



**Trainees in the Association for the Study of Medical  
Education**

**Spring Conference 2019:  
“A Career in Medical Education: The  
Ultimate Balancing Act”**

**Abstract Book  
13<sup>th</sup> April 2019**



**MDU**

**WESLEYAN**

*we are all about you*

## Contents:

<b>A Message from the Conference Organisers.....</b>	<b>3</b>
<b>TASME Young Educator Award: Prizewinning Oral Presentation.....</b>	<b>4</b>
<b>TASME Young Educator Award: Shortlisted Oral Presentations.....</b>	<b>5</b>
<b>TASME Poster Prize: Prizewinning Poster.....</b>	<b>7</b>
<b>TASME Poster Prize: Shortlisted Posters.....</b>	<b>8</b>
<b>Accepted Poster Presentations.....</b>	<b>11</b>

Dear Delegates,

It was our pleasure to welcome you to Newcastle Medical School this April. Thank you for giving up your Saturday to showcase your work and share your experiences with your peers. The conference was attended by over a hundred delegates from across the breadth of specialties and the length of the country, illustrating that passion for medical education transcends all of those boundaries. As trainees, we experience medical education first hand every day giving us insight into not only what works well from a learners' perspective, but also allows us to push our own limits as educators in teaching the next generation of medical professionals.

TASME strives to capture this trainee experience, being an advocate for trainees interested in medical education and acting as a platform for trainees to showcase their achievements and share ideas and experiences within medical education. By supporting trainee involvement in medical education, TASME aims to create a community of passionate young educators to inspire and transform the future of medical education.

Thank you all for joining us, for contributing to such valuable conversations in person and on social media and for sharing all of the remarkable work that trainees are doing.

We hope to see you at future TASME events!

**Dr Monica Parker and Dr Naomi Gostelow**

**Conference Leads 2019**

***On behalf of the TASME Committee***

## TASME Young Educator Award: WINNER

### **117. The Great Escape: The Impact of Escape Rooms in Medical Education**

**Rebecca Webster, Katherine Smethurst**, Niall Durkin, Ramin Leylabi  
General Medicine, Newcastle Upon Tyne NHS Trust

Background: Gamified and playful approaches to education are not new concepts, however there is increasing interest into how these approaches may be incorporated into higher education. This interest has also grown within the sphere of medical education, with role-play, simulation-training and digital educational games being increasingly used within medical curricula. A relatively new, and much less well explored, aspect of medical gamified education is that of escape rooms. We believe that escape rooms may offer the opportunity to develop important skills such as team-work, effective communication, prescribing and data-interpretation within a time pressured, but fun and safe environment.

Aim: To examine the impact of an escape-room session in promoting engagement and team working to complete clinical tasks in a time-sensitive environment.

Method: A pilot one hour escape-room session was designed for final year students. This included a brief group conversation regarding relevant skills needed for time-pressured activities, a timed 30-minute escape-room with scenario-based questions that must be answered correctly in order to escape, and a focused debrief regarding the students' escape room performance. Written feedback forms, derived from adapted critical event analysis, were utilised to gather student feedback on the session.

Results: Data from 2 sessions (8 learners in total) showed 100% of the students found the session either useful or very useful (37.5% and 62.5% respectively). Feedback showed that 100% of the students felt engaged during the session with 50% of the students actually reporting increasing engagement as the session progressed. Finally, free-text comments highlighted that the students enjoyed the teamwork aspect of the session and appreciated the opportunity to rehearse this under pressure of a time constraint.

Conclusions: This escape-room pilot provided an opportunity to manage realistic scenarios, with the help of a team and hindrance of a time pressure, within a reproducible, low-cost and fun environment.

## TASME Young Educator Award: SHORTLISTED ABSTRACTS

### **124. Advancing understanding of junior doctors' motivations for working as teaching fellows and their experiences during these posts: a focus group of teaching fellows in an NHS Foundation Trust**

**Charlotte Petrie**, Dr Richard Thomson, Dr James Fisher

Northumbria NHS Foundation Trust

#### Background

In the UK, teaching fellow (TF) posts are becoming more popular. This rise in popularity may be explained by the increasing numbers of Foundation Doctors choosing not to apply to specialty training (1). Within our Trust there has been an expansion in the number of TF posts and this is reflected nationally in the number of advertisements for TF posts (2).

#### Aims

The aim of this project was to: a) better understand their motivations for choosing these TF posts in the Trust; and b) explore their experiences within these posts.

#### Methods

This project was informed by social identity theory, which is recognised as a valuable lens through which professional identity can be explored (3). We have undertaken a focus group with TFs in our Trust, which was performed in January 2018. This has been transcribed, and thematically analysed. The HRA online toolkit deemed that review by an Ethics Committee was not required, and approval was given by our Trust R&D Department.

#### Results

Results have highlighted several motivations, including some expected themes such as stepping out of training and uncertainty about career paths, whilst some unexpected findings included avoiding burnout and locum work. Experiences in post were generally positive, with both short and long term foreseen benefits of doing such a post, as well as multiple opportunities whilst in post. There were challenges to counter these, including concerns about returning to clinical work, and specific challenges in post, such as not enough pastoral supervision training. These themes will be shared and discussed in full.

#### Conclusions

This project has helped us to understand the reasons TFs apply for these posts, what makes a 'good TF' post from the TFs' perspectives, and will help us to refine our local TF induction process.

#### References

1. Rimmer, A. Fewer foundation doctors are going straight into specialty training, says GMC. British Medical Journal careers. 2016. Available from: [http://careers.bmj.com/careers/advice/Fewer\\_foundation\\_doctors\\_are\\_going\\_straight\\_into\\_specialty\\_training%2C\\_says\\_GMC](http://careers.bmj.com/careers/advice/Fewer_foundation_doctors_are_going_straight_into_specialty_training%2C_says_GMC) [last accessed 09/01/19]
2. Furmedge, D., Verma, A., Iwata, K., Belcher, R., Ntatsaki, E., Smith, L., et al. The rise of clinical teaching fellowship. British Medical Journal careers. 2013. Available from:

[http://careers.bmj.com/careers/advice/The\\_rise\\_of\\_clinical\\_teaching\\_fellowships](http://careers.bmj.com/careers/advice/The_rise_of_clinical_teaching_fellowships) [last accessed 09/01/19]

3. Burford, B. Group processes in medical education: learning from social identity theory. *Medical Education*, 2012;46:143–152

## **26. Incidental Learning**

**Laura Horne, Koushan Kouranloo**, Alexander Blackmore  
Blackpool Victoria Hospital

### Background

Despite ongoing emphasis on the importance of a change in culture of incident reporting there remains a significant level of stigma amongst junior doctors.<sup>1</sup>

Feedback from junior doctors received during the previous academic year at our institution highlighted that incident reporting was briefly discussed during induction in a way that was non-relatable with a noticeable gap between the experience and seniority of presenter and audience.

### Aims

To reduce the stigma surrounding reporting and receiving incidents. To offer junior doctors an opportunity to reflect in a group setting upon incidents with which they have been involved.

### Method

A peer-led lecture series on clinical incidents was designed. 5/15 FY2 doctors receiving an incident presented their experience as part of the FY1 induction programme. The lecture series also offered a reflection opportunity for presenting FY2s. A qualitative questionnaire was conducted by new foundation doctors before and after the lecture series. An additional questionnaire was completed by the FY2 doctors delivering the session.

### Results

There was a 28% reduction in stigma surrounding involvement in clinical incidents amongst FY1 doctors following the session. 100% of FY1 doctors felt the session was beneficial and 86% felt their perceptions of incident reporting had changed following the session. 4/5 presenting FY2s reported the activity helped them to think more positively about the incident and provided an opportunity for further reflection.

### Conclusion

Incorporating a near-peer teaching session on incident reporting into the junior doctor induction programme is an effective way to reduce stigma and offers the presenting doctors an opportunity to practice group reflection.

### References

- 1) R.P.Mahajan, Critical incident reporting and learning, *British Journal of Anaesthesia*, Volume 105, Issue 1,1/7/2010, pages 69-75, <https://doi.org/10.1093/bja/aeq133>

## TASME Spring Conference Poster Prize: WINNER

### **120. Establishing a teaching programme for non-physician clinicians in a resource-poor setting**

**Clare Leong**, Pippa Harris, Nikki Biggs, Lindsay Solera-Deuchar, Judith Hillner  
Health Improvement Project Zanzibar, Kivunge Hospital

#### Background

Health Improvement Project Zanzibar works with Kivunge and Makunduchi Hospital to improve the quality of healthcare provided on the island. Volunteer doctors from Europe undertake 6-12-month placements to provide supervision, teaching and mentorship to hospital staff. The Zanzibari clinicians include Clinical Officers and Assistant Medical Officers, who have received formal training but are not qualified doctors. There is very little literature available on teaching programmes or continuing professional development (CPD) activities aimed specifically at non-physician clinicians in resource-poor settings.

#### Aims

We aimed to improve the skills and knowledge of Zanzibari clinicians in appropriately managing conditions commonly seen among our patient population within the constraints of the available resources. A key component was the opportunity to practise emergency scenarios and 'ABCDE' assessment via simulation.

#### Methods

We ran monthly teaching days to which all hospital clinicians were invited. Each day consisted of seminars on common conditions in the morning, and simulated emergency scenarios in the afternoon. Topics were selected by volunteers, with input from local clinicians suggesting topics for future teaching days. Pre- and post-session quizzes were used to assess knowledge of the topics covered before and after each day, and feedback forms were also distributed.

#### Results

7 teaching days were delivered over an 11-month period. 18 staff members attended one or more teaching days, including 9 non-physician clinicians, 5 students, and 1 nursing manager. There was 23% mean improvement in the scores in the post-session quiz when compared to the pre-session scores. Feedback was overwhelmingly positive, with all clinicians uniformly agreeing that they found the sessions both useful and enjoyable.

#### Conclusions

Locally-run teaching sessions provided by volunteer doctors are rated as useful and enjoyable by both physicians and non-physician clinicians, and gains in knowledge can be demonstrated using simple quizzes. Further evaluation is needed to establish whether this translates into improved clinical outcomes.

## TASME Spring Conference Poster Prize: SHORTLISTED POSTERS

### **8. Multidisciplinary team simulation: Pre-registration pharmacists and final year medical students in the Emergency Department**

**Bronwen Warner**, Jane Hamilton, Julie Mardon, Lynsay Lawless  
Emergency Medicine, NHS Ayrshire and Arran

**BACKGROUND:** Simulation provides a safe environment in which trainees can practice management of life-threatening conditions and discuss human factors. Pharmacists and medics work closely in many clinical contexts, but there is currently limited literature for this multidisciplinary group on simulation-based learning in the emergency setting. Evaluation of simulation teaching validity is notoriously challenging.

**AIM:** To pilot an MDT simulation involving medical students and pharmacists in the emergency setting.

**METHODS:** A team of doctors and pharmacists designed an MDT simulation for final year medical students and pre-registration pharmacists. The scenario focussed on a patient with Parkinson's disease presenting to the Emergency Department with urosepsis. Intended learning outcomes included technical skills (ABCDE assessment, 'sepsis six' bundle, antimicrobial prescribing requiring dose calculation, choice of Parkinson's medication when the oral route is unavailable, medicines reconciliation) and non-technical skills (human factors in stressful situations, inter-professional working in the ED). The simulation concluded with a debriefing session and was evaluated using confidence questionnaires and participant reflections.

**RESULTS:** Questionnaire feedback demonstrated subjectively improved confidence in technical skills for both pharmacists and medical students (mean [SD] 4.6/5[0.41] and 4.2/5[0.17] respectively), and subjectively improved understanding of the role of the other members of the MDT (pharmacists 5[0]; medics 4.7[0]). Analysis of the reflective practice from both groups identified themes including: improved confidence communicating with other team members; and better awareness of the skills each team can bring to patient care in the emergency setting.

**CONCLUSIONS:** This pilot MDT simulation involving pharmacists and medical students was well received and allowed exploration of both technical and non-technical skills in the stressful ED environment. Reflection is a useful tool in assessing simulation, which can extend measurement of factual learning to gauging attitude shifts. We propose that MDT simulation involving pharmacists and medics should be considered in all clinical curricula.

### **33. Never too busy to learn; how the modern team can learn together in the busy workplace**

**Hussain Basheer**, Emma Vaux  
Royal College of Physicians

#### Background

High-quality learning opportunities are essential for clinicians in training, both for the successful completion of their training and to ensure high standards of care in the NHS. In the current climate, however, learning can be neglected due to being 'squeezed out' by multiple pressures and insufficient attention to the learning opportunities provided by day-to-day practice.

We explore how 'invitational' learning environments can be created in clinical settings, and in doing so, pose two key questions:

- > How do we create learning opportunities in the clinical workplace?
- > How do we maximise the impact of these opportunities?

#### Aims

In seeking to answer these questions we have explored a range of approaches in the context of a range of workplace-based activities, collaboratively, working in partnership with healthcare professionals from several NHS regions. Our aim is to share good educational practice that is practical to be replicated in any workplace.

#### Methods

We have gathered case studies via semi-structured interviews that demonstrate feasible and tested strategies. Many of the case studies explore the creation and maximisation of learning opportunities present within the flow of everyday clinical work.

#### Results

We have recognised 8 key themes to highlight that are synonymous with learning in the modern workplace, both on the job, and in time set aside for professional development, which is equally important.

#### Conclusions

Despite the busy and demanding nature of our workplaces in healthcare, there are proven educational approaches that maximise the impact of learning opportunities, and make them more accessible. Some necessitate the need to embrace innovation and technology, others need to harness those positive aspects of the old firm, in this modern, more fluid work environment.

### **113. Mental Health Simulation in Paediatrics**

**Olatokunbo Sanwo**, Magali Dubus

Paediatrics/Medical Education, East Kent Hospitals NHS Trust

#### **BACKGROUND:**

In the Mental Health of Children and Young People in England 2017 Report, 15.4% of children presented to a physical health specialist such as a paediatrician regarding their mental health. An Australian study found that between 2008-2015, childhood mental health presentations to emergency departments increased three times faster than physical health presentations, (Hisock et al, 2018). In spite of this, paediatric junior doctors receive little formal training on the assessment or management of common acute mental health presentations.

Despite advances in the use of simulation in medical education, simulation use is less common in mental health (Attoe et al, 2016). Paediatric mental health simulation projects such as SWAMPI-CYP have been introduced in large regional centres however within the local area, provision is sporadic.

#### **AIMS:**

To increase confidence of paediatric junior doctors dealing with common acute paediatric mental health presentations by developing a paediatric mental health simulation programme, forming part of the weekly paediatric in-situ simulation programme

#### **METHODS:**

Simulation scenarios on self-harm and eating disorders were developed. Prior to the self-harm simulation, all participants and observers completed a brief questionnaire assessing their knowledge and confidence of managing children with acute mental health presentations, including use of the HEADSSS assessment tool. Debriefs were held subsequently and learning points shared.

#### **RESULTS:**

There was a significant increase in knowledge, confidence and perceived ability to manage children presenting with self-harm or suspected eating disorders in participants. Prior to the self-harm simulation, 0% of doctors and ANPs had heard of HEADSSS. Post simulation, 100% of participants would consider using the tool in clinical practice.

#### **CONCLUSION:**

As the mental health needs of children continues to rise, it is important to ensure that the paediatric medical team assessing them are confident to do so. By developing programmes such as this, it is hoped that paediatricians will develop the necessary skills to appropriately manage patients presenting with acute mental health concerns.

## POSTER PRESENTATIONS

### **2. Simulation experiences of doctors training in Scotland: perceived benefits, barriers and potential solutions**

**Emma Phillips**

Scottish Centre for Simulation and Clinical Human Factors

#### Background

Simulation has been regularly demonstrated to improve performance, and there is a growing body of evidence that this can be translated to improved patient outcomes[1,2]. Despite the benefits of simulation it also has its limitations[3] and is not yet universally accepted in the medical profession. The aim of this project was to explore the perceived benefits of and barriers to simulation amongst Scottish trainees and to identify some potential solutions to these.

#### Methods

An online questionnaire was circulated to doctors training in Scotland which explored previous exposure to simulation and opinions regarding its advantages, disadvantages and limitations.

#### Results

Fifty-two doctors in specialty training (CT1-ST7) across all four Scottish deaneries completed the questionnaire. Over a third of participants agreed or strongly agreed that simulation had advanced their knowledge (44% agreed or strongly agreed), technical (39%) and non-technical (40%) skills; and 35% agreed or strongly agreed that they enjoyed simulation. The leading perceived barriers to simulation were expense, lack of availability, inability to get time off of work for courses, time commitment required, not being realistic enough and fear of making mistakes and being judged. Free text responses indicated that trainees felt increasing frequency of and accessibility to simulation and being able to use it as evidence of competencies would make simulation a more favourable way to learn.

#### Discussion

This questionnaire has indicated that although many trainees have a positive view of simulation there are barriers which may limit participation. We discuss methods for potential resolution including; reducing course costs and encouraging use of study budget, liaising with programme directors to build simulation into curricula, increasing availability of half-day courses and training faculty on maintenance of a non-judgemental environment. Those organising simulation should be encouraged to consider these potential solutions in a bid to increase enthusiasm for and participation in simulation.

#### References

1. Motola I, Devine LA, Chung HS, Sullivan JE & Issenberg B (2013) Simulation in healthcare education: A best evidence practical guide. AMEE Guide No. 82, Medical Teacher. 35:10, e1511-e1530.

2. Barsuk JH, Cohen ER, Feinglass J, McGaghie WC, Wayne DB (2009) Use of Simulation-Based Education to Reduce Catheter-Related Bloodstream Infections. *Archives of Internal Medicine*. 169(15):1420–1423.
3. Ker J, Bradley P (2013) Simulation in medical education. IN: Swanwick T (Ed). *Understanding Medical Education: Evidence, Theory and Practice*. Oxford: The Association for the Study of Medical Education. p175-187.

## **5. A collaborative approach to demonstrate formal learning in Management and NHS Organisation at postgraduate level**

**Vishal Shah**, David Probert

Ophthalmology, Moorfields Eye Hospital NHS Foundation Trust

Background: “Good Medical Practice” recognizes leadership as a duty of all doctors, and postgraduate specialty schools identify the need for trainees to demonstrate skills and knowledge of leadership and management. This is documented formally within the “Medical Leadership Curriculum”, developed in collaboration with the academy of royal colleges. There is even a toolkit, the “Spiral Leadership Framework” to assist trainees in demonstrating their acquisition of the knowledge and skills required. However, this topic does not lend itself to the traditional postgraduate training model and it can be unclear how best to demonstrate learning in this area.

Aims: in this project a novel approach using Driscoll’s reflective cycle to demonstrate formal learning in leadership and management is proposed. This model is designed to fit theme 8 of the Spiral Leadership Framework: “Management Training / NHS Organisation”.

Methods: an initial meeting was held with a member of the Board (Chief Executive Officer), attendance to two NHS Organisation meetings was organized (Trust Management Board and Board of Directors). Pre-meeting papers were circulated beforehand and used to make preparatory notes. Post-meeting Driscoll reflections were completed for both. A final meeting was arranged with the CEO to discuss reflective pieces and consolidate learning from the experience.

Results: this model facilitated exposure of a trainee to the formal management side of the Trust, without the pressures that a consultant with responsibility would face in the same environment. This non-threatening set up permitted full engagement in the meetings with a clear educational focus.

Conclusion: the novel approach proposed by this model provides an easy to follow template for trainees to use to demonstrate engagement with management and NHS organisation. This will assist in alleviating any misconceptions they may have otherwise held of management and permit demonstration of knowledge in this area, as required for progression through training.

## 9. Cost effectiveness of a Core Surgical Training Induction Bootcamp

**Rakan Kabariti**, Thomas Walker, Jamshed Shabbir Jon Mutimer  
Trauma & Orthopaedics, Southmead Hospital, North Bristol NHS Trust

### Background:

Surgical training bootcamps are innovative, simulation rich environments that aim to strengthen the key technical and non-technical skills of trainees at the start of their career in surgery (formerly learnt only by apprenticeship or experience) and provide a welcome to, and standard-setting for a community of professional practice. These introductory bootcamps exist in some places across the country receiving excellent feedback on a regional and national level. Nonetheless, the cost-effectiveness of running such programmes compared to the former model of learning is unknown.

