# Introducing practical leadership into GP training first year GP registrars– trainees' views from a pilot in SE Scotland

## Background

The General Medical Council recognises leadership as an essential skill for all doctors, directly linking this with improving safety and quality of patient care. and leadership is one of the GMC's generic professional capabilities for all medical specialities in the UK. Assessing leadership is part of the RCGP's proposed changes in workplace-based assessment for UK GP trainees. The Scotland deanery pilot aimed to moving teaching in leadership from an online or classroom-based experience to the real-life setting of general practice.

## Methods

Trainees in their first training year were offered a menu of leadership activities that could be done in a GP surgery setting. Trainees were advised that they were not restricted to these items Trainee views were obtained before and after their six-month GP placement through questionnaires and focus group discussion.

## Results: Trainees views *pre-activity questionnaire* (response rate 57/89 = 64 %).

•72% of trainees said that they had already had teaching on leadership theory; 3% said that they did not think trainees needed to learn this.

•Before the start of the pilot, 21% had already completed a leadership activity - these had mainly taken place in UK foundation training.

•88% felt that, within the practice, their Educational Supervisors were best placed to teach leadership skills .

## GMC - Generic Professional Capabilities (GPCs)



## Menu of Leadership activities for GP trainees

*Chairing a meeting.*

*"Fresh pair of eyes" exercise.*

*Running an educational session.*

*Practice leaflet project.*

*Clinical protocol.*

*Website design.*

*Mini-QIP (quality improvement project).*

## NHS LEADERSHIP FRAMEWORK

## Author details

MeiLing Denney
MeiLing.Denney@rcgp.org.uk
Royal College of General Practitioners
30 Euston Square, London, NW1 2FB

*and*

Alan Johnstone, Pete Churn, Sigi Joseph, Rachel Philips, and Jen Ireland
South East Region of Scotland Deanery,
102 Westport, Edinburgh EH3 9DN

## GPC Domain 5: Capabilities in leadership and team working

Doctors in training must demonstrate that they can lead and work effectively in teams by:
- demonstrating an understanding of why leadership and team-working is important in their role as a clinician
- showing awareness of their leadership responsibilities as a clinician and why effective clinical leadership is central to safe and effective care
- demonstrating an understanding of a range of leadership principles, approaches and techniques and applying them in practice
- demonstrating appropriate leadership behaviour and an ability to adapt their leadership behaviour to improve engagement and outcomes
- appreciating their leadership style and its impact on others
- actively participating and contributing to the work and success of a team (appropriate followership)
- thinking critically about decision making, reflecting on decision-making processes and explaining those decisions to others in an honest and transparent way
- promoting and effectively participating in multidisciplinary and inter-professional team-working
- appreciating the roles of all members of the multidisciplinary team
- promoting a just, open and transparent culture.

## Results: Trainees views *post-activity questionnaire*

- 83% completed the project; most chose an educational leadership activity or a quality improvement project. Educational Supervisors were judged best to teach practical leadership skills.
- perceived benefits included feeling more involved in the practice than they would have done had they not done one, learning more about the practical aspects of leadership, learning more about team roles and team-working, learning more about the practice, and learning more about creating shared goals.
- With respect to receiving, 71% said they had only received verbal feedback on their performance after they had completed their leadership activity and 24%, of respondents said they had received both written and verbal feedback.
- Perceived barriers included lack of protected time, other training priorities, not feeling empowered, and personal issues.

## Conclusions

Leadership skills are essential for GPs today. Providing a menu of possible activities gave structure, but not all trainees found the activities were at a suitable level of challenge for them. Those who had engaged in a leadership activity felt more involved in the practice and learned more about team-working as well as leadership. More work needs to be done to explore how participation in practical leadership activities could be enhanced as a learning experience.

## Take home message

Practical leadership training can be translated relatively easily to the real-life setting of UK general practice. With a minimum of resources, trainees can take on small practical projects in the workplace that are of value to them in their training.

# Conference Style Medical Finals Course to encourage Student Choice

Authors: Dr Omeair Khan, Dr Mohammed Iqbal, Dr Sara Iqbal, Dr Nadine Davies, Dr Hodon Ali, Dr Yuji Suzuki, Dr Mustafa Ali, Dr Siew-Veena Sahi, Dr Pratik Solanki

## Aim and Introduction

We created a medical finals course at Princess Alexandra Hospital NHS Trust for final year medical students, with the aim to give students the choice of which topics they would like to revise and attend as part of a crash course. We aimed to assess whether student choice is preferred among medical students with respect to their learning and whether choice helped them feel more prepared for their upcoming examinations. Medical students are thought of as adult learners. This is especially true as they approach the latter years of medical school. Despite this, most of their education is delivered in a compulsory manner and they are obligated to attend all teaching sessions. Students have very little choice in regards to their own education in medical schools with the exception of occasional special study modules and elective.

## Methods

- A crash course was designed targeted primarily at Bart's and the London School of Medicine and Dentistry students
- 14 tutors were recruited from the trust to deliver the course
- Students were advised that they could attend any tutorial from the beginning (provided the tutorial had capacity) and had the choice to leave or have a break at any point
- A series of Multiple Choice Question (MCQ) based lectures were running systematically in the main lecture theatre as shown in Figure 1. These sessions ran once starting from 8:30am to 16:30pm with breaks.
- Simultaneously 7 tutorials were repeated continuously throughout the day giving students the choice to either attend the MCQs in the lecture theatre or any of the tutorials.
- A pre-course, post-course and post-tutorial questionnaire was given to delegates

| | |
|---|---|
| Cardiology | 75mins |
| Pulmonology | 75mins |
| Gastroenterology | 75mins |
| Neurology | 35mins |
| Nephrology | 35mins |
| Endocrinology | 35mins |
| Haematology | 35mins |
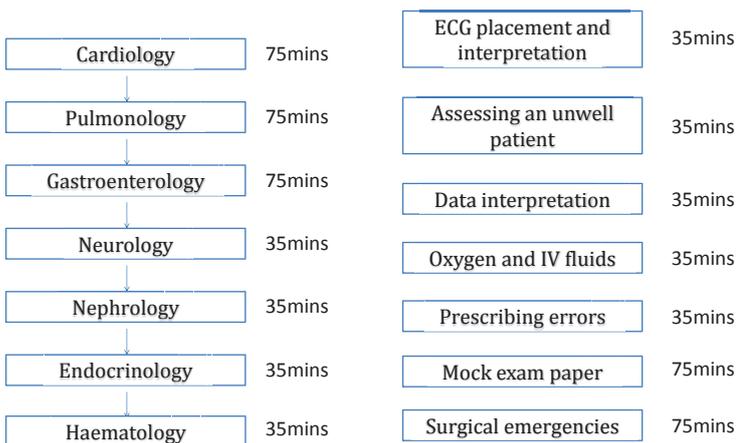
Figure 1: MCQ based lectures running systematically in the lecture theatre once only

| | |
|---|---|
| ECG placement and interpretation | 35mins |
| Assessing an unwell patient | 35mins |
| Data interpretation | 35mins |
| Oxygen and IV fluids | 35mins |
| Prescribing errors | 35mins |
| Mock exam paper | 75mins |
| Surgical emergencies | 75mins |

Figure 2: These tutorials ran continuously throughout the day as 'drop-in' sessions

## Results and Discussion

- 40 students attended the Medical Finals Crash Course from Bart's and the London School of Medicine and Dentistry

## Conclusion

Overall, we can conclude that medical students are adult learners who prefer choice in guided their learning with respect to their learning needs. Medical students also feel that choice allows them to learn more relevant content to aid in their development as doctors. Crash courses reduce anxiety and make medical students feel more prepared for their examinations.

### Choice

| | Strongly Agree | Agree | Not Sure | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| Choice allowed me to learn more | 53.8% | 28.2% | 15.4% | 2.5% | 0% |
| I prefer choice of attending sessions | 58.9% | 28.2% | 10.3% | 2.5% | 0% |

- 82% of students agreed or strongly agreed that choice enabled them to learn more in comparison to not having the choice of what to learn
- Similarly 87.1% of students preferred having the choice to guide their learning in respect to what they felt was appropriate and relevant to their learning needs

### Pre-course vs post-course anxiety and perceived readiness

| | Strongly agree | Agree | Not sure | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| Pre-course anxiety for exams | 25.8% | 54.8% | 19.4% | 3.2% | 0% |
| Post-course anxiety less | 12.9% | 41.9% | 19.4% | 19.4% | 6.5% |
| Feel prepared for exams pre-course | 26.7% | 23.3% | 33.3% | 13.3% | 3.3% |
| Feel prepared for exam post-course | 41.0% | 46.2% | 12.8% | 0% | 0% |
| Overall feel more ready for exam | 47.3% | 36.8% | 15.8% | 0% | 0% |

- 80.6% of students were anxious with regards to their exam prior to the course however 54.8% agreed that their anxiety levels reduced after the course.
- Overall , 84.1% of students felt more ready for their exam after the course compared to 50% before the course.

# COSTING TEACHING AND TRAINING:
# THE NATURE AND ACCURACY OF STAFF SELF-REPORTING

Craig Margetts [1,2], Joel Dulhunty [1,2,3], Adrian Boddice [1], Arlena Kuenzel [4]

1. Redcliffe Hospital, Metro North Hospital and Health Service, Brisbane, 2.The University of Queensland, 3. Queensland University of Technology, 4. Western General Hospital, Edinburgh

## INTRODUCTION

Training health care professionals is a core activity of public teaching hospitals. One key question in Activity Based Funding models is the separation of cost and time in providing health care, from the equally important role of teaching and training. The large scale Australian national Teaching, Training and Research costing study, completed by the Independent Hospital Pricing Authority in 2015, used survey methodology to determine the quantity of teaching and training which occurs during clinical activities in public hospitals. This "embedded" education occurs in conjunction with patient care, and has proven challenging to measure accurately. This study aimed to determine the accuracy of the above survey methodology using direct observation across differing clinical situations as the "gold standard".

## METHOD

The study was conducted at an outer metropolitan 250 bed public teaching hospital with 60,000 emergency department presentations per annum. Using audio-visual recording sessions in four separate clinical settings (operating theatre, emergency department, ward, outpatient), researchers independently coded time spent in providing and receiving T&T during clinical time and compared this with surveyed responses.

## STUDY DEMOGRAPHICS

96 participant responses
-66 individuals
20 sessions
-ward, theatre, outpatients, emergency
48 hours of filming
-mean 2:00 hours
-IQR 1.38-2.50 hours

Consultants 26%
Reg/PHO 28%
PGY 2-3 19%
Intern 13%
Med student 9%
Anaesthetic nurse 5%



*Above:* Methods used (and not used) by researchers to facilitate unobtrusiveness during filming. *Right:* Video coding review.

