culminates in summative assessment. Educational effectiveness was evaluated through curriculum-linked pre- and post-course tests, and self-rated confidence using Likert scales.

Figure 1-A51: Ultraviolet tracers are used to replicate contact and airborne transmission of infectious pathogens in simulation scenarios

Findings: Between 01/12/22 and 01/04/23, 57 specialized clinicians participated. All participants passed post-course competency-based practical assessments. Participants demonstrated significant gains in knowledge between pre- and post-course tests (mean score 61% vs. 83%, p = <0.0001). Pre-course, 36% (19/53) of learners reported feeling confident or very confident at PPE donning and doffing, rising to 97% (32/33) post-course. All participants rated their learning experience as high or very high quality.

Conclusion: This is the first HCID simulation course internationally using ultraviolet markers to allow visualization of contamination. The course appears to be an effective educational intervention and improves learner confidence in PPE use.

Ethics statement: Authors confirm that all relevant ethical standards for research conduct and dissemination have been met. The submitting author confirms that relevant ethical approval was granted, if applicable.

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DESIGN

A52 PROBING FOR VEINS: A COST-EFFECTIVE, REPRODUCIBLE METHOD FOR TEACHING ULTRASOUND-GUIDED PERIPHERAL INTRAVENOUS ACCESS

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Background and aim: Repeated attempts at peripheral intravenous (PIV) access cause increased discomfort and delays in treatment for patients in hospital. The use of ultrasound can improve success in PIV access, benefitting patient experience. Medical professionals are increasingly expected to use ultrasound when landmark techniques fail [1]. We sought to improve confidence using ultrasound for PIV cannulation with low-cost simulation models made from ADAMgel [2] or tofu in multiple teaching sessions.

Activity: We organized teaching sessions with multiple specialties at St Richard's Hospital. A total of 48 members of staff have been taught over four sessions. Prior to the teaching session learners were asked to complete a survey identifying previous ultrasound experience and rating confidence using ultrasound for PIV access. The teaching session consisted of an introductory multimedia presentation with a video demonstration, then practical experience. Models consisted of water-filled balloons placed in ADAMgel (Aqueous Dietary Fibre Antifreeze Mix gel) or tofu to simulate human tissue and veins, Figure 1-A52. Red dye added to the water in the balloons produced 'flashback' in the intravenous cannula. Modification of difficulty was achieved by changing the balloon depth. We then conducted questionnaires immediately after the sessions for feedback.

Findings: The initial survey identified only 29% of staff had previously used ultrasound for PIV access, and half of these (15% overall) had only used it once or twice a year. Using a five-point Likert scale, 74% of respondents rated their confidence in using ultrasound as one or two out of five. All respondents thought they would benefit from further teaching in PIV access. Feedback after teaching sessions was favourable, with 95% of respondents finding the session very useful and 95% also believing it would increase their use of ultrasound in clinical practice. After the session, more than half rated their confidence in ultrasound cannulation as four or five out of five.

Conclusion: We have demonstrated that there is a desire from medical staff to increase their competency in ultrasound-guided PIV cannulation. Using low-cost, high-fidelity simulation models with a blended learning method, we can deliver teaching sessions to a large number of medical staff. We hope to continue this teaching in collaboration with our sister sites throughout Sussex to increase confidence with ultrasound-guided PIV cannulation in this region.

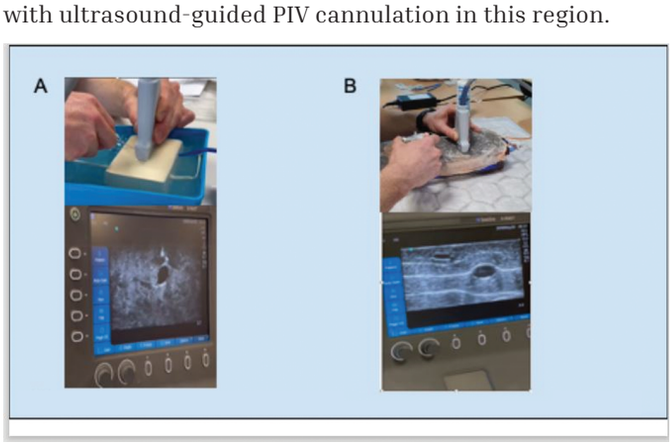

Figure 1-A52: Models used to deliver teaching sessions. After ADAMgel became available this has been used exclusively due to it being more reusable compared to the tofu models A: tofu model with ultrasound image underneath.