### Aims:

The aim of our study was to determine the cost-effectiveness of running a core surgical training bootcamp using the Severn School of Surgery 3-day introductory programme as an example.

### Methods:

The costs incurred and lost to the trust per year-1 core surgical trainee (CST1) per day throughout the duration of the 3-day core surgical induction bootcamp, were gathered. This was acquired from the financial services department of one trust with 7 CST1s. The gathered data was then extrapolated across 5 other trusts to include all 25 CST1s within Severn deanery. These results were then compared to the costs incurred to run the 2017 Severn School of Surgery 3-day core surgical training induction bootcamp programme.

### Results:

The total difference across all 25 CST1s was £10,130 in saving to the deanery and the NHS trusts combined. The average difference in cost per CST1 was £460 in saving to the trust. The total difference post-extrapolation across all 25 CST1s was £11,500 in saving to the trusts within Severn deanery. The total cost of the 3-day bootcamp was £,1370.

### Conclusion:

Although we appreciate there may be other potential economical confounders across the different regions within the UK, using the Severn Core Surgical Training Induction programme as an example, we conclude that running a Core Surgical Induction Bootcamp is highly cost-effective.

## **10. Balancing feedback and ‘feedforward’: How good are clinicians at giving feedback?**

**Yakup Kilic**, Amjad Ghazzal Asswad, William Ricketts  
Barts Health

### **-BACKGROUND**

Feedback is an essential part of providing excellent clinical teaching<sup>1</sup>. Feedback reinforces one of the areas of GMC good practice as it aids in developing a pathway to see where they went wrong and formulate a plan to correct it. From a behaviourist perspective, feedback has been shown to reinforce or modify behaviour.

### **-AIMS**

This service evaluation sought to establish if students feel that they are being provided with good feedback at the end of their clinical attachment.

### **-METHODS**

A questionnaire for students to complete was developed. Data were collected from 22 students at the end of their placement. Clinicians were not made aware of this project to try and eliminate bias. A combination of numerical and free text data was obtained, allowing quantitative and qualitative analysis respectively.

### **-RESULTS**

- 50% of feedback received was from a registrar
- 77% felt feedback was given only upon request
- 72% of students felt feedback given had some structure and 22% lacked structure
- 72% of students reported not being asked their feelings on their performance
- 22% of students reported positive aspects of their performance not being discussed
- 81% reported clear instructions were given on areas that needed to be improved
- Only 40% of students found feedback useful
- 81% of students reported they would seek further feedback in the future

### **-Conclusion**

Students felt the feedback questionnaire allowed them to think more about how to approach clinical attachments and encouraged them to get the most out of placements. Feedback is an essential learning point for students and should be process implemented throughout their training. ‘Feedforward’ is a new concept we would like to introduce to students to fully understand what is learnt and improve upon it. Different ways of improving the quality of feedback given will also be evaluated.

### **Reference:**

1. Assessment in the Undergraduate Medical Education, GMC Tomorrow’s Doctors 2009

### **13. Registrar readiness - what does our Medical Admissions Unit have to offer?**

**Liz Robinson**, Nadia Stock

Acute Medicine, Newcastle University Hospitals Trust

#### Background

The medical registrar has been described by the Royal College of Physicians (RCP) as ‘the key and most responsible resident involved with acute medical admissions’.<sup>1</sup> A survey by the same body identified that nearly half of respondents do not feel adequately prepared for their role.<sup>2</sup> Our Medical Admissions Unit (MAU) has a high volume of admissions and challenges therefore exist in ensuring our senior house officers (SHOs) are provided with adequate training to fulfil their future roles.

#### Aims

We made a few simple organisational changes; seeking to maximise learning opportunities by integrating professional development with delivery of patient care.

#### Methods

With reference to the RCP’s acute medical care tool kit 3, we identified key opportunities for developing registrar level skills. The following changes were made:

- Nomination of an SHO during each handover to act as (supervised) cardiac arrest lead for each shift
- Provision of a simulated procedural skills course with teaching delivered by senior staff from each speciality
- Delivery of several multi-disciplinary team in-situ acute care simulations with SHO leadership
- Assigning senior trainees to look after monitored bay (containing critically unwell patients).

To understand the impact of these measures on perceived training opportunities, we asked trainees to complete anonymised feedback questionnaires.

#### Results

The most useful aspects of the MAU experience as identified by the SHOs were opportunities to perform procedures, being given responsibility for acutely unwell patients, and opportunities to make escalation decisions with support of registrars. The simulated experiences were ‘very useful’, and led to improved confidence in knowledge and performance of procedural skills.

#### Conclusions

Our results suggest that instigating small changes within our MAU can lead to the provision of valuable learning opportunities for SHOs. It is our hope that by developing these organisational changes further, we can improve confidence in ‘registrar readiness’.

1 Royal College of Physicians (2016). Enabling the medical registrar on take. Accessed online at file:///C:/Users/Admin/Downloads/Registrar%20report%20-%20October%202016\_0\_0\_0%20(2).pdf 10/01/2019

2 Royal College of Physicians of Edinburgh (2015). Quality criteria for core medical training (CMT). Accessed online  
[https://www.jrcptb.org.uk/sites/default/files/0711\\_JRCPTB\\_CMT\\_A4\\_4pp\\_WEB.pdf](https://www.jrcptb.org.uk/sites/default/files/0711_JRCPTB_CMT_A4_4pp_WEB.pdf).  
10/01/2019.

3 Royal College of Physicians (2013). Acute care toolkit 8: Medical registrars. Accessed online at file:///C:/Users/Admin/Downloads/Acute%20care%20toolkit%208%20-%20The%20medical%20registrar%20on%20call%20-%20Maximising%20clinical%20experience,%20training%20and%20patient%20care\_0%20(1).pdf . 10/01/2019

## **18. Evaluation of the Objective Structured Knowledge Assessment (OSKA) - a novel formative assessment tool.**

**Adam T Misky**, Amir H Sam, Karim Meeran  
Imperial College School of Medicine

### Background

Being able to summarise and verbalise clinical findings in order to formulate a diagnosis is a regularly used skill in the clinical environment. Assessment of medical students' ability to verbalise their knowledge is minimal in undergraduate examinations. The importance of asking questions to enhance teaching sessions for medical professionals has been recognised in educational literature. (1) Increasing service pressures have led to a decline in encounters where students are exposed to this style of learning. (2) We developed a formative assessment tool, the Objective Structured Knowledge Assessment (OSKA), where students are asked questions relating to specific clinical topics and scenarios, and encouraged to articulate their thinking process.

### Aims

To evaluate students' perception of the OSKA compared to traditional clinical teaching encounters (e.g. clinics, ward rounds, theatres etc.)

### Methods

Students completed an anonymous questionnaire of 13 questions relating to student satisfaction, clinical and curricular relevance, and feedback compared to traditional clinical teaching immediately after the OSKA. Answers were collected using a five-point Likert scale.

### Results

One hundred twenty-five students (41% of the year group) answered the questionnaire. 97.6% of students were very satisfied or satisfied with the general quality of the session. 99% of students thought the topics discussed were clinically relevant. 79.2% of students felt more at ease and 84.8% felt more engaged by the session than available conventional clinical teaching. 82.4% of students felt the quality of feedback and 85.6% of students felt

the quantity of feedback received was better than at available conventional clinical teaching sessions.

### Conclusions

Students satisfaction with the OSKA was excellent and the majority of students felt this session was in some respects superior to the available conventional teaching. OSKAs may therefore be an excellent complement to teaching at clinical placements, which remain the gold standard.

### References

1. Hausmann JS and Schwartzstein RM. Using Questions to Enhance Rheumatology Education. Arthritis Care & Research. 2019. Accepted Author Manuscript. DOI:10.1002/acr.23753
2. Norman RI and Dogra N. A survey of the practice and experience of clinical educators in UK secondary care. BMC Medical Education. 2014; 14:229  
DOI: 10.1186/1472-6920-14-229

## **19. Using In situ Simulation To Prepare Foundation Doctors For Managing The Sepsis Patient and Promotion of Human Factors.**

**Hannah Davis**, SJ Mercer, TM Parr, N Little

Aintree University Hospital Simulation Department

### Background

Many newly qualified doctors approach their early on-call shifts with a sense of trepidation [1]; assessing acutely deteriorating patients within unfamiliar systems, team roles and equipment. Sepsis is a common on-call presentation with an associated in-hospital mortality >30% [2]. High fidelity simulation allows the rehearsal of such skills in a risk-free environment [3] whilst recreating the emotional experience in order to develop confidence in preparation for those initial patient interactions [4].

### Aims

An insitu-simulation scenario was designed to simulate a patient deteriorating from a hospital-acquired pneumonia. The learning objectives included the recognition and management of sepsis, leadership and decision making, aiming to reinforce these skills and increase confidence prior to participation in emergency work and introduce local systems and guidelines.

### Methods

Thirty-seven Foundation Doctors undertook the scenario three weeks following appointment and independently managed a patient with sepsis assisted by a confederate

nurse. All simulations were followed by a video assisted debrief addressing technical and non-technical skills. Pre and post simulation questionnaires were completed, with a follow-up questionnaire one month later. Participants scored their confidence on a visual analogue scale before and after the simulation.

## Results

In assessing deteriorating patients, escalating to seniors and handing over to seniors, analysis demonstrated a significant increase in confidence: mean difference: +17%, +23%, +17% respectively ( $p < 0.001$ ). Mean confidence managing sepsis post simulation was 7.8/10. Of the twenty-five candidates completing the follow-up questionnaire: 92% reported the exercise had helped them manage a septic patient, 100% reported the suggested assessment structure (ABCDE) had helped them manage a deteriorating patient and 64% reported an increased appreciation of human factors.

## Conclusions

This exercise enabled Foundation Doctors to increase their confidence in assessing and treating a patient with severe sepsis and further introduced local policies and systems. We now intend to repeat this annually.

## References

- 1 Cameron A, Millar J, Szmidt N, Hanlon K, Cleland J. Can new doctors be prepared for practice? A review. *The Clinical Teacher*. 2014; 11 (3): 188-192. doi:10.1111/tct.12127 (accessed 11 December 2018).
- 2 Pelvin R, Callcut R. Update in Sepsis Guidelines: What is Really New? *Trauma Surgery Acute Care Open*. 2017; 2:1. doi:10.1136/tsaco-2017-000088
- 3 Issenberg SB, McGaghie WC, Petrusa ER, Lee GD, Scalese RJ. Features and uses of high-fidelity medical simulations that lead to effective learning: a BEME systematic review. *Medical Teacher* 2005; 27: 10-28.
- 4 Alinier G, Platt A. International overview of high-level simulation education initiatives in relation to critical care. *Nursing in Critical Care*. 2013; 19 (1): 42-49. doi:10.1111/nicc.12030 (accessed 10 December 2018).

## **24. The Situational Judgement Test - Can it really be taught?**

**Bryony Peiris, Tahira Mohamed**

Royal Berkshire Hospital/Addenbrooke's Hospital

### Background

A Near-Peer teaching programme to help improve preparation for the SJT In 2013, the Foundation Programme (UKFPO) introduced the Situational Judgement Test (SJT), an exam for employment that tests the attributes needed to work as a doctor. The UKFPO states that

students do not need coaching or to revise for the exam. However, final year medical students have been shown to feel unprepared for this exam and unsure how to revise.

#### Aims

The aim of this study was to deliver a structured teaching program to final year medical students on the SJT, to assess if students felt more prepared for the exam and to evaluate the efficacy of teaching given by foundation year one doctors.

#### Methods

A teaching programme was designed, developed and delivered by two recent medical graduates for final year medical students. This consisted of an introductory lecture and a series of workshops based on each of the SJT Target Attribute Domains. The course was open to students from all UK medical schools. Students were asked to complete a feedback form at the beginning and end of the introductory lecture and then at the end of the workshops.

#### Results

One-hundred and fifty-three questionnaires were analysed. Feedback was very positive with 99.3% of students stating that they found attending a workshop useful and the majority of students saying the course was well organised (94.2%), they felt more prepared for the exam (86.3%), and felt they knew better how to approach answering questions (88.9%).

#### Conclusions

Despite the UKFPO's recommendations, our results have shown that students have found this course useful in preparing for the exam, in particular to be taught by near-peers who have recently sat the exam themselves. Due to a lack of formal preparation materials being available to students, we hope this course can become an annual event as was expressed in feedback.

## **25. Forgetting your roles, remembering your goals.**

### **Laura Horne**

Blackpool Victoria Hospital

#### Background

According to the General Medical Council's guidance "it is essential for good and safe patient care that doctors work effectively with colleagues from other health and social care disciplines".<sup>1</sup>

Despite this many of the undergraduate health care degrees rarely incorporate interdisciplinary teaching opportunities into their curriculum.

#### Aim & Method

An interdisciplinary dementia crash course was designed to allow all undergraduate healthcare students to work collectively to better their understanding of dementia care. The two-hour course was established in 2016 and continues to run twice per year. The course

incorporates the Alzheimer's Society initiative 'Dementia Friends' which aims to promote a 'dementia friendly' society with increased awareness about dementia and motivation to improve the lives of those living with dementia.

#### Results

A total of 5 courses have been conducted, attended by a total of 118 students. Feedback was collected on the content, relevance and delivery of the sessions. Additional feedback across the 5 sessions was collected on the perceived benefit of interdisciplinary teaching and the demand for further multidisciplinary teaching. Amongst a randomised sample of 40 students feedback, 100% of students 'strongly agreed' that multidisciplinary teaching is beneficial and that it should be conducted more commonly.

#### Conclusion

The success of this teaching programme illustrates the exciting potential and expressed demand for interdisciplinary teaching. It is demonstrated that dementia is a suitable topic to be taught using interdisciplinary teaching methods.

### **27. An evaluation of near-peer led teaching: how well are final year medical students prepared for managing patients with cancer?**

**Thurkaa Shanmugalingam**, Misha Kabir, Kathleen Leedham-Green, Amar Sharif  
London North West Healthcare NHS Trust/Northwick Park Hospital

#### BACKGROUND

There are a number of studies reporting problems in undergraduate oncology teaching and that the preparation for newly qualified doctors can be poor. Hence, oncology teaching should be made more relevant to real life workings of a junior doctor, by placing emphasis on symptom control, training in communication skills and feeling prepared at managing oncological emergencies.

#### AIMS

Our aim was to: 1) Deliver a structured 'near-peer' oncology teaching program for final year medical students; 2) Evaluate the efficacy of teaching and whether the students felt better prepared to work as junior doctors at the end of the peer-led teaching.

#### METHODS

A 'near-peer' oncology teaching program was implemented at Northwick Park Hospital. The teaching sessions consisted of lectures and small group seminars covering topics that included oncological emergencies, common clinical prescribing scenarios in oncology, breast examination and a breaking bad news workshop. Students were asked to complete a feedback questionnaire during and immediately after the program.

#### RESULTS

The students stated that they did not feel confident in their oncological knowledge and preparation in working as a junior doctor prior to starting the 'near-peer' program. Only

12.5% stated that the medical school curriculum had prepared them for working as a junior doctor. They felt that the peer-led teaching was more relevant to the real life workings of junior doctors and delivered at the appropriate level in a safe and informal environment. Overall, 87.5% of the students felt confident in their oncological knowledge and preparation in working as a junior doctor after attending the program.

#### CONCLUSIONS

Near-peer teaching is valued as a useful teaching method in improving oncological knowledge and preparation in working as a junior doctor. In particular, implementing a novel oncology program into the medical school curriculum was stated as a valuable addition to faculty teaching.

### **29. Neonatal Nightmares: Reducing Anxiety and Boosting Confidence for Trainees New to NICU**

**Anna Rodgers**, Amy Taylor, Richard Daniels  
Neonatology, North Middlesex University Hospital

#### Background:

The neonatal Senior House Officer (SHO) rota at North Middlesex University Hospital (NMUH) is composed of paediatric trainees (grades ST1-3), GP trainees, FY2 doctors and trust grade doctors from a variety of backgrounds. For those who did not choose a career in paediatrics or for those first starting out, neonatology often seems daunting and far removed from most other rotations. Few have prior experience in neonatology whereas they are likely to have had paediatric placements in medical school. It is not mandatory for non-paediatric trainees to undertake formal Neonatal Life Support training, nor are they required to sit any paediatric examinations. This initial knowledge gap can lead to low confidence, stress and anxiety.

#### Aims:

To improve the confidence, knowledge and overall experience of trainees who are starting their first neonatal rotation at NMUH.

#### Methods:

Current SHO's who had undertaken their first NICU rotation at NMUH were identified and retrospectively surveyed about how they felt starting the rotation. Data was collected and used to design a new induction programme to deliver to the next cohort of SHOs starting in February and March 2019. A second survey will be undertaken before and after this teaching session, to ascertain whether it helped improve confidence and anxiety levels going into their neonatal rotation.

#### Results:

10 trainees were retrospectively surveyed. When asked how anxious they felt prior to starting their NICU placement, the average response was 3.5 (1=not at all anxious, 5 =extremely anxious). In regards to confidence, the average response was 2.7 (1=not

confident, 5=very confident). 80% reported that their NICU induction did not leave them feeling adequately prepared to start their neonatal attachment. The next neonatal intake is in February and March 2019. The results of the survey following this are pending.

### **30. Improving student confidence using a simulated on-call programme.**

**Heather MacFarlane**, Ria Smith  
Darent Valley Hospital

#### Background

Both the General Medical Council (1) and British Medical Association (2) recommend that Foundation doctors should undertake a shadowing period prior to their first clinical post. The transition from medical student to Foundation doctor is a daunting time for many, particularly in regards to on-call shifts and attending medical emergencies out of hours. We present a project that addresses these concerns.

#### Aims

We piloted a simulation programme that replicated an on-call shift for final year King's College medical students. We aimed to improve students' ability to escalate safely using the 'SBAR' tool, effectively handover between shifts and prioritise the sick patient over other tasks.

#### Methods

For the pilot programme, a total of 22 students attended the sessions with 3-4 students allocated to 6 dates. Feedback was collected from 18 students and course facilitators. Students were bleeped to attend 6 mock stations throughout the hospital wards. Each mock station contained a scenario which tested the students on their clinical knowledge. Many of the stations required further advice (from the BNF, microbiology or palliative guidelines), or further escalation to a registrar or consultant.

#### Results

Areas of concern highlighted by final year medical students regarding on-calls prior to taking part in the pilot were;

- Escalating effectively
- Appropriate handover
- Recognising the sick patient

Feedback was gathered with a Likert scale, with 100% of students stating it was useful to their training. Qualitative data was also gathered on how to improve the programme.

#### Conclusions

Following the success of the pilot, the programme has now become a compulsory part of the 'Transition to F1' scheme for King's College London Medical students at Darent Valley Hospital. Feedback from the first cohort of students has been used to improve and further develop the programme.

- (1) General Medical Council. 2015. Promoting excellence: standards for medical education and training
- (2) [www.bma.org.uk/advice/employment/contracts/juniors-contracts/induction-and-shadowing](http://www.bma.org.uk/advice/employment/contracts/juniors-contracts/induction-and-shadowing)

### **34. Improving junior doctor change over**

**Leila Taheri**, Dr Kokul Sriskandarajah, Dr William Haskins, Dr Orhan Orhan  
Medical Education, Chelsea & Westminster

#### Background

Foundation doctors rotate jobs every four months. This can cause anxiety and stress amongst juniors, especially in the current climate of low morale amongst doctors. This is particularly so in the early stages of foundation year one (FY1), where adapting to new departments can take longer.

This year a document titled Junior doctor engagement: views from the frontline (1) was published. This highlighted the impact of frequent rotations on junior doctors working lives as well as on education and learning.

#### Aims

At the foundation committee meeting, FY1 representatives discussed feedback from their peers, including concerns over changing jobs frequently. In light of this, we aimed to find workable solutions, alleviating some of these difficulties to make change over as smooth as possible for both patients and staff by empowering the junior doctors to produce their own work schedules for incoming colleagues.