### Perceived activity (survey)

| Group | Receiving T&T | Partially Receiving T&T | Everything else | Partially Delivering T&T | Delivering T&T | Reg/PHO Downtime | Overheads |
|---|---|---|---|---|---|---|---|
| Consultants | 1% | 1% | 53% | 21% | 23% | — | — |
| Registrars & RHOs | 22% | 15% | 46% | 8% | 9% | — | — |
| RMOs (PGY1-3) | 27% | 28% | 39% | 4% | 2% | — | — |
| Medical students | 58% | 20% | 11% | 0% | 11% | — | — |
| Nursing staff | 12% | 30% | 44% | 12% | 2% | — | — |
| Overall | 21% | 17% | 42% | 10% | 10% | — | — |

*Mean per cent reported. Data for all paired surveys (n = 96).*

### Direct Observation (video)

| Group | Receiving T&T | Partially Receiving T&T | Everything else | Partially Delivering T&T | Delivering T&T | Reg/PHO Downtime | Overheads |
|---|---|---|---|---|---|---|---|
| Consultants | 0% | 0% | 73% | 14% | 4% | — | 9% |
| Registrars & PHOs | 3% | 14% | 69% | 1% | 0% | 2% | 12% |
| RMOs (PGY1-3) | 20% | 25% | 45% | 0% | 0% | — | 10% |
| Medical students | 84% | 1% | 1% | 0% | 0% | — | 15% |
| Nursing staff | 16% | 20% | 50% | 2% | 0% | — | 13% |
| Overall | 16% | 13% | 55% | 4% | 1% | 1% | 11% |

*Mean per cent reported. Data for all paired surveys (n = 96).*

### Perceived vs. observed teaching and training
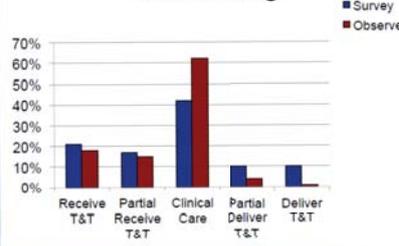


### Concurrent validity (correlation)

| Activity | < 2 days (Pearson's r) n = 50 | 3+ days (Pearson's r) n = 46 | All (Pearson's r) n = 96 | Significance (p-value) n = 96 |
|---|---|---|---|---|
| Receiving T & T | 0.65** | 0.32* | 0.67** | <0.001 |
| Part. Rec. T & T | 0.38** | 0.10 | 0.26 | 0.011 |
| Clinical care | 0.44** | 0.05 | 0.35** | <0.001 |
| Part. Del. T & T | 0.60** | 0.17 | 0.49** | <0.001 |
| Delivering T & T | 0.32* | 0.02 | 0.35** | <0.001 |

*Paired comparison (n = 96). Correlation is significant at the 0.05 level (*) and 0.01 level (**). Red circle: poor correlation.*

## CATEGORIES DEVELOPED FOR CODING

**Original**
1. Delivering T&T
2. Receiving T&T
3. Clinical (including Other)
**Revision A**
4. Partial Delivering T&T
5. Partial Receiving T&T
**Revision B**
6. Overhead -non T&T and Non-Clinical (walking between cases, coffee etc)
7. Non-Study Time-Off camera, Camera pointed away etc
**Revision C**
8. Reg/PHO T&T Downtime (bored? … )
9. On other camera

## RESULTS

Overall, participants reported receiving T&T for a median of 10% of the total time observed (inter-quartile range 0-30%) with 70% spent delivering patient care (interquartile range 60-90%). Participants reported a 58:42% split between T&T and clinical care via survey, while independent video coding indicated the correct allocation 38:62%.

## CONCLUSION

There is significant benefit and accuracy in direct observation to give an understanding of how much embedded teaching occurs in the hospital environment. In particular we found:
• Significant variations between subjective assessment and direct observation
• Over reporting of T&T
• Under reporting of clinical care
• Decay in concurrent validity over time between recall and direct observation
This study also developed a useful taxonomy for future studies of T&T

Author: Dr. Joanna Mathisen, Clinical Teaching Fellow, Intensive Care, Aberdeen Royal Infirmary
Supervisor: Dr. Roxanna Bloomfield, Consultant in Intensive Care Medicine, Aberdeen Royal Infirmary

**NHS Grampian**
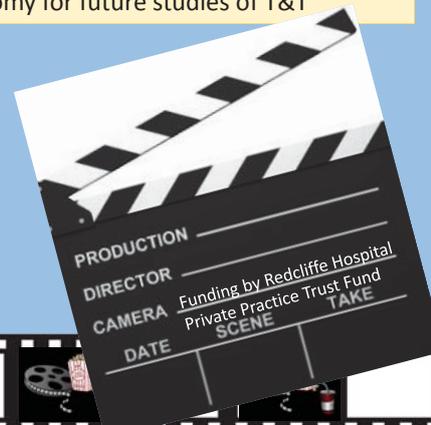
# Application of a PHEEM questionnaire to the Aberdeen Intensive Care Unit

### Aim

Educational Environment Measures are useful tools for assessing the 'health' of a training environment within a hospital setting. The Intensive Care Unit at Aberdeen Royal Infirmary is keen to promote a welcoming training environment. Regular journal clubs and trainee-led teaching supplement daily teaching ward rounds and weekly mortality/morbidity meetings with multi-professional sharing of learning. Although general feedback is sought at the end of each placement, the varied learning environments are not evaluated in detail. The Postgraduate Hospital Educational Environment Measure (PHEEM) is a validated questionnaire to assess the impact of the wider teaching environment and learning culture. Would our ICU stand up to the test of the educational environment?

### Methods

We have applied the PHEEM questionnaire to the training environment in Intensive Care at Aberdeen Royal Infirmary. Some questions were minimally adapted to the environment to allow the questionnaire to read better but the structure of the questions was unchanged (for example: "I am bleeped inappropriately" does not apply to junior trainees in ICU as they do not carry pagers, so the question was changed to "I am contacted inappropriately").



### Results

From August 2017 – January 2018 there were 12 trainees based in ICU, ranging in training level from FY1 to ST7. Eight of these doctors completed the 40-question PHEEM and were asked to provide comments with suggestions for improvement. This revealed overall satisfaction with the educational environment in Intensive Care but has also revealed specific areas for improvement: namely that trainees desire more regular feedback from senior staff, and that more junior trainees (ST3 or below) desire a greater sense of responsibility toward their patients.



PHEEM overall score

---------ST3 or below---------         ----------- >ST3------------

Overall mean score: 122.38 (Excellent)
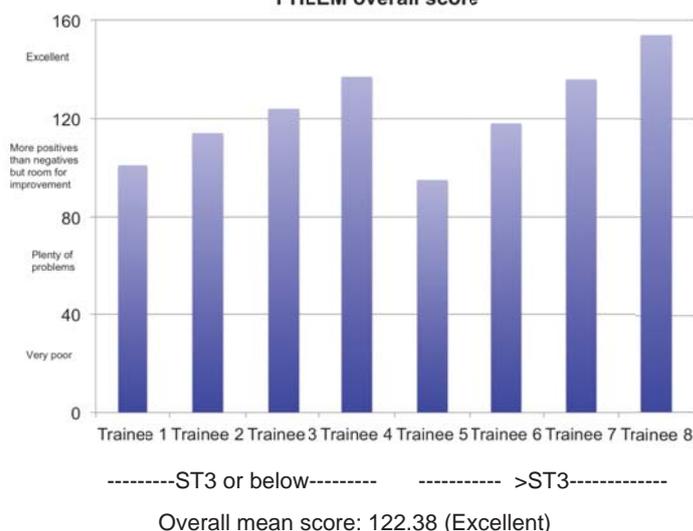
| Lowest scoring questions | Score out of 4 |
| --- | --- |
| There are adequate catering facilities when I'm on call | 1.5 |
| There are good counselling opportunities for junior doctors who experience difficulty regarding their training in this rotation | 2.0 |
| I get regular feedback from seniors | 2.6 |
| I have the appropriate level of responsibility in this rotation | 2.6 |
| I have suitable access to careers advice | 2.6 |

Comments (3 examples):
"As a more junior member of the team, decision making is limited. Generally all decisions are made by senior, as a junior trying to make even minor decisions the nursing staff will often ignore what I ask until it is confirmed by a senior. This can be very frustrating."
"Very good learning environment, at times would like to be pushed on and given more responsibility with appropriate help if required."
"Smaller ward rounds (i.e. split) is better for learning as it is more enjoyable to chat/discuss learning points in a small group than to be put on the spot in a larger group where sometimes it feels like you aren't involved and can lose interest."

### Conclusions

This study has helped to pinpoint specific areas for improvement of the training environment in our ICU. With our current cohort of doctors in training (February 2018 onwards) we are returning to our trainers with suggestions for ways to better serve training needs and implement these to see if the results change.

### References
S. Roff & S. McAleer, Centre for Medical Education, Dundee University Medical School & A. Skinner, Department of Paediatrics, City Hospital NHS Trust, Birmingham, 2005.

For more information on this project please contact Joanna Mathisen at joanna.mathisen@nhs.net

brighton and sussex medical school

Dr Jasmeet Kaur Singh MBBS BSc (Hons)

Brighton and Sussex Medical School, Brighton, UK

# Creating and distributing a video resource: Does it act as an efficient learning tool?

## Introduction

Applying advances in technology to medical education is becoming more popular, with increasing amounts of portable media resources available online and to download.

Research has shown health professional students value access to educational resources online (1) and the associated increase in 'convenience and useability' this allows (2)  It's recognised that allowing students freedom to choose from several types of resource to revise from increases examination performance (*). Some students have stated the addition of a visual component to podcasts provided by their universities would improve their value (3).

Video streaming can act to 'reduce the gap between theory and practice', and act as a valuable tool for education, influencing knowledge acquisition not only through its observation but as part of the actual process of student's learning (4).

## Aims, objectives and research question

Aim:
To create a video on data interpretation specific for liver function tests and jaundice, and analyse its benefit as a learning resource

Objectives:

1. To review the existing literature on the use of podcasts (video or otherwise) in medical education, specifically on data interpretation

2. To create a medical education video on how to interpret liver function tests (LFTs) and the clinical condition of jaundice

3. To assess the benefit of the resource by :

· providing it to current 3rd years and examining the on the content, comparing the results to a traditional text only resource group

· Gathering opinions on the positive and negative aspects of the video to guide further research

Research Question

'Does a data interpretation video act as an effective learning resource?'

## Learning styles

Felder and Silverman [5]: if a teaching style doesn't match the students preferred learning style they may have difficulties in understanding and retaining the information.

They  derived 3 basic learning styles: visuo-spatial, auditory– sequential, and tactile– kinaesthetic.

| Modality | How do they think? | How do they take in information? |
|---|---|---|
| Visuo-spatial | Holistic, often three dimensional images | Visualisation of the whole concept |
| Auditory- sequential | In words processed auditorally | Sequential, step by step process |
| Tactile- kinaesthetic | Demonstration or application more than from verbal explanations | Physical touch and sensation |

Videos benefit all 3 types of learning; - visuo-spatial from the visual content
- auditory-sequential from the speech and sound
- tactile-kinaesthetic from the ability of animation programmes and technological software to provide demonstrations not possible in textbooks or in lectures.

## Method

### Creating the video

1. A script containing relevant data was synthesised
   - it was thought splitting into 3 small videos would make the content easier for students
2. Animations were created using the programme Moovly
3. The audio component was created using the programme Final Cut
4. The two elements were combined and edited appropriately

### Participants

Convenience sampling was initially used, followed by snowball sampling.

Sixty one students from the 3rd, 4th and intercalated years at BSMS responded (18.5% response rate)



### Sharing and analysing the resource

- Control text group received the script only (n=32)

- Video group received the video resources (n=29)

- After 48 hours a survey was sent out testing information retention and opinions on the videos (response rate 60.6% n=37).

- All control group members were sent the videos after academic performance was analysed, to enable opinions on the new  resources from 100% of participants.

## Results and discussion
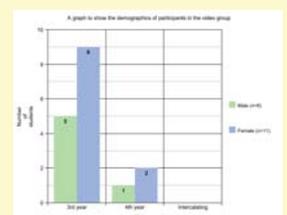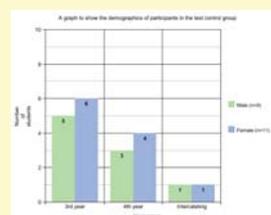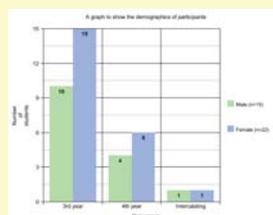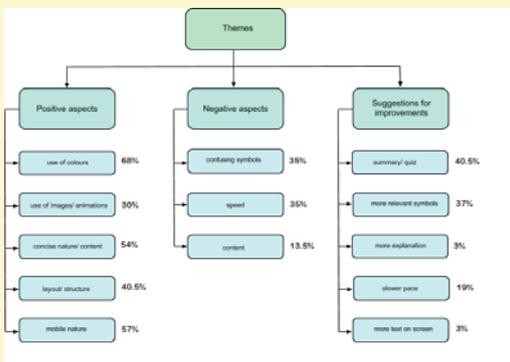




### Positive aspects

- Every student who responded to the questionnaire found at least one aspect of the video useful to aid in revision.

