Longitudinal simulation: a novel way to increase preparedness to practice skill acquisition in final year medical students



Dr Carol Wilson¹ Dr P Chen Tan² Ms A Perry³ RN Ms S Leckey RN⁴ Dr E Stewart⁵ Dr N Kinnear⁶ Professor G Gormley⁷

- 1. Specialty Doctor in Emergency Medicine 2. ADEPT Fellow Healthcare Leadership 3. Trainee ACP EM 4. Simulation Nurse/Resuscitation Officer
- 5. HST Emergency Medicine 6. Consultant in Emergency Medicine 7. Professor of Simulation Queen's University Belfast

Week 1
Chest Pain
Week 2
Breathlessness
Week 3
Abdominal Pain
Week 4
CNS
Week 5
Biochemical & Re-visit

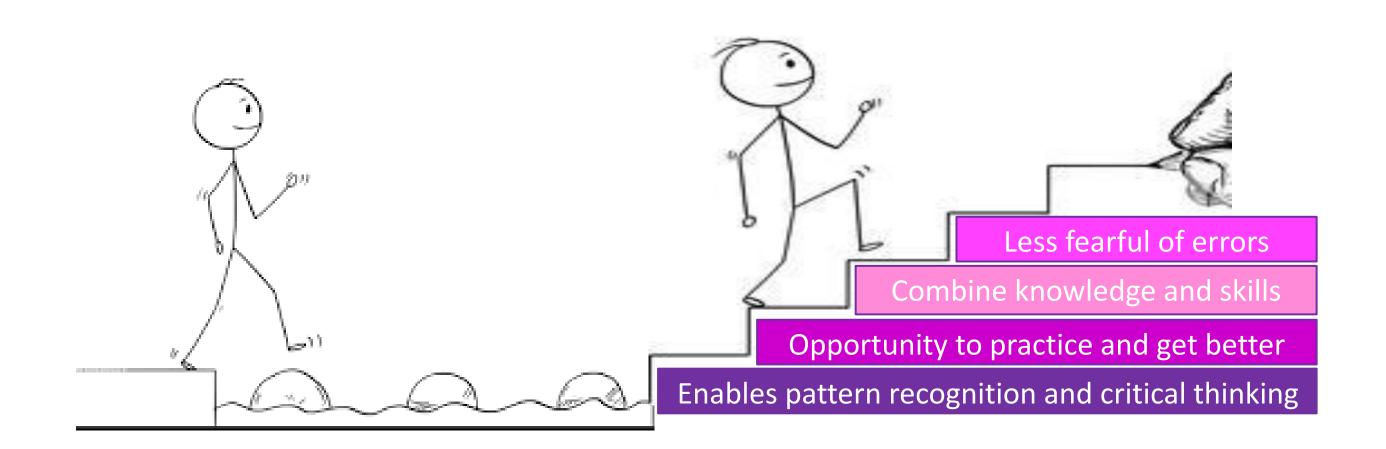
Interruptions
Handovers
Prescribing
Medical Error
Prioritisation

INTRODUCTION

- Newly graduated junior doctors regularly report being underprepared for clinical practice
- Isolated simulation encounters have been shown to improve competence and preparedness in this unique group
- It is not known if repeated, longitudinal simulation can further impact preparedness to practice

METHODS

- Simulations were conducted weekly for 5 weeks
- Focused on curriculum-based emergencies with increasing complexity and realism
- Final year students on preparatory clinical placements invited: 19 students completed the study
- Data was collected using focus groups and audio diaries
- First-look results via thematic analysis using an interpretive descriptive approach



RESULTS

- All participants felt more confident and prepared for the realities of working as a junior doctor at the end of the study
- The longitudinal aspect of the program improved acquisition of clinical skills compared with standalone simulation sessions
- ♣ All participants felt that the longitudinal simulation program helped them to further mould their unique professional identity, work together as a community of peers and appropriately prioritise tasks
- All participants indicated that a longitudinal approach such as this should be offered to all final year medical students

DISCUSSION

- Initial analysis suggests that a longitudinal simulation programme can increase preparedness to practice in this cohort of final year medical students
- ↑ The longitudinal approach supported the navigation of real-life challenges in a psychologically safe environment which enhanced individual learning and enabled the acquisition and refinement of clinical skills and behaviours
- ◆ Students reported integrating simulated learning with 'on-the-ward' experiences gained during their placements, which in turn impacted upon future simulation encounters and facilitated deep reflective practice
- A longitudinal simulation programme offers an innovative way to improve perceived preparedness to practice



Carol.Wilson@northerntrust.hscni.net G.Gormley@qub.ac.uk Neil.Kinnear@northerntrust.hscni.net