#### Method

This document was supported by the postgraduate department who worked with the FY1 representatives to produce a document template. Each team of juniors then created a single page of information including ward round times, contact details and 'top tips'. The completed document was sent to all FY1 doctors prior to change over. The aim is for this to be kept up to date by each team as they rotate.

#### Results

The feedback from trainees was very positive. We highlighted the document at the subsequent foundation programme meeting. The advantage of allowing each team access to the whole document is that juniors can look ahead to future placements in advance, rather than waiting for individual handover. A set template meant all teams were receiving a similar level of information.

#### Conclusion

Regular changeover of jobs is a long established pattern of working for junior doctors. We believe this document will help reduce junior doctor stress at changeover and have a positive impact on patient safety.

#### References

- 1) Faculty of Medical Leadership and Management: title Junior doctor engagement: views from the frontline. Page 16. [www.fmlm.ac.uk](http://www.fmlm.ac.uk).

### **37. On Call Hour**

**Kieran Palmer**, James Lambert, Lauren King, Valerie Dimmock  
Cardiology Department , Homerton University Hospital

#### Background

Undergraduate medical education aims to prepare graduates to immediately start practising as junior doctors. Graduates, however, frequently report that they feel underprepared for the practical aspects of the role.

#### Aims

The 'on call hour' bleep prioritisation simulation aims to bridge the transition between final year and the Foundation Programme. Simulated on call sessions have been shown to help prepare students for this and are endorsed by the GMC. This aims to promote confidence and increase preparedness by giving students the opportunity to experience aspects of the on call role.

#### Methods

Simulation was delivered to final year students over a 6 month period. Students were given nine scenarios to complete which tested practical skills, prescribing and communication. Candidates were recalled at the end and each performed an individual simulated handover before receiving personalised feedback. This was followed by a debrief and review of key learning points. Questionnaires were completed before and after the course and included items of the Tomorrow's Doctors specification and other similar courses nationally.

#### Results

Questionnaires assessed candidates' confidence in their ability to answer a bleep, prioritise tasks, maintain a jobs list, handover, escalate and use guidelines. Pre-course questionnaires identified a lack of confidence and perceived abilities in managing an on call across the cohort. Post-course questionnaires showed that the majority of students felt that it was beneficial in their preparations for Foundation Year One, particularly in task prioritisation and handover. It also identified many individual learning points for students that would not have otherwise arisen through their standard medical curriculum.

#### Conclusions

We have shown that final year medical students often lack confidence and feel underprepared for being on call as a junior doctor. Feedback for our course was positive

with students stating that it improved their preparation and confidence for clinical practice. We recommend its implementation for incoming foundation doctors.

#### **40. Improving the bedside teaching programme at Barnet Hospital**

**Javin Sandhu, Sophia Ellis**

Medical Education, Royal Free Foundation Trust (Barnet Site)

##### BACKGROUND

Bedside teaching is an effective way to revise clinical pathology, practice examination and communication techniques(1). In stark contrast with previous decades, bedside teaching is now only a small component of the current medical curriculum(2). The quality and opportunity of bedside teaching can suffer secondary to current NHS pressures(3,4). As highlighted by the GMC, mentorship forms a cornerstone of good medical practice(5). Bedside teaching is an excellent way to facilitate this. As such, we have organised a mutually beneficial teaching structure for students and doctors to build their respective skill sets.

##### Aims

As foundation doctors working at a UCL teaching hospital, we identified a gap in the provision of bedside teaching to final year medical students. This was reflected in provided feedback.

##### METHODS

We subsequently worked with medical education staff to recruit 26 junior doctors (FY1 to CT2) to commit to fortnightly teaching. A teaching cohort of 30 rotating students was divided into groups of a ratio of 2 tutors to 2 students. We provided clear guidance to foster clear lines of communication between tutors and students. In addition, we used cloud-based feedback collection to quantify and collect data regarding these teaching sessions.

##### RESULTS

The feedback collected after the first term shows a substantial improvement in comparison to that of the previous year. Whereas in the previous year, students reflected on “not enough teaching” and sessions often getting cancelled. Students now appreciate the autonomy for sessions to be “tailored to their needs” and the ability to “arrange teaching sessions at mutually agreeable times”

##### CONCLUSIONS

We have implemented a change to the Barnet Bedside Teaching programme which has already yielded positive results. We are currently working with the education staff to implement further improvements and provide a template for future bedside teaching, both in our trust and other teaching hospitals.

| 300 words excluding references |

References;

1. Ramani S. Twelve tips to improve bedside teaching. *Med Teach*. 2003 Jan 3;25(2):112–5.
2. LaCombe MA. On bedside teaching. *Ann Intern Med*. 1997 Feb 1;126(3):217–20.
3. Ahmed MEBK. What is happening to bedside clinical teaching? *Med Educ*. 2002 Dec 1;36(12):1185–8.
4. Nair BR, Coughlan JL, Hensley MJ. Impediments to bed-side teaching. *Med Educ*. 1998 Mar;32(2):159–62.
5. General Medical Council. Good medical practice. 2013.

### **43. How the bleep do you answer bleeps?**

**Akanksha Garg, Kate Millar**

West Middlesex Hospital

#### BACKGROUND

Foundation Year 1 (FY1) doctors are often required to carry bleeps on graduation from medical school, yet many report little or no training for this skill. Simulation training and role play have been effective in various aspects of medical education. Its' role in teaching medical students telephone communication and bleep prioritisation skills remains to be explored.

#### AIMS

- To evaluate whether simulated bleep scenarios improve confidence and competence amongst final year medical students.
- To perform methods evaluation on the effectiveness of different debriefing processes.

#### METHODS

Final year medical students at Imperial College London were given simulated bleeps to carry whilst attending their clinical placements. Students were bleeped with scenarios commonly faced during FY1, requiring role-played telephone communication with either a nurse or more senior doctor. Their responses were assessed in various domains including ascertainment and provision of clinically relevant details and overall communication skills. Students attended midpoint debrief sessions following which they received further bleeps as above. These debrief sessions were conducted in various styles including verbal group and self-reflection, written reflection and role-play. To assess confidence levels and perform methods evaluation, pre and post-course questionnaires and focus groups were used.

#### RESULTS

Results showed a statistically significant improvement ( $p < 0.05$ ) in objective student performance after attending debriefs. Furthermore, there was a statistically significant improvement ( $p < 0.05$ ) in students' confidence levels after undertaking the exercise. Focus group results are currently pending.

#### CONCLUSIONS

Our study has highlighted the need for further training in telephone communication and bleep prioritisation skills for medical students. We believe there is a role to incorporate these skills into the communication skills curriculum that is already widely taught across medical schools in the UK.

#### **44. Should TBL be used to teach data interpretation?**

**Akanksha Garg, Kate Millar**

West Middlesex Hospital

##### BACKGROUND

Data interpretation is a key skill for junior doctors, as millions of diagnostic tests including full blood count and plain radiographs are performed in the UK each year. Despite being part of their curriculum, third year medical students at Imperial College London report receiving little formal teaching and lack confidence when performing this skill.

Although team-based learning (TBL) is becoming more widely used in medical education, there has been little investigation into the utility of this approach when applied to teaching data interpretation.

##### AIMS

To identify whether TBL is a more effective tool than traditional seminar-style teaching at:

1. Encouraging short-term data interpretation knowledge retention
2. Improving medical students' confidence levels when interpreting data

##### METHODS

Over a 6 week period, 4 sessions were delivered to third year clinical medical students placed at West Middlesex University Hospital, covering radiograph and full blood count interpretation. 23 students were randomly allocated between seminar-based teaching and TBL. Pre- and post- course confidence and knowledge levels were assessed using questionnaires, written assessments and focus groups. These scores were then analyzed for each topic.

##### RESULTS

There was no significant difference ( $p>0.05$ ) between the mean increase in total written assessment score for TBL versus lecture-based teaching. There was no significant difference ( $p>0.05$ ) between the reported improvements in confidence for TBL versus lecture-based teaching. Focus group results are still pending.

##### CONCLUSIONS

Although TBL is emerging as a useful tool in medical education, its benefits when applied to teaching data interpretation appear to be limited.

## **46. Barriers to Medical School Application by Students from a Widening Participation Background**

**Simon Thackray**, Ayesha Ahmad, Nina Dutta  
Imperial College London

### Background

A recent study found that students from affluent backgrounds are over four times more likely to apply to UK medical schools than students from the most deprived decile<sup>1</sup>. Despite this, evidence suggests that students from state school backgrounds were more likely to perform better than their independently schooled counterparts<sup>2</sup>.

### Aims

This study aims to elucidate what students from a widening participation (WP) background feel are potential barriers in their medical school application.

### Methods

In December 2018, Vision Outreach Society based at Imperial College London held a day of talks and interactive sessions for year 11 and 12 students to inform and improve their application to medical school. 148 students aged 16-17 completed a Likert-scale questionnaire asking whether they felt that ten potential barriers would affect their application. These ranged from financial security, home and school support, knowledge of the application process, as well as understanding of the medical career as a whole. Students were also given the opportunity to free-text any additional barriers not included in the questionnaire.

### Results

Only 38% of students felt that they could afford the cost of tuition (Likert score  $\geq 3$ ), while 55% felt they could afford the cost of living as a student. Furthermore, 45% of delegates felt they did not have an adequate understanding of how to attain work experience, and 37% confessed that they did not understand the application process. Twenty-one students raised additional barriers primarily surrounding low self-confidence and grade competition due to their educational background.

### Conclusion

This report indicates that the low application rate seen in WP students is multi-factorial and includes poor understanding of the application process and concerns regarding finances. Methods must be taken to better educate all students about the application process and available financial support structures, to ensure that socioeconomic status is not a factor in the medical school application process.

## **52. Signposting learning outcomes to improve student satisfaction**

**Holly Jacques, James Gaywood,** Amy Daniels  
Medicine, South Warwickshire Foundation Trust

### Background

Recent feedback from medical students on the Care of the Medical Patient (COMP) placement at Warwick Hospital highlighted concerns that some learning outcomes were not being adequately covered. There was an impression that all (54) learning outcomes for medicine should be covered across the 6 week block. Students did not appreciate that there was overlap with other blocks in that year and with knowledge gained from previous years

### Aims

Increased transparency of which learning outcomes could realistically be covered in the limited time available and why they had been chosen with the aim of improving student satisfaction with the block.

### Methods

The whole six week block of teaching was redesigned, taking into account the recent student feedback. Core tutorials were selected from the medical school learning outcomes with a focus on topics not covered elsewhere in their curriculum.

At the start of the block the format was explained to the students, making it clear we could not cover all outcomes but reassured students they would be covered in the whole course.

At the beginning of each tutorial the learning outcomes being taught were stated. Any learning outcomes being covered elsewhere in the curriculum were highlighted with reference to where they had been or would be taught. A list of resources for each learning outcome was also provided to guide further self-directed study.

### Results

Students' feedback on individual tutorials was positive after the initial introduction of this new format. They felt it was helpful to have a clear guide of where the learning outcomes were covered and which ones were being focused on. Feedback on the whole block is still awaited.

### Conclusions

Clear signposting of where learning outcomes are being covered in a curriculum and which are being focused on in the block resulted in positive feedback from students.

### **53. Using 'Simulated On-Call' to prepare students for F1: exploring if, how and why it works**

**Lauren Misquita, Lucy Millar**

Undergraduate Medicine, Chelsea & Westminster Hospital

#### Background

Medical graduates feel unprepared in clinical reasoning, emergency management, handover, and ward environment familiarity, which are essential during on-calls. New educational approaches are needed to address this. Last year we developed a 'Simulated On-Call' teaching programme for final year students which significantly improved students' confidence in fundamental skills and preparedness for F1 on-calls.

#### Aims

- To evaluate for subjective and objective improvements in fundamental skills and preparedness for on-calls
- To explore why and how this teaching method achieves the above outcomes compared to traditional methods

#### Methods

Students attended two 'Simulated On-Call' sessions; individualised feedback and handouts were given. Subjective data was collected using pre- and post- programme questionnaires consisting of 10-point Likert scales and free-text questions. Students were assessed on two fundamental skills during sessions to assess for objective improvement. Focus groups and grounded theory explored students' previous experience and barriers to preparedness and how this approach enabled them to learn compared to traditional methods.

#### Results

Focus Groups highlighted students felt unprepared for on-calls due to lack of experience; barriers included time, organisation, doctors' motivation and capability and unpredictability of shifts. Following the programme, students felt significantly more prepared and confident in fundamental skills ( $p < 0.001$ ). Students' ability to assess unwell patients and handover significantly improved ( $p < 0.01$ ). Students found this approach better than seminars and shadowing due to its realism. This was explored during Focus Groups with the following themes identified: independent work, responsibility, safe environment to make mistakes, time pressure and stress, multi-tasking. Students appreciated the opportunity to consolidate learning through individualised feedback and the second session.

#### Conclusions

Our evaluation suggests that this approach is effective in preparing final year students for on-calls and that students found it more beneficial than traditional teaching methods. We are now exploring the scope to integrate the programme into the students' apprenticeship placements.

## **55. OSBJ - A new model for giving feedback in the clinical environment**

**Sally Sadasivam**

Medical Education, County Durham and Darlington NHS Foundation Trust

### Background

Pendleton and ALOBA models are commonly used to provide feedback to learners. However, Pendleton's rules have been criticised for being overly rigid while artificially dividing behaviour into correct and non-correct behaviour(1). The ALOBA model addresses these concerns but is complex and time consuming to implement. Neither model provides a reminder for the facilitator to justify grades awarded if the observed encounter forms part of a practice or formal summative assessment. Due to perceived deficiencies in these models, the OSBJ model was created.

### Aims

The aim of this submission is to describe the OSBJ process to the conference attendees to provide a practical alternative to Pendleton and ALOBA.

### Methods

The OSBJ process involves:

Open question: the learner states their feelings about the encounter, these may be positive or negative but are often a commentary about the context of the encounter

Specific questions – the facilitator asks probing questions with the aim of increasing insight of the learner into their performance, both positive areas and areas which require further development. An example would be to focus on a differential diagnosis list and to ask the learner whether they had taken an adequate history to explore these potential diagnoses.

Balanced feedback – this provides the facilitators perspective on the encounter and should include positive and constructive feedback

Justify grade – if the clinical encounter formed part of an assessment, the assessor should clearly go through the assessment criteria and explain to the learner what specific parts of the performance led to the awarded grades

### Results

Informal feedback from presenting the model to others has been very positive. Further research is planned to gain facilitators' experience of using the model and also to gain the learner perspective.

### Conclusions

OSBJ can be used in a short space of time, involves the learner, promotes self-reflection and ensures that assessment grades are justified.

### References

1. Chowdhury R R, Kalu G. Learning to give feedback in medical education. The obstetrician and gynaecologist 2004;6: 243-247

## **56. The impact of an ENT emergency skills course on junior doctors' confidence and career prospects**

**Alasdair Mayer**

Otolaryngology, Newcastle upon Tyne Hospitals NHS Foundation Trust

### Background

Ear, nose and throat (ENT) is under-represented in most undergraduate curricula. As a result the majority of UK medical graduates are not confident in managing common ENT conditions. With a declining rate of applications to ENT speciality training, there is growing concern that a lack of exposure may be deterring junior doctors from pursuing ENT as a career.

### Aims

To assess whether an ENT emergency skills course was an effective means of increasing junior doctors' confidence in managing ENT emergencies and their interest in ENT as a career.

### Methods

Participants were junior doctors attending a one-day ENT emergency skills course; comprised of lectures, task trainers and simulation. Participants completed pre- and post-course questionnaires using a 10-point Likert scale to assess confidence in their ENT knowledge, ability to manage ENT emergencies (1= no confidence, 10 = high confidence) and likelihood of pursuing ENT as a career (1 = highly unlikely, 10 = highly likely). Results were analysed using the Wilcoxon Signed-Rank test and are reported as pre- and post-course mean scores, with  $p < 0.05$  considered statistically significant.

### Results

Nineteen of the twenty-three participants completed both questionnaires. Four participants were excluded as their questionnaires were incomplete. Confidence in managing ENT emergencies significantly increased, with mean scores of 3.5 pre-course and 7.8 post-course ( $p = 0.00016$ ). Similar results were observed where participants rated their ENT knowledge; mean scores of 4.2 pre-course and 7.8 post-course ( $p = 0.0002$ ). There was no significant increase in participants likelihood of pursuing ENT as a career ( $p = 0.32$ ).

### Conclusions

Although limited by sample size and lack of follow up, these results suggest that confidence in managing ENT emergencies can be improved by means of a one-day ENT emergency skills course. However, it appears a brief educational intervention is insufficient to influence the career prospects of junior doctors.

### References

- [1] Ferguson, G., Bacila, I. and Swamy, M. (2016). Does current provision of undergraduate education prepare UK medical students in ENT? A systematic literature review. *BMJ Open*, 6(4), p.e010054.
- [2] Green, R., Steven, R. and Haddow, K. (2017). Declining applications to surgical specialist training. *The Bulletin of the Royal College of Surgeons of England*, 99(4), pp.142-144.

## **58. What are the perceptions of doctors, pharmacists and members of the client services team regarding the value of multi-disciplinary simulation training in online medicine?**

**Charlotte Hammerton**, Deidre Wallace, Louisa Draper, Zenon Andreou  
Online Medicine, Health Bridge Ltd

### BACKGROUND

Online medicine requires inter-professional collaboration to deliver care but it's remote and rapidly developing nature could be perceived as isolating and complex. In other contexts, simulation is known to improve team functioning and promote the capabilities of expert, collaborator and communicator. It has also been credited with improving healthcare quality. For the first time, inter-professional simulation training (SIM-IPE) was recently introduced to an online medical setting.

### AIM

To explore the perceptions of doctors, pharmacists and customer support team members regarding the value of SIM-IPE in online medicine

### METHODS

Focus groups were conducted with 8 participants selected using systematic, non-probabilistic, purposive sampling. Questionnaires were developed using themes identified from focus group data analysis to triangulate results and sent to all participants.

### RESULTS

13 responses, representing all teams, were collected (57% response rate). Median rating of educational value was 9/10 (range 7-10). The main value was attributed to teamwork, improving communication and relationships, relevant, safe experiential and observational learning, improving practice and gaining confidence. 8/13 reported a change in practice. All participants agreed training improved confidence, team communication, critical thinking and they applied individual learning. Participants, particularly pharmacy and CS teams, perceived SIM-IPE as stressful, however no overall agreement was reached regarding other perceived drawbacks.

### CONCLUSIONS

Given the high overall perceived value, numerous perceived benefits and evidence of self-reported changes to practice, consistent with education theory and wider literature in other contexts, the continued use of SIM-IPE in online medicine is recommended. Further research is needed in to the drawbacks of SIM-IPE, related potential improvements and methods to reduce stress associated with training.

## **59. Future Leaders: A Regional Teaching Session**

**Emma Davies**, Dominic Merriott, Geevithan Kumaran

Medical Education, Brighton and Sussex University Hospital NHS Trust

### BACKGROUND

Leadership & Management (L&M) competencies are set out in the Foundation Training Curriculum and are a recognised GMC requirement. Effective clinical leadership is associated with improved patient outcomes. Despite this there is a significant lack of exposure to L&M at a junior doctor level.

### AIMS

We developed a regional L&M teaching session for Foundation Year 2 representatives from various NHS trusts in the South Thames region. We aimed to give them a greater understanding and knowledge of L&M principles, and how to apply this in their roles as junior doctors. Following this they would have the tools to deliver a similar session for foundation trainees locally.

### METHODS

We designed and facilitated a peer-delivered teaching session for 19 FY2s across 10 different NHS trusts. Specific aims and learning objectives were established. The session involved discussion on relevant concepts in L&M including the NHS Healthcare Leadership Model and leadership development in clinical practice. Pre- and post-session questionnaires using Likert scales and free text comments, assessed understanding in L&M and confidence in delivering a further session.