- The number of positive comments outweighed the number of negative ones.

- The most commonly mentioned elements students appreciated was the ability to have control over how and where they accessed the information, and the ability to manually manipulate the videos by replaying

### Negative aspects

- Whilst 40% (n=13) of students mentioned the videos seemingly arbitrary use of images this stance was overshadowed by 68% who appreciated the 'novelty and fun animations'.

- The comments regarding the videos being too speedy were followed with the student appreciating the ability to pause, rewind and rewatch.

- The level of content was both a positive and negative aspect, perhaps influenced by the students personal preference for depth of learning

### Analysing academic performance

- To assess whether the video resources were effective at conveying the academic information a quiz was emailed out to both control and variable groups after 48 hours of being sent the resources.

Vodcast mean score: 11.41 Control mean score: 9.15

- From these scores it can be stated that the video resources is as successful as traditional modalities to convey academic information, and does not act detrimentally to students learning.

NB: the purpose of this research was not to quantify performance of students in each group, hence the P value has not been calculated

### Limitations

1. Overall approach: qualitative research can be seen as too value and context rich with not enough evidence.
2. Creating the resources: the limited animations available via the programme resulted in sometimes arbitrary symbols being used which was noted as confusing by some students.
3. Participants: recruitment methods resulted in self selection, also differences in clinical experience could have led to differing academic performance scores, small sample size.
4. Analysis: thematic analysis has flaws, demand characteristics could have skewed results and students reporting of resource use.

## Conclusion

- Positive aspects outweighed the negative, the most popular correlating with literature:

- portability, ability to control pace of learning, visual animations

- Many accessed the videos outside of teaching hours and whilst multitasking- predicted by the literature review

- Watching the videos utilises a combination of cognitive processes & functions spanning both left and right hemispheres, potentially evidence by content retention being  higher in the vodcast group than the control text group

- Students were enthusiastic about future resources covering other topics, and 100% questioned said they would access the video resources again.

- Participants were keen to engage with the video resources, therefore it can be concluded they do act as an effective learning tool

- As of 18/04/2018 the videos have collectively amassed 32956 views on YouTube.

## References

1. Schimming L. Measuring Medical student preference: A comparison of classroom versus online instruction for teaching Pubmed. Journal of the Medical Library Association. 2008; 96 (3): 217-222
2. Maloney, Chamberlain M, Morrison S, Kotsanas G, Keating J, Ilic D. Health professional learner attitudes and use of digital learning resources. Journal of Medical Internet Research. Jan 2013 15(1) 7
3. Shantikumar S. From lecture theatre to portable media: students' perceptions of an enhanced podcast for revision. Medical Teacher. 2009; 31(6)535-538.
4. Baharav E. Students' Use of Video Clip Technology in Clinical Education. Topics in Language Disorders. 2008; 28(3):286-298.
5. Felder R.M, and Silverman LK. Learning and teaching styles in engineering education. Engineering Education. 1998; 78(7), 674-681. Preceded by a preface in 2002, available from URL: http://www.ncsu.edu/felderpublic/ Papers/ LS-1988.pdf

# Are Minor Injuries a major concern for Emergency Medicine trainees?

**Ross D, Kilmurray K**

Emergency Department, Glasgow Royal Infirmary, 84 Castle Street, Glasgow, G4 0SF

## Introduction

Emergency Medicine (EM) is one of the youngest medical specialities in the United Kingdom. It has risen from the inauspicious days of "Casualty" to take its place as one of the key acute specialities involved in caring for severely ill or injured patients. EM also provides medical input into the Minor Injuries Unit (MIU) caring for people at the opposite end of the acuity spectrum. This friction has sparked extensive debate, particularly on social media[1], within the speciality about how to ensure trainees receive adequate training to deal with both ends of the spectrum.

## Method

70 West of Scotland (WoS) EM trainees were surveyed via email inviting them to complete a survey generated using Google Quiz. The survey asked trainees to rate their competence level in various minor injury procedures, their attitudes towards / experience in minor injuries training and also how much clinical time per month they spent working in a MIU. The procedural competencies surveyed were derived from the 2015 Royal College of Emergency Medicine curriculum[2].

## Results

### Respondents

29 responses were received from trainees across 8 hospital sites (Glasgow Royal Infirmary, Royal Alexandria Hospital, Royal Hospital for Children, Crosshouse, Ayr, Monklands, Hairmyres and Queen Elizabeth University Hospital). Grades of respondents are detailed below:
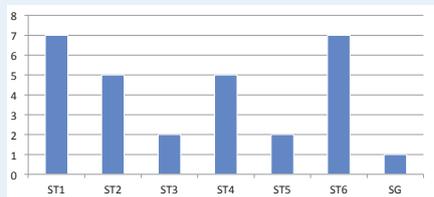


### Procedural competencies

100% percent of respondents reported independent practice in performing uncomplicated wound repair with glue, steristrips or sutures. ≥90% of respondents reported independent practice in performing a ring block, incision and drainage of a paronychia, uncomplicated wound repair with staples, application of a collar and cuff, application of a wrist splint and removal of a foreign body from an eye.

Procedures where <90% independent practice was found are described in further detail in the pie charts below:



I+D of an uncomplicated abscess

Evacuation of a subungal haematoma

Wound exploration and irrigation

Reduction of an uncompliated phalangeal dislocation

Application of a broad arm sling

Application of a forearm backslab

Removal of foreign body from nose

**Key**
- Independent practice
- Require distant supervision
- Direct supervision but previously performed procedure
- Direct supervision and never performed procedure

## Attitudes and exposure to Minor Injuries training



I feel my training to date has given me sufficient exposure to minor injuries

I feel comfortable giving advice to junior medical staff and ENPs about minor injuries when asked

I enjoy working in the minor injuries department

I feel comfortable managing most presentations I see whilst working in the minor injury department

Number of shifts in MIU in last month
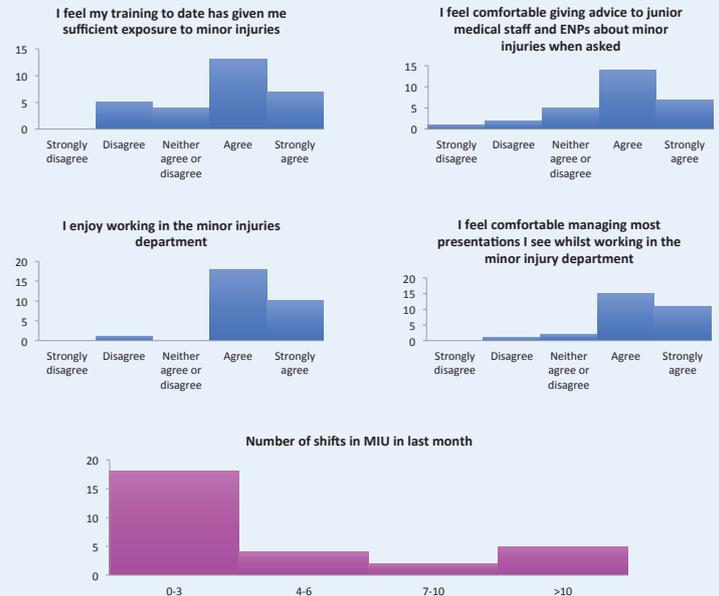
## Comments

- 'Enjoyable aspect of training exposure'

- 'Always feel quite stressed in minors as expected to give advice, which I am happy to do where I can, but generally feel my minors knowledge is quite lacking….probably reflects that most departments we rotate through now have ENPs and so trainees more likely to cover majors/resus. It's a shame as I actually enjoy a shift in minors...'

- 'Most experience from clinical fellow job outwith Glasgow……Lots of ENPs in Glasgow so trainees are suffering.'

- '…the common things eg head injury/wounds/fractures/etc are easy to pick up it's the partial quads tear/what counts as a significant ankle ligamentous injury that is much harder. Similarly, unless you know to look out for certain things some injuries (eg ulnar collateral ligament injury of the thumb) can be very easily missed…'

- 'Don't really do enough minors to build experience but are then expected to be able to help ENPs if they have questions…'

## Discussion

The survey responses suggest that trainees are generally confident in performing the basic procedures required in minor injuries and that they enjoy working in minor injuries.

They also suggest however, that although there is wide variation in time spent in MIU the majority of trainees (n=18) only spent between 0-3 shifts per month working there. This relative lack of clinical exposure in combination with the introduction of Emergency Nurse Practitioners would explain the recurring theme seen in trainees comments that they found more unusual/complex presentations challenging and lacked confidence in advising on these.

## Conclusion

Medical input into the MIU is likely to remain the responsibility of EM for the forseeable future. It is essential that trainees receive enough training to enable them to be effective consultants who are able to supervise both junior medical staff and ENPs. This training could consist of protected clinical time in MIU, specific training courses or novel solutions such as scheduled clinical time at virtual fracture clinics or shadowing physiotherapists.

## References

1. Emergency Medicine Trainee Association. If you could re-design the EM training curriculum what would go/stay/come? What is #EMCoreBusiness for the Consultants of 10 years time? [Twitter]. 6th October 2017 [cited 27th February 2018. Available from https://twitter.com/emtacommittee/status/916265942472159232?refsrc=email&s=11
2. Royal College of Emergency Medicine. Curriculum and Assessment Systems for Training in Emergency Medicine: August 2015 Curriculum. (2015). Available from http://www.rcem.ac.uk/docs/Training/RCEM_2015_Curriculum___Applicable_from_August_2016__approved_23_Nov_2015_ATCF_RTT_DRE-EM_additions_July2017.pdf

# Evaluation of medical student centred program development in a Psychiatry of Old Age undergraduate training placement

Robert Clafferty
Consultant Psychiatrist (NHS Lothian)
Honorary Senior Clinical Lecturer (University of Edinburgh)

## Introduction

Having completed Clinical Educator Program (CEP) and Quality Improvement (QI) training, I wanted to enhance the training experience for medical students during their clinical attachment to Psychiatry of Old Age (POA) services, inspire them to succeed in their learning objectives and enjoy their brief exposure to my specialty. I believed that this could be achieved by offering the experience of a good undergraduate placement, where enthusiastic teachers delivered a welcoming, structured, student centred training schedule, tailored to individual student learning needs.

## Method

- Between Jan-Dec 2017, 25 University of Edinburgh fifth year medical students attended sequential 2 week placements in POA at the Royal Edinburgh Hospital. During the year, continual improvement changes were made to the schedule and delivery of teaching offered based on CEP good practice recommendations and guided by QI model of "Plan Do Study Act" reflection from student feedback.

- An anonymous questionnaire designed to collect quantitative (closed questions on a Likert scale) and qualitative (free text based on Gibbs model) data was developed and given to all students at the end of their POA placement. The results were used to progressively develop an improved student centred training program.

## Results

- 22/25 questionnaires were returned (88% response rate). Provision of a personalised induction pack was viewed very positively (100% excellent or good), as was initial review of individual learning needs (100% excellent or good) and individualised training plan (91% excellent or good). [graph 1]

- Suggestions for improvement, including options for acute assessment experience, personal study periods and improved structure of timetable were introduced for subsequent students. [figure 1]

- Reflective comments on end of placement experience suggested themes of quality of teaching, high patient contact, variety and student led teaching were valued [figure 2]



Graph 1 student satisfaction rating



Figure 2 reflective evaluation (frequency weighted text)



Figure 1 suggestions for improvement (frequency weighted text)

## Conclusion

Improvement of undergraduate training by the development of a student centred training program was facilitated using QI continuous improvement methodology.

## Contact

robert.clafferty@nhslothian.scot.nhs.uk

# Developing an Undergraduate Emergency Medicine Teaching Curriculum

**KS Gervin; S Foley; K Kilmurray; S Taylor; AJ Ireland**

Glasgow Royal Infirmary Emergency Department; University of Glasgow

## Introduction

Glasgow Royal Infirmary Emergency Department (GRI-ED) is affiliated with the University of Glasgow Medical School (UoG-MS), regularly receiving medical students, on five week rotations, as part of their final phase undergraduate training.

