airway obstruction however was the lack of appropriate ENT equipment in theatre following anaesthetic induction.

**Recommendations**  Working directly with the on-call ENT team we have developed a clear pathway and identifiable trolley to include both anaesthetic and ENT emergency paediatric airway equipment. This universal (Make Airways Safe) MAST trolley is now standardised in ED and emergency theatres, minimising delays in that could potentially jeopardise the care of the critically ill child.

We are replicating the MAST trolley in neighbouring DGHs covered by the same ENT on-call team. Our aim is to generate a standardised regional equipment trolley, increasing patient safety in time-critical airway emergencies.

**REFERENCES**

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**Tuesday 5th November, 16.00–17.20**

P17 DEVELOPING UNDERGRADUATE PHYSIOTHERAPY SKILLS IN ASSESSING THE ACUTELY ILL PATIENT USING HIGH FIDELITY SIMULATION

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**Background** It is essential for physiotherapy students approaching qualification to be confident to use a structured framework for assessing acutely ill patients. Previously, teaching this structured assessment was delivered in a classroom setting. Students may have also gained clinical experience of using a framework on clinical placement. Allowing students to practice using the framework in high fidelity simulation scenarios was considered to be a safe and realistic learning environment.

**Summary of work** 13 students completed 6 simulated scenarios, supported by facilitated debriefs with a multi-professional faculty. A brief was constructed to simulate a physiotherapy referral, followed by a 15-minute practical simulation and a 40-minute facilitated debrief.

Data collection was performed in 4 phases. Phase 1 before teaching and placement, Phase 2 after simulation, Phase 3 after simulation and Phase 4 a focus group (2 weeks post simulation). Students were asked to rate their self-confidence using a 5-point Likert Scale in relation to 11 statements. Students were also given the opportunity to give free text responses. A focus group explored their views of using simulation as a learning opportunity, the scenario content and recommendations for future development.

**Summary of results** Comparison of data between Phase 1 and 2 suggested traditional teaching methods did not generate improvements in students’ self-reported confidence in the clinical management of acutely ill patients. In contrast, comparison of data between Phase 1 and Phase 3 showed significant positive impact was most notable in relation to the students’ knowledge of their role in assessing the patient (+43.6%), making management recommendations (+45.7%), and their clinical reasoning (+47.1%). The quantitative data strongly supported the qualitative data from Phases 3 and 4. Students described the benefits further simulation experience would bring throughout their course for both physiotherapy specific and inter-professional learning.

**Discussion and conclusions** The addition of simulation training to the traditional education programme increased students’ self-reported confidence. Further follow up data is required to explore the potential for confidence decay. Students identified the benefits simulation could bring to their learning at all stages in their course within both a single and inter-professional context. Further work is needed to investigate the feasibility of scaling up student physiotherapy simulation training and the use of inter-professional simulation scenarios to assess and manage acutely ill patients.

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**P18 INTEGRATING SIMULATION-BASED EDUCATION AND PRECISION TEACHING TO IMPROVE PHYSICIANS’ PERFORMANCE OF LUMBAR PUNCTURE IN CLINICAL PRACTICE**

1,2Bronwyn Reid-McDermott*, 1,2,4Sinead Lydon, 1,2,4Paul O’Connor, 1,2,4Aine de Bhuilb, 1,2Belinda Hanahoe, 1,2,4Dara Byrne. 1Irish Centre for Applied Patient Safety and Simulation, Ireland; 2School of Medicine, National University of Ireland, Ireland; 3University Hospital Galway, Ireland; 4Discipline of General Practice, National University of Ireland, Ireland

**Background** Lumbar puncture (LP) for cerebrospinal fluid (CSF) is an invasive procedure used for diagnosis and treatment and is performed by doctors of various specialties. Unsuccessful LPs can result in adverse patient outcomes such as prolonged pain and immobilisation; while traumatic LPs can complicate the interpretation of CSF white cell counts, render the test non-diagnostic and necessitate additional testing. Rates of unsuccessful and ‘traumatic taps’ can be as high as 30%. Simulation technology may provide an approach to improving the competency of doctors in this task.

This study aimed to describe the application of precision teaching (PT), an instructional methodology used to produce behavioural fluency, to simulation-based skills training. Behavioural fluency refers to accurate and speedy responding that does not deteriorate with time, is resistant to distraction, and persists in novel contexts.

**Summary of work** A Randomised controlled trial was conducted with senior house officers in a large teaching hospital. The intervention group (n=10) received fluency training targeting the performance of LP. A control group (n=11) received training as usual. The performance of the two groups at baseline and post-test will be compared. Further post-intervention evaluations will be conducted to assess skill retention, stability and transference to the clinical environment. Laboratory data will be assessed in order to compare rates of ‘bloody taps’ in LPs conducted in hospital settings among trained and untrained doctors.