### RESULTS

Trainees responded that the session furthered their understanding of L&M and enhanced their L&M development with scores of 8.4 and 7.7 out of 10 respectively. They reported increased confidence in delivering a session on L&M from 3.8 to 7 out of 10. Comments included; thought-provoking and interactive.

### CONCLUSIONS

This peer-delivered teaching session has improved trainee understanding of L&M in healthcare, boosted confidence in their L&M development whilst equipping them to deliver a session at their local trust. We propose that L&M teaching should be incorporated into the Foundation Curriculum and may benefit from peer delivery. Engaging and training junior doctors early in L&M is essential, as the current healthcare workforce and prospective clinical leaders.

## 60. High-fidelity simulation as an education tool in Intensive Care

Manoj Wickramasinghe, Philip Antill, David Moir  
Intensive Care, Leeds Teaching Hospitals

### Background

Simulation was introduced to anaesthesia and critical care through successes seen in the aviation industry. Since then the use of simulation-based education has increased exponentially. Simulations which is in line with the constructivist theory of experiential learning aims to teach the application of knowledge and skills as well as test non-technical skills (1). Advances in technology has brought about the change from low-fidelity to high-fidelity simulators. In Leeds Teaching Hospital Trust we have set up a multi-disciplinary high-fidelity simulation course.

### Aims

- Application of knowledge and skills in rare and common emergencies
- Exploring and increasing awareness of human factors
- Improving communication skills

### Methods

- 1 day course with 4 doctors in Intensive care and 8 band 5/6 nurses
- Simulation and observation room with high-fidelity SimMan and video footage
- Simulation scenario template including scenario progression
- Formalised debrief session splitting nursing and medical learning objectives
- Six 20 minute scenarios with 40 minute debriefs throughout day

### Results

- Excellent feedback received from candidates (Table 1)
- Feedback included the 'realness' of the scenarios
- Candidates enjoyed the opportunity to work in a 'multi-disciplinary team'
- Candidates founded the debriefing session as a particularly useful part of the day and felt it was 'non-threatening'

Poor Below average Average Above Average Excellent

Introduction 6% 94%

Relevance 100%

Learning outcomes 6% 94%

Debriefing 100%

Overall rating 100%

### Conclusion

A one-day high-fidelity simulation course designed for Intensive Care staff has been well received. The feedback for the Leeds Intensive Care Simulation Course suggests and supports the growing body of evidence showing the benefits of Simulation-based education in Intensive Care (2).

#### References

- 1) Kolb & Kolb (2005). Learning Styles and Learning Spaces: Enhancing Experiential Learning in Higher Education. *Academy of Management Learning & Education*, 4, 193-212.
- 2) Green M, Tariq R, Green P (2016). Improving patient safety through simulation training in anaesthesiology: where are we? *Anesthesiol Res Pract*.

### **61. The Hidden Curriculum: An Ethnographic Exploration of Students' Perceptions of Careers in Primary Care**

**See Chai Carol Chan**, Saniya Mediratta, Rhys Smith, Dr Elinor Gunning, Dr Camille Gajria, Dr Surinder Singh, Dr Melvyn Jones, Dr Ravi Parekh, Dr Sonia Kumar, Dr Sophie Park  
University College London and Imperial College London School of Medicine, Department of Primary Care and Public Health

#### Background

UK General Practice is facing a workforce crisis, with significantly fewer trainees choosing a career in General Practice. The Health Education England "Wass Report" highlighted influences during medical school, including the effects of the formal, informal and hidden curricula.

#### Aims

Using a novel ethnographic approach, this study aims to provide an insider's perspective of the hidden curriculum and to investigate the interactions that influence students' career perceptions on primary care.

#### Methods

Two medical schools were purposively selected, both with low percentage of graduates entering into General Practice. As 'participant researchers', four medical students (2 from each school) made regular, reflective notes from March to November 2018 regarding encounters and discussions relating to General Practice career perceptions in settings such as placements; faculty-led teaching sessions; and social environments. The research team then conducted thematic analysis and held regular 'data clinics' to discuss emerging themes.

#### Results

Positive themes included better work-life balance, intellectual challenge of generalism and formation of quality doctor-patient relationship through continuity of care. Negative themes included the lack of visibility and physicality of General Practitioners' work, the lack of dynamic and aspirational role models and the perceptions of success and embarrassment when considering career choices.

## Conclusions

The exposure to a complex culture around General Practice careers directly influences students' career choices during their time at medical school. Significant changes are required to address how General Practice is perceived by medical students. On placements, it is essential to ensure active medical students participation to emphasize General Practitioners' longitudinal impact on patients. In medical schools, it is necessary to not only educate students about the hidden curriculum, but to also integrate General Practitioners into day-to-day teaching. In the wider healthcare setting, there needs to be a shift in attitude and culture to relieve tension between primary and secondary care interface.

## **62. Interprofessional Education Delivered Through 'Escape Rooms'**

**Megan Bevis**, Charlotte Verney, Benjamin Matthews, Bethan Lewis  
Keele Medical School, Shrewsbury & Telford Hospital Trust

### BACKGROUND

It is important that medical students have the opportunity to learn with other healthcare professionals. This allows the students to understand different roles, work collaboratively and break down barriers between professions. Interprofessional education is still a relatively young concept in healthcare education, therefore new and innovative methods for its delivery is an area of interest.

### AIMS

To evaluate the use of escape rooms in interprofessional education.

### METHODS

Small groups of final year medical, nursing and pharmacy students completed two escape rooms as part of their interprofessional education day in December 2018. Each escape room had approximately 6-8 students from mixed disciplines. The first escape room had a sepsis theme and the second room a massive haemorrhage/cardiac arrest theme. Feedback on teamwork, leadership and human factors were given to the students by Clinical Teaching Fellows (CTFs) after the first room and then the second scenario was undertaken. Students were asked to fill out short anonymous feedback forms.

### RESULTS

Thirty five students (19 medical students, 12 nursing students and 4 pharmacy students) completed the two escape rooms. All the students found the interprofessional learning experience useful. The escape rooms were scored as good or excellent by all the students. All specific comments were positive. The comments had recurring themes including that the task was fun; encouraged teamwork; and was a new and different learning experience. The CTFs observed that students' performance improved following feedback after the first scenario. This included students introducing themselves, identifying leaders, understanding different skill sets and delegating tasks.

## CONCLUSIONS

The feedback and observations have shown that using innovative ideas such as escape rooms can be effective in interprofessional education. Not only do the students engage as it is a new and different way of learning, they also show improved performance after feedback.

### **63. Simulation training for administrative tasks faced as a junior doctor**

**Megan Bevis**, Bethan Lewis, Charlotte Verney

Keele Medical School, Shrewsbury & Telford Hospital

## BACKGROUND

Simulation training is a common method for teaching undergraduate medical students. Training often focuses on dealing with acute emergencies; however a large proportion of a junior doctor's job involves administrative tasks such as writing in medical notes or completing discharge summaries. These are important tasks that should be practiced but are often overlooked in the curriculum.

## AIMS

To evaluate the use of simulation-based teaching in final year medical students for administrative tasks.

## METHODS

Small groups of final year medical students (8-10 students) attended two simulation workshops between September 2018 and January 2019. The first workshop was a simulated ward round of six patients. Clinical Teaching Fellows (CTFs) created a simulated ward, acting in the role of patients and consultant. Patient's observations and blood results were available to view. The students were asked to write in the medical notes whilst on the consultant ward round. The second workshop was writing a discharge summary and prescription from simulated ward notes. The notes from both sessions were reviewed by CTFs and feedback provided. Students filled out short anonymous feedback forms on the sessions.

## RESULTS

A total of 52 students took part (35 for the ward round workshop and 17 for the discharge summary workshop). All students rated the sessions as useful and found it a valuable learning experience. Twenty one students (40%) specifically commented on the realistic nature of the tasks and a further 17 students (33%) said they valued the advice for their foundation jobs. Other comments included the usefulness of receiving personalised feedback and how their confidence in the task had improved.

## CONCLUSIONS

The feedback from these workshops demonstrates that final year medical students find simulation-based learning on administrative tasks very useful. In particular they value the opportunity to practice in realistic settings and get personalised feedback on their performance.

#### **64. Medical Students' Perceptions on Enterprise and Entrepreneurial skills in Medical Education**

Matthew Tang, Sonal Mistry, Valerie Farnsworth, Sikha Saha  
University of Leeds School of Medicine

**Background:** The GMC have called upon Enterprise Education (EE) to equip medical graduates with entrepreneurial skills to respond to the demands on the NHS. EE has been increasingly incorporated into medical school curricula e.g. University of Leeds (UoL) have integrated enterprise strands since 2010. Yet, literature on enterprise in medical education is limited and therefore warrants qualitative exploration.

**Aims:** To explore medical students perceptions of EE at UoL; to understand how medical students' develop entrepreneurial skills and identify barriers and motivating factors for engaging with EE.

**Methods:** Semi-structured interviews were conducted with ten medical students (six home and four international). Two from each year group at UoL were randomly selected to ensure a broad perspective based on differing academic and clinical exposures. Interviews were audio recorded, transcribed verbatim and analysed thematically.

**Results:** Results showed no clear consensus on the understanding and value of EE. Three overarching themes were identified. (1) Some defined enterprise as a business related act which brings about change and was often associated with financial gain. To some, enterprise was considered a mind-set that should be cultivated early. (2) Enterprise was considered more essential for doctors by international students in countries with private healthcare systems. (3) Most viewed EE as an additional asset for some senior doctors but not for all.

**Conclusions:** Prioritising clinical knowledge, lack of opportunities and time were perceived barriers to engaging with EE. Suggestions to improve EE included role models to encourage an entrepreneurial mind-set and team-based, problem-solving teaching methods on creativity and leadership. Students perceived EE as desirable but not necessarily feasible, perceptions are therefore important when considering curriculum development. To integrate enterprise into the curriculum, it requires time and resources to foster the mind-set and skills. Future research should consider year group and home/international status as independent variables when exploring perceptions.

## **66. Implementation of theoretical and practical lumbar puncture simulation-based training: relevance and evaluation in current practice**

**Sinead Gaubert**, Alice Blet, Patrick Plaisance, Caroline Roos, Sid Ahmed Remini, Damien Roux, Claire Paquet  
Neurology, Lariboisière-Fernand-Widal Hospital, Paris, France

### **BACKGROUND:**

Lumbar puncture (LP) for cerebrospinal fluid (CSF) collection is a common medical procedure that can be performed by any doctor, either for diagnostic or therapeutic purposes. To our knowledge, there is no validated theoretical or practical training for LP in France.

### **AIMS:**

Our aims were to evaluate students' theoretical and practical level, set up LP simulation-based training and evaluate this training in real conditions.

### **METHODS:**

Our work involved four stages : 1/ Evaluation of students' theoretical knowledge regarding LP by Multiple Response Questions (MRQs); 2/ Implementation of theoretical teaching and practical LP simulation-based training on mannequins with an evaluation of the training by the students; 3/ After optimization, deployment of this training to fourth year medical students; 4/ Evaluation by a prospective randomized study on two groups of students (with or without prior training) to assess the impact of this training on the success rate of their first LP on a patient.

### **RESULTS:**

Before training, the average score at MRQs was 4.4 out of 10 (SD 1.4). The training allowed an improvement of the level of theoretical knowledge and confidence in the performance of LP ( $p < 0.0001$ ). The randomized study of 41 students showed a trend towards a better success rate of the first LP on a patient for the group with versus without prior training (74% vs 57%,  $p = 0.307$ ). Moreover, technical assistance was less frequent in the group with prior training (19% vs 57%,  $p = 0.017$ ).

### **CONCLUSIONS**

Students' theoretical and practical knowledge was noticeably improved by the training. Despite the lack of power of the randomized study, LP simulation-based training seems to bring a real benefit with a decrease in technical assistance and a better experience for students regarding their first LP on a patient. A long delay between the training and the performance of LP on a patient could limit this benefit.

## **69. Near-Peer Bedside Teaching Promotes Learner Contextualisation of Core Science and Increases Tutor Confidence in Teaching**

**Sonia Mason**, Dr Mashar, Dr Laidle, Dr Bica, Dr Sun, Dr Weatherby, Dr Morris, Dr Evans  
Respiratory Medicine, Chelsea and Westminster Trust

### **BACKGROUND**

Promoting contextualisation and application of core science in clinical medicine can be challenging. One solution may be the use of a Near-Peer Teaching Scheme (NPTS); a versatile teaching strategy that may benefit both students and teachers by developing essential skills for future learning and professional practice.

### **AIMS**

Our study investigated the effect of a NPTS teaching bedside clinical examination on both junior and senior medical students: contextualisation of core scientific knowledge and how to approach the clinical method for junior students, and the development of teaching skills for senior students.

### **METHODS**

Our study involved Year Three students (learners) being taught by Year Six students (tutors) over an eight-month period. Tutors delivered three bedside teaching sessions designed to relate basic scientific knowledge to clinical medicine. Evaluation involved anonymised paired pre- and post-scheme self-rating questionnaires using a five-point Likert scale (0=not at all confident, 5=extremely confident). Statistical analysis was performed using Wilcoxon signed-rank testing. Ethical approval was obtained.

### **RESULTS**

90 learners and 45 tutors were recruited. 32 (35%) students and 40 (89%) tutors completed both pre- and post-scheme questionnaires. Following the scheme, learners reported median(IQR limits) scores showing increased contextualisation and application of core science knowledge to clinical practice (3.5(3-4) to 4(3-5)), increased awareness of holistic care (3(1-3) to 4(2-4)), and increased confidence in how to approach clinical medicine (3(2-3) to 3(3-4)) (all  $p < 0.01$ ). Tutors reported increased confidence in engaging and managing students (4(3-4) to 4(4-4)), and increased recognition of the practical challenges of teaching (3(3-3) to 2(2-3)) (all  $p < 0.01$ ).

### **CONCLUSIONS**

We demonstrate that our NPTS has a mutual benefit for both junior and senior students. It promotes increased contextualisation of basic science teaching whilst developing the junior students' clinical method. It also benefits senior students by developing the essential teaching skills required for future professional practice.

## **70. Near Peer Teaching in Newcastle University MedEd Society: Are Regular Revision Lectures a Good Addition to Pre-Exam Preparation Sessions?**

**Adam Vaughan, Richard Gavin, Harry Knott**

Newcastle MedEd Society, Newcastle University

### Background

Newcastle MedEd runs student-lead events to aid other students' revision. With the focus of most events being on last-minute exam preparation, we decided to trial running events in the intervening period between exams. The hypothesis is that regular revision sessions running alongside the main curriculum are an effective addition to the current pre-exam sessions. Regular consolidation is thought to be helpful, yet it did not form part of Newcastle MedEd's revision schedule until October 2018.

### Aims

This project aims to evaluate the effectiveness of a new monthly lecture series.

### Methods

We have trialled the lecture symposia on 3 occasions at monthly intervals in which 3 teachers gave a 40 minute presentation on recently taught topics. We also held a revision circuit 2 days before the students' January exams. In order to evaluate the effectiveness of these sessions and student preference, we designed a questionnaire to formalise the feedback from the trialled events. This will be completed by students at the end of our next lecture in February. The questionnaire comprises questions to be rated from 1 to 5, with 1 being strongly disagree/low quality, and 5 being strongly agree/high quality. Some questions include: "How useful are the monthly sessions?"; "My concentration is better in a lecture rather than a seminar" (agree/disagree); "The lectures are a beneficial addition to the curriculum (agree/disagree)".

### Results

TBC – Event will be held 19th February 2019 (estimated attendees = 100).

### Conclusions

Experience of trialled events shows that monthly revision sessions have been well received amongst the year 2 cohort and have aided their progress. Pre-exam revision circuits are thought to be an essential part of aiding with revision. Further research is needed to establish the impact of these lectures on exam results, but they appear to be a valuable addition to the MedEd service.

## **72. Developing a Medical Innovation Programme for Preclinical Medical Students led by Near-Peer tutors**

**See Chai Carol Chan**, George Choa, Oziegbe Eboreime, Ahmed Rashid  
University College London Medical School

### Background

Healthcare is a constantly changing environment and innovation is an important part of the work of medical professionals. Although this is recognised by the World Federation of Medical Education global standards for basic medical education, UK-based medical schools have not integrated the teaching of innovation as much as those in North America, for instance.

A recent example of innovative practice by medical schools is the introduction of Near-Peer Teaching (NPT), where senior students teach junior students with the advantage of social and cognitive congruences. For junior students, NPT has been shown to have similar or better outcomes than teaching delivered by faculty members. For senior students, it allows the development of greater proficiency in the topic and improvement of professional and communication skills.

### Aim

To evaluate the use of NPT to introduce medical innovation to first-year medical students.

### Methods

Under the Student Selected Component scheme, three senior medical students led and delivered eight weekly sessions on topics of medical innovation, including education, technology and entrepreneurship.

Qualitative data from semi-structured focus groups, led by an academic, conducted on the near-peer tutors and first-year medical student tutees are coded and analysed thematically using NVivo. Structured evaluation questionnaires for tutees, completed at the end of the module, are also used for analysis.

### Results

Teaching sessions are currently ongoing, with formal data to be collected and analysed before the end of March.

Informal feedback shows tutees recognise the importance of learning innovation to supplement their core curriculum. Tutees also appreciate being taught by near-peers, and report development of transferable skills. Similarly, tutors describe greater confidence, improved teaching competence and increased understanding of the subject matter.

### Conclusions

We believe our findings on Near-Peer Teaching will encourage senior students to take on teaching roles and prompt medical schools to support these endeavours.

### **73. CEF Grand Round - Meeting the educational and support needs to Clinical Education Fellows**

**Amanda O’Keeffe, Dhanya Pillai, Nanditha Sathyanarayana, Tom Baker**

UHCW Paediatrics

#### **Background & Purpose**

As a trainee in a hospital department there’s often an education agenda involving grand rounds, journal clubs and tutorials. There are often regional events that bring together a deanery’s trainees that facilitate learning and development of peer support networks.

The same is not the same for Education Fellows who have the same educational and support needs as trainees but limited regular networking opportunities and educational events. Medical Education managers have also been asking us to collaborate with other trusts to better what is offered to students and improve feedback received.

The aim is to achieve a local and regional network of Clinical Teaching Fellows.

#### **Methodology**

A local CEF grand round has been established within our trust, a mix of Journal Club, Teaching and ‘Project Café’ events. External speakers have spoken on careers, research and medical education management. After our first external speaker we felt the Teaching Fellows from other trusts within the same medical school would benefit from similar sessions, as we shared learning and networking needs.

The other hospital Teaching Fellows were contacted and invited to collaborate on regular regional CEF Teaching Events.

#### **Results**

For our first meeting we invited CEFS to meet, discuss their roles, what was going well in their trust and what they wanted to improve. We discussed what we wanted to achieve from joint meetings over the year, including a structure for the meetings.

Our second meeting was a 2 hour session with the Head of MBChB on the local medical school curriculum and medical education careers planning. Our next meeting will evolve to include a meeting to elect a chair and secretary of the Regional Grand Round, before moving on to an agenda of research projects and what we can collaborate on, sharing best practice and areas for improvement, opportunities and challenges within our roles and further planning for the year ahead. We will collect feedback on how the CTFs feel about sessions and whether they meet their needs.

#### **Discussion & Conclusions**

We aim to connect fellows from three trusts to promote collaboration, continued professional development (CPD) and education career planning, establishing a larger ‘community of practice’. The trusts are different sizes and opportunity for education CPD was not balanced.

By coming together and setting shared agendas we plan to collaborate on research projects, curriculum development and invite speakers that can meet our learning needs.

### **77. An educational intervention: evaluating and developing PICC services in Leeds Teaching Hospital NHS Trust (LTHT)**

**Joseph Wheatley**, James Florance

Anaesthetics Leeds Teaching Hospital Trust

#### Background

Peripherally inserted central catheters (PICCs) have become increasingly commonplace in hospital, used most frequently for administering chemotherapy, total parenteral nutrition and prolonged intravenous antibiotic courses. They are designed to stay in situ for several months, providing a cost-effective alternative to peripheral cannulas(1). Despite this, 20-30% of PICCs require premature removal owing to complications, most commonly catheter occlusion(1,2). This is heavily attributable to poor nurse confidence in specific aspects of PICC care, such as correct line flushing and blood withdrawal(3).