Prior to the 2016/17 academic year teaching primarily consisted situated, opportunistic teaching during the students' clinical time. Students also received occasional teaching from medical staff. Feedback from students frequently praised the quality of teaching during their placements, however also responded with a desire for further organised teaching.

In August 2016 GRI-ED developed an Education Team, including new Clinical Teaching Fellows (CTFs), with a remit that included developing a formal teaching programme for rotating students.

## Aim

When planning our curriculum we considered twice weekly, hour long small group teaching sessions to be the optimal format, to balance the desire for teaching sessions with the need to avoid significantly reducing students' clinical exposure.

Ten topics pertinent to EM were chosen and teaching presentations were delivered using a loosely flipped classroom approach. In addition, the students received two clinical simulation sessions, delivered 'in situ' in the GRI-ED resus. Intended learning outcomes (ILOs) for all sessions were adapted from the UoG-MS final phase curriculum.

We aim to assess the level of student satisfaction with this curriculum and how this has improved student experience against previous years

## Method

Students were asked to complete anonymised feedback forms immediately after all teaching sessions. These forms consisted of a nine item questionnaire; seven Likert ratings scales (scale 1-5: 1= most negative, 5= most positive), and two open response questions.

Questions 1- 3 relate to organisation of teaching, achievement of ILOs and teaching resources. Question 4 asks about the amount of new knowledge obtained. Questions 5- 6 refer to applicability and relevance to learning needs. Question 7 rates how highly students would recommend each session to colleagues. Questions 8-9 requested students' comments on particular positives and negatives, and suggested improvements.

At the end of each block students were asked to complete feedback distributed by the UoG-MS, relating to their ED rotation as a whole (scale 0-2). Results of this were calculated by UoG-MS and delivered to the ED at the end of the academic year.

## Results

In total we have data from 408/504 post- session student questionnaires representing 80.95% of all individual student attendances. Results were collated and a mean score calculated. (Fig.1)
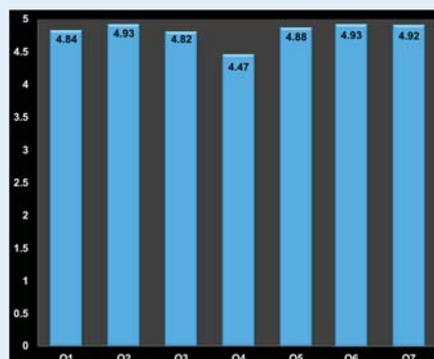


Fig. 1 Mean student responses to Likert scale questions

The most common free text responses related to the interactive format and focus on developing clinical acumen and management skills. Interestingly, students showed a high degree of preference for case based learning (CBL).

Results from the UoG-MS questionnaires that can be specifically related to our teaching programme are displayed in Figure 2, with 2016 results for comparison.
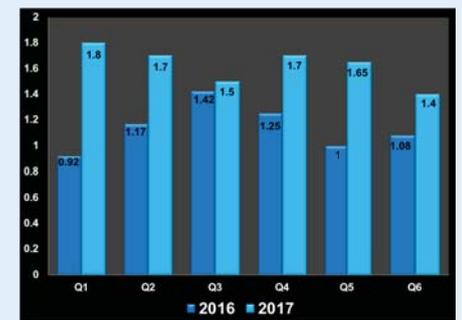


Fig. 2 Student responses to UoG-MS questionnaire vs 2016 results

Question one relates to organisation of teaching and question two relates to overall quality of teaching. Questions three and four discuss learning opportunities and support for learning, and questions five and six relate to how well equipped teaching areas are, and the quality of teaching accommodation.

## Conclusion

Student satisfaction with our programme is evident from the results obtained. We believe that the immediate student responses validate our teaching methods and focus on developing students' clinical acumen and management of patients. We have noted student preference for CBL in their final undergraduate phase.

We believe that our results demonstrate how relatively minor increases in organised teaching greatly improve student engagement and enjoyment of a clinical, specialty attachment. We consider our programme to be easily adaptable to other EDs and other specialties.

# The development of post-CCT SPIN module training within the Scottish Paediatric and Adolescent Rheumatology Network

Joyce Davidson[1]; Kirsten Healy[1]; Julie Duncan[1]; Nwe Soe[1]; Gulshan Malik[1]; Liza McCann[2]; Anne-Marie McMahon[2] and Mary Brennan[1,2].
Scottish Paediatric and Adolescent Rheumatology Network[1]   and RCPCH College Specialty Advisory Committee[2]

**Background:**

The Scottish Paediatric and Adolescent Rheumatology Network (SPARN) aims to deliver consistent high quality paediatric rheumatology care via a network of locally based specialist multidisciplinary teams. Education and training of staff is a core activity of the network.

The recognition that Specialist Interest (SPIN) module training could be undertaken post certificate of completion of training (CCT) created the opportunity for established Consultant Paediatricians delivering locally based specialist care to follow an approved training module leading to formal recognition by the RCPCH.

(further information: post-CCT/ Paediatrician SPIN page of RCPCH website or e-mail spin@rcpch.ac.uk)

**Aim:**
To describe the development and successful implementation of post-CCT SPIN module training in paediatric rheumatology within SPARN.

Documentation currently available to support SPIN module training was inappropriate for use post CCT.

Working together with RCPCH College Specialist Advisory Committee (CSAC) more appropriate documentation was developed.

This included documentation to be used for:
1. An initial assessment of the candidate's level of experience and the training opportunities available within their local service.
        (see attached example)
2. Annual reviews to track progress and identify ongoing training needs.
3. A check list to formally document and sign off completed competencies
      (Skills, Knowledge and Standards)

## Network services in which SPIN candidates were based

West Lothian
15  JIA s
4 network clinics/year

Grampian
120 JIAs
48 network clinics/year

Fife
45 JIAs
9 network clinics/year

Borders
15  JIAs
4 network clinics/year
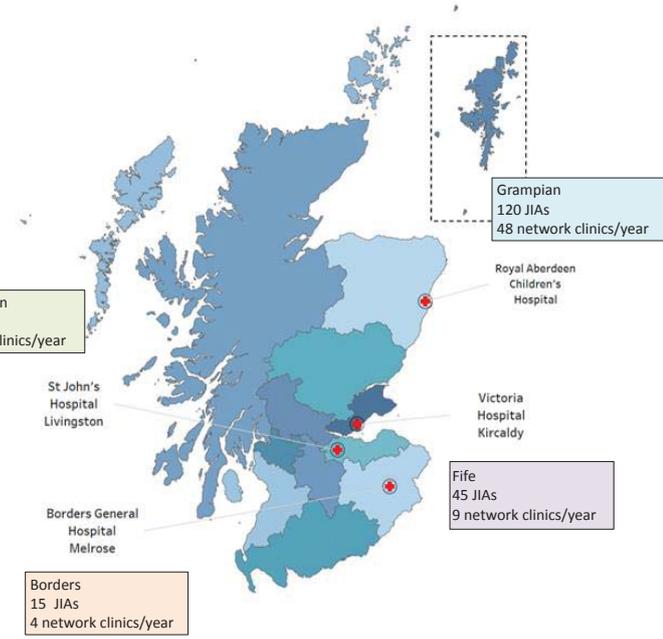
## Activities undertaken by post CCT SPIN candidates within SPARN in order to meet required competencies

| Activities undertaken to achieve required competencies | Of 4 candidates... | | |
|---|---|---|---|
| Undertake Network Clinics with Paediatric Rheumatologist | 4 | SPARN annual meeting | 4 |
| Attend clinics in tertiary centre as observer | 2 | BSPAR annual meeting | 4 |
| Work as part of Tertiary centre team | 1 | GCP training | 4 |
| Regular e-mail and telephone discussion re patients | 4 | Online EULAR Paed rheum module | 1 |
| Work with and develop local MDT | 4 | Awareness of appropriate sources of reference info | 4 |
| Attend MDT meetings of tertiary team | 3 | Glasgow MSK examination course | 2 |
| Observe and undertake joint injections locally with Paediatric Rheumatologist | 2 | GOS paed rheum course | 2 |
| Attend GA and entonox JI lists at tertiary centre | 3 | Adequate relevant CPD | 4 |
| SPARN monthly CPD videoconferences | 4 | Involvement in multicentre research | 3 |
| | | Role on SPARN steering group | 2 |
| | | Involvement in local or network guideline or audit | 4 |
| | | Formal annual review with supervisor | 4 |
| | | Log of clinical and educational activities | 4 |

## Process of assessment  for post-CCT SPIN module

Initial meeting with educational supervisor:
Assess previous knowledge; identify opportunities for training within  local service and linked tertiary centre

Formulation of personalised learning objectives
Development of a training plan to achieve required competencies and estimate of duration of training required (1-5 years)

Registration with RCPCH and application for any retrospective accreditation  for previous eligible training (within last three years only)

Regular clinical working with educational supervisor
Formal annual assessment, reviewing progress towards agreed objectives and required competencies

Final sign off of required competencies under headings **Skills, Knowledge and Standards**
Submission of completed paperwork  to CSAC for formal recognition of SPIN module by RCPCH

**Conclusions:**

The apprenticeship model of training within SPARN, where paediatricians work closely with paediatric rheumatologists, has enabled paediatricians delivering local specialist care to achieve the necessary competencies for a post-CCT SPIN module.

Candidate and mentor working together in network clinics has facilitated the necessary clinical supervision. An understanding of different models of working in other networks will be required to ensure adequate and appropriate levels of supervision in different geographic areas.

Working towards and  achieving a post-CCT SPIN module enhances the individual's knowledge and skills, improves delivery of care and gives formal recognition of their specialist role.

# Exploring medical students' learning experiences of the Student Assistantship: does who supervises matter?

**R Shearer**

**Highland Medical Education Centre, Institute of Education in Medical and Dental Sciences, University of Aberdeen**

## Introduction

- The Student Assistantship is a mandatory component of the undergraduate curriculum.
- In practice, medical students assist nurse practitioners as well as doctors-in-training, who act as their clinical supervisors.
- No research to date has focused on the influence of the day-to-day supervisor on student learning experiences, despite it being a known independent factor to the success of similar placements.[1]
- The GMC have not formally related Student Assistantships to educational theory, but studies have shown that '*situated learning theory*' and the '*cognitive apprenticeship model*' can be applied.[2,3]

> Each medical school must provide:
> *'at least one student assistantship during which they assist a doctor in training with defined duties under appropriate supervision, and lasting long enough to enable the medical student to become part of the team. The student assistantship must help prepare the student to start working as a foundation doctor and must include exposure to out-of-hours on-call work'*
> Promoting Excellence: standards for medical education and training, GMC, 2015

## aim

- The aim of this study was to explore the learning experiences of medical students during their Student Assistantships, discover how these are influenced by their supervisors, and relate this to educational theory.

## methods

- Adopting an interpretivist approach, scripted focus groups were used to explore student learning experiences.
- Anonymised transcripts were produced, and descriptive then thematic data coding was conducted.

## results

- Between February and April 2017, 170 final year University of Aberdeen medical students were invited to take part by email and poster invitation. Ten students accepted. Three focus groups of 3 students, and 1 individual interview, took place.
- Each student had undertaken at least two Student Assistantships lasting 8 weeks. These placements covered hospital specialities as well as GP, included elective as well as emergency work and had taken place in central and peripheral hospitals.
- Students were supervised by doctors from FY1 to consultant level and at each focus group at least one student had been supervised by a nurse practitioner.
- All students were supervised by more than one person during each Student Assistantship.
- Students were asked to '**Describe your learning experience of the student assistantship**'. They discussed learning experiences with a range of supervisors and gave positive and negative examples.
- Analysis revealed four themes that positively influenced the learning experience (**Fig 1**). At the start of the academic year, FY1s lacked these skills in comparison to more senior doctors and also nurse practitioners, which negatively impacted on the students' learning experiences. However, as the year progressed, the FY1s improved.

