A REPORT ON A NOVEL SIMULATION INTERVENTION TO UP-SKILL ADULT TRAINED PHYSIOTHERAPISTS TO PROVIDE OUT OF HOURS SUPPORT TO PAEDIATRIC RESPIRATORY PATIENTS


Background Simulation is now seen as integral to the patient safety movement. At our Trust, the simulation team sit on the patient safety committee to identify situations whereby simulation may be a suitable response to error. A recent serious incident (SI) at the hospital identified a lack of competence and confidence amongst the adult on call physiotherapy team in managing children and adolescents admitted with respiratory disease. There is no dedicated paediatric respiratory physiotherapist at the Trust despite children with increased complexity now being deemed suitable for admission to the short stay children’s unit.

Project description After engagement with all relevant stakeholders, a one day simulation course covering the five most common and daunting respiratory conditions in children was devised including bronchiolitis, pneumonia in the well neonate, post-op atelectasis, respiratory distress in the context of cerebral palsy and pneumonia in the child with complex needs. These simulations were complemented with lectures and skills sessions on non-invasive ventilation. Faculty were drawn from the hospital and community physiotherapy team, the paediatric department and simulation faculty.

A workbook and quiz were completed prior to the course. Assessment was via a knowledge and skills questionnaire that had extrapolated items from the association of charted physiotherapists in respiratory care which has been proven as a valid tool for measuring competence. There was an added self-efficacy score measuring confidence and readiness for situations that could be encountered on call. The knowledge and skill items were rated from 1–5 and with an aim that participants would achieve a score of 3 or more which equals ‘practical experience and ability to work alone.’

Results 80% of participants passed the quiz pre course. Participant’s scores improved in all areas as measured by the pre and post knowledge and skills questionnaire with the exception of risk assessment. Participants were above the minimum score of 3 in all areas except for risk assessment also. Self-efficacy scores measuring confidence also improved across all parameters between the pre and post course assessment.

Conclusions Changes regarding teaching on risk assessment (e.g.: risk of aspiration with some therapies) needs to be incorporated into subsequent courses. The course continues to be rolled out to all physiotherapists participating in the acute on call rota and thus far 21 physiotherapists have completed the training. Future directions include extending the training to paediatric nursing and medical staff at the trust.

REFERENCES

AN INNOVATIVE SIMULATION-BASED COURSE TO INCENTIVISE AND ATTRACT INTEREST AND RECRUITMENT TO PAEDIATRICS

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Background Paediatrics, like many specialties, is experiencing a decline in applications for specialty training. Reasons include perceptions of poor flexibility; arduous training programme and lack of adequate career guidance and support. The Royal College of Paediatrics and Child Health (RCPCH) suggest strategies to increase recruitment should include exposure to educational opportunities.

In the UK, the transition between foundation level training and specialty training is an uncertain and stressful time. We believe that allowing access to high fidelity simulation training affords a unique opportunity to showcase our specialty.

Summary of project We designed, delivered and evaluated ‘A Foundation in Acute Paediatrics Simulation’ (FAPS) course aimed at offering junior doctors an introduction into the management of common paediatric conditions. This initiative was approved by the Northern Ireland Medical & Dental Training Agency (NIMDTA). A highly experienced interprofessional faculty provide an insight into a career in paediatrics, their own career perspectives and an opportunity for group discussion and tailored personal career advice. Clinically relevant interactive simulation scenarios offer the candidates an opportunity to work alongside colleagues and encounter common paediatric conditions, potentially developing their clinical acumen and enhancing non-technical skills.

Summary of results Since its inception in 2017, 32 Junior doctors (FY1-FY3) have taken part in the annual course. Prior to the course, 22/32 (69%) candidates were unsure whether they would apply to Paediatrics. After the course, all 32 candidates indicated that they were more likely to apply [mean score 2.7 before vs 3.9 after; 1-very unlikely, 3-undecided, 5-very likely to apply]. Subsequently, 31/32 candidates (97%) felt more confident in the assessment of the unwell child. All candidates (100%) recommend this course to peers. Qualitative comments included ‘Excellent concept, relevant scenarios and useful course’ and ‘First exposure to Paediatrics since 4th year medical school. Thoroughly enjoyable.’

Discussion This is the first use of high-fidelity simulation to enhance specialty recruitment that has been reported. It has now become an established part of the academic calendar in Northern Ireland and runs on an annual basis each November.

It is endorsed by both the Northern Ireland Foundation School & NIMDTA. This course affords an opportunity to gain access to motivated clinicians while experiencing common paediatric conditions in a safe, simulated learning environment. The tailored career advice may be of use for their future specialty direction. This course actively helps in addressing the current plight of low trainee recruitment and retention in Paediatrics and could be easily replicated in other areas.