#### Aims

The aim of this study was to develop and pilot an educational resource at LTHT, to improve nurse understanding and confidence in PICC care and maintenance.

#### Methods

A total of 35 nurses across 7 wards at LTHT received our educational resource - a PowerPoint tutorial centered on PICC nursing care and maintenance principles, facilitated by the authors. Participants were required to fill out a multiple-choice questionnaire (scored out of 8), and a pre- and post-intervention confidence questionnaire (Likert scale 1-5). A two week follow up was also attempted to quantify retention of knowledge.

#### Results

The mean pre-test score was 3.37/8 (S.D= 1.46) with a mean post-test score of 7.17/8 (S.D= 0.71), ( $p < 0.0001$ ). The mean pre-test confidence score was 2.35/5 (S.D= 1.07) which rose to 4.37/5 (S.D=0.65) post intervention ( $p < 0.0001$ ). Six nurses responded to two-week follow up; giving a mean score of 7.00/8 (S.D= 0.89) ( $p < 0.001$ ).

#### Conclusions

Significant score improvements in the post-presentation test were achieved representing acquisition of key knowledge regarding PICC line care. The educational intervention was well received in our feedback survey and confidence was increased dramatically. We plan to convert this to an e-learning package at LTHT, to be accessible trust-wide to help improve PICC care and reduce failure rates.

## References

- 1) NGO, A. & MURPHY, S. 2005. A theory-based intervention to improve nurses' knowledge, self-efficacy, and skills to reduce PICC occlusion. *J Infus Nurs*, 28, 173-81.
- 2) ASTON, V. 2000. Community management of peripherally inserted central catheters. *Br J Community Nurs*, 5, 318, 320-5.
- 3) NEW, K. A., WEBSTER, J., et al. 2014. Intravascular device use, management, documentation and complications: a point prevalence survey. *Aust Health Rev*, 38, 345-9.

## **80. Final Year Examinations Versus FY1 Preparation: Introducing a Series of Sessions to Bridge the Gap**

**Ariella Midgen**

Gastroenterology, Watford General Hospital

### Background

The final year of medical school can feel like a year of conflicting priorities: revising for examinations versus preparing to become a doctor. It is tempting for students to focus on whichever is more pressing at the time, rather than viewing finals as a tool to equip them for the future. This impacts how students engage with educational opportunities. In pre-course questionnaires, students perceived their clinical placements as more useful for FY1 preparation than for examinations ( $p=0.0114$ ) and therefore reported being less likely to engage with their placements as examinations loomed closer.

### Aims

A series of classroom-based teaching sessions designed to bridge the gap between examinations and FY1 was devised. Each session covered key theoretical knowledge within FY1-based scenarios. The aim was to assess the course's efficacy at shifting participants' perspectives on their clinical placements, and whether it encouraged students to view their final examinations as part of FY1 preparation rather than draining time away from it.

### Methods

The series was introduced to University College London medical students on their final year placements at Watford General Hospital. Pre- and post- course questionnaires were analysed for shifting attitudes towards their clinical placements, and the perceived overlap between preparing for exams and careers.

### Results

The sessions were positively received, and the students reported feeling more prepared for their written examinations ( $p=0.0487$ ), OSCEs ( $p=0.0622$ ), and for working as FY1 doctors ( $p=0.0504$ ). More importantly, following the series students were more likely to believe that revision and planning for FY1 overlapped ( $p=0.0443$ ), and less likely to believe that their clinical placements were irrelevant until their examinations ended ( $p=0.1371$ ).

### Conclusions

Bridging sessions could be a useful supplement to realign the aims of the final undergraduate year. There is no need for educational opportunities, book-work, and clinical experiences to be at odds with each other.

## **82. Factors associated with medical students' awareness of HIV prevalence in elective destinations and choice of HIV prophylaxis**

**Hyun Lee**, Zan Majeed, Pete Taylor-Hunt, Ann Wylie, Kiran Khepar, John McSorley  
King's College London GKT School of Medical Education

**Background:** Electives provide a valuable learning experience for undergraduate medical students. Careful planning and risk assessment are essential, especially surrounding HIV risk. Post-exposure prophylaxis (PEP) packs are commonly used to minimise this. However, incorrect identification of high HIV prevalence may result in low uptake of PEP packs.

**Aims:** To investigate factors associated with HIV prevalence awareness and intended PEP use on elective.

**Method:** All medical students at King's College London were invited by email to an anonymous online survey regarding beliefs and attitudes regarding pre-exposure prophylaxis. As part of this, questions regarding electives and PEP were asked. A total of 476 responses were collected, with 351 responses retained in the final analysis. A subgroup analysis of those who stated their desired elective destination (n=325) is presented here.

**Results:** 185 (56.9%) correctly identified HIV prevalence in their elective destinations. Of 85 with high-risk HIV destinations, 48 (56.5%) correctly identified prevalence. Of these, only 13 (27.1%) stated their intent to take PEP with 22 (45.8%) responding "undecided". Those wanting to do low patient-exposure specialties were more likely to be correct, when adjusted for baseline characteristics (OR: 4.132 95% CI: 1.160-14.716). No other associations were found. 165 students provided yes/no answers regarding intent to take PEP. Perceived high HIV rates was significantly associated with intent to take PEP (OR 10.4, 95% CI: 4.5-24.0). This remained significant when adjusted for year of study, gender, sexual orientation, desired elective specialty.

**Conclusion:** Just over half of respondents were able to correctly identify HIV prevalence in their desired country, regardless of their year of education. Information regarding countries' HIV risk profiles should be made more easily available to students to ensure appropriate prophylaxis to minimise risk on student electives.

### **83. The utility of the Mini-Clinical Evaluation Exercise in the assessment of junior doctors in the UK foundation programme.**

**David Faluyi**

Royal Liverpool Hospital

#### BACKGROUNDS

The mini-clinical evaluation exercise is a supervised learning event used as a formative assessment tool in the UK foundation programme (1). There has been growing concern from both trainees and trainers regarding the usefulness of the mini-CEX as a form of assessment for trainees(2-4).

#### AIMS

The aim of this study is to review the literature surrounding the use and implementation of the mini-CEX and assess its utility as an assessment tool in the UK foundation programme.

#### METHODS

The model used to assess utility can be described as: Utility = Reliability x Validity x Educational Impact x Acceptability x Cost effectiveness(5). A literature search was performed on articles relating to 'Mini-clinical evaluation exercise', 'workplace-based assessments' and 'supervised learning events' and the results synthesised.

#### RESULTS

Studies show that the mini-CEX is a reliable assessment tool and its reliability is increased when more than one assessor is used (6, 7). It is a valid assessment tool as it correlates to postgraduate exams and can be used to distinguish between levels of clinical seniority (7, 8). The time required to implement the mini-CEX correctly appears multiple times in the literature as a hinderance (9-11). It negatively impacts on the educational impact of the mini-CEX (9) and is cited from trainees as a negative contributor to perceptions of the mini-CEX (12). There is limited literature on the cost-effectiveness of the mini-CEX.

#### CONCLUSIONS

The mini-CEX can be a powerful tool in the assessment of junior doctors and in helping them identify their own learning needs but currently has limited usefulness due to the limited time in clinical practice to carry it out properly.

1. Carr S. The Foundation Programme assessment tools: an opportunity to enhance feedback to trainees? *Postgraduate medical journal*. 2006;82(971):576-9.
2. Weston PSJ, Smith CA. The use of mini-CEX in UK foundation training six years following its introduction: Lessons still to be learned and the benefit of formal teaching regarding its utility. *Medical teacher*. 2014;36(2):155-63.
3. Bindal T, Wall D, Goodyear HM. Trainee doctors' views on workplace-based assessments: Are they just a tick box exercise? *Medical teacher*. 2011;33(11):919-27.
4. Wilkinson JR, Crossley JG, Wragg A, Mills P, Cowan G, Wade W. Implementing workplace-based assessment across the medical specialties in the United Kingdom. *Medical education*. 2008;42(4):364-73.

5. Van Der Vleuten CP. The assessment of professional competence: Developments, research and practical implications. *Advances in health sciences education : theory and practice*. 1996;1(1):41-67.
6. Pelgrim EAM, Kramer AWM, Mookink HGA, van den Elsen L, Grol RPTM, van der Vleuten CPM. In-training assessment using direct observation of single-patient encounters: a literature review. *Advances in health sciences education : theory and practice*. 2011;16(1):131-42.
7. Alves de Lima A, Conde D, Costabel J, Corso J, Van der Vleuten C. A laboratory study on the reliability estimations of the mini-CEX. *Advances in health sciences education : theory and practice*. 2013;18(1):5-13.
8. Hatala R, Ainslie M, Kassen BO, Mackie I, Roberts JM. Assessing the mini-Clinical Evaluation Exercise in comparison to a national specialty examination. *Medical education*. 2006;40(10):950-6.
9. Lörwald AC, Lahner F-M, Greif R, Berendonk C, Norcini J, Huwendiek S. Factors influencing the educational impact of Mini-CEX and DOPS: A qualitative synthesis. *Medical teacher*. 2018;40(4):414-20.
10. Morris A, Hewitt J, Roberts CM. Practical experience of using directly observed procedures, mini clinical evaluation examinations, and peer observation in pre-registration house officer (FY1) trainees. *Postgraduate medical journal*. 2006;82(966):285-8.
11. Brazil V, Ratcliffe L, Zhang J, Davin L. Mini-CEX as a workplace-based assessment tool for interns in an emergency department--does cost outweigh value? *Medical teacher*. 2012;34(12):1017-23.
12. Massie J, Ali JM. Workplace-based assessment: a review of user perceptions and strategies to address the identified shortcomings. *Advances in Health Sciences Education*. 2016;21(2):455-73.

#### **84. ClinicalCasesPod: Do medical students tune in to a case-based podcast series to help learn clinical reasoning?**

**Rupert Phillips**, K. Marchon, E. Davies, T. Vincent, M. Okorie, J. Montgomery, S. Akrimi  
Brighton and Sussex University Hospital NHS Trust

##### **BACKGROUND**

There is a move towards finding new ways to expose clinical reasoning to undergraduates, as newly qualified UK doctors feel unprepared for this in practice. Podcasts are becoming a widely accepted method of supporting learning and are increasingly used in medical education, however their role facilitating the learning of clinical reasoning specifically is not yet clearly established.

##### **AIMS**

The project aimed to analyse medical students' understanding of clinical reasoning in their clinical years and assess whether the experience of listening to case-based podcasts created by foundation doctors highlighting clinical decision making is a useful learning tool.

##### **METHODS**

Three conversational-style case-based podcasts were created with the emphasis on why clinical decisions were made. Medical students in years 3-5 were given access to the podcasts and invited to participate in the study by completing an online questionnaire, and invited to attend a semi-structured interview. Thematic analysis of the qualitative questionnaire results and semi-structured interview transcripts is being undertaken.

#### RESULTS

Preliminary results suggest that the students find the format helpful for increasing understanding of clinical reasoning in diagnosis and management, with greatest value being during clinical placement and in preparation for foundation training. There is a strong call for more clinical scenarios and insight into which presenting complaints are felt to be most needed.

#### CONCLUSIONS

This study will provide helpful insights into the behaviour of podcast use generally, and more specifically with regards to clinical reasoning; positive reporting suggests value in using this 'bite-sized' conversational format to help open up the 'black box' of clinical reasoning to learners. Furthermore, there are interesting insights into which points in the curriculum students feel this pedagogical approach has greatest value.

### **87. How do attitudes towards frailty differ between medical students of different stages and Foundation doctors?**

**Samantha Hartley, Alexandra Cropp**

Northumbria NHS Healthcare Foundation Trust

#### Background

Frailty is an increasingly used term in medicine that holds multiple definitions, leading to confusion amongst trainees. The British Geriatric Society defines it as '...low energy, slow walking speed, poor strength'(1) , stating that it is not 'an inevitable consequence of ageing'(1). This contradicts the Royal College of Nurses definition as '...the effects of natural ageing with the outcomes of multiple long-term conditions, a loss of fitness and reserve'(2) With conflicting literature, how can students and doctors understand what frailty is? Before we can develop effective educational interventions, we need to recognise the different understandings and attitudes they hold.

#### Method

Approval has been granted by Northumbria Healthcare's Research and Development department, Newcastle University's Research Management Group and the HRA. Medical students and doctors will be invited to participate through scheduled teaching sessions. Data is collected through audio recorded small group discussions around 'what does the term frailty mean to you?' during which participants will generate an anonymous word cloud.

The discussions are used as a teaching tool; therefore anyone declining to participate will attend a separate, non-recorded discussion.

Word clouds and audio recordings will be analysed using Simple Content Analysis and reviewed to identify over-arching themes. Further interpretation will focus on determining the balance of positive and negative terms and construing meaning from this. A separate researcher not previously involved will review our interpretations to prevent bias.

#### Results

Data collection is underway. Results will be processed by July 2019.

#### Conclusions

We hope to gain greater insight into medical student and foundation doctors' attitudes towards frailty, with the aim of helping shape future educational interventions and guiding their place within medical curricula.

#### References

- 1 - British Geriatric Society. (2018). Frailty: what is it all about?. Available: <https://www.bgs.org.uk/resources/frailty-what%E2%80%99s-it-all-about>. Last accessed 4/12/18.
- 2 - Royal College of Nursing. (2018). Frailty in Older People. Available: <https://www.rcn.org.uk/clinical-topics/older-people/frailty>. Last accessed 04/12/18.

### **88. Signs Circuits – Evaluation of a high-yield course designed to increase expose and confidence examining clinical since for final year medical students at 3 hospital trusts**

**Dominic Merriott, George Ransley, Benedict Girling,** Andrew Baigey, Shadman Aziz, Krushna Patel, Edward Tyrell, Rachel Flynn, Bandipalyam Prathibha  
Medical Education, East Kent Hospitals

#### Background:

During medical school, most undergraduates would not have seen or heard, let alone had direct guidance on eliciting most clinical signs. Signs remain essential in the diagnostic process, yet students are having less bedside teaching and minimal guidance on using them to inform diagnoses.

A novel teaching programme was developed where students attend a weekly circuit of patients, providing high-volume exposure to a variety of clinical signs. Initially starting at William Harvey Hospital, Ashford in 2017, it has now expanded to King's College Hospital and Whipp's Cross Hospital, London.

#### Aims:

To evaluate 'Signs Circuits' as a way of increasing medical student exposure to signs and improving confidence in interpreting them.

**Methods:**

Final-year students have rotations at the aforementioned hospitals lasting between 6-7 weeks. Split into small groups of 2-4, they rotate around 3-5 patients per weekly circuit. Patients are identified and consented, and a junior-doctor tutor is assigned to each patient. In each 20-minute station, students conduct focused examinations with a view to diagnosis, and receive immediate feedback on technique and coaching through the significance of each sign.

**Results:**

Over 18 months and 3 sites, approximately 200-300 students completed the course. Feedback was overwhelmingly positive with students reporting increased confidence in interpretation and greater exposure to clinical signs. Almost all rated the course as excellent (average 4.94/5) and felt more prepared for final OSCEs (average 4.87/5). Many commented that it was amongst the best teaching they had received in medical school - "This is exactly what I hoped medical school would be like". The focus on signs, small-group coaching from doctors and high-yield exposure to patients were particularly appreciated by students.

**Conclusions:**

This programme highlights the relative ease with which a structured bedside teaching course focused on identifying and interpreting signs can be set-up across multiple sites and the enthusiasm of students towards it.

**89. Prep4Surgery: clinically relevant anatomy for the theatre learning environment**

**Kristen Davies**

Newcastle University/Northumbria Specialist Emergency Care Hospital

**Background:**

Increasing time and content constraints on undergraduate medicine programmes the time dedicated to anatomy and surgical teaching has led to diminished time dedicated to it both in the UK (1,2). 50% of medical students think their anatomical knowledge is inadequate to be a competent F1 doctor (3). A solution to the reduction in the time dedicated to anatomy teaching could be to incorporate clinically relevant anatomy into the theatre learning environment.

**Aims:**

To examine the operating theatre as a learning environment for clinically relevant anatomy. To create a resource to address the limitations of the operating theatre as a learning environment and to provide clinically relevant anatomical teaching.

**Methods:**

A literature search was performed examining the operating theatre as a learning environment. Following this, the Prep4Surgery learning resource was created. Five common

surgical procedures were selected (appendicetomy, cholecystectomy, Inguinal hernia repair, total hip replacement and total knee replacement). Anatomical content was guided by the core regional anatomy syllabus for undergraduates by the Anatomical Society (4). The online platform HSP was chosen to host the Prep4Surgery modules. Content was reviewed by consultants in different branches of surgery.

#### Results:

A review of the literature found that there are several limitations of students using the operating theatre as a learning environment. To address these limitations, Prep4Surgery took the form of a clinical case detailing a patient journey including a basic step-by-step surgical procedure guide with reference to important anatomical structures. Throughout each case there are questions interspersed so students can check their knowledge.

#### Conclusions:

Prep4Surgery will hopefully prove to be a useful addition to compliment the clinical oriented problem-based learning environment of which the majority of undergraduate medical courses incorporate elements of. Questionnaires of students experience of Prep4Surgery will be collected.

### **90. Co-Creation in medical education: acute simulation by students, for students**

**Alexander Martin, Kristen Davies,** Gillian Vance, Bryan Burford

Medical Education, Newcastle University/Newcastle-Upon-Tyne Hospitals

#### Background:

Students are often asked to retrospectively evaluate their learning experiences, however they are less often involved in curriculum design or shaping the development of teaching strategies through medical education research. Just as patients and the public have insight into the research process, students are uniquely placed to provide insight into what is needed to achieve their education goals.

#### Aims:

To examine the impact on the student learning experience of using a novel co-creation approach to design a Peer Simulation Education Package and a Research Study to evaluate it.

#### Methods:

Students on medicine and physician associate degree programmes will take part in a series of workshops to develop the simulation intervention. These will be facilitated by the applicants, but student participants will shape the details.

Workshops will encompass four phases:

- “Framing and contextualizing”. Introduction to acute simulation as a teaching and assessment method and give participants a chance to undertake an individual simulation and feedback session, delivered by the applicants.

- “Finding the questions”. Identification of the useful learning elements of a simulation package. Participants will discuss the challenges of acute simulation for themselves as learners and anticipate challenges as peer teachers.
- “Developing solutions”. Participants will develop a simulation scenario and identify how to assess the outcomes and determine what is feasible to deliver.
- “Implementation”. Participants will be supported to pilot their education package and research study.

#### Results

At the time of presentation data will be available from all phases of the workshops. Data will be presented from a pre-and post-project validated questionnaire relating to attitudes to and confidence in acute simulation and interprofessional working, focused debriefing and quantitative metrics.

#### Conclusions

Student involvement in the development of educational resources has the potential to increase salience and engagement. Our data will provide evidence of whether co-creation activity can deliver on this potential.

## **92. Addressing the elephant in the room: Improving healthcare professionals' confidence and ability communicating in difficult scenarios - A Pilot Study**

**Riem Alkaisy**, Aira Beniusyte, Laura Murphy, Anna Zornoza, Lucy Baxter  
South Tyneside NHS Foundation Trust

#### Background

In 2017-2018 hospital and community health services received 28,263 written complaints because the patient (or the patient's advocate, carer or family) felt they did not receive the appropriate level of communication by healthcare professionals (1). A survey in this trust showed healthcare professionals did not feel confident in discussing end of life care, do not attempt cardiopulmonary resuscitation (DNACPR), capacity and complaints.

#### Aims

To improve healthcare professional's confidence and ability in communicating in difficult scenarios.