*"That was the F1s first job it was quite difficult for them because they were just finding their feet as well"*

### Fig 1: Themes that positively influenced the medical students' learning experience

| Supervisor clinical experience and competence | Ability to teach | Enthusiasm for teaching | Awareness of the assistantship |

*"The NP … she'd been there for years and she had obviously had students before as well so she knew exactly what I was meant to be doing and what I was capable of and what I wasn't"*

*"I found that's more registrar level, there was kind of that teaching side of it, the management."*

*"the CT1 is brilliant and he really does make an effort"*

- In addition, three influencing supervisor behaviours were identified (**Fig 2**). Supervisors of any grade provided a more positive learning experience if these behaviours were displayed.

- This student sums up the importance of the Student Assistantship and paraphrases '*situated learning theory*' - learning needs to take place in context ie the situation or setting where the learner is able to co-construct knowledge as part of a social process:

### Fig 2: Influencing supervisor behaviours

| Personability | Cognitive participation | Trust |

*"I don't think I could undervalue how much the trust given to me this year compared to last year has kind of helped...how prepared I feel for next year. It's almost people have trusted me to do it now...there's no reason I can't do it next year."*

*"I think the role of the assistantship is sometimes that preparation, and I think that's something that FY1s actually struggle a lot with because you've learnt like the clinical medicine but not how a hospital works and you can't learn that unless you are actually doing it on the wards." (student 9)*

*"sometimes there is a bit of a disconnect of I'm a senior, you're a junior, I'll never see you again so I don't have to work out who you are"*

*"having the registrar to discuss things more in depth with…it's not just kind of ticking all the boxes on the clerk-in, it's actually thinking about what you've done."*

## Conclusions

- **YES**, it does matter who supervises.
- During the early part of the academic year, FY1s struggle to provide as positive a learning experience for the students.
- Recommendations for improving supervision include better support for FY1s, raising awareness of the assistantship in the workplace, placing greater focus on the community of practice to supervise and educating supervisors about the importance of educational theory.

references
1. Wimmers, P. F., Schmidt, H. G. and Splinter, T. A. W. (2006) 'Influence of clerkship experiences on clinical competence', *Medical Education*, 40(5), pp. 450–458.
2. Lave, J. and Wenger, E. (1991) *Situated learning : legitimate peripheral participation*. Cambridge: Cambridge University Press.
3. Stalmeijer RE, Dolmans DHJM, Wolfhagen IHAP, Scherpbier AJJA. Cognitive apprenticeship in clinical practice: Can it stimulate learning in the opinion of students? Adv Heal Sci Educ. 2009;14(4):535–46.

**UNIVERSITY OF ABERDEEN**

# The relationship between socio-demographic factors and selection into UK postgraduate medical training programmes: a national cohort study.

Kumwenda B[1], Cleland J[1], Prescott G[2], Walker K[3], Johnston P[4].
1. Centre for Healthcare Education Research and Innovation, University of Aberdeen.
2. Department of Medical Statistics, University of Aberdeen.
3. NHS Education for Scotland and UK Foundation Programme, Foresterhill, Aberdeen.
4. NHS Grampian, The Scotland Deanery, Aberdeen

UK Clinical Aptitude Test

UNIVERSITY OF ABERDEEN

## Introduction:

Entry into medical school is the first hurdle for students who come from widening access background. Those who graduate then face selection challenges for postgraduate education and training. To the best of our knowledge, there has been no research looking at the relationships between individual characteristics and allocation into the first stage of postgraduate medical education in the UK. To address this gap in the literature, the current study examines the relationships between applicants' socio-demographic characteristics and outcomes on the UK Foundation Training selection process.

## Methods:

- A quantitative, longitudinal study of medical graduates who accepted a place for the first stage of UK Postgraduate Medical Training in 2013 and 2014.

- Univariate analyses to compare applicants' socio-demographic variables, performance during the UK Foundation Programme selection process and allocation to preferred choices.

- Multivariable ordinal regression analysis to predict the odds of applicants being allocated to their preferred Foundation schools, after accounting for the differences in UK Foundation Programme allocation scores.

## Results

- A significantly larger proportion of medical graduates who come from families that were at some point recipients of income support, and those entitled to free school meals (FSM) did not get a place in a higher choice foundation school (65% vs 73% and 70% vs 73% first choice, respectively).

- After controlling for the presence of multiple factors, the following groups had significantly lower odds of being allocated to their higher choice of foundation schools; students from areas with <u>high</u> proportion of young people in higher education (POLAR), applicants from BME and those from privately funded (high) school.

- The odds of applicants to be allocated to a foundation school of higher preference were higher for those who graduated from medical schools in Wales, Scotland and Northern Ireland than the odds of applicants who graduated from medical schools in England.

### Relationship between trainees' demographic variables, performance during the UK foundation programme (UKFP) selection process and allocation outcomes

| | Group total | UKFP Allocation Score** | | | Allocation to Foundation School | | | | | | |
| | | | | | 1st Choice | | 2nd or 3rd Choice | | Not in top three | | p-value |
| | n | Median (IQR) | p-value | | n | % | n | % | n | % | |
| Standardised score (SD) UKFP Allocation Score | | | | | 0.254 (.93) | | -0.214 (.77) | | -1.08 (.65) | | |
| **Gender** | | | | | | | | | | | |
| Female | 4815 | 82.2 (78.2 – 86.1) | <0.001 | | 3533 | 73.4 | 689 | 14.3 | 593 | 12.3 | <0.001 |
| Male | 3652 | 80.7 (76.8 – 84.6) | | | 2501 | 68.5 | 580 | 15.9 | 571 | 15.6 | |
| **Age Category** | | | | | | | | | | | |
| School Leaver (17-20) | 7526 | 81.6 (77.6 – 85.4) | 0.302 | | 5346 | 71 | 1151 | 15.3 | 1029 | 13.7 | 0.081 |
| Mature (21+) | 941 | 81.8 (77.6 – 86.0) | | | 688 | 73.1 | 118 | 12.5 | 135 | 14.3 | |
| **Type of secondary school attended** | | | | | | | | | | | |
| State-funded school / college | 5307 | 81.7 (77.6 – 85.5) | 0.578 | | 3920 | 73.9 | 738 | 13.9 | 649 | 12.2 | <0.001 |
| Fee paying school | 2398 | 81.7 (77.7 – 85.7) | | | 1616 | 67.4 | 411 | 17.1 | 371 | 15.5 | |
| **Entitlement to free school meals** | | | | | | | | | | | |
| Yes | 576 | 80.2 (76.5 – 84.5) | <0.001 | | 375 | 65.1 | 88 | 15.3 | 113 | 19.6 | <0.001 |
| No | 6696 | 81.9 (77.9 –85.8) | | | 4888 | 73 | 986 | 14.7 | 823 | 12.3 | |
| **Income Support** | | | | | | | | | | | |
| Yes | 986 | 80.9 (76.7 – 84.8) | <0.001 | | 689 | 69.9 | 144 | 14.6 | 153 | 15.5 | 0.027 |
| No | 5962 | 82.0 (78.0 – 85.9) | | | 4341 | 72.8 | 879 | 14.7 | 742 | 12.4 | |
| **Parent Education (one or both parents educated to degree level)** | | | | | | | | | | | |
| Yes | 5388 | 82.0 (78.0 – 86.0) | <0.001 | | 3883 | 72.1 | 817 | 15.2 | 688 | 12.8 | 0.402 |
| No | 2135 | 81.1 (77.1 – 84.8) | | | 1556 | 72.9 | 298 | 14 | 281 | 13.2 | |
| **Participation of local areas (POLAR 2&3)** | | | | | | | | | | | |
| Low participation | 382 | 80.8 (76.5 – 84.6) | 0.007 | | 285 | 74.6 | 40 | 10.5 | 57 | 14.9 | 0.043 |
| Other neighbourhood | 7417 | 81.8 (77.5 – 85.7) | | | 5325 | 71.8 | 1114 | 15 | 978 | 13.2 | |
| **Ethnicity** | | | | | | | | | | | |
| Asian or Asian British | 1941 | 79.6 (75.7 – 83.5) | <0.001 | | 1089 | 56.1 | 387 | 19.9 | 465 | 24 | <0.001 |
| Black or Black British | 218 | 78.2 (74.1 – 81.8) | | | 103 | 47.2 | 49 | 22.5 | 66 | 30.3 | |
| Mixed | 320 | 81.3 (77.7 – 85.1) | | | 220 | 68.8 | 49 | 15.3 | 51 | 15.9 | |
| Other Ethnic Groups | 272 | 80.0 (75.9 – 84.1) | | | 140 | 51.5 | 64 | 23.5 | 68 | 25 | |
| White | 5693 | 82.5 (78.6 – 86.2) | | | 4472 | 78.6 | 712 | 12.5 | 509 | 8.9 | |
| **Place of Medical Qualification** | | | | | | | | | | | |
| England | 6796 | 81.7 (77.6 – 85.5) | <0.001 | | 4585 | 67.5 | 1141 | 16.8 | 1070 | 15.7 | <0.001 |
| Northern Ireland | 278 | 79.7 (75.0 – 83.7) | | | 248 | 89.2 | 17 | 6.1 | 13 | 4.7 | |
| Scotland | 1021 | 81.7 (77.8 – 85.6) | | | 909 | 89 | 67 | 6.6 | 45 | 4.4 | |
| Wales | 372 | 81.1 (77.4 – 86.0) | | | 292 | 78.5 | 44 | 11.8 | 36 | 9.7 | |

** The UKFP allocation score comprises the Educational Performance Measure (EPM), Situational Judgement Test (SJT), and points accrued from additional degrees, publications and other academic achievement.

## Conclusion:

- Certain socio-demographic factors - ethnicity, type of (high) school attended, being from an area of high educational participation and (UK) country of medical qualification - are strong predictors of allocation to preferred choices.

- The data provide supportive evidence for the fairness of the allocation process but highlight some interesting findings relating to "push-pull" factors in medical careers decision making.

COME HERE. GO ANYWHERE

# CompOp Course
# Complex Operative Delivery Skills for Advanced Obstetric Trainees

## E Ferguson, K Patrick
### NHS Lanarkshire and NHS Forth Valley

## Introduction................................................................

In Obstetrics, reduction in training time on the delivery suites leads to more limited opportunities for trainees to develop skills necessary to manage complex deliveries. The rising caesarean section rate is partially due to a reduction in confidence in vaginal operative delivery.[1] A survey of our trainees suggested lack of confidence and skills training in complex deliveries and they would value additional training. Simulation is a valuable learning tool but is not yet mandated in specialty curricula.[1,2,3]

## Aims................................................................

Our project's aims were to develop a simulation course (CompOp) to develop and maintain skills in complex operative vaginal and abdominal birth and to make it available and accessible to all senior trainees across Scotland through local Faculty development and using portable shared equipment.



## Method................................................................

Our learning objectives for the course were developed by curriculum mapping from the RCOG specialty training curriculum4 and in conjunction with risk management data. The stations included vaginal breech, twin and rotational deliveries and difficult caesarean sections such as classical, impacted fetal head or malpresentation. We used tissue models to practice surgical management of haemorrhage. We developed a model for inverted uterus, a rare and challenging obstetric problem.

