

Implications for practice: This study demonstrates the effectiveness and usefulness of delivering US-guided vascular access training to DGH paediatricians. It enabled improved self-reported confidence, which translated into improved patient care in real-life scenarios. Following its success, we intend on running this as an ongoing session. For clinicians wanting to utilize their skill on real patients, this will be supervised by our ANP. We recommend that all UK paediatricians train in US vascular access to enable optimal care for paediatric patients in all hospital settings. However, further research in a larger cohort of participants is required. We also recognize the variability in available expertise and equipment in all units to undertake the training. The importance and role of US-guided paediatric vascular access are still lacking in recognition and demands wider acceptance.

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17 **IMPROVING RESUS HANDOVER FOR CRITICALLY UNWELL AND INJURED PATIENTS**

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Background: During a single patient journey from admission to hospital discharge, multiple clinical handovers may occur between health professionals from different specialist inpatient teams and between staff at shift changes. Each handover carries a degree of risk for the patient. It is well recognized that poor communication during handovers has resulted in a significant proportion of preventable deaths ^[1]. The World Health Organisation (WHO) has therefore included clinical handover in the 2020 Global Patient Safety Action Plan as one of the key areas of patient care that requires robust processes and policy to ensure and improve patient safety ^[2]. Although handover involves risk, it is a vital part of patient care. It is often the primary source of information for health professionals taking over patient care. However, handover in resus could often feel stressful and chaotic with multiple distractions and variability in the information conveyed. It was also apparent that staff from both ED and SAS were not satisfied with the handover process. During debrief sessions, handover was often mentioned as an area of practice that required change.

Aim: The aim of our quality improvement (QI) project was to improve the handover process between Scottish Ambulance Service (SAS) staff and Emergency Department (ED) staff for critically unwell and injured patients arriving into resus. In addition, we aimed to improve communication and staff satisfaction with the handover process.

Methods: By utilizing QI tools such as the model for improvement, process mapping and driver diagrams, change ideas were identified and trialled using inter-professional simulation as part of PDSA (Plan, Do, Study, Act) cycles. This project involved engagement with ED and SAS staff members via online surveys, simulation sessions and staff education.

Results: We increased staff satisfaction with the handover process from 24% to 88% and no adverse events relating to our changes were reported.

Implication for practice: From the information gathered during PDSA cycles, a new standard operating procedure (SOP) for handover in resus was created.

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176 **DOES HIGH-QUALITY LEARNING NEED HIGH-FIDELITY SIMULATION? EXPERIENCE FROM OBSTETRIC THEATRES PREPARING FOR THE FIRST WAVE OF COVID-19**

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Background: In early 2020, medical teams globally faced the challenge of preparing for an unprecedented clinical situation. As well as the predicated scale and severity of the COVID-19 pandemic clinical teams were generally inexperienced in dealing with an infectious agent of this nature. Simulation, particularly high-fidelity, plays an important role in preparing for novel, high-stakes situations. However, at this time, all clinical departments were simultaneously occupied with such preparation. This placed unprecedented demand on resource-dependant, high-fidelity simulation. Here we share our use of multiple simulation modalities, ranging from low- to high-fidelity, to prepare our multi-disciplinary obstetric theatre team for the arrival of the COVID-19 pandemic.

Aim: The aim of the study was to prepare the local team to manage COVID obstetric patients within the theatre environment, particularly in the context of obstetric emergencies. This preparation must take the form of both institutional learning (the creation of a standardized protocol specifically adapted for obstetric theatres) and individual learning (familiarity by individual team members with guidelines and their roles within them).

Method: Multiple modalities of simulation were utilized (Table 1), ranging from ‘talk-through’ – table-top discussion utilizing paper prompts, such as a map of the theatre complex (Figure 1) – to high-fidelity *in situ* simulation. Whilst only a single high-fidelity simulation was performed, the other modalities were employed numerous times.

Table 1:

Modality	Site	Roles	Timescale	Equipment
Talk-through	Off site	No assigned roles	Non-real time	Tabletop. Simple paper prompts, including guidelines and map of theatre complex
Walk-Through	In-situ	No assigned roles	Non-real time	No simulated patient, equipment identified but not used
Low-fidelity	In-situ	Assigned roles	Non-real time	Low-fidelity mannequin Equipment present but only some items used
High-fidelity	In-situ	Assigned roles	Real-time	Live simulated patient, equipment, including PPE, used as in real clinical practice