#### Methods

A multidisciplinary team (MDT) communication simulation session was designed for healthcare professionals of varying levels of experience. Four scenarios centred on conversations with patients and their relatives regarding DNACPR decisions, end of life care, capacity and complaints. Each scenario lasted 10 minutes followed by a 25 minute discussion guided by an expert facilitator. Participants were encouraged to share personal experiences regarding these topics. Participants were surveyed before and after the session to establish their self-assessed confidence and ability in communicating in these four scenarios. A pilot session was delivered to 8 MDT members, including consultants, training grade doctors and specialist nurses.

### Results

Participants reported an increase in confidence for all areas. The results show a greatest increase in confidence in communication at end of life with an increase in self-rated mean confidence and ability score (/5) from 2.6 to 4.5. Scores increased from 3.2 to 4.7, 3.6 to 4.4 and 3.0 to 4.5 in DNACPR, capacity and complaints respectively. All participants reported they would make changes to their clinical practice based on what they had learnt in the session.

### Conclusions

The MDT communication session was successful with participants reporting an increase in confidence and ability in all topics. Feedback also showed that all participants felt they would modify their clinical practice based on this experience, indicating that they felt there was practical benefit from attending the session.

### References

1. [PAS] D, NHS D, Report.pdf D, Tables.xlsx D, csv.zip D, list P. Data on written complaints in the NHS - 2017-18 [PAS] - NHS Digital [Internet]. NHS Digital. 2019 [cited 15 January 2019]. Available from: <https://digital.nhs.uk/data-and-information/publications/statistical/data-on-written-complaints-in-the-nhs/2017-18>

## **94. Student-Specific Schwartz Rounds: An Innovative Approach to Reflective Practice**

**David Gleeson, Mariam Awan, James Arwyn-Jones, Isabel White,** Emma Hatfield  
Dermatology, Imperial College NHS Trust

### Background:

The demanding nature of undergraduate medical education is well-recognised, with increasing rates of burnout and reduced rates of empathy reported amongst medical students across the country. Schwartz Rounds have been introduced nationwide as a tool to facilitate communication and compassion amongst the NHS workforce.

### Aims:

This study was designed to explore the impact of student-specific Schwartz Rounds amongst undergraduates at a major teaching hospital. This study also looks at whether an early introduction to Schwartz Rounds as part of the undergraduate curriculum increases the likelihood of future participation with Schwartz Rounds, and students' perceptions of group reflective practice versus traditional written reflective practice.

### Methods:

Third year medical students at a major teaching hospital were invited to attend bespoke, student-specific Schwartz Rounds centred on the theme: "Is this what I signed up for?" The sessions followed the standard Schwartz Round format with a panel presentation, followed

by open discussion amongst the attendees. After the session, students were asked to fill out a questionnaire anonymously.

Results: (N.B More data to follow in the coming month)

The first session was attended by 20 third year students, and 100% completed the questionnaire. Of those, 85% rated the session as “excellent or exceptional”, and 100% stated it had given them greater insight and self-awareness. 85% felt it would help them work better with their colleagues in the future, and 85% plan to re-attend future Schwartz Rounds.

85% of students preferred the Schwartz Round format to written reflective practice, with only 1 respondent preferring written reflection.

Conclusions:

There was overwhelming positive feedback from the student attendees to the Schwartz Round, with 85% stating they would re-attend future rounds. Students appeared to strongly prefer this medium of reflective practice to traditional written reflection.

## **95. Stimulation with Simulation: Creation of a “Virtual Ward” to Improve Medical Student Learning**

**Adam Moxley**, Philip White, Lucy Baxter  
South Tyneside General Hospital

Background

Greater benefits are observed when a simulation environment aligns with clinical practice (1). This study explores whether creating a virtual ward of patients aids teaching within a three week course (Patients, Doctors and Society 6: Preparation for Practice (P4P) (1)) and improves student engagement in learning non-technical skills.

Methodology

Final year medical students were assigned the role of ward F1s and teaching fellows became seniors. There was a daily handover; the ward list was reviewed, jobs prioritised and the students were informed of new developments for patients, framing the learning for that day.

‘On call’ sessions involved students prioritising tasks and undertaking an emergency sim scenario. They would then update the ward list and handover the developments at the following handover.

In addition, other ward tasks were given such as: documentation, prescribing and advanced communication roleplay with a ‘relative’ of one of their patients.

## Results

100% of feedback from the students regarding teaching has been positive (8.33% agreed, 91.67% strongly agreed).

“Using a simulated ward with patient scenarios also gave the seminars context and I believe I have retained more information because I could relate the teaching to case examples.”

We intend to perform structured interviews at a future date after their ward assistantship to ascertain if they feel the virtual ward environment better prepared them for clinical practice.

## Conclusions

It is clear from the feedback that the overall experience of the virtual ward has been resoundingly positive. Students have compared this teaching to their peers and felt that they received a more coherent, relevant three week module, despite the learning outcomes being identical.

Even though the session topics were the same as the previous year and other hospital sites, when reframed in the context of the virtual ward students perceived a much higher level of learning and clinical relevance.

## References

- 1) Sadideen, H., Hamaoui, K., Saadeddin, M. & Kneebone, R. (2012) Simulators and the simulation environment: Getting the balance right in simulation-based surgical education. *International Journal of Surgery* Volume 10, Issue 9, 2012 Pages 458-462
- 2) Newcastle Medical School (2018) *Patients, Doctors and Society* 6: Preparation for Practice.

### **97. A student-authored question bank: Our experience at Lancaster Medical School.**

**Kristen Davies**, Jemma Kerns  
Newcastle University/Northumbria Healthcare

**Background:** Medical student demand for formative questions is high, reflected by the growing use of commercial question banks among medical students. In an attempt to provide practice questions for medical students, we wanted to set up a student-led practice question bank for students to use which would be reflective of the new curriculum which they were undertaking.

**Aims:** To set up a peer-led student question bank for use for Lancaster Medical School (LMS) students and evaluate its usage and uptake.

**Methods:** The student-authored question bank was hosted by the PeerWise online network. Individual modules were created within PeerWise for each year group with summative examinations (Years 1-4). Students were invited to author questions and submit them to the LMS question bank. We invited students to answer a questionnaire about their usage of the LMS question bank; why they do or do not use it, and suggestions to improve it as a resource.

**Results:** Over the course of the 2016/17 and 2017/18 academic years, 329 questions were available for medical students to answer in preparation for their assessments (Y1: 103, Y2: 58, Y3: 68, Y4: 100). Students were more likely to use the question bank in earlier years of medical school, with 46% and 30% of first and second years activating their PeerWise accounts, respectively, providing a total of 3386 answers. The responses from our questionnaire suggest that medical students appreciate curriculum specific questions but were wary about the accuracy of student-written questions.

**Conclusion:**

The creation of a student-authored PeerWise MCQ bank for Lancaster Medical Students has been well received by students and well used among medical students, particularly amongst those in Years 1-2. Students appreciate the ability to identify gaps in their knowledge and practicing their examination technique

## **98. Improving Medical Student Preparedness for Practice in line with the General Medical Council's Outcomes for Graduates: A Pilot Study**

**Adam Moxley**, Philip White, Lucy Baxter  
South Tyneside General Hospital

### Background

The 2018 Outcomes for Graduates (1) highlights non-technical skills as an important part of what should be expected of an F1 Doctor. However, studies show that medical school graduates have a relative weakness in these areas (2,3,4).

Studies have experimented with applying simulation to non-technical skills (5,6,7) with success, however application of prolonged and repeated simulation to non-technical skills in medical students has not been studied in detail.

### Methodology

Students were asked to self assess confidence for the 8 outcomes from Outcomes for Graduates domain 9b (1) on their first day, then subsequently after Preparation for Practice, at the end of ward assistantships and following a simulated 'Day in the Life' session (8). This will be further explored with structured interviews.

The Preparation for Practice module involves a prolonged (three week) low fidelity simulation (a virtual ward), and the 'Day in the Life' session is a high fidelity immersive simulation. This will allow us to compare simulation to clinical experience as a method to improve final year preparedness for practice.

### Results

The results from Preparation for Practice in December 2018 have shown an increase of confidence in all of the 8 outcomes from Outcomes for Graduates 9b, with the mean confidence increase of 44.5%.

The results for further points of questioning regarding their confidence in the outcomes is pending and will be complete by 13th April 2019.

### Conclusions

Our findings so far suggest that students have engaged deeply with the subject material and feel equipped to put lessons learnt into practice.

Further innovation and research could explore this method of framing educational courses to improve students' ability in clinical practice, in particular non-technical skills. We hope this study will provide evidence that targeting these areas significantly improves student self-assessed confidence and encourages further work within this domain.

### References

- General Medical Council (2018). Outcomes for Graduates 2018 [Internet] General Medical Council [cited 15 January 2019]. Available from: [https://www.gmc-uk.org/-/media/documents/dc11326-outcomes-for-graduates-2018\\_pdf-75040796.pdf](https://www.gmc-uk.org/-/media/documents/dc11326-outcomes-for-graduates-2018_pdf-75040796.pdf)
- Illing J. et al., How prepared are medical graduates to begin practice? A comparison of three diverse UK medical schools. Final Report for the GMC Education Committee. April 2008.
- Tallentire V. et al., Are medical graduates ready to face the challenges of Foundation training? *Postgraduate Medical Journal*, 2011, 87: 590-595.
- Thomas, I., Nicol, L., Regan, L., Cleland, J., Maliepaard, D., Clark, L., Walker, K. & Duncan, J. (2015). Driven to distraction: a prospective controlled study of a simulated ward round experience to improve patient safety teaching for medical students. *BMJ Qual Saf* 2015;24:154-161
- Cairnduff, K., Nagalingam, K. & Wheeldon, A. (2018). P14 Simulated 'transition' ward for final year student nurses: developing leadership, management and professional nursing practice in a realistic clinical environment. *BMJ Simulation and Technology Enhanced Learning* 2018;4:A58.
- Ker, J., Mole, L. & Bradley, P. (2003). Early introduction to interprofessional learning: a simulated ward environment. *Medical Education*. 2003 Mar;37(3):248-55.
- Carpenter, C., Parkinson, I., Brewster, L. & Gill Vince (2018). SC14 'human factors day': ward simulation for developing medical students' non-technical skills. *BMJ Simulation and Technology Enhanced Learning* 2018;4:A20-A21

Baxter L, Manning S. Does the Positioning of Medical School Finals affect Preparation for F1? [Internet]. ASME ASM 2016 Abstract Book; 2016 [cited 15 January 2019]. Available from: [https://www.asme.org.uk/images/ASM\\_2016\\_ABSTRACTS\\_FINAL\\_FOR\\_WEBSITE.pdf](https://www.asme.org.uk/images/ASM_2016_ABSTRACTS_FINAL_FOR_WEBSITE.pdf)

## **99. Acute scenarios simulation for Foundation Doctors: does it work?**

**Philip Jones,** Lucy Baxter

South Tyneside District Hospital

### Background

Many junior doctors feel poorly prepared for emergency situations (1). This study examined the role of simulation as a tool to increase Foundation doctor confidence in acute scenarios. It also evaluated whether Foundation doctors changed their practice following the session.

### Aims

To improve foundation doctor confidence in acute scenarios

### Methods

21 F1 doctors and 25 F2 doctors attended a simulation session on acute scenarios. The scenarios were all based around an ABCDE assessment, or acute mental health assessment, with appropriate escalation and handover to a senior. A pre- and post- simulation questionnaire was used to assess trainee confidence over several areas: overall confidence, airway, breathing, circulation, disability, exposure, mental health, handover and prescribing. Post session feedback also asked how likely they were to make changes to their practice based on this session.

### Results

F1 doctors' average confidence across all areas was 48% pre-simulation and 61% post-simulation, equating to a mean proportional increase from baseline of 27%. F2 doctor's pre-simulation confidence was overall 53% which rose to 63% post-simulation, with a mean proportional increase of 20%. For both cohorts there was increased confidence in all areas assessed. Likelihood to change practice was rated at a mean of 95%. A post simulation survey was sent 1-6 months post session to all attendees. This survey is currently still open but responses so far (n=8) report 75% have made changes to practice and 12.5% have not yet but intend to. Examples of changes reported include increased confidence in speaking up in emergencies, improved handover, keeping an open differential, and tackling a problem systematically using ABCDE assessment.

### Conclusions

Simulation has led to an increased level of confidence, learning and subsequent changes to practice amongst junior doctors across all areas assessed. It is hoped that these changes to practice will ultimately result in improved patient care.

### References

1) Duns, G., Weiland, T., Crotty, B., Jolly, B., Cuddihy, H. and Dent, A. (2008). Self-rated preparedness of Australian prevocational hospital doctors for emergencies. *Emergency Medicine Australasia*, 20(2), pp.144-148.

### **103. It's all fun and games until somebody gets hurt: Using a scavenger hunt game to teach human factors to junior doctors**

Lucy Baxter, **Jack Henderson**

South Tyneside NHS Foundation Trust

#### Background

It is a requirement that all junior doctors demonstrate understanding of human factors in medical error (1). Feedback from teaching to Foundation Doctors on human factors in this trust included comments such as 'not relevant to us at this level of our training.'

#### Aims

To improve Foundation Doctors' understanding of human factors.

#### Methods

An 'Introduction to Human Factors' session was divided into 3 parts:

Part 1 was a scavenger hunt. Teams were given 15 minutes to collect items from a list and complete tasks which required them to manage and prioritise their time, work as a team, and manage distractions. They were asked to evaluate what made the scavenger hunt difficult and what they did as a team that helped. They then sorted their suggestions into 2 categories: human factors and non-technical skills. Definitions were given for both.

Parts 2 and 3 required the trainees to identify human factors contributing to clinical errors. At the end of the session they were encouraged to think about human factors in their own working environments. They were asked if they were to redo the scavenger hunt, what processes could improve their performance, and how these might be applicable to clinical work.

#### Results

33 Foundation doctors attended. Confidence in identifying human factors, as well as taking steps to minimise them, increased by an average of 37%. 100% of attendees felt the session was relevant to their clinical practice. Free text comments included:

"Really powerful and informative"

"Interactive, fun, and backed up by relevant information"

"Turned a dry topic into something interesting and useful for our clinical practice"

"Learnt a lot more by the practical demonstration in the scavenger hunt than I have in previous sessions on the topic"

#### Conclusions

Human factors is a topic junior trainees had found difficult to relate to their own practice. This method allowed them to identify the relevance.

#### References

1. Curriculum | UK Foundation Programme [Internet]. Foundationprogramme.nhs.uk. 2019 [cited 15 January 2019]. Available from: <http://www.foundationprogramme.nhs.uk/content/curriculum-0>
2. Rosenorn-Lanng D. Human Factors in Healthcare Level 1. Oxford Univ Pr; 2015.
3. The Human Factor: Learning from Gina's Story. [Internet]. YouTube. [cited 15 January 2019]. Available from: <https://www.youtube.com/watch?v=IJfoLvLLOFo>

#### **104. Teaching Fellows tackle Tertiary Centre Paediatrics - a model for undergraduate paediatric education**

**Philippa Gaunt, Monica Parker,** Christo Tsilifis, Nathaniel Jansen  
Paediatrics, Newcastle Upon Tyne Hospitals NHS Foundation Trust

##### Background:

Teaching Fellow (TF) posts are increasingly commonplace in undergraduate medical education. TFs prove popular with students due to good knowledge of the curriculum, approachability and their near-peer status. No literature regarding paediatric-specific TF posts is currently available. The Great North Children's Hospital is a large tertiary paediatric centre where part of Newcastle University's undergraduate paediatrics curriculum is delivered. In 2015, the Trust appointed four teaching fellows to facilitate Child Health teaching. As a result all undergraduate teaching is now organised by the TF team.

##### Method:

Feedback from 2013-4 prior to implementation of TFs was compared with feedback from current medical students. Students were asked to rate the rotation in terms of facilities, organisation, delivery of teaching, support and feedback/assessment on a 5-point scale from poor to excellent. Results are compiled by Newcastle University and percentage satisfaction calculated for each category.

##### Results - Student Feedback

All categories display improvement in satisfaction since the introduction of paediatric TFs. Thematically, free-text comments focus on relevance of teaching, organisation and availability of TFs.

##### Conclusions:

The positive impact of a TF-led undergraduate paediatric programme is evident as students view the programme as structured, relevant and organised whilst recognising TFs as a useful resource. The near-peer format enables a comfortable and safe learning environment with teaching focussed upon student learning needs and outcomes.

Specialty-specific TF posts allow exposure to teaching whilst engaging prospective trainees in clinical practice. The role has been successful in encouraging TFs to apply for Paediatric specialty training, implying a recruitment benefit. Nevertheless, the drawbacks of clinical teaching fellows are yet to be fully explored as potential problems could include limiting opportunities for trainees to be involved in teaching and problems determining quality of teaching.

**105. 'Putting it all together' – developing clinical reasoning skills in Paediatrics for final year medical students**

**Philippa Gaunt, Monica Parker,** Christo Tsilifis, Nathaniel Jansen  
Paediatrics, Newcastle Upon Tyne Hospitals NHS Foundation Trust

**Background:**

Assimilating the different strands of history-taking, examination, developing differential diagnoses and instigating initial management has not been a formal part of the curriculum for final year medical students based at the Great North Childrens' Hospital. However, such skills are expected to be demonstrated in final assessments and are key elements of clinical practice.

**Methods:**

A pilot session was developed to address this. Over 2 hours, students work through two written cases, from nursing triage to management and discussion of complications, in groups of 3-6 facilitated by teaching fellows. The cases are an infant with fever due to meningitis and a young boy with a limp caused by Perthes' disease.

Students are prompted to elicit key features from the history and examination, generate a list of differential diagnoses and select appropriate investigations and treatment as the case evolves. Students are expected to collaborate and the facilitator can guide students to further reading and guidelines.

**Results:**

Post-session feedback was collected relating to helpfulness and relevance of the session, confidence in requesting and interpreting investigations and prescribing medications, and free-text comments. The sessions received strongly positive feedback, with 80/82 students stating sessions were 'helpful' or 'very helpful' and 61/82 of students stating an improvement in confidence in investigating or prescribing.

**Conclusions:**

The sessions provide a setting to discuss important paediatric presentations they may not encounter clinically, in a safe environment. Contextualised use of written skills in this session is associated with increased student confidence in prescribing and investigating. Consequently, the session has allowed students to bridge the gap between theory and practice in order to prepare them as they transition from medical student to doctor.

## **106. 'Serious Incident Education Fellow: Our Views on Risk and Experiences within the Role'**

**Leyla Osman**, Orhan Orhan

Postgraduate Medical Education, Chelsea & Westminster Hospital NHS Foundation Trust

### Background.

Serious incidents (SI) are common<sup>1</sup> and can be a significant worry for junior doctors<sup>2</sup>. There is also a requirement to provide SI information to the Postgraduate Dean, so a robust process is essential. The role of our SI Education Fellow may not be universally recognised, but it is now an important asset in our Postgraduate Departments, having been created to better support junior doctors in matters related to SI and clinical governance.

### Aims.

The aim of the SI Fellow role is to equip junior doctors with knowledge and skills around SI, risk and clinical governance matters, and to also support them through their personal journey if they've been involved in an SI.

### Methods.

The role requires review of Datix reports to identify junior doctor involvement, and to offer support and guidance. This guidance often involves 1:1 assistance with written accounts, pastoral care, resilience training and ensuring educational supervisors are adequately involved. This work is overseen by the Directors of Medical Education (DME) within the Trust. Furthermore, key themes of incident reports are identified, which are implemented into Trust-wide learning e.g. 'Lessons Learned' Grand Rounds (LLGR).

### Results.

There has been significant improvement in this area within our Trust since the introduction of an SI fellow. Processes have been streamlined to identify and support junior doctors quickly; supervisor training has been adapted to include resources on how to manage trainees involved in SIs, and positive feedback has been received for Trust-wide case presentations.

### Conclusion.

The SI Fellow role provides an important resource to help adequately support our junior doctors through the SI process and to better equip them in their future careers. The role has been a success within PGME and its further development is supported by our DMEs.

Total word count 288 words (excluding main title).