## Future................................................................

Trainees completed a pre- and post-course questionnaire using a Likert scale to rate confidence in operative procedures taught on the course. Data was analysed using a 2-sample t-test for comparison of means. Training significantly increased trainee confidence in all the skills being taught (p values ranged from 0.01 to 0.00001), see figure 1. A need for refresher sessions was demonstrated with decreasing confidence with time, see table 2. An additional benefit of the course was the opportunity for trainees to debrief about difficult personal experiences.
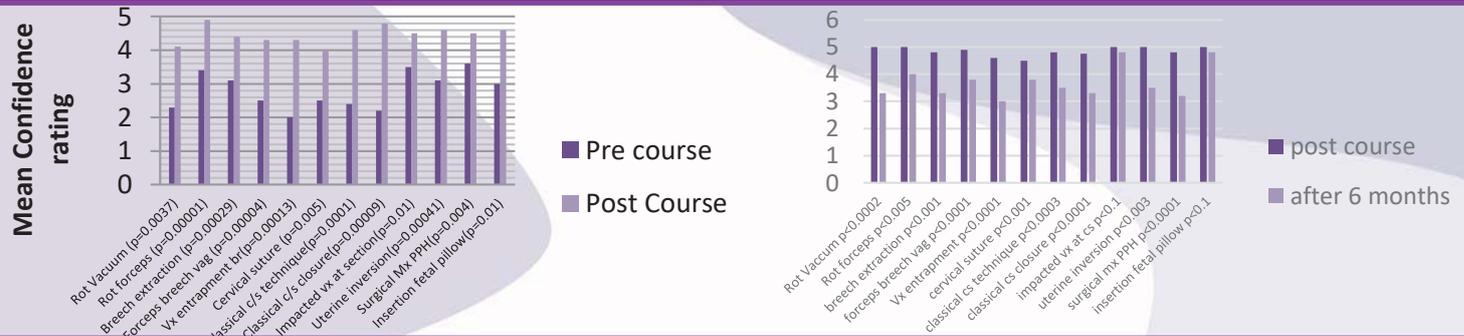


**Conclusion:** Trainee feedback has been overwhelmingly positive. We have succeeded in our goal to develop an accessible and effective simulation skills training course in complex operative deliveries.

1 Sinha P, Dutta A, Langford K. Instrumental Delivery: How to meet the need for improvement in training. The Obstetrician & Gynaecologist 2010:12:265-271
2 Smith A, Siassokos D, Crofts J, Draycott T. Simulation: Improving patient outcomes. Seminars in Perinatology 2017:37;151-165
3 Kings Fund. Safe Births – everybody's business. An independent review into the safety of maternity services in England. 2008
4 The RCOG Specialty Training Curriculum https://www.rcog.org.uk/en/careers-training/specialty-training-curriculum/

# Developing a GReAT return to clinical practice

**Dr C.Currie[1], Dr C.Bridgestock[2], Dr A. Jenkins[2]**
**[1] Specialty Registrar, Anaesthetics, [2] Consultant Anaesthetist**
**Queen Elizabeth University Hospital, Glasgow, UK**

## Aims

Returning to clinical practice after a prolonged period of absence has important implications for both physician well-being and patient safety.

We aimed to:
- Quantify perceptions and experiences of West of Scotland (WoS) anaesthetists who had returned to work after a period of absence.
- Assess whether local return to work processes complied with guidance from the Academy of Medical Royal Colleges(AoMRC).[1]
- Assess the need for enhanced local support for anaesthetists returning to work in the West of Scotland.

Experiences were varied and tended not to follow current guidelines.
Concerns around skills fade were reported.
We have established a range of approaches to improve the return to work process, including a refresher course and local support network.

## Methods

We emailed a confidential online questionnaire to all WoS anaesthetists, asking those with a recent period of absence (defined as greater than three months in the previous five years) to answer the following questions:

- Reason(s) for, and duration of absence
- Details of the return to practice process
- Preparation undertaken prior to return
- Concerns and experiences on return
- Suggestions to improve the return to practice process

## Results

60 responses were recorded. 55% of respondents were in a training post. The most common reasons for absence were maternity leave (68%) and sick leave (25%). The mean duration of absence was 10 months (range 3 to 24 months).

Formal support on returning to work was generally poor (Figures 1-3). 17% had a formal return to work meeting, 10% had a period of supervised practice and 47% felt prepared and supported in their return.

75% of respondents undertook some preparation for returning to practice, including attendance on courses / conferences, personal study and supernumerary supervised practice (including Keeping In Touch (KIT) Days).

Common concerns were skills fade, knowledge gaps, managing on call duties and potentially inadequate supervision.

Suggestions to improve the process included a local return to work course (64%), updates on departmental procedural changes (52%), formal return to practice planning (50%), and formal pre-absence planning (32%).

**Figure 1: Did you have a formal return to practice meeting?**

Yes 17%
No 83%

**Figure 2: Did you have a period of supervised practice on return?**

Yes 10%
No 90%
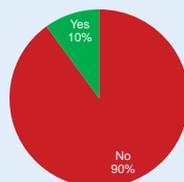
**Figure 3: Did you feel prepared and supported in your return to practice?**

Yes 41%
No 59%
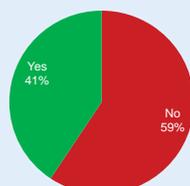
## Conclusions

We identified a lack of formal return to work planning, concerns about skill fade and knowledge gaps and a lack of formal support or supervision when returning to independent practice. We recommend that these deficits should be addressed.

## Moving Forwards

In response to our findings, we have established a range of approaches to start addressing the AoMRC recommendations :

- GReAT- Glasgow Return to Anaesthesia Team - a WoS faculty of anaesthetists passionate about supporting the return to work process.
- GReAT Meetings – a one-day, RCoA approved workshop, aiming to refresh knowledge and skills. Following a successful pilot, this will run 3 times per year.
- GReAT Departments - a named clinician in 10 out of 13 WoS anaesthetic departments, responsible for compiling local updates and acting as a point of contact.
- GReAT Support - a WhatsApp peer support group for candidates on the course.
- GReAT Mentoring - 8 of our faculty are AAGBI / RCPSG fully qualified mentors.
- GReAT Training- The WoS School of Anaesthesia support our programme, and recognise our role as part of a return to work process.

West of Scotland Anaesthesia Teaching

# GLASGOW RETURN TO ANAESTHESIA TEAM (GREAT) MEETING

A local refresher course for anaesthetists who have spent time away from clinical work

Topics will include:
–perioperative care updates
–obstetric anaesthesia
–paediatric anaesthesia
–ICU
–looking after yourself
–simulation scenarios
–skill stations (airway, regional, paediatrics)

**TEACHING & LEARNING CENTRE, QEUH, GLASGOW**
**FRIDAY 15TH JUNE 2018**

£30 trainees/£50 consultants
6 RCOA CPD points have been applied for
For details, please email returntoanaesthetics@gmail.com

### References

1. Return to practice guidance. AoMRC, June 2017 (http://www.aomrc.org.uk/wp-content/uploads/2017/06/Return_to_Practice_guidance_2017_Revison_0617-2.pdf)

# Do medical students enjoy and value social learning whilst completing mock multiple choice question?

Dr Nadine Davies, Dr Omeair Khan, Dr Mohammed Iqbal, Dr Pratik Solanki

*Princess Alexandra Hospital, Harlow, United Kingdom*

## Background

- A common way in which students revise for written examinations is by doing mock multiple choice questions (MCQ). There are numerous websites available which offer students the opportunity to practice, normally at a premium price and only for an individual account.
- However, using social learning theory, students may find it beneficial answering questions in a group context, which allows discussion to occur and learning from each other.
- Social learning involves learning through the interaction and observation of others in a social context.[1]
- Thus, a one day study session was created to give students the opportunity to explore social learning in the context of MCQs.

## Methods

- The course was held in February 2018 and all the tutors were current Foundation year 1 or 2 doctors.
- The study day was aimed at final year medical students in preparation for their end of year exams. 40 students attended the day.
- The day was split into 9 sessions, with cardiology, respiratory, surgery and gastroenterology sessions lasting 75 minutes and neurology, haematology, renal and endocrine sessions lasting 35 minutes.
- Social learning was encouraged after each question with students discussing why they thought certain answers were correct.
- Pre and post course feedback forms were given to students in order to evaluate their thoughts on social learning and the sessions they attended.

## Results

### 1) Outcome of Lectures
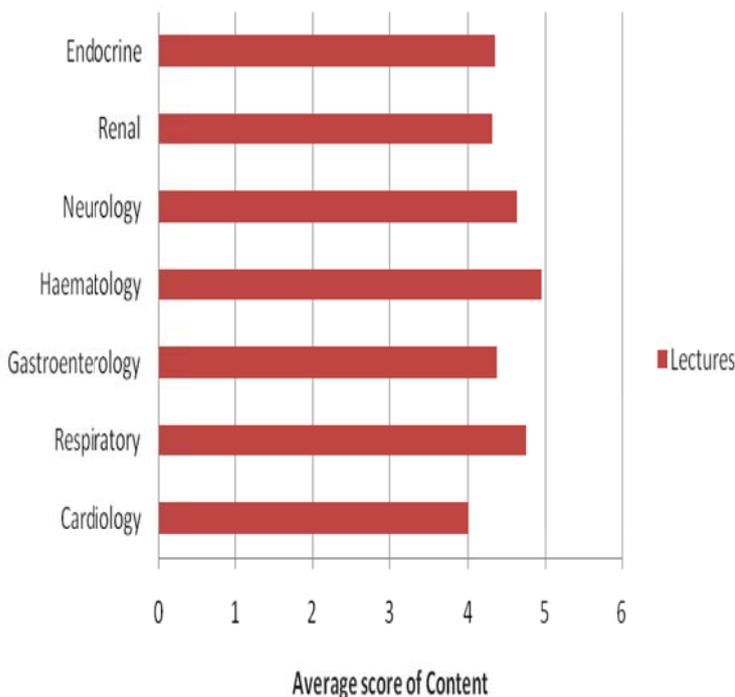


Figure 1: Outcome of Revision Lectures. Content of the lectures were rated by students on a scale from 1 to 5, with 5 representing that the content was very good.

### 2) Overall evaluation of social learning

**Table 1: Pre study day thoughts on social learning**

| Statement | Mean Score | Mode |
|---|---|---|
| MCQs are an important part of my revision | 4.26 | 5 |
| I have used question banks to revise in large groups before | 2.74 | 2 |
| I find using question banks are better suited in group revision | 3.13 | 3 |

**Table 2. Post-study day thoughts of social learning:**

| Statement | Mean Score | Mode |
|---|---|---|
| I enjoyed learning as a group | 3.9 | 4 |
| I would prefer to do question banks in larger groups now than I did before this crash course | 3.54 | 4 |
| I find using question banks are better suited in group revision | 3.84 | 5 |

- Pre and post study day, students were asked on a scale from 1 to 5 how strongly they agreed with the following statements with 5 being strongly agreed.

- An unpaired T-test carried out on the pre- and post-day statement exploring whether question banks were better suited for group revision demonstrated a statistically significant increase (p=0.0116) in agreement by 0.71 points (14.2%).

## Key points

Social learning provides an excellent and innovative way for medical students to learn from each other whilst doing MCQs. Our results of how the medical students perceived our course represent a mixed response. Therefore, more opportunities should be given to students to experience this. In addition, more research is required to assess the benefit of social learning in medical students.

References: 1. Torre, Dario M. et al. Overview of Current Learning Theories for Medical Educators. The American Journal of Medicine , Volume 119 , Issue 10 , 903 - 907

# Enhancing Postgraduate Examination Progression: The Role of PSU

**C Harron, E Fugard, I Steele, K Gardiner**
**Northern Ireland Medical and Dental Training Agency**

NI Medical Trainees are **valued**

Northern Ireland **mdta** Medical & Dental Training Agency

## Aims and Methods

Failure in examination progression is a common cause of adverse outcome at ARCP. PSU staff undertook a project to establish relevant factors and identify approaches which may provide support. This was undertaken using facilitated workshop discussions with involvement of Senior Deanery Educators, Training Programme Directors, trainees, an educational psychologist and the Deanery educationalist.

## Results

**Programme Factors**
- Educational opportunities
  - Workplace experience
  - Regional teaching
  - Access to peer study groups
- Trainer and trainee service commitments
- Trainer knowledge and examiner experience

**Trainee Factors**
- Individual motivation, strategy and study skills
- Domestic circumstances, finances, health
- Demographic influencers (gender, ethnicity, culture)
- Specific Learning Difficulty (Dyslexia)
- Medical and Foundation school attended

## Examples of Educator-Identified Solutions

**Surgery**
- WhatsApp group for formation of study groups
- Regional teaching adapted to include more preclinical and clinical science topics
- Use of digital learning spaces: interface with undergraduate resources

**Psychiatry**
- Involve trainees who have recently passed
- Identify best educators for preparation of sessions on neurophysiology
- Choose recently appointed supervisors

**Palliative Care**
- Mentoring for the exit exam

## Conclusions

- Educators have a key role in identifying those trainees who may require additional support and in facilitating effective training opportunities.