REFERENCES
MCA/DOLS – SIMULATION AN ALTERNATIVE TO CLASSROOM?
Emma Williams*, Lisa Toft*, Sarah Thompson, Carole Moss, Paula Reynolds. Portsmouth Hospitals NHS Trust, Portsmouth, UK

10.1136/bmjstel-2019-aspihconf.48

Background The TEAMS simulation centre was approached in September 2018 to assist with MCA/DOLS training after the CQC enforced a section 29a to the hospital. With immediate effect the TEAMS simulation educators and the safeguarding team collaborated to try a different way of educating staff surrounding MCA/DOLS which hadn’t been implemented before.

Summary of educational programme/project The Simulation scenarios were provided using live actor and used experiential learning with detailed debrief using specific learning outcomes. Triola et al (2006) showed that live actors were a valid comparable model to high fidelity manikins. Gillett (2008) agrees showing that live actors are equivalent to using manikins during simulation exercises but that both have limitations, advantages and disadvantages. We provided 2 hour sessions, four times during the day to capture all senior staff members (over 100) to feed information back to their teams and then ‘frontline’ staff attended which has led on to interest for bespoke simulation for other departments.

Pre and post confidence questionnaires were provided to assess whether the candidates felt more confident after the simulation with areas such as assessing capacity and managing challenging patients. It is important to know whether it had improved practice in the workplace using both Quantitative and qualitative data. Simulation evaluations showed positive qualitative data with most candidates expressing thoughts such as it was ‘realistic, interactive’ ‘it demystified the process’ ‘open and relevant discussions’.

A Comparison with classroom based teaching and feedback using powerpoint and discussions/table top exercises showed that despite this rolling programme of face to face training staff were still unsure of processes and procedures surrounding MCA/DOLS when CQC inspectors questioned staff. It was then that MCA and DOLS simulation was introduced in September 2018 to compliment the delivery method to improve staff confidence and knowledge. Stakeholder involvement included the safeguarding team and was piloted in September with support from the chief executive and board members with an alternative way of delivering education to staff.

Discussions, conclusions and recommendations Over a period of 8 months and 141 members of staff attending the simulation sessions the pre and post confidence questionnaires showed a 100% raise in confidence post simulation.

This is an Ongoing project to see whether the simulation changes practice in the workplace and if possible remove section 29a from CQC in the future.

REFERENCES


USE OF SIMULATION TO IMPROVE TEAM PREPAREDNESS FOR VERTICAL EVACUATION OF A CRITICAL CARE PATIENT DURING LIFT FAILURE

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Project description Many hospitals have clinical areas accessible by lifts: in the event of fire or lift failure evacuation via stairs becomes necessary. Management of critical care patients during a lift failure offers challenges associated with a requirement for continuous monitoring, resuscitation and organ support using specialist equipment. Reviews of mass patient evacuation highlight the benefits of frequent simulation and involvement of external organisations on their success. Aintree University Hospital has developed a standard operating procedure (SOP) for the vertical transfer of critical care patients in the event of lift failure. Through an in-situ simulation exercise the aim was to test effectiveness of the new SOP and assess for latent errors in addition to offering a collaborative training opportunity for the hospital medical emergency team (MET) and external support agencies. Two simulations took place in locations vulnerable to lift failure. The MET were required to stabilise an unwell simulator patient and perform a vertical evacuation utilising the SOP. In each simulation an external emergency retrieval team assisted: North West Ambulance Service (NWAS) in scenario 1 and Liverpool Tactical Response Unit (TRU) in scenario 2. A debrief followed and participants provided feedback on perceived challenges.

Summary of results Successful evacuations were achieved in scenario 1 and 2: 38 minutes and 37 minutes respectively. Successful evacuations were achieved in scenario 1 and 2: 38 minutes and 37 minutes respectively. Table 1 outlines the human factors and system errors identified with recommendations for prevention.

Discussion, conclusions and recommendations This project demonstrates safe resuscitation and efficient vertical evacuation of critical care patients is achievable, the SOP triggers the appropriate actions and recruitment of external support. However, the major barrier to its use is the lack of awareness amongst staff of its existence. This exercise revealed latent errors relating to equipment, staff training and our SOP was

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<td>Factor identified</td>
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<td>Human error factor</td>
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<td>Loss of situational awareness:</td>
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<td>• Delayed identification of lift failure in Detailed request for external support.</td>
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<td>• Handling of patient for vertical evacuation.</td>
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<td>• Inadequate staff awareness of SOP.</td>
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<td>• Physical demand of ascending stairs with equipment.</td>
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