56 'ABDUCTED BABY' SIMULATION: TESTING THE SYSTEM TO OPTIMIZE PATIENT SAFETY ON A NEONATAL INTENSIVE CARE UNIT

Diana Aguirre[1], Matthew Nash[1]; [1]*Birmingham Women's and Children's NHS Foundation Trust, Birmingham, UK*

10.54531/IHQQ5470

Background: Infant abductions are rare distressing events. The Care Quality Commission recently highlighted inadequate protective measures in other trusts as a cause of major concern [1]. In April 2020, the security system in our Neonatal Intensive Care Unit (NICU) was updated, with a new baby tag system. A tag is placed onto each baby in NICU, and if this tag is within close proximity of an exit door, an alarm sounds and the door locks.
Aim: The aim of the study was to test our existing patient safety system in a real-life situation looking at human factors and equipment functionality.
Method: An activated baby tag was placed on a mannequin which was then put into a pram. A member of staff in disguise (the 'abductor') pushed the pram out of the neonatal unit by 'tailgating' another member of staff so that the doors would not automatically lock, replicating a potential real-life scenario that exploited a known risk. The aim was to see whether the mannequin could leave the hospital. The 'abductor' was eventually stopped from leaving. A detailed timeline of events was recorded and analysed. Safety was ensured and participants were individually debriefed as emotions were high.
Results: Our simulation highlighted points of excellence including a quick and calm response, the use of the panic button and appropriate persistent challenge of the 'abductor' without aggression. Important human factors were highlighted. There is no security staff in the hospital. The ward clerks called the porters directly, rather than dialling 2222 and saying 'lockdown', which triggers a lock of all doors out of the hospital. There were several system failures. The baby tag system did not alert the front of house. The panic button was broken, and a set of doors out of the hospital did not lock.
Implications for practice: Simulation is an effective tool to identify system failures and patient safety risks. This scenario highlighted deficiencies in our system and a lack of established procedures and training. A detailed action plan has been put in place. The panic alarm, door locking mechanism and system linking the baby alarm system to the front of house are being addressed. The option of an automatic lockdown on activation of the baby tag alarm system is being explored. Finally, a standard operating procedure is being written and learning disseminated in the department. We are planning to run this simulation in other areas of the hospital to optimize patient safety.

REFERENCE

1. Care Quality Commission. Inspection framework – NHS acute hospitals – additional service: Neonatal services. 2017.

120 CERVICAL SPINE INJURY IMMOBILIZATION AND MANAGEMENT: ADDRESSING THE GAP IN KNOWLEDGE AND IMPROVING SYSTEMS THROUGH MULTI-DISCIPLINARY *IN SITU* SIMULATION IN A BUSY EMERGENCY DEPARTMENT

George Pughe[1], Matthew Smith[1], Ben Atkinson[1]; [1]*Queen Alexandra Hospital, Portsmouth University Hospitals Trust, Cosham, UK*

10.54531/TYCP3840

Background: Cervical spine (C-spine) injuries are a significant cause of morbidity and mortality, particularly in the elderly population [1]. The Canadian C-spine Rule is sensitive in determining which patients require immobilization and radiological investigation [2]. Junior clinicians entering Emergency Medicine (EM) may not have had previous career exposure to trauma and may be uncomfortable approaching such injuries or using similar assessment tools. *In situ* simulation offers an opportunity to build confidence and learn from human interactions, typically only encountered during 'real-life' exposure.
Aims: The aims of the study were to identify clinician knowledge gaps when starting EM, create a simulation-based teaching program to address these weaknesses and to improve multi-disciplinary systems relating to C-spine injury immobilization and management.
Methods: A sample of 20 clinicians finishing their EM rotation in April 2021 at Queen Alexandra Hospital, Portsmouth, completed a survey listing conditions/procedures they would have appreciated simulation scenarios on as part of induction. A 30-minute C-spine simulation station was designed focussing on knowledge gaps identified, incorporating Canadian C-spine rules, immobilization, radiological investigation and treatment. Sessions were delivered *in situ* to groups of 5–10, including doctors, trainee acute care practitioners, nurses, healthcare assistants and physician associate students. Feedback was collected gauging enjoyment, confidence levels before and after the session as well as the likelihood of application of the topics covered soon. Data were collected from candidates at the end of their rotation to assess the lessons learnt.
Results: About 70% of surveyed candidates included 'C-spine' within conditions/procedures they desired simulation teaching on. Candidate feedback suggested high levels of enjoyment with 100% of candidates scoring 7 or 8/8. The mean confidence of candidates before and after the session increased by 30.6% (52%–82.6%). 100% of candidates felt that the session was useful in improving day-to-day practice and 67.7% of candidates envisaged implementing teachings within the next week (96.8% within the next 3 months).
Implications for practice: In a busy department, it is important to prioritize education and address workforce knowledge gaps. Trauma and C-spine injury appear to be an area of under-confidence in junior clinicians starting in EM. Short *in situ* simulation sessions were an effective and flexible way of improving confidence and multi-disciplinary systems, avoiding disruption during busy periods. We believe that repeating similar teaching programmes at the start of a new clinician intake can aid in identifying gaps in knowledge and effectively addressing these early and improved systems operation throughout the rotation.

REFERENCES

1. Atinga A, Shekkeris A, Fertleman M, Batrick N, Kashef E, Dick E. Trauma in the elderly patient. Br J Radiol. 2018;91. doi: 10.1259/bjr.20170739
3. Stiell IG, Wells GA, Vandemheen KL, et al. The Canadian C-spine rule for radiography in alert and stable trauma patients. JAMA. 2001;286(15):1841.

7 COVID-19 VACCINATION CLINIC EXPERIENCE: USING SIMULATION TO CREATE AND TEST SYSTEMS

Lynn Garland[1]; [1]*University Hospitals Bristol and Weston NHS Ft, Upper Maudlin Street, UK*

10.54531/YKMW2498