### References.

1. Care Quality Commission, 'Briefing – Learning from serious incidents in NHS acute hospitals; A review of the quality of investigation reports', June 2016  
[https://www.cqc.org.uk/sites/default/files/20160608\\_learning\\_from\\_harm\\_briefing\\_paper.pdf](https://www.cqc.org.uk/sites/default/files/20160608_learning_from_harm_briefing_paper.pdf)

2. Harrison, R., Lawton, R., Stewart, K. 'Doctors' experiences of adverse events in secondary care: the professional and personal impact', *Clinical Medicine* 14(6):585-90 (2014)

### **108. Student Evaluation: Improving Online Response Rates**

**Thomas Baker, Nanditha Sathyanarayana, Mandy O'Keeffe, Dhanya Phili**, Thomas Moor Paediatrics, University Hospitals Coventry and Warwickshire

#### Background

Within our education department, there was a recent transition from paper to online questionnaires; the motivation being both administrative and environmental. This resulted in a reduction in overall response rates. This has also been demonstrated in several studies. Avery et al demonstrated a statistically significant reduction in response rate between paper (72.9 %) and online (48.5%) evaluations [1].

#### Aims

To explore the impact of different interventions on student response rates for online questionnaires during the 'Acute Block' rotation.

#### Methodology

'Google Forms' was used to create online questionnaires. Hyperlinks for these questionnaires were disseminated via the cohort's 'WhatsApp' group. The control group received a single hyperlink after the teaching sessions. We then trialed new interventions for each 6-week rotation. Intervention 1: Weekly reminder for the students to complete the online questionnaires sent via the 'WhatsApp' group. Intervention 2: Hyperlink provided prior to the teaching session in addition to weekly reminder. Overall response rates were compared and analysed using the unpaired t-test

#### Preliminary Results

Mean response rate for the control group was 24.6%. Higher response rates were observed for both the intervention 1 (35.7%) and intervention 2 (47.8%). There was no significant difference between the control group and intervention 1 ( $p=0.064$ ) but a statistically significant difference was noted between the control group and intervention 2 ( $p=0.0005$ )

#### Conclusions

There is evidence that online questionnaires result in reduced response rates when compared to paper questionnaires [1]. However online questionnaires have some advantages, e.g. reduction in administrative time and costs. This study has demonstrated that simple interventions such as providing the hyperlink prior to the teaching session and weekly reminders can significantly improve response rates. This should encourage other departments to explore the use of online questionnaires and trial novel approaches to encourage student engagement

Further data collection is ongoing, and we aim to explore additional interventions, e.g. impact of incentivising feedback

1. Avery RJ, Bryant WK, Mathios A, Kang H, Bell D. Electronic course evaluations: does an online delivery system influence student evaluations? *The Journal of Economic Education*. 2006 Jan 1;37(1):21-37.

### **109. Implementation of a new MSK-themed simulated tutorial (COMET) for undergraduate medical students at George Eliot Hospital**

**Lucy Elliott, Yvonne Chang Yee Wan**, Laura Doan

Undergraduate Medical Education, George Eliot Hospital

#### BACKGROUND

A COMET (Clinically Observed Medical Education Tutorial) is a formative learning event in the style of an OSCE (Objective Structured Clinical Examination) (Nair et al 2017). It consists of three simulated stations each lasting 20 minutes at a time, and covers topics including A-E initial assessment, prescribing skills, investigation and interpretation of results and communication skills. It culminates in a debrief session with further feedback and a pre- and post-session multiple-choice question (MCQ) quiz.

#### AIMS

We aimed to implement a musculoskeletal (MSK) COMET for final phase students during their MSK placement, in preparation for their OSCE examinations. The overall aim is to improve their confidence and skills when managing musculoskeletal emergencies.

#### METHODS

We conducted the COMET with twenty-four undergraduate medical students over five sessions from July 2018 to December 2018. The simulated case used in the COMET was a patient with a suspected neck of femur (NOF) fracture. This was used consistently throughout every session. We conducted a student survey of subjective confidence before and after the COMET session using a feedback questionnaire with a Likert Scale. The students also completed an MCQ quiz before the session and then repeated the same MCQ quiz after completing the COMET.

#### RESULTS

We analysed the results of the feedback questionnaire and the MCQ quizzes completed by the students (n=24). There was a statistically significant improvement in MCQ results ( $p < 0.001$ ), and a statistically significant improvement in overall confidence as rated by students in three domains: performing an A-E assessment, prescribing and completing a TTO ( $p < 0.001$ ). General feedback comments were also very positive.

#### CONCLUSION

Overall, the MSK COMET has been shown to be an effective method of teaching clinical skills and initial A-E assessment in a simulated musculoskeletal emergency. There is further scope for different simulated cases to be implemented in the future.

## REFERENCES

Nair, R., Morrissey, J., Carasco, D., Desilva, S. & Patel, V. (2007) COMET: Clinical Observed Medical Education Tutorial – a novel educational method in clinical skills. *International Journal of Clinical Skills*, 1(1): 25-29.

**110. Benefits of a new feedback model: 'The 4 Ps'****Prisca Chimkupete**

Undergraduate Medical Education, George Eliot Hospital

## BACKGROUND

Traditionally, feedback has been thought of as a process focusing on negative aspects highlighted for improvement. Coupled with a lack of sensitivity, this often results in a disheartening process. Existing models such as Pendleton's Rules and the Agenda Led Outcome-Based Analysis (ALOPA) model aim to minimise this (1). However this does not always translate in practice. Feedback is often not provided well which is detrimental to students learning and perception of a teaching session (2). We propose a new feedback model: 'The 4 Ps' which incorporates features of the models discussed above, coupled with a focus on specificity and practicality.

## AIMS

1. To provide a simple, practical and effective feedback model to be used after supervised learning events for undergraduate medical students at WMS.
2. To evaluate this model through student survey and identify key positive themes and areas for improvement.

## METHODS

We undertook a student survey, giving Warwick Medical School students a structured questionnaire to evaluate the feedback model after a supervised learning event at George Eliot Hospital. The results were analysed using a Likert scale of 'usefulness' and thematic content analysis to identify some of the key features of the feedback model students appreciated.

## RESULTS

Overall, students perceived the model as very useful (average score: 8.9/10). Thematic content analysis identified positives areas; the model was 'outcome-focused', 'collaborative,' 'specific,' 'structured' and had a focus on a 'future plan.'

## CONCLUSIONS

The '4 Ps' has been shown to be an effective and practical model by which to give clinical feedback. The student survey also highlighted a way to improve this model further: by providing written feedback to the students using the template.

## REFERENCES

(1) Brown J, Kidd J, Noble L, Papageorgiou A. *Clinical Communication in Medicine*. John Wiley & Sons. 2015.

(2) Ende J. Feedback in clinical medical education. JAMA 1983 Aug 12;250(6):777-81.

### **111. Google Sheets: Using 'cloud-based architecture' for student-led clinical allocations.**

**Nanditha Sathyanarayana, Amanda O'Keeffe, Dhanya Pillai, Thomas Baker**

Medical Education, University Hospitals Coventry and Warwickshire NHS Trust

#### Background

At a university teaching hospital, 150 medical students take part in a range of educational activities as part of a revision block. This includes placements in clinical specialties and attendance at clinical skills workshops. In previous years, they were organised through email correspondence between students and administrators, leading to increased administrative demands, frustration for students and withdrawal of learning opportunities due to miscommunication.

#### Aims

We aim to develop a novel student-led, admin-lite system to facilitate clinical placements and revision session sign-ups that is engaging and acceptable to all stakeholders.

#### Method

Using Google Sheets, we have created a student-led allocation system for two core components of this revision block, namely placements in clinical areas and attendance at clinical skills workshops. A link for each spreadsheet was distributed to all students and data was collected on student engagement from the spreadsheets.

#### Results

For clinical placement allocations, there were 505 edits made by students, with 177 edits within the first hour of the spreadsheet going live. Overall, 48% of students utilised this system to access the learning opportunity. For clinical skills workshops, there were 90 edits and 87% of students have allocated themselves to sessions using the sheets. We plan to collect further data using questionnaires on user satisfaction of Google Sheets, from both students and administrators.

#### Conclusion

Google Sheets has proved to be a simple, efficient and acceptable platform to organise educational activities. It is evident that students have engaged with this system, likely due its accessibility. We now have a proven way to enable students to plan their learning opportunities, monitor student-led allocations and generate data for resource planning next year. Thus, we postulate that Google may be the answer for other institutions, when organising educational activities for their learners while not committing excessive administration time to complex timetables.

## **112. Hesitation to Escalation: reviewing factors which influence escalation of critically unwell patients by medical students**

**Dhanya Pillai, Thomas Baker, Amanda O'Keeffe, Nanditha Sathyanarayana, Arwa Meki**

Medical Education, University Hospitals Coventry and Warwickshire

### **BACKGROUND**

During undergraduate training, the practice of escalating concerns in a medical emergency is limited. The majority of such practice arises from simulation training. Furthermore, late involvement of senior decision-makers in an emergency can contribute to poor patient-outcomes (1).

In order to explore this, we conducted a questionnaire with final-year medical students at a teaching hospital to explore factors which may influence medical students' response to a clinically deteriorating patient.

### **AIM**

To explore barriers perceived by final-year medical students in the escalation of a deteriorating patient.

### **METHOD**

The questionnaire comprised of a mixture of free-text responses and Likert-scale responses. The 5-point Likert-scale responses were to the question "How do the following factors influence when you escalate?" and included statements such as "You will be criticised that the patient is not that unwell" and "You find it difficult to recognise a sick patient". The free-text responses were thematically analysed.

### **RESULTS and CONCLUSIONS**

The questionnaire identified several barriers perceived by students (n=67) in the escalation of a deteriorating patient. The major barrier to escalation was a perceived lack of experience and "confidence" in the recognition of acutely unwell patient which is reflected in the literature (1,2). Another barrier was the lack of practicing a structured tool for their escalation such as SBAR (Situation, Background, Assessment, Response) and not knowing which clinician or team the student should escalate to. It also highlighted that students would be unlikely to escalate if they felt they would be criticised on their management which was echoed in the free-text comments.

The results provide targets for our department to help medical students overcome these barriers to escalation and reassess their training needs. We have since incorporated approaches such as empowering students to escalate during simulation training and reinforcing the process of escalation and SBAR in small-group teaching.

### **References:**

1. Kelly, C; Larwill, S; Hamley, L and Sandford, M. Failure to escalate: What stops junior doctors asking for help when they need it? *Asia Pacific Journal of Health Management*, Vol. 9, No. 3, 2014: 38-46.

2. Rotella JA, Yu W, Ferguson J, Jones D. Factors influencing escalation of care by junior medical officers. *Anaesthesia and intensive care*. 2014 Nov 1;42(6):723.

#### **114. Medical students' perspective on ward-based clinical education in the UK**

**Safa Al-Musawi**, Nour Houbby  
Imperial College London

**Background:** Bedside teaching forms a significant part of UK medical school curricula in clinical years particularly for clinical teaching. Students' viewpoints on this teaching method is currently under-reported in the literature.

**Aim:** To gain UK medical students' perspective on the value of bedside teaching in clinical learning.

**Method:** A survey was administered to the target population of undergraduate clinical year medical students (year 3 onwards) in the United Kingdom. It included a series of questions formulated from the pilot study. The method of administration was via social media and emails. The perceived benefits and drawbacks of on-ward teaching, exposure to patients, clinical simulation and the teaching by doctors were all assessed. The survey also examined the barriers to achieving useful bedside teaching.

**Results:** 401 surveys were completed (completion rate 83%). The results demonstrated a positive view towards bedside teaching with 68% of respondents reporting it as a beneficial learning tool for expanding medical knowledge and practising clinical examinations. Third year medical students, in their early clinical years, were more likely to report receiving inadequate bedside teaching ( $P < 0.01$ ). 86% of students reported being satisfied with the teaching they received from junior doctors, and 73% reported no difference in the quality of teaching between junior doctor and consultant teaching.

Thematic analysis revealed four core barriers faced by students to useful bedside teaching as; lack of confidence, judgement by peers, intimidation by patient and short teaching sessions.

**Conclusion:** The study demonstrates that students do find bedside teaching beneficial, but the amount they do receive is inadequate. There are barriers faced by students on the wards which hinder their exposure to bedside teaching. Junior doctors provide equal quality of teaching as their senior colleagues. More work needs to be done in order to make hospital wards a more supportive environment for students learning.

**116. Anonymous Questioning: Breaking Down Barriers to Learning**

**Roland Amoah, Adam Vaughan, Harry Knott, Richard Gavin, Robert Bryce,** Catherine Lyth, Evie Manford, David Gaskin, Ned Tilling, Emma Gray, Annamika Whitwell-Lambeth  
Newcastle University Medical School

**Background**

The Newcastle University Medical Education Society (MedEdNcl) supports medical students between years one and five throughout the academic year using near peer teaching sessions. Many of our events adopt a lecture format, and this may make it challenging for students to ask questions without embarrassment. Therefore, some of our most recent teaching sessions have featured Pigeonhole Live (PHL), an online website enabling students to ask questions anonymously. Evaluative data from a PHL trial with third year students suggests it is a useful teaching tool, so we sought to assess its impact more formally. Current literature does not appear to characterise the effect of anonymous questioning forums on the student experience during a teaching session.

**Aims**

To assess the impact of Pigeonhole Live on the student learning experience.

**Methods**

Prior to and during a range of upcoming MedEdNcl lectures, students will be given instructions on how to access and use PHL. Following the session, students, regardless of whether they used PHL or not, will fill an online questionnaire, answering rating or Likert scale questions pertaining to the effect of PHL on their learning and confidence prior to exams. Space for free text feedback will also be provided, and pertinent themes will be identified.

**Results**

Results of our formal analysis will be collected and collated over February and March. We expect our analysis to include data from at least 50 students.

**Conclusions**

We expect PHL to improve the learning experience, as well as pre-exam confidence, regardless of whether students ask a question or not. We hope our preliminary work will inform approaches to optimising the learning process within lectures, especially as they are used so frequently in medical education.

### **118. Implementing a Unique Immersive Near-Peer Led Clinical Skills Bootcamp for Early-Year Medical Students**

Umair Khan

Acute Medical Unit, Noble's Hospital, Isle of Man

**Background:** Clinical skills training is a critical component of medical education, in particular for third year medical students who have not been exposed to clinical teaching previously.

**Aims:** We present a unique immersive clinical skills bootcamp for third year medical students, with formal teaching under five key themes: procedural skills day, examinations, imaging, data interpretation and prescribing. Lastly a simulation event was developed to allow the participants to bring the different themes together, in order to successfully manage an acutely unwell patient using the newly learnt skills.

**Methodology:** A 17-item pre- and post-course questionnaire was distributed to assess participant's knowledge and the tutors teaching performance using a five-point Likert scale. Post-session feedback was categorised into two domains: teaching content and delivery by presenter. Feedback was both qualitative and quantitative. A focus group was held post-bootcamp to allow for a two-way constructive feedback system to occur between tutors and students.

**Results:** Bootcamp was delivered to 15 students who showed an interest. Feedback was overwhelmingly positive with a 100% success rate. All students feel more equipped to take opportunities that arise on medical wards as a result of the skills learnt. 93% of students agree a combination of OSCE, lectures and group discussions approach was useful in their learning. Most students (87%) agree the length of the course was appropriate. Average overall tutor teaching score throughout the bootcamp ranged from 9.5-10. All students would recommend this bootcamp to their peers.

**Conclusions:** Early-year clinical students successfully received an immersive, goal-directed course with formal teaching delivered by junior doctors. The near-peer teaching model improved course evaluation by students. We were able to successfully demonstrate that near-peer teaching is effective when it is goal directed, and further when it addresses areas of medical education whereby there is disparity in the formal teaching available.

**122. Micro In situ Simulation Training (MIsST): a viable way to improve medication safety in the Emergency Department**

Emily Heathfield, Robyn Jacobs, Donna Baker-Lacey, Dr Mark Fleet  
Intensive Care/Simulation , Ashford and St Peter's NHS Foundation Trust

**BACKGROUND:**

The Datix system has recently highlighted several near-miss incidents involving drawing up and administering the correct dose of insulin for the treatment of hyperkalaemia in the Emergency Department.

The simulation department proposed designing a training session to help to address this important patient safety concern.

**AIMS:**

To provide a simulation-based learning session in the busy environment of the ED to improve knowledge and confidence in the preparation and administration of high risk drugs  
To assess the viability of this technique for the provision of further similar scenarios  
To improve the familiarity of the multi-disciplinary ED team with the use of simulation for training

**METHODS:**

The scenario was designed and delivered by a multi-disciplinary team of trainers (including anaesthetists, outreach sister, medication safety pharmacist and simulation lead) and was designed to last 5-10 mins for each participant. During this time we hoped they would recognise severe hyperkalaemia on a blood gas and instigate the appropriate treatment in a timely manner.

The scenario had to be easily adaptable for the range of staff members involved (from HCAs to senior registrars) and included either safe prescribing, or drug preparation and administration, depending on the participant's background.

**RESULTS:**

An anonymous feedback questionnaire showed us that 100% of participants felt more confident after the training and general feedback about the use of simulation in the department was entirely positive.

The training was well received by the senior nurses and doctors in the department, and was well attended even on an extremely busy day.

**CONCLUSIONS:**

This style of simulation-based training has the potential to address specific medication safety concerns in a way that is popular with staff and acceptable in a busy working environment.

### **123. Mental Health First Aid for Medical Students**

**Katy Sutcliffe**, Oliver Sargeant, Jacky Matthews, Kevin Harkin  
Obstetrics and Gynaecology, Leighton Hospital, Cheshire

**BACKGROUND** Mental Health First Aid (MHFA) is a global movement with 2.6 million people trained worldwide. The course is aimed at the general public, it teaches participants to recognise warning signs of mental ill health and develop the skills and confidence to approach someone who may be experiencing a mental health issue. Although, MHFA e-learning for medical students is emerging, the provision of face-to-face MHFA courses for medical students has not been researched previously.

- AIMS**
1. Are medical students interested in MHFA as an extra-curricula activity?
  2. How do medical students rate the MHFA course?
  3. Are there any adaptations needed to the standard MHFA course for this audience?

**METHODS** The standard two-day MHFA course was offered to groups of medical students, from all year groups at Liverpool University. The course was delivered to 42 students over 3 weekends by a doctor, who is also an accredited MHFA instructor. The students paid £30 each to attend the course, which usually costs around £300. Following student feedback, a one-day course was subsequently offered to 25 medical students. This consisted of a different MHFA product, a half-day Mental Health Aware course followed by a bespoke session for medical students, delivered by two doctors, covering topics such as fatigue, stress at work and specific sources of support for medics.

**RESULTS** All participants rated the MHFA course as 'good' or 'very good'. Feedback was overall positive with the terms 'interesting', 'engaging' and 'informative' occurring frequently. Students stated that both their knowledge and confidence in how to support someone with a mental health problem had increased. Participants felt that less time could be spent on areas such as non-judgemental listening, which were well covered in the medical school curriculum. Feedback from the one day course was excellent, with students specifically commenting on the teaching around exam stress and dealing with distressing clinical situations. Students valued the course being delivered by junior doctors who had recent and relevant experiences to share.

**CONCLUSIONS** There is certainly an enthusiasm for Mental Health First Aid amongst medical students at the University of Liverpool. The adapted course was particularly popular and highlights the need to address specific challenges faced by medical students.

#### **REFERENCES**

Mental Health First Aid [www.MHFAEngland.org](http://www.MHFAEngland.org)

Davies EB, Beever E, Glazebrook C.

A pilot randomised controlled study of the Mental Health First Aid eLearning course with UK medical students. BMC Medical Education, 2018, Volume 18, Number 1, Page 1

## **125. We Should Be More 'Nosy' in Who Packs Our Noses! Technical Skills and Simulation Training in the A&E Department**

**Gulwish Moghul, Marisa Cheah,** Issa Beegun, Nara Orban

[gulwish.moghul@bartshealth.nhs.uk](mailto:gulwish.moghul@bartshealth.nhs.uk)

ENT, The Royal London Hospital, Barts Health NHS Trust

### Background

Epistaxis remains a common, potentially life-threatening presentation to the accident and emergency (A&E) department, managed acutely by both A&E and ENT staff. Anterior nasal packing is a quick and relatively safe way to manage anterior bleeds refractory to first aid management. If inserted incorrectly, nasal packs can cause harm to the patient. Previously described in the literature, a Rapid Rhino was inserted with the protective plastic sheath leading to a large mucoperichondrial flap being raised resulting in significant trauma, bleeding and pain. This has also happened in our teaching hospital, raising concerns regarding A&E staff competencies in packing noses.