- Key areas for consideration relate to differential attainment and trainees with undiagnosed learning difficulties (dyslexic disorders).

- Training programmes need systems to monitor examination progress.

- Trainers should be aware of the individual challenges that may apply.

Two ongoing work-streams have been identified:

- upstream preventative strategies with the aim of providing support before challenges arise

- downstream bespoke services for those trainees who have experienced examination failure.

# Improving the Student Assistantship learning experience: the students' perspective

## R Shearer
**Highland Medical Education Centre, Institute of Education in Medical and Dental Sciences, University of Aberdeen**

## Introduction

- The Student Assistantship is a mandatory component of the undergraduate curriculum. Its aim is to increase medical students' preparedness for practice.
- The GMC provides guidance as to what must be included but as yet there is no agreement about the optimal format for the Student Assistantship.
- Numerous institutions have published studies within the past few years evaluating their own student assistantship programme and one systematic review found contextual factors impact on their effectiveness including personal characteristics of the students, interpersonal factors (eg team leadership) and cultural or systemic factors.[1]

Each medical school must provide:
*'at least one student assistantship during which they assist a doctor in training with defined duties under appropriate supervision, and lasting long enough to enable the medical student to become part of the team. The student assistantship must help prepare the student to start working as a foundation doctor and must include exposure to out-of-hours on-call work'*
Promoting Excellence: standards for medical education and training, GMC, 2015

### Format of the Student Assistantship at Aberdeen Medical School

| 3 x 8 week blocks in medicine, surgery and GP/psychiatry | Rotate through emergency and elective work within those 8 weeks | Identify 1 week as the Student Assistantship where students 'act up' |

## aim

- The aim of this study was to explore the learning experiences of medical students at the University of Aberdeen to identify positive and negative features of the current SA design and hear suggestions for future improvement.

## methods

- Adopting an interpretivist approach, scripted focus groups were used to explore student learning experiences.
- Anonymised transcripts were produced, and descriptive then thematic data coding was conducted.

## results

- Between February and April 2017, 170 final year University of Aberdeen medical students were invited to take part by email and poster invitation. Ten students accepted. Three focus groups of 3 students, and 1 individual interview, took place.
- Each student had undertaken at least two 8 week blocks. These placements covered hospital specialities as well as GP and had taken place in central and peripheral hospitals.

- Only 1 student out of 10 organised an official Student Assistantship week. One student tried to organise a Student Assistantship week but said this just never took place due to factors on the ward. The remainder considered their whole 8 week block to be a Student Assistantship so didn't feel it was necessary to identify one specific week to 'act up'.
- ALL student felt the Student Assistantship did increase their preparedness for practice by allowing situated learning, building confidence in their skills and demystifying the job.

*"It's the kind of logistics of doing the job that I think doing this kind of assistantship helps with rather than, I don't feel like I've learnt much more medicine or surgery in terms of stuff for final written exams…but in terms of actually being an FY1, and what the role involves, I feel like it's been really useful."* (Student 9)

- Analysis revealed many positive aspects about the current model for Student Assistantships along with a number of areas where they felt adjustments could be made to improve the learning experience:

### Structure and Organisation of the Assistantship

- **Length and timing of the Assistantship**
  - Needs to be long enough to allow a familiarity with the workplace and staff to be built.
  - Placements later in the academic year were better as FY1s had settled into their jobs.
- **Other commitments**
  - Anything that takes the students away from the ward, including national tests and teaching, impacts on their ability to be part of the team.
- **Identify a period to 'act up' or follow a shift pattern**
  - This provided the most positive learning experience, and those that didn't do this felt they missed out.

### Clinical environment

- **Acting up due to rota gaps**
  - Students felt legitimately able to work as an FY1 which was overwhelmingly positive (if intimidating).
- **Balance between clinical work and teaching**
  - Busy clinical areas lead to a deterioration in the quality of supervision and teaching which the students understand. Very quiet clinical areas provide good teaching but poor exposure to cases.
- **Central and peripheral placements**
  - Peripheral placements provided more positive learning experiences as the students very quickly became familiar with the clinical environment and staff, which allowed them to become a legitimate member of the team and feel 'useful'.

### Student Factors

- **Proactive students**
  - Those that put themselves forward to 'act up' gained more from their placements.
- **Limitations of being a student**
  - There are many jobs students can't do as they require a qualified doctor (eg prescribing) and this limits the benefits of the Student Assistantship.
  - Being provided with their own logins for computer programmes such as SciStore enhanced their ability to do the job.

## Conclusions

Student Assistantships help students feel prepared for practice. When designing a Student Assistantship, there should be a focus on getting the student to be familiar with the workplace and feel like they are a legitimate member of the team. A good induction, minimising commitments away from the ward and continuity of supervision can all help to improve the student learning experience.

References
1. Monrouxe, L., Bullock, A., Cole, J., Gormley, G., Kaufhold, K., Kelly, N., Mattick, K., Rees, C. and Scheffler, G. (2014) *UK medical graduates preparedness for practice: Final report from a programme of research commissioned by the General Medical Council.*

UNIVERSITY OF ABERDEEN

# The Use of Datix® by Trainees in NHS Lanarkshire: Ensuring Support & Feedback

Natalie Lane[1]; Sharon Steven[2]; Jill Martin[1]; Ian Hunter[1]

[1]Department of Medical Education, NHS Lanarkshire
[2]Adverse Events, NHS Lanarkshire

## Aim

To promote the provision of timely and constructive feedback and support from Educational & Clinical Supervisors to postgraduate medical trainees who submit adverse incident reports via the Datix® system.

## Background

The use of adverse incident reports as resources to generate learning has recently featured prominently in both national and international initiatives to promote patient safety[1,2]. The GMC *Promoting Excellence: standards for medical education and training* emphasises the importance of generating learning *both* for the individuals directly involved and the wider organisation in the aftermath of an adverse incident[3]. We trialled the use of an electronic feedback request to encourage supervisors to meet with, discuss and support learning among trainees within NHS Lanarkshire who have recently submitted a Datix®.



Fig. 1. Drop down menu for Job Title included on online Datix® submission form

## Methods

A drop down menu was added to the online Datix® submission form to allow postgraduate medical trainees to identify themselves (Fig.1). Datix® submission by a trainee triggered an email alert to the Department of Medical Education. Staff then forwarded a standardised email to the trainee's Educational/Clinical Supervisor. This email prompted the supervisor to meet with the trainee to provide constructive feedback and support learning. Supervisors were asked to reply via email, commenting specifically upon whether they had met with the trainee and provided feedback. This process was subsequently streamlined by creating an online questionnaire, which was sent to those supervisors who had not replied to the initial email. This questionnaire contained a number of additional questions regarding the nature of the feedback provided and the departmental response to the adverse incident. No change was made to the normal clinical governance processes for addressing incidents

### Chart 1. Incidents by Severity



- No Harm
- Minor/Moderate Harm
- Significant Harm/Death
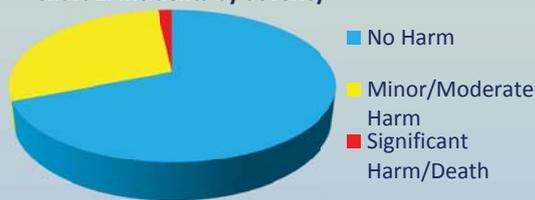
## Results/Discussion

113 Datix® submissions by trainees medics across three acute hospitals and mental health services in NHS Lanarkshire over a 12 month period from 1st March 2017 to 28th February 2018 were included. This represents just 1% of Datix® reports over this period. This indicates an underuse of incident reporting systems by trainees within NHS Lanarkshire, which correlates with findings elsewhere[5]. Clinical incidents reported by trainees predominantly resulted in no patient harm (Chart 1) and spanned a wide range of different categories (Graph 1).

### Graph 1. Top 5 Incident Categories



The cumulative response rate to feedback emails and online questionnaire was 54% (61). Key findings include the fact that only 30% (18) of supervisors reported being aware of the Datix® submission prior to receiving our email. Nevertheless, 52% (32) were able to meet with their trainee to provide feedback before replying to our email. 13%(8) considered the Datix ® incident to yield learning personal to their trainee (i.e. addressing an individual lack of knowledge), while 38% (23) considered it to generate learning external to the trainee but relevant to their needs (e.g. addressing issues related to healthcare systems or patient safety) (Graph 2).

### Graph2. Supervisor Feedback Responses



- Yes
- No
- Unclear
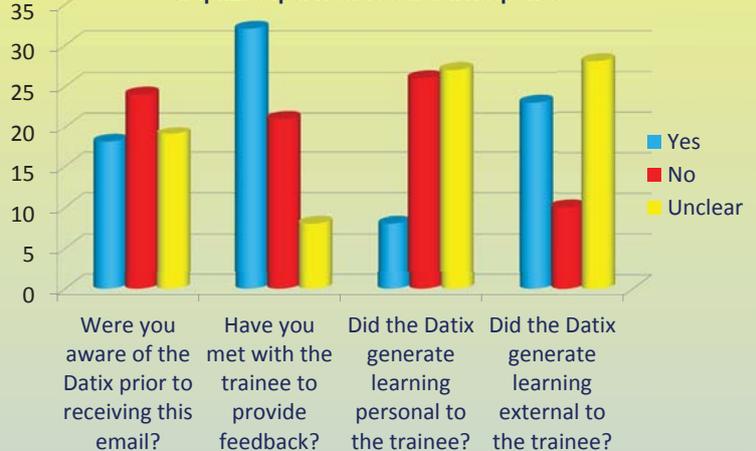
28% (17) of respondents answered additional questions in the online questionnaire. Of these, 35% reported that feedback included the completion of an ePortfolio assessment. 24% reported that the incident had prompted other changes, for example to induction material. However, the majority (59%) reported that there had been no departmental response to the Datix ®.

## Conclusion

This project raises a number of significant conclusions. Firstly, it highlights underuse of the Datix® incident reporting system by postgraduate medical trainees. Moreover, it illustrates that the relatively simple change to the Datix® system of including a field for job title of reporter can ensure that incidents reported by trainees are brought to the attention of their Educational/Clinical Supervisors. In addition, it suggests that, once aware of an incident, the majority of supervisors are able to meet to provide timely and constructive feedback to trainees. Moving forward, we will continue to develop an online tool to automatically prompt supervisors within NHS Lanarkshire to meet with trainees following adverse incident reporting and subsequently re-audit the provision of feedback to trainees. Furthermore, given the almost universal use of the Datix® system across NHS Scotland, we anticipate that this method of promoting timely feedback and relevant learning from adverse incidents could be adopted by other health boards.

## References

[1]Royal College of Physicians (2017). Supporting Junior Doctors in Safe Prescribing. Available at: https://www.rcplondon.ac.uk/projects/outputs/supporting-junior-doctors-safe-prescribing (Accessed April 2018)

[2]World Alliance for Patient Safety (2005). WHO draft guidelines for adverse event reporting and learning systems: from information to action. Geneva: Available at: http://apps.who.int/iris/handle/10665/69797 (Accessed April 2018)

[3]General Medical Council (2015). Promoting Excellence: standards for medical education and training. Available at: https://www.gmc-uk.org/education/standards-guidance-and-curricula/standards-and-outcomes/promoting-excellence (Accessed April 2018).

[5]Schectman JM, Plews-Ogan ML. Physician Perception of Hospital Safety and Barriers to Incident Reporting. *Jt Comm J Qual Patient Saf* 2006 Jun. 32(6):337-43.

# Hospital at Night (HAN)

## Our experiences in improving training through establishing a HAN Team, developing supporting infrastructure and regional training

Fiona Osborne, Martin Lister, Sonia Joseph
Royal Hospital for Sick Children (RHSC), Edinburgh, UK

**Background:** The decision to establish a HAN team was taken following review of the medical cover and team functioning of a 130 bedded quaternary paediatric hospital.

