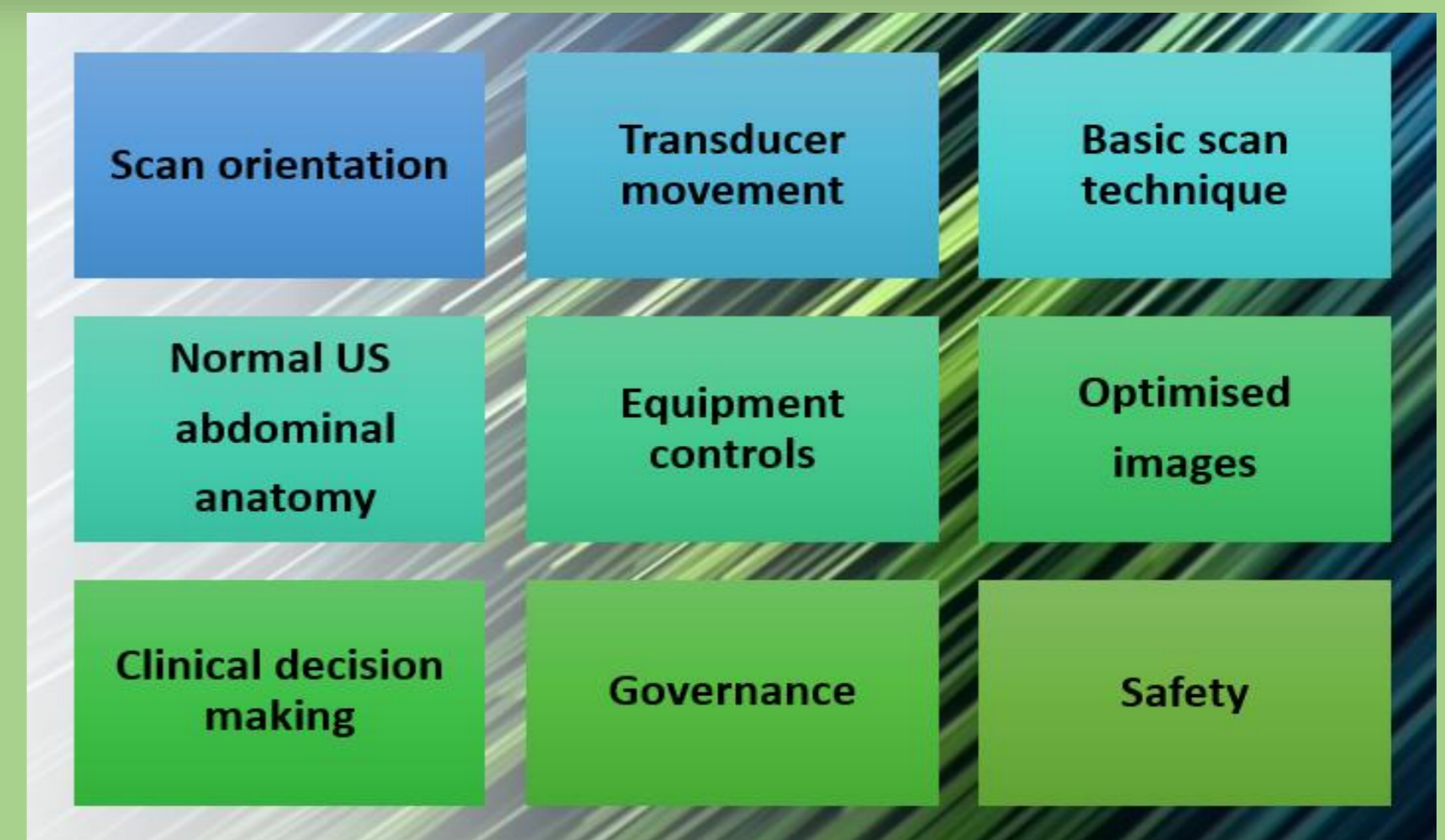
Rationale There is a critical need to challenge the way training for sonography is conducted in the early stages of learning ultrasound technique^{1, 2}. To support training across specialties and at scale, all early-stage skills development needs to be moved **out of the clinical department** and **achievable within a short timescale**. Training capacity is also challenged by a multitude of healthcare professionals across specialties who wish to develop ultrasound skills. The breadth and complexity of training requirements across the current and emerging diagnostic ultrasound landscape is therefore challenging. As demand for ultrasound continues to outpace training numbers, the demand for a 'quick fix' is high, and perhaps justified.



SHIFT is a 1-week high intensity short-course allowing trainees to focus on skills development in a week of immersive simulation-based learning. Activities are focused on nine core elements

Aim was to enable trainees to enter clinical placement with minimal disruption to service delivery and reduced impact on supervising staff.

SHIFT was **piloted September 2022** with funding from Health Education England (Now NHSE)



Delivery

Practical activities

- Simulation
- Normal volunteer scanning
- Live demo
- Patient simulations
- Informal skills assessment

Classroom activities

- 'Micro-seminars'
- Daily formative assessment
- Case presentations
- Report writing
- Image review

Student activities

- Pre-reading
- On-line tutorials
- Video review
- Workbook (to support learning)

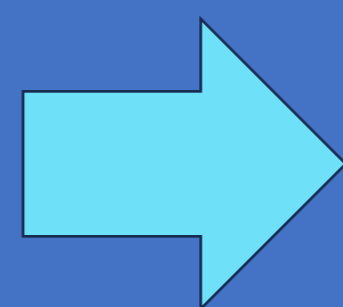
Initial cohort 23 regional radiology trainees. Prior experience of ultrasound ranged from none (n=11) 2 days or less (n= 11) 6 months (n=1). Triggered assessment tasks (based on the 9 core learning elements) were completed successfully by all 23 trainees. By day 5, **all trainees** had achieved target outcomes demonstrating good spatial awareness, transducer control and adaptation of technique.

Immediate post course evaluation Trainee peer-to-peer conversations around a series of prompt questions were captured via virtual 'listening rooms'³ using Blackboard Collaborate. Thematic analysis undertaken by independent research assistants (not faculty) provided detailed insight into trainee perceptions of the course.

9 months post course questionnaire. 100% of trainees *agree* or *strongly agree* re the value of early-stage intervention on confidence, skills acquisition and positive perception of ultrasound. 83% of trainees confirmed that they would consider developing ultrasound as a specialist focus of their future practice.

Outcomes

- Low pressure learning environment
- Highly structured learning / task repetition
- Expert guided practice
- Adaptive technique



Rapid increase
in trainee
conscious
competence



Conclusions

- SHIFT is a highly effective but resource intensive intervention. Funding is essential.
- There is limited value in SHIFT if this is not followed by adequate supported scanning sessions in clinical placements.
- There needs to be 'buy in' from clinical teams to support this process and avoid disruption to clinical service during the early stages of training
- We need to challenge the rhetoric that clearing the "clinical backlogs" should take priority over training. Without training, services will crumble

