RELAY SIMULATION – A DIFFERENT APPROACH TO UNDERSTANDING THE IMPORTANCE OF HANOVER

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Background Handover is a fundamental part of patient care. The majority of patients are likely to move across several different areas during their stay. Not only this, but they will be managed by multiple teams as well as different professionals within those teams due to the shift working pattern of doctors and nurses.

To ensure their safety and continued care and avoid error, patient information needs to be handed over clearly and thoroughly to the next medical professional.

Reiterating the importance of handover early in doctors training could therefore be beneficial. A relay simulation was designed with this fundamental concept in mind.

Summary of work During the ST1 paediatric regional ‘Skills, Drills and Simulation’ training day in March 2019 we piloted a relay simulation based around a scenario of diabetic ketoacidosis.

All candidates were initially blinded to the scenario. Each trainee was allowed 3 minutes to review and manage the patient. At 3 minutes, the next participant entered the scenario receiving a 30 second handover from the current candidate before taking over the care of the patient and continuing the assessment. The process was repeated until the end of the scenario.

The trainees were debriefed after and feedback was obtained from a combination of free text comments and Likert scales.

Summary of results 9 paediatric trainees participated in the relay simulation with all candidates enjoying the concept. 100% of trainees felt the simulation highlighted the importance of handover with 89% of candidates feeling more confident to handover patient care after it.

100% felt the simulation would change the way they handed over in future. Candidates commented they enjoyed the novel approach of discussing handover methods, and felt it was a great way of illustrating the importance of a clear concise handover.

Discussions/Conclusions/Recommendations Our relay simulation clearly highlighted the importance of clear handover and communication to our junior trainees. In practice handover of care is very common and using standardised tools such as SBAR (Situation, Background, Assessment, Recommendation) and IPASS (Illness Severity, Patient Summary, Action List, Situation Awareness, Synthesis by Receiver) can provide trainees with a structured way of handing over care.

It would be useful to obtain more feedback on this concept to determine if it is useful method of learning about handover for trainees, and develop a method to evaluate its effects on patient outcomes.

REFERENCES


system is logically easier to arrange, but the interface is inherently prescriptive and provides more prompts to the user. Medical students agree that the VRS experience is realistic, encourages deliberate practice and offers detailed, personalised feedback. Therefore the implementation of this platform is consistent with several important principles for maximising the benefit of simulation-based medical education.¹

Recommendations Virtual reality simulation is an exciting, innovative tool for educating medical students and adoption of this technology can complement existing teaching methods.

REFERENCES

P69 THE IMPACT OF EXTRA-CURRICULAR SIMULATION BASED LEARNING ON UNDERGRADUATE MEDICAL STUDENTS
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Introduction and aims Simulation-based learning is an integral part of physician training. It enables acquisition of knowledge, skills and attitudes in a safe, educationally orientated and efficient manner. Controlled training environments bridge the gap between the theoretical knowledge acquired in pre-clinical years and the translation of this knowledge to clinical skills required to succeed post-graduation. In Ireland, high-fidelity training centres exist at several medical schools; however, their presence has not heralded an expansive increase in medical student simulation-based learning opportunities. This study aims to assess skill development in a student cohort following the introduction of an emergency medicine simulation competition. The use of competition was predicated on the idea that the imposed stressful environment would mimic the pressure of a hospital environment, thus serving as a proxy for hospital preparedness. The medical students involved do not receive extensive simulation-based training as part of the standard undergraduate curriculum.

Methods Students (n=32) from the University College Cork College of Medicine & Health received weekly physician-led simulation training for 3 months, culminating in a simulation-based team competition. Individual baseline surveys were conducted at the beginning of training, and on the day of the competition. The survey was composed of questions aimed at both technical and non-technical skills, ranked on a Likert confidence scale from 1 to 5. Results were analysed using repeated measures ANOVA and were stratified according to medical school year.

Results There was a significant increase in student confidence towards both managing a patient’s airway (3.56 vs. 1.78, F[1, 31]=69.2, p<0.001) and simulating a rapid sequence induction (2.63 vs. 1.22, F[1, 31]=36.5, p<0.001) following the competition. In addition, student confidence assuming a leadership role in a trauma situation increased (3.22 vs. 2.72, F[1, 31] =5.39, p=0.027) as well as their ability to engage in closed-loop communication (4.06 vs. 3.05, F[1,31]=19.97, p<0.001). Medical school year did not contribute to the increased level of confidence of the competing students.

Discussion The introduction of a competitive environment coupled with extracurricular simulation training positively impacted medical student confidence in both technical and non-technical skills. These data support a potential benefit of increased exposure to simulation training through extracurricular competition during undergraduate pre-clinical and clinical years.

P70 ’CODE RED’: PILOTING A HIGH-FIDELITY SIMULATION WORKSHOP TO ADDRESS LEARNING NEEDS AND RAISE AWARENESS OF RESOURCE MANAGEMENT
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Background The primary cause of preventable trauma-related death is major haemorrhage. Activation of a Massive Transfusion Protocol (MTP) or ‘Code Red’ initiates the rapid and continuous supply of a large volume of blood products during life-threatening bleeds.¹ Activation of the protocol can be life-saving, however, ‘Code Red’ is a resource-intensive activity and significant risk is associated with inappropriate utilisation. An extended MTP can quickly deplete the supply of costly blood products and may lead to waste, thus contributing a significant cost burden to the healthcare system. Locally, the cost per unit of red cell concentrate is €295, plasma €116, platelets €650 and 1gm Fibrinogen €440.

In 2018, there were 47 ‘Code Reds’ in University Hospital Galway. A learning opportunity was identified to expand upon basic training in the management of MTPs and use High-Fidelity Simulation (HFS) to enhance staff awareness of deactivation, resource-utilisation and management of challenging MTP cases.

Summary of work A multidisciplinary team of midwives, nurses, porters, laboratory and blood bank staff and consultants in obstetrics, emergency medicine, anaesthesia and haematology engaged in addressing staff needs by developing a pilot HFS workshop. Three scenarios were developed targeting:
1. Use of appropriate blood products for previously cross-matched blood
2. Timely deactivation of a ‘Code Red’ and
3. Management of a ward-based obstetric MTP (high-risk, low-frequency scenario)

Feedback from participants and users was used to assess the feasibility and acceptability of the pilot session.

Summary of results The pilot session was run in March 2019 with 15 cross-discipline attendees. Feedback demonstrated that 100% of participants agreed or strongly agreed that the workshop addressed their learning needs, all agreed or strongly agreed that the workshop improved their ability to use skills related to the topic and all agreed or strongly agreed that the knowledge and skills they learned will be useful to them in their clinical job.

Discussion, conclusions and recommendations HFS offers a solution to both training clinical staff in improving the management of MTPs and in optimising the use of blood products so as to limit waste and resource depletion.