and cleaning auditing; cohorting infants; mass screening infants and environment; and reduction of equipment in clinical areas. Our NNU has an active multidisciplinary simulation programme. Simulation is an effective educational tool to increase competence of healthcare providers [2]. We wanted to use simulation to highlight the ease of transmission of particles from a colonised infant.

Methods: The simulation involved a preterm 28-week infant corrected to 35-week gestation with numerous desaturation episodes. The baby was known to be colonised with pseudomonas. A 'monitored' low-fidelity manikin was placed in a cot in an isolation room. Candidates were unaware that the manikin was covered with ultraviolet powder. The manikin had numerous desaturation and bradycardic episodes necessitating airway and breathing support, clinical assessment, and septic screen. The spread of powder was assessed afterwards with a black-light.

Results: The simulation lasted just 8 minutes. There were exemplary unprompted infection-prevention measures with appropriate handwashing and personal protective equipment. Despite this the powder spread to staff facemasks, stethoscope, resuscitation equipment, patient trolley, and monitor.

Conclusion: This demonstrated the ease of transmission of particles to other surfaces despite adherence to infection prevention policies. Most striking was the transmission to candidates' facemasks which are not routinely changed, and could be a potential risk of carriage of microbes to other infants.

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SIMULATING COMMUNITY OBSTETRIC AND NEONATAL EMERGENCIES

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Background: Childbirth can be unpredictable in its timing and clinical course. Low-risk pregnant women can choose to deliver their infants at home, with 1 in 50 women in England and Wales choosing a home birth [1]. However, for those giving birth for the first time, there is an increased risk of adverse perinatal outcomes when compared to an obstetric unit – 5 in 1000 for a hospital birth compared to 9 in 1000 for a home birth [1], and 45% of nulliparous women are transferred to an obstetric unit [2]. Obstetric emergencies can occur and infants are born in poor condition. In these cases, every minute matters to reduce morbidity and mortality. Expertise and resources are also limited in the community; midwives and paramedic crews must work synergistically to achieve the best outcomes. Our aim was not only to show ideal clinical management of a combined neonatal and obstetric emergency but also to explore multidisciplinary team working, communication, and human factors of these complex situations.

Methods: The simulation involved a low-risk term pregnant woman who has chosen to have a home birth. It was filmed in a house for authenticity. In attendance were a community midwife and maternity assistant. The baby was born in poor condition: floppy, pale with no respiratory effort, and bradycardic. Neonatal life support was given up to and including chest compressions with good recovery of heart rate but no spontaneous breathing, therefore, requiring supraglottic airway insertion. The handover was given to the paramedics and the infant was conveyed to the neonatal unit. The scenario then unfolded with the mother also having a postpartum haemorrhage requiring oxytocin, syntometrine, misoprostol, tranexamic acid, and fluid resuscitation, utilising a second paramedic crew and transfer.

Results: The simulation was recorded as exemplary management of this situation. It will be used to deliver training to West Midlands Ambulance Service and community midwives; aiding as a discussion point for clinical management, communication strategies, team leadership, roles, and delegation. We will collate written feedback on its impact on both paramedic and midwifery confidence levels. The community midwife, midwifery assistant, and paramedics who attended stated how much it had increased their confidence in managing a dual emergency, and affirmed their roles and responsibilities in such cases.

Conclusion: We expect that with increased staff education and confidence, the outcomes of babies born in the community in unexpectedly poor condition will improve.

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WIDENING ACCESS TO SHINE (SIMULATION TO HELP IN NEONATAL EMERGENCIES) TO INCLUDE NEONATAL QUALIFIED IN SPECIALTY (QIS) COURSE STUDENTS

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Background: Simulation is known to improve clinical skills and team communication. A full-day neonatal emergency simulation course was established in 2018 for paediatric postgraduate doctors in training. It consists of four scenarios and two workshops for eight candidates; running 4 times per year. The candidates are split into 2 groups allowing each to 'lead' a scenario with traditionally faculty placed as nursing plants. In contrast, simulations run on our neonatal unit involve both nursing staff and medical candidates, allowing for true multidisciplinary working. Access and funding for simulation can be more difficult for nurses but it is known that the protected environment and the sense of security enhance nursing students' self-esteem and confidence, thus promoting learning [1]. The aim of the study was to make the SHINE course more authentic to real life with a multidisciplinary approach to the scenarios; to see if inviting

neonatal unit nurses to the course affected the postgraduate doctors in training feedback (which has always been consistently positive); and to assess if the nurses felt it was beneficial for their training.