### Aims

To improve the competencies and confidence of our A&E staff in acutely managing patients with epistaxis on first presentation to A&E.

### Methods

A workshop has been developed, including both technical skills training and in-situ simulation. Simulation models will be used to practice nasal packing. In-situ simulation scenarios will informally assess both technical and non-technical skills. A questionnaire pre- and post-teaching will assess changes in the competency and confidence levels. Results will be reported on both subjective assessment with quantitative data analysis.

### Results

Expected time to completion is mid-February.

### Conclusion

A&E staff recognise the need for further training in managing epistaxis acutely, particularly in terms of packing noses. Most have not been taught to pack a nose, and admit to having watched a video clip or a colleague pack a nose before attempting it themselves. Managing epistaxis whilst awaiting for ENT input can be distressing. All staff agree that having an 'in-situ' simulation aspect will provide a safe environment to learn the procedure and make mistakes without causing harm to patients. Successfully inserting an anterior nasal pack is a skill that most A&E staff should be able to carry out with the appropriate training and is the optimal patient management.

**127. Development of a clinical skills workshop for Medical students to learn safe delivery of local anesthesia and basic suturing techniques for wound closure and management.**

**Rachel Ventre**, Cleone Pardoe

Medical Education, South Warwickshire Foundation Trust

**BACKGROUND**

Medical students lack confidence with suturing and local anesthetics, resulting in missed opportunities of practical theatre experience during peri-operative rotations. The GMC's 'Outcomes for Graduates' requires proficiency in practical skills and skill development in early training. Thus we identified an educational need to teach suturing.

A literature review of teaching practices supported our workshop design. McGaghie's (2011) meta-analysis reported increased efficacy of simulation against traditional skills-based teaching. Additionally, evidence supports the combination of instructional videos as an adjunct to traditional skills pedagogy, and the use of expert facilitators, in improving skill performance and retention (Shippey, 2011; Xeroulis 2007).

**AIMS**

We aim to develop a clinical skills workshop to teach basic wound closure techniques in a simulated environment to Medical Students learning peri-operative care.

**METHODS**

We designed a clinical skills workshop for Medical Students at a teaching hospital. Students participated during their peri-operative rotation, a six-weekly rotation comprising of 6-8 students. We provided two experienced clinical education fellows as facilitators to ensure a facilitator to student ratio of 1:4, adhering to literature advice (Dubrowski, 2006). The sessions comprised three sections; a traditional pedagogical tutorial, video instructions and a facilitated practical session on models. Learning outcomes were mapped against a British Medical school curriculum. Practical aspects included room booking, timetabling, procurement of materials and costings. Proposals were reviewed and workshops established. We collected qualitative data to evaluate and improve the workshop.

**RESULTS**

Three workshops have been run and analysed (1 (n=6), 2 (n =6), 3 (n=4)). Qualitative themes included: confidence in skill acquisition, variety of learning styles, enjoyable, informative and interactive. Recommendations included timetabling at the start of the rotation and facilitator demonstrations.

**CONCLUSIONS**

Qualitative feedback was positive, evidencing achievement of learning needs and student satisfaction. We plan to incorporate recommendations into future sessions and re-evaluate feedback including quantitative measures.

**128. Medical students' perspective on entrepreneurship and innovation teaching within medical schools**

**Safa Al-Musawi**, Ekelemna Obiejesie, Rachel Lee, Sarah Khavandi, Joyce Omatseye, Felicite Mukeshimana, Olaoluwamide Akinwuntan  
Imperial College London

**BACKGROUND:** Entrepreneurship and Innovation provide an array of skills necessary to face the economic crisis engulfing the NHS. Frontline staff are uniquely placed to identify problems in the NHS, and develop solutions to them, so changing the medical school curricula to provide entrepreneurship and innovation teaching will benefit the NHS.

**AIM:** To assess medical students' interest in receiving entrepreneurship and innovation education within their curriculum.

**METHOD:** A survey was sent out to medical students in the United Kingdom using social media and email addresses. A pilot study was conducted in order to formulate the questions of the survey. Students' willingness to be taught entrepreneurship and innovation was assessed alongside the perceived benefits of such teaching, the route it should be administered by, and the current prevalence of such teaching already in medical schools in the UK. The barriers to providing entrepreneurship and innovation teaching were also assessed.

**Results:** 342 surveys were completed at a completion rate of 94%. Entrepreneurship and innovation teaching were viewed positively by medical students, with 79% agreeing that it should be taught on an optional, opt-in basis at medical schools. Nearly 2/3rds of students reported that such teaching is necessary in order to sustain the future of the NHS and produce a more skilled workforce. Older year medical students were more likely to perceive such teaching positively ( $p < 0.01$ ). Currently, there is very little entrepreneurship and innovation teaching in only a few medical schools in the UK.

**Conclusion:** The study demonstrates the interest of medical students in receiving more entrepreneurship and innovation teaching in medical schools, and confirms the deficit of such teaching currently in medical schools. The students who will make up the future workforce of the NHS report significant benefits of such teaching on diversifying their skillset.

**129. Choosing the right tool for the job: quantitative research methodology for beginners.**

**Rubab Abdi**, Elizabeth Metcalf, Stephen Greenwood  
Cardiff University

Background: As a component of an intercalated BSc, students are required to build an understanding of the research methodologies used in Medical Education. The research project process involves making decisions as an inexperienced researcher with the constraints of practical feasibility and time. A crucial decision is the selection of the tool used for data collection.

Aims: To determine how to select the appropriate tool for quantitative data collection.

Methods: This study is looking at measuring the attitudes of year 4 medical students towards patients with intellectual disabilities, and how these are effected by an inclusive teaching session. Students are to be given a tool that measures attitudes before and after the teaching session, to see the effectiveness of the inclusive teaching session. To select the tool, a comprehensive literature search was conducted, using relevant search engines and keywords as well as using references of relevant studies. The literature search looked at previous similar studies to examine the tools they used as well as an in-depth examination of the available tools for measuring attitudes towards disabilities. The validated tool that was selected was the Attitudes Towards Disabled People scale (ATDP-B). This is a tool that broadly examines attitudes towards many domains under the term "disability".<sup>1</sup> This was selected as there are no validated tools to specifically measure attitudes towards intellectual disabilities.<sup>2</sup>

Results: The data for this study is currently being collected. This study will aim to show by the time of the conference the effect of using a validated tool.

Conclusions: Following data collection and analysis, this study will be discussing the impact of the decisions new researchers have to make in selection of tools. The study will be examining the role of validated tools that may not be specific to the domain of the study versus focused tools that may lack validity and reliability.

References:

1. Yuker, H. E., Block, J. R., & Young, J. H. (1966). The measurement of attitude toward disabled persons. Albertson, NY: Human Resources Center.
2. Ryan, TA. Scior, K. Medical students' attitudes towards people with intellectual disabilities: a literature review. *Research in Developmental Disabilities*. 2014; 35(10): 2316-2328

### **130. Investigating the effect of noise-induced stress on Wonderlic test performance**

**Nour Houbby**, Nidhish Jeyin, David Rees  
Imperial College London

Background: Noise-induced stress reduces cognitive performance but there is conflicting evidence regarding the effect of stress on heart rate and blood pressure. The physiological and cognitive effects of noisy, sub-optimal exam conditions are currently under-reported in the literature.

Aim: A pilot study to investigate the effect of an auditory stressor on cognitive performance and physiological parameters.

Methods: 22 Imperial College Students participated in the crossover study. Each participant completed two modified Wonderlic cognition tests; Test 1 completed in silence and Test 2 completed under the influence of an auditory stressor; an audio extract of a conversation played through headphones. Test score was the primary outcome measure. Secondary outcome measures were heart rate (measured at 30 second intervals throughout the tests), mean arterial blood pressure (measured pre and post both tests) and subjective stress score.

Results: At face value, test score results demonstrated no significant change with the effect of noise, however, further stratification of participants into 'high scorers' and 'low scorers' revealed the effects of a proposed "Learned Test Approach". 'High scorers' demonstrated a reduction in test accuracy with the noise stressor ( $p=0.007$ ). 'Low scorers' showed no change in test scores ( $p<0.05$ ) with the auditory stressor but attempted more questions in Test 2 ( $p=0.008$ ) highlighting their adapted approach to the test. Conflicting results were found in the physiological parameters heart rate and blood pressure with significant increases in heart rate found only in 2/11 timepoints recorded and significantly lower blood pressures recorded post test 2 compared with test 1.

Conclusions: Noise stress negatively impacts exam performance by reducing percentage accuracy in those not affected by the 'learned test approach'. Physiological parameters remain largely unchanged since noise is considered a minor stressor.

**132. Integrating Medical Education into your future Career: Teaching with a Legacy**

**Sophie Butler, Sagana Thayaparan,** Roxanne Keynejad,  
Psychiatry, King's College London

**BACKGROUND**

Whilst students and trainees are encouraged to gain experience and skills in medical education, one-off observations and ad hoc sessions can make teaching tokenistic. By contrast, successful teaching courses with longevity often depend on the leadership of highly committed individuals, limiting sustainability and scope for expansion.

**AIMS**

After the long-running 'Extreme Psychiatry' course at King's College London ended, we sought to build on its legacy by sustainably adapting its teaching model of weekly two-hour sessions comprising one 30-minute large-group teaching session followed by three small-group simulated patient role plays with supportive, structured, multidisciplinary team feedback.

**METHODS**

We mobilised a multidisciplinary team of medical students, service users, actors and psychiatry trainees to co-produce the content of a new course ('PsychEDUp') teaching the 'hidden curriculum' of indispensable skills for the new foundation doctor. Through four facilitated team workshops structured around theories of learning and feedback, this team identified seven topics and co-produced large-group teaching sessions and simulated patient role plays focused on teaching key concepts as innovatively as possible. Health Innovation Network (HIN) South London awarded us a small grant.

**RESULTS**

The team selected risk assessment and safeguarding, cross-cultural understanding, cognitive disorders, body image, mental capacity, challenging communication and somatic symptom disorders for the new curriculum. 32 third year medical students enrolled onto this out-of-hours course. Service user representatives, senior medical students and trainee psychiatrist peers performed serial peer observations of teaching, to iteratively develop and improve the course and educators' skills. We will present the outcomes of our first term's evaluation during this oral presentation.

**CONCLUSIONS**

Developing sustainable initiatives which integrate teaching into medical careers requires time, investment, creativity, enthusiasm and organisation. We share lessons learned from how the balancing act can ensure that medical education is impactful, rewarding and, above all, owned by the trainee body into the future.

### **133. Can't Teach, Won't Teach: how to develop doctors' confidence and involvement in teaching**

**Arwa Meki, Dhanya Pillai**

Medical Education, University Hospital Coventry and Warwickshire

#### Background:

Good Medical Practice states that doctors "should be prepared to contribute to teaching and training doctors and students". In addition, a good level of teaching experience is needed for specialty training applications. However, Medical Schools differ widely in their provision of medical teacher training which influences junior doctors' teaching involvement and development in this role.

#### Aims:

To determine the importance that doctors attach to the role of teaching, the relationship between confidence and involvement in different teaching roles, and how useful medical school was in developing that role.

#### Methods:

A cross-sectional study was conducted. A paper questionnaire was distributed to all 34 Foundation Year 1 trainees at University Hospital Coventry and Warwickshire. The questionnaire incorporated 5-point Likert scales, free text responses, and closed questions. Descriptive statistical analysis and linear regression were used.

#### Results:

The response rate was 88%. The findings identified that junior doctors are aware of the importance of their role as a teacher. There was a positive relationship between confidence in the various roles of a teacher and involvement in these. Doctors who felt medical school training was particularly useful in developing their teaching role felt more confident and were more involved in these various roles than doctors who found their medical school training not useful.

Main challenges in the development of a teaching role were: opportunities to teach, time, and knowledge. Structured opportunities to practice teaching and ways to increase knowledge on teaching skills were enablers to improve teaching performance.

#### Conclusions:

Junior doctors are aware of the importance of their teaching role; however they encounter challenges that affect their confidence and involvement in the various roles of a teacher. Medical schools need to incorporate medical teacher training into their curriculum and foundation training needs to ensure structured teaching opportunities to address this deficit and empower tomorrow's doctors.

**135. Harnessing the Student Voice: Working with faculty to bring about change**

**Amy Lowe**, Elizabeth Metcalf, Ann Johnston  
Cardiff University Medical School

**BACKGROUND:**

Students' perception of their curriculum, assessments and learning environment significantly impact upon their overall educational experience. Harnessing the student voice to inform improvements is therefore essential. It is imperative that faculty work with students and address and consider concerns raised, in order to improve the student experience (1). Assessments and feedback are a common source of concern and considered of great importance, based upon the literature (2), personal experience and anecdotal feedback from peers.

**AIMS:**

A key area impacting upon student experience relates to assessments and feedback. Feedback has been shown to promote higher levels of expertise and speed up the rate of skill development (3). As such, it was necessary for students to work with faculty providing feedback and collect data relating to the student experience of that feedback. We sought to develop a constructive and efficient approach to bringing the student voice to faculty responsible for assessments.

**METHODS:**

Current medical students and faculty from the clinical assessment team at Cardiff University School of Medicine met and worked together to develop a project aimed at gaining a better understanding of how students utilise their feedback. Students' perceptions were gathered via questionnaire and the data obtained is being used to structure and guide subsequent focus groups.

**RESULTS:**

This improvement exercise commenced in the autumn of 2018. Work is underway to collect student feedback on their clinical assessment feedback over the coming months. Once data has been analysed, the student and faculty team will then use the information gathered to inform future examiner training regarding giving feedback and the format of feedback received following these assessments.

**CONCLUSIONS:**

Positive and constructive teams can be developed with faculty and students working together to improve the understanding of the student experience and develop strategies for change.

**References**

1. Henning M, Shulruf B, Hawken S, Pinnock R. Changing the learning environment: the medical student voice. *Clinical Teacher*. 2011;8(2):83-7.
2. Zhang N, Rabatsky A. Effects of test stress during an objective structured clinical examination. *Journal of Chiropractic Education*. 2015;29(2):139-44.

3. Bernard A, Ceccolini G, Feinn R, Rockfeld J, Rosenberg I, Thomas L, et al. Medical students review of formative OSCE scores, checklists and videos improves with student-faculty debriefing meetings. *Medical Education Online*. 2017;22(1):1087-2981.

### **137. A low-cost peritonsillar abscess simulator**

**Alasdair Mayer**

Otolaryngology, Newcastle upon Tyne Hospitals NHS Foundation Trust

#### Background

Peritonsillar abscess (PTA) is the most prevalent deep infection of the head and neck. The majority of PTA are managed with needle aspiration; frequently performed by junior medical staff. No commercial PTA simulator exists so junior doctors often perform their first needle aspiration in a clinical setting.

#### Aims

To create a low cost PTA simulator that allows healthcare professionals to develop the skills required for needle aspiration in a controlled setting. As a result we aim to increase their confidence in performing PTA needle aspiration.

#### Methods

A PTA simulator was constructed using readily available materials, modifying previously described designs from the literature. The total cost was £25, including materials for 40 simulated needle aspirations. Using the PTA simulator, needle aspiration was taught to participants during an otolaryngology training day. Participants completed a questionnaire responding to statements using a 10-point Likert scale to assess the usefulness of the simulator (1 = strongly disagree, 10 = strongly agree). Results are reported as mean scores.

#### Results

There were 24 participants; 23 junior doctors and 1 nurse. Of these, 87.5% (n = 21) had never drained quinsy. 87.5% (n = 21) of participants felt more confident in their ability to manage a quinsy following the training day. Participants agreed that the PTA simulator helped both develop the skills required for needle aspiration (mean score = 8.7) and gain a better understanding of the clinically relevant anatomy (mean score = 8.3). Participants agreed that they would feel more confident performing needle aspiration on a real patient as a result of using the simulator (mean score = 8.2).

#### Conclusions

An affordable and easily reproducible PTA simulator is an effective means of teaching PTA needle aspiration. Following practice within a controlled environment healthcare

professionals may subsequently feel more confident performing this common procedure in clinical practice.

## References

- [1] Taylor, S. and Chang, C. (2014). Novel Peritonsillar Abscess Task Simulator. *Otolaryngology-Head and Neck Surgery*, 151(1), pp.10-13.
- [2] Mehanna, H. (2002). National audit of the management of peritonsillar abscess. *Postgraduate Medical Journal*, 78(923), pp.545-547.
- [3] Ng, V., Plitt, J. and Biffar, D. (2018). Development of a Novel Ultrasound-guided Peritonsillar Abscess Model for Simulation Training. *Western Journal of Emergency Medicine*, pp.172-176.
- [4] Bunting, H., Wilson, B., Malloy, K. and Malekzadeh, S. (2015). A Novel Peritonsillar Abscess Simulator. *Simulation in Healthcare: The Journal of the Society for Simulation in Healthcare*, 10(5), pp.320-325.

### **138. Preparing final year medical students for ward work through an interactive prescribing workshop**

Claire Capper, **Sarah Elyoussfi**

Clinical Education Fellow, Mid Yorkshire NHS Trust

#### BACKGROUND

Newly qualified doctors must be able to prescribe medications safely and be aware of common prescribing errors. The World Health Organisation guidelines state prescribing is best taught in a practical way. However, multiple studies have shown a gap in prescribing as part of medical education. Therefore, I set up a workshop for final year medical students, focusing on scenarios that they will be expected to independently manage as a foundation doctor.

#### AIMS

The aim of the session was to safely prescribe commonly used medications.

#### METHODS

The day workshop was designed for 12 final year students. They prescribe medications of their choice on hospital drug charts for different case studies, with direct feedback and teaching after each case. Realistic elements such as different weights, renal failure, allergies and interacting medications are included. The BNF, local guidelines and relevant test results are available for each case. Learning is assessed through direct observation, feedback, and their confidence using a Likert scale.

#### RESULTS

On a 5 point scale, students reported an average of 1.5 point increase in confidence across several prescribing domains: routine medications, acute medications, spotting errors and how comfortable they feel writing an in-patient prescription chart. Students enjoyed the interactive case based aspect of the course and felt much better prepared to start prescribing when they qualify.

#### CONCLUSIONS

The increase in knowledge and confidence from a one day workshop demonstrates the importance of prioritising practical prescribing teaching in medical education. All the students said the session should be delivered to all final year students. This will help develop better doctors and improve patient safety.

#### REFERENCES

1. Outcomes for Graduates 2018. (2018). 1st ed. [ebook] London: General Medical Council, p.18. Available at: [https://www.gmc-uk.org/-/media/documents/dc11326-outcomes-for-graduates-2018\\_pdf-75040796.pdf](https://www.gmc-uk.org/-/media/documents/dc11326-outcomes-for-graduates-2018_pdf-75040796.pdf) [Accessed 14 Nov. 2018].
2. de Vries TPGM, Henning RH, Hogerzeil HV, Fresle DA. Guide to Good Prescribing. A Practical Manual. Geneva: World Health Organization Action Programme on Essential Drugs; 1994. Available at: [http://whqlibdoc.who.int/hq/1994/WHO\\_DAP\\_94.11.pdf](http://whqlibdoc.who.int/hq/1994/WHO_DAP_94.11.pdf) [accessed 14 Nov. 2018]
3. Dornan, T., Ashcroft, D., Heathfield, H., Lewis, P., Miles, J., Taylor, D., Tully, M. and Wass, V., 2009. An in depth investigation into causes of prescribing errors by foundation trainees in relation to their medical education. EQUIP study. London: General Medical Council, pp.1-215.

With special thanks to our sponsors:



**MDU**

**WESLEYAN**

*we are all about you*

We look forward to seeing you at #ASMEASM2019

