undergraduate and postgraduate Optometry courses. In addition to developing Optometrists’ skills in a safe simulated environment, this innovative iPatient project has potential to be employed with other healthcare professionals such as nurses and pharmacists.

**Conclusion** With minor amendments to the programme following the review, this tool has the potential to transform Optometry education and introduce a strong interactive element to teaching.

**REFERENCES**


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**O26**

**IMPACT OF A MULTIPLE, SHORT DURATION IN-SITU SIMULATION ON INPATIENT DIABETES MANAGEMENT – A PILOT STUDY**

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**Introduction** The relation between dysglycaemia and morbidity, cost of hospitalisation and mortality is well established. Even in the presence of established guidelines, human factors may play an important role in the insufficient control of diabetes. The identified gaps include contextual and biomedically Knowledge, attitudes, clinical inertia, confidence, and familiarity with existing hospital resources and guidelines with regards to hospital diabetes care. Adherence to guidelines for inpatient diabetes management has shown to be greater with repeated training. Management of blood glucose in an in-patient requires basal-bolus insulin therapy, regular glucose monitoring, as well as enhancing healthcare provider’s role and knowledge. Implementation of training in practice is challenging, mainly due to increasing workload burden on staff and fear of hypoglycaemia. We seek to demonstrate the efficacy of multiple, short duration in-situ simulation; a pilot study in a ward to improve outcomes in patients with diabetes.

**Methodology** This study will be conducted in the Ward 70 of the Hull University Teaching Hospital. In the first week, 6 patients with diabetes on insulin will be chosen and their blood sugar recordings will be noted. The insulin therapy and adherence to guidelines will be noted. Also noted will be the number of hypoglycaemic episodes. This will serve as the baseline-our current data suggests that there is inadequate adherence in this area. In the second week an in-situ simulation will be delivered replicating hypoglycaemia and diabetic ketoacidosis. This will be repeated twice a week for 3 weeks. Every week data will be collected on the adherence to guidelines in the ward from the medical records of patients with diabetes on insulin. Data will be analysed for number of episodes of dysglycaemia (< 4 mmol/L and > 14 mmol/L) and deviation from the hospital protocol.

This is an ongoing study and is expected to be completed in 8 weeks.

**Discussion** Continuing education to health care professionals is essential to improve patient outcomes and can be provided as in-situ simulation. We believe that this study will form the basis for further research in using low dose high frequency methodology of in-situ simulation for improving ward based care. We believe that our project is unique in identifying whether this methodology can be used for medical patients in a busy tertiary care hospital. If found effective and feasible we hope to share our results widely and replicate this model in other wards and other hospitals in our region.

**REFERENCES**


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**O28**

**CAN AN ENDOCRINE SIMULATION BASED EDUCATION INTERVENTION ADDRESS THE LEARNING NEEDS OF SENIOR HOUSE OFFICERS?**

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**Introduction** Endocrine diseases are common and acute presentations can have a mortality rate of up to 25%. Trainees need to be able to recognise and manage these conditions competently.

**Aims** To support 1st and 2nd year Senior House Officer (SHO) trainees in the diagnosis and management of common endocrinology emergencies, through a well-designed hi-fidelity simulation based education (SBE) workshop aligned to their self-identified learning needs. Secondary aim was to look at the impact of the workshop as an educational tool and its role in competency.

**Methods** A mixed methods study was conducted in a major teaching hospital in Ireland. Pre workshop surveys were circulated to the SHOs to rate on a Likert Scale (1 – 5, the frequency of encounter and their levels of comfort in the management of endocrine emergencies. Post workshop surveys evaluated satisfaction levels and if their learning needs were addressed. Interviews with endocrine consultant supervisors at 8 weeks were conducted.

**Results** A total of 28 SHOs completed the needs analysis with an average of 3.3 years clinical experience. Only 7.1%(n= 2) felt that the management of endocrine emergency topics were adequately covered by their education and over 85% agreed or strongly agreed that they would benefit from further training. 64%(n= 18) reported they encountered endocrine emergencies in the out of hours setting. Only 39%(n= 11) felt comfortable in managing diabetic emergencies and only 42%(n= 12) were comfortable in managing acute adrenal insufficiency.

A multidisciplinary hi-fidelity simulation workshop was designed to address the learning needs with 3 endocrine
Introduction

Leadership has been shown to be key for improvement in real clinical emergencies. Data from our SPRinT in situ simulation programme over 10 years showed lack of improvement in leadership scores despite improvements in other areas. We hypothesised that a newly designed one-day simulation-based Clinical Emergency Leadership (CEL) course could improve leadership skills and confidence in attendees.

Methods

A focused, practical one-day leadership course was developed and delivered by interprofessional trained facilitators. It consisted of interactive Crisis Resource Management teaching, emphasising expert clinical leadership qualities based on literature and expert opinions. This was followed by 2 streams of high-fidelity simulation training scenarios, with one participant acting as team-leader each time. Each participant was able to act as team-leader at least once during the course. Structured debrief after each scenario using advocacy & inquiry questions provided immediate formative feedback to learners, emphasising leadership and followership skills.

Results

[Figure 1] The course has been run twice. 25 participants attended (16 doctors, 9 nurses). Course evaluations explored participants' leadership skills before and after the course, including 8 performance questions using a 0–100% level of confidence scale, based on the Kilpatrick model of learning. Analysis shows highly significant improvement in all scores (p<0.001). Participants felt the training was enjoyable, engaging and relevant, with mean overall course rating 92%.

Discussion

Our new CEL course has successfully improved all participants’ confidence in all areas of leadership skills. The increase in confidence is statistically highly significant and is matched by the high enjoyment levels of the course. Since the course’s implementation, further qualitative feedback has been obtained informally. One participant (a Deputy Sister) has recently presented at an out-of-hospital respiratory arrest. She stated ‘the leadership course really helped to change my whole perspective about arrest situations and give me the confidence to react when alone with no equipment and no immediate help.’ As far as the authors are aware, the CEL course is the only one in the UK specifically designed to deliver hands-on simulation-based clinical leadership training.

Conclusion

Our newly designed Clinical Emergencies Leadership (CEL) course is unique in focusing on leadership skills during emergencies, proven to be highly relevant in resuscitation events. It has been highly successful in improving confidence of participants in all leadership scores. Further research is planned to evaluate the effect of the course on observed leadership skills based on validated scores, and to establish its long term effects.

REFERENCES