B: ADAMgel model with ultrasound image underneath

Ethics statement: Authors confirm that all relevant ethical standards for research conduct and dissemination have been met. The submitting author confirms that relevant ethical approval was granted, if applicable.

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QUALITY

A53 SIMULATION EQUIPMENT - WHAT DO YOU HAVE? WHAT DO YOU DO WITH IT?

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10.54531/CEGB9559

Background and aim: Educators and workforce planners appreciate that clinical skills development and simulation-based learning are key strategic responses to safe and effective service provision and a sustainable workforce. However, some simulation-based experiences require simulators costing tens of thousands of pounds. In order to promote a 'Once for Scotland' approach, collaboration is essential to encourage sustainability by enabling sharing of equipment, training materials, processes, procedures and faculty between boards. Although there have been other scoping exercises [1], we believe that this the first to take place at a national level. This scoping exercise aimed to:

- Establish what equipment is available in the territorial health boards;
- Clarify the types of skills-based courses being run across NHS Scotland;
- Connect and encourage collaboration between simulation providers

Activity: Information was gathered via Teams discussions and questionnaires. The responses were collated into Excel spreadsheets. These have been linked into an application to present the data in a more user-friendly manner online (Figure 1-A53).

Findings: Responses reveal that:

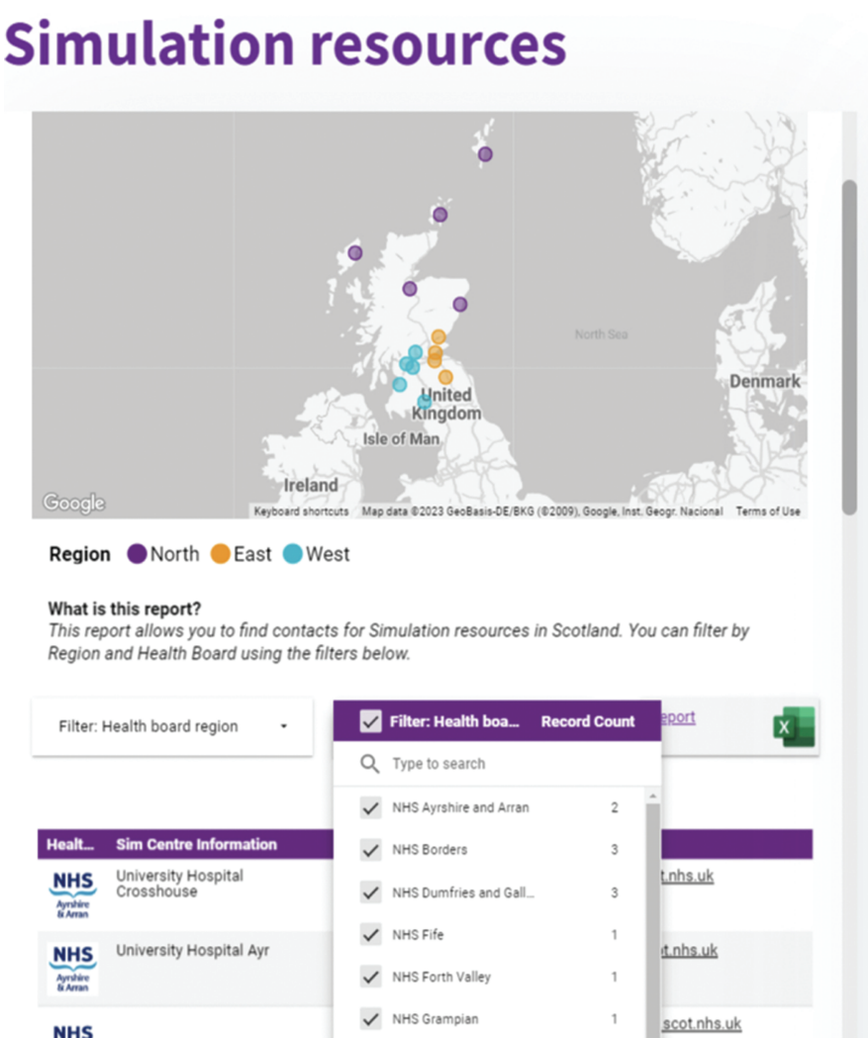

Figure 1-A53: Interactive map of simulation resources in Scotland