Methods: We invited four nurses to SHINE who were about to complete their Neonatal Qualified in Specialty (QIS) Course. They took the nursing role in the scenarios either caring for the baby (a manikin) in the neonatal unit or carrying the labour ward delivery nursing bleep. We evaluated the relevance, confidence levels, and the learning environment for both the doctors and nurses attending the course via a written anonymous survey.

Results: The doctor's feedback was very positive and comparable to previous courses ran with all of them recommending the course to their colleagues, and they felt they had enough opportunity to interact. The nurses felt sessions were very relevant to their current practice and all of them improved their level of confidence. They felt there was the correct number of scenarios and workshops; that the debriefings were well structured and educational; the learning environment was safe and supportive; and all would recommend the course to a colleague. Comments included 'Really enjoyed the day and it has definitely helped me to feel more confident – especially as I've only just started holding the bleep.'

Conclusion: SHINE is a well-established sought-after course shown to be effective and highly valued by paediatric postgraduate doctors in training. Given the positive feedback, we will be inviting four nurses to each SHINE course and integrating it in to Qualified in Specialty training.

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TESTING THE SYSTEM: INFANT 'ABDUCTION'

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Background: Infant abductions from hospital are rare events but make headline news. A US study examined 247 infant abductions between 1983–2006 and found nearly half were abducted from healthcare settings [1]. Abduction risk reduction strategies are also considered during the Care Quality Commission's inspection of each maternity unit [2]. The baby tagging system was updated in our hospital in April 2020, training undertaken and subsequently reinforced with e-learning. In our hospital, many families have safeguarding concerns. These are considered the highest potential risk for infant abduction so it is essential the system and processes provide protection. The aim of this simulation was to test the processes currently in place for a tagged baby abduction from an inpatient ward to highlight good practices and identify system failures.

Methods: An activated tag was assigned to a manikin on the transitional care unit. The manikin was removed, in a carrier bag, by a faculty member ('the abductor') tailgating a leaving staff member thus preventing the ward doors from automatically locking when the tag is near the sensor. The 'abductor' took the lift to the ground floor and walked out of the main entrance within three minutes. Faculty members were placed in transitional care (TC), the main entrance, and another tracking the tag's location. A timeline of events was recorded and analysed. Simulation participants were debriefed, including staff directly involved, parents on TC, front of house staff, and senior managers.

Results: It was evident from the debriefing that this caused significant distress to some staff members who felt helpless and uncertain when faced with this scenario. It highlighted how quick and easy it is to leave the hospital with a baby. Important human factors were identified including discrepancies between emergency call requests and responses, and poor knowledge about the abduction of baby policy. System problems were found: hospital 'lockdown' locked internal doors preventing responder actions but not all external doors; and the tagging system did not respond as expected – locking the doors to the ward and an inaccurate final tag location.

Conclusion: Multiple deficiencies in the system were found so an action plan has subsequently commenced. New external doors have been added to automatic lockdown and a new main entrance door system proposed. Tagging engineers are addressing the automatic locking of internal doors and tag location, switchboard calls are to be standardised, and the standard operating procedure is being reviewed and recirculated.

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THE IMPORTANCE OF SIMULATION TECHNICIANS' INVOLVEMENT IN EDUCATORS' CONFERENCES AND EDUCATIONAL EVENTS

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Background: Simulation technicians are a vital part of simulation teams and facilitating simulation sessions. Additionally, they help to materialize the educators' vision [1]. There is a gap between what educators expect from technicians and how well technical staff perform based on the instructions given. To support simulation-based education understanding of the educational philosophy underpinning simulation processes used by educators would improve and enhance the abilities of the technician. A survey-based review recommended exploring opportunities that simulation technicians have and to create more opportunities for technicians to get involved [2]. Not having sufficient knowledge and understanding can impact on the overall preparation and requirements from the technician. Full understanding between instructional and educational principles will close the gap and allow simulation technicians to have a deeper role and active part of simulation-based education. This allows simulation technicians to go beyond the technical skills and technical terminology especially for those whose background is non-clinical. The overall aim is to explore what opportunities simulation technicians have to participate in educational simulation events to enhance their knowledge, skills, and effectiveness of their role.