**Summary of results** This study is ongoing. To date, three participants have achieved fluency, requiring an average of six trials on the LP simulator and 132 minutes of fluency training to reach the pre-defined fluency criterion for the LP skill. Stability trials have been completed by two of the fluent participants. Both trials demonstrated that fluency remained stable in the presence of distraction.
Discussion, conclusions and recommendations Combining simulation-based education and PT to establish behavioural fluency in procedural skills could minimise the potential risk to patients and ensure that learners receive training and feedback in an individualised yet systematic way. Analysing the number of bloody taps in the trained versus an untrained group of their peers to look for translation of the teaching to clinical practice is a good measure of the effect of this type of training on patient outcomes and of return on investment.

REFERENCES

P19 SIMULATION PARTNERSHIP FOR ADVANCING REGIONAL KNOWLEDGE (SPARK) GROUP – THREE YEARS ON…

Donna Major*, Emily Clappison, David Wright, Makani Purva. Hull Institute of Learning and Simulation (HILS), Hull, UK

10.1136/bmjstel-2019-aspihconf.124

Background The group has been in collaboration since 2016, with the aim of ensuring partnership working across our region, sharing best practice, knowledge and resources. The group is represented by a number of organisations across the patch including Hull University Teaching Hospitals, York Teaching Hospitals and Northern Lincolnshire and Goole (NLAG) who meet quarterly to share projects and ideas. We are now three years in and well underway with planning our third annual conference ‘Quality’.

Summary of work
- Over the past 12 months we have welcomed nine new members to our group who have joined in at our meetings.
- Reviewed documentation from each organisation to ensure that it was in line with the new GDPR guidance and developed ideas to make this consistent across the organisations.
- Finalised the Regional Simulation Audit – Which contains information on each centre, its facilities and resources.
- Website is currently be redesigned to enhance ease of use for followers, which is intended to be a resource platform. The new website will have discussion forums and a resource section where simulation scenario templates and course programmes, manuals, Newsletters and publications can be found.
- The SPARK Twitter page is consistently updated with latest news and events from the organisations
- Launched our annual newsletter in December 2018 which showcased the highlights of 2018 for the SPARK group.
- Planning of the third annual conference ‘Quality’ to be held at NLAG on 15th July 2019.
- Application to Health Education England for a SPARK Leadership Fellow.
- Group created from their existing programmes, 2 courses Chest Drain and CVC ensuring these were standardised across the group.

Summary of results
- We now have over 40 members contributing to the group
- Communications in progress through various mediums; website, twitter, newsletter, presenting at conferences.
- Third conference now being planned and will take place in July (Evaluations will be shared on poster)
- In August 2019 we have our SPARK Fellow (Nurse) commencing in post for 12 months (following successful application)
- Two SPARK badged courses – Catheter Insertion and Chest Drain for Core Medical Trainees

Conclusion The group has grown over the past 3 years and the group is proving to be productive in standardising the courses on offer at the regional centres and enhancing quality. The meetings are a useful platform for sharing ideas and the reputation of SPARK is growing year on year.

REFERENCES
1. Website: www.spark-neynl.org.uk
2. Twitter: @SparkNEYNL

P20 CLINICAL SIMULATION AS A TEACHING METHODOLOGY FOR DEVELOPMENT OF NEW ADVANCED CLINICAL PRACTITIONER ROLE AT NORTHERN LINCOLNSHIRE AND GOOLE NHS TRUST (NLAG)

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10.1136/bmjstel-2019-aspihconf.125

Background The changing face of the NHS workforce includes the new role of Advanced Clinical Practitioner (ACP), developed for experienced healthcare practitioners, characterised by a high level of skill, autonomy and complex decision making. ACPs possess core and area-specific competence and training is supported by a Masters level award. Northern Lincolnshire and Goole NHS trust is developing 10 ACPs to complement the multidisciplinary clinical workforce whilst tackling recruitment and clinical gaps. In 2017 HEE produced a formal framework, identifying core capabilities and standards for ACPs, promoting four pillars underpinning practice, namely Clinical practice, Leadership and Management, Education, Research.

The Development Simulation Hub (DaSH) has developed a bespoke education programme for ACPs, incorporating clinical skills and simulation to consolidate existing knowledge.

Method Current ACPs were surveyed to identify clinical simulation and skills required to support their educational development. 10 ACPs, from acute care areas received 2 days of clinical simulation and skills required to support their educational development, tailored carefully to their clinical areas and needs. Effectiveness of training was evaluated via a locally produced scoring system analysing both technical and non-technical areas of clinical practice post course.

Multifaceted training included didactic lectures, clinical skills workshops and clinically enacted scenarios.

Topics covered included:
1. Medical Emergencies – heart failure, stroke, respiratory arrest.
2. Surgical emergencies – massive haemorrhage, varices.
4. Didactic lectures– providing up to date information and guidelines.
5. Clinical Skills– Insertion of chest drain, central venous lines, lumbar puncture.