**Problems:**

- Inadequate facilities and a lack of effective team working was leading to workload imbalances and poor staff morale
- A weak escalation policy and poor inter and intradisciplinary communication was leading to inappropriate escalation of deteriorating patients and rising patient safety concern

**Aim:** - To set up a Hospital At Night (HAN) team and provide the facilities for effective working

- To improve communication within the HAN team and completed handovers on time
- To providing training on best night shift working practices

**Methods:**

- MDT working group set up: paediatric consultant + registrar, nurse manager + co-ordinator
- Brainstormed the issues with the wider teams and met with other HAN teams
- Eight audits and a 'time in motion' studies identifying specific issues to be addressed

**Results:**

- A multidisciplinary HAN team was established
- Funding obtained for specifically adapted 'HAN Room': increased space, IT capacity, a smart board, projector, lockers and catering facilities to be used for handovers, administrative work and breaks.
- Improved escalation policy for deteriorating patients implementing in conjunction with an innovative nurse simulation training
- Interruptions to handover stopped and 95% of the handovers were completed on time
- Education on best night shift working practices were disseminated through posters and regional training
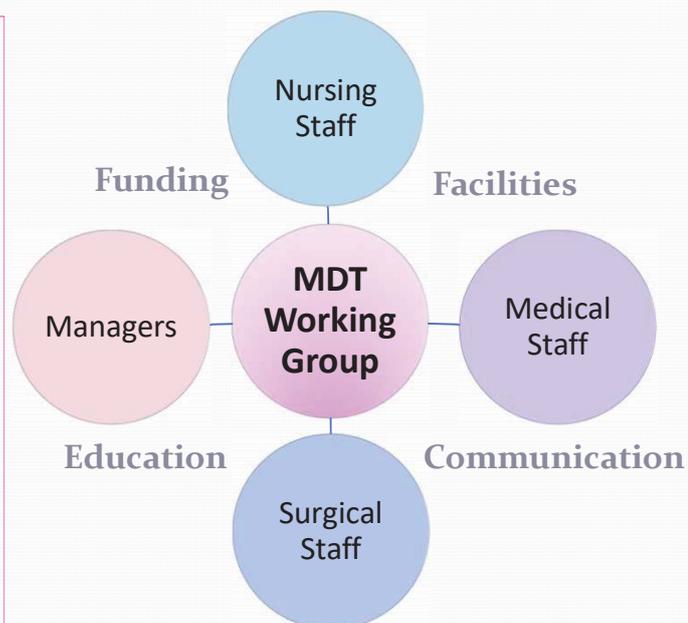


**Conclusion:** Collaborative multidisciplinary working has enabled a new team infrastructure, positive working culture, improved service efficiencies and enabled innovative teaching programmes for nursing and medical teams within our hospital, with the single goal of safe patient care out of hours.

Contact: Fiona.Osborne@nhslothian.scot.nhs.uk

# Improved 'patient ownership' and empowering trainees to develop an education working environment

Martin Lister,  Fiona Osborne, Sonia Joseph
Royal Hospital for Sick Children, Edinburgh, UK

**Background:** Audit of our unit workload identified our team had ineffective communication, poor 'patient ownership' and multiple inefficiencies. A quality improvement project was established to address these challenges.

**Aims**: - Improve handovers, job allocation and patient 'ownership'
- Release time for patient care and workplace-based training opportunities

**Methods:**

- Brainstormed ideas identifying key themes and targets for intervention
- Rolling series of interventions with frequent review and discussion  (12 PDSA cycles)
- Final model agreed with consultant body and senior management
- Outcomes: Length of handover and post-implementation survey.

## Interventions



Junior-Led Handover — Supervision — Ownership — "Robin's Pause" — 12 PDSA cycles — Team-based task allocation — Responsibility — Efficiency — Clarifying standards
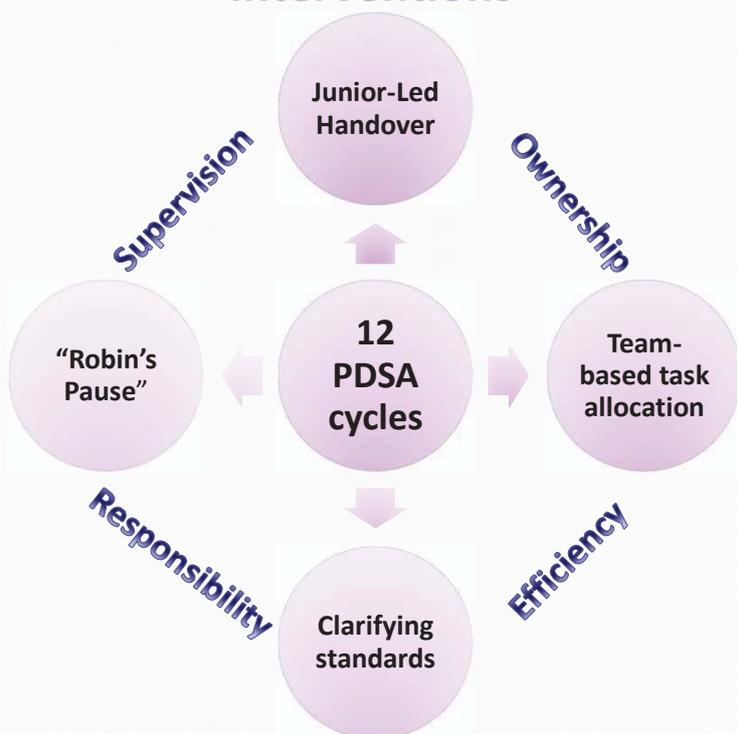
**'Robin's Pause:** Active pause at the end of handover to ask questions or discuss service, educational or staffing issues

**Results:**

- Reduction in the length of the post-ward round handover: 94 to 35 minutes

- Qualitative Survey results: See table

- Handover changed from: consultant-led to junior-led with consultant supervision

- The focus of handover shifted from service provision to a **training opportunity**

| Intervention | Agree or Strongly Agree |
|---|---|
| Junior-led handover is an improvement | 100% |
| Handover is more efficient | 64% |
| Job allocation improved | 93% |
| Improved patient 'ownership' | 86% |
| 'Robin's pause' beneficial | 93% |

**Quotes from qualitative survey:**

*'Helps us to feel more involved in the team'  'I think this [handover] is an important learning opportunity'*
*'Has made the roles of different team members clearer'    'More direction, more autonomy, more ownership'*

**Conclusion:** Empowering junior members of the team to hand over patients and utilising 'mini-teams' has improved patient ownership. Improved management of handovers has released time to discuss patient cases and highlight key learning points for trainees.

**Contact: martin.lister@nhs.net**

# Introduction of a structured medical handover to the Emergency Department

Dr Anthony Kinsey- *Clinical Fellow Emergency Medicine*
Dr Fiona Burton- *Consultant Emergency Medicine, Hairmyres Hospital*
Mohammad Goodarzi- *5th Year Medical Student, UoG*

## What was the problem?

Communication errors are found to be the root cause in 70% of adverse events[1] . Poor communication at handover can cause breakdown in the continuity of care and potential harm to patients[2] .

It was this potential safety risk and lack of departmental communication that prompted the need for change in Hairmyres Emergency Department (ED).

We have recently introduced a structured medical handover which was developed through a Quality Improvement Project . Prior to this Hairmyres ED had no formal medical handover in place and no time in the day when all clinicians gathered.

Teaching and learning for all has always been strongly valued within Hairmyres ED. In keeping with this, we felt that the new handover could provide an opportunity for group learning.

## Change

We piloted the new structured medical handover over a five day period: Monday-Friday.

It took place at 4pm in the ED seminar room. It was felt important that the handover took "place off the shop floor" allowing for a quiet environment where all could concentrate and participate.

The handover was a success. 84% if participants agreed or strongly agreed that it was useful. It was so well received that it continued as standard practice without prompting or persuasion.

We feel one of the key reasons for this success was listening to what the clinicians in the department wanted from a handover. In doing we created buy in from the department and there was no enforced change.

## Learning from our experience

Our project has been a success.

We feel one of the key reasons for this success was listening to what the clinicians in the department wanted from a handover. In doing we created buy in from the department and there was no enforced change.

The "Teaching Pearl of the Day" was become an integral part of the handover. All clinicians are now encouraged to participate and share their recent learning or experience.

The department is safer and an environment of group teaching is being established due to the introduction of a structured medical handover.

## Gathering Information

Before introducing the handover, we sought to engage with all key stakeholders. We wanted to ensure that the handover reflected what everyone wanted. We undertook a paper exercise asking all clinical staff- "what does a good medical handover look like?"

A Standard Operating Procedure (SOP) was created reflecting staff feedback.

The structure of the handover can be seen in figure 1.

## DESIRE FOR EDUCATION

All grades of staff expressed a desire for educational component. Thus the "Teaching Pearl of the Day" was given maximal importance.

This was reflected in it being placed at the start of each meeting and its inclusion in the list of "must happen" on the SOP.

The task of having a "Teaching Pearl of the Day" was given to the Consultant on the 0800-1600 shift. The type of things discussed were- learning points from a recent case in the ED, an interesting practical fact from recent journal reading or conference attendance.

## What next?

The introduction of a structured medical handover to our ED has been a success. We plan to introduce it at the weekends too.

Our department is safer and communicates better as a result, education has remained an integral part of the handover.

## References

1- Pesanka DA, Greenhouse PK, Rack LL, et al. Ticket to ride: reducing handoff risk during hospital patient transport. J Nurse Care Qual. 2009;24: 109-115.
2- WHO Collaborating Centre for Patient Safety Solutions. Communication during patient hand-overs. Patient Safety Solutions. 2007; 1:solution 3

# Hairmyres Medical ED Handover

| **Education** |
| • Teaching pearl of the day |
| Run through all **patients** in Majors & appropriate Minors – Tweet the handover – 3D's<br>• Discussed with<br>• Diagnosis<br>• Disposal<br>• Reallocate clinician if required<br>• Outstanding tasks assigned |
| **Patient Safety**<br>Are there any patient safety issues? |
| **Organisational**<br>• Staffing & Allocations<br>• Bed Status |
| **Clinical Admin**<br>• Deaths<br>• Child Protection |

# A Research Support Programme for Higher Speciality Trainees in Psychiatry – Use of a Speed Dating Method

**NHS Greater Glasgow and Clyde**

**Dr Erica Packard[1], Dr Wai Lan Imrie[2], Dr Iain D. Smith[3]**

[1] Glasgow City HSCP, Commonwealth House, 32 Albion Street, Glasgow G1 1LH, [2] Brand St Resource Centre and Leverndale Hospital,150 Brand Street, G51 1DH, [3] Kershaw Unit, Gartnavel Royal Hospital, Glasgow G12 0XH

## Introduction

Higher Specialty Trainees (HSTs) in psychiatry from ST4 onwards are allocated 1 session per week to research. Publications reviewing the research activity of psychiatry higher trainees and the effectiveness of having a protected research day have highlighted challenges - ring-fencing research time, getting started with a project and generating a publication (Petrie *et al*, 2003; Vassilas and Brown, 2005, and Okolo and Ogundipe, 2006). It is expected that the trainees will be able to evaluate clinical research literature if they have conducted research.

A survey sent to West of Scotland HSTs in 2011 reviewed how research active HSTs currently are, 26 HSTs completed this survey. The majority of those that completed the survey were ST5 or ST6, 60% confirmed that they were interested in research and 81% confirmed that they would get involved in on-going research active projects.

We have employed a structured research support approach to ensure that all higher trainees are attached to an active research programme at the start of ST4.

## Aim

The implementation of this research training programme is to ensure that all HSTs have equal access to research opportunities within NHS Greater Glasgow and Clyde. The hope is that trainees will develop skills and confidence in research and go on to produce research projects of their own in future

This programme focuses on clinical research and doe not include, audit, service development and evaluation.

## Method

A research support programme was introduced in NHS Greater Glasgow and Clyde in August 2017, this was made available to HSTs training in the West of Scotland

This consisted of Introduction to Good Clinical Practice (GCP, mandatory for those who are supporting clinical trials), Research Speed Dating (matching higher trainees with researchers), and research workshops. This approach ensured that trainees are involved with well-designed research as well as receiving high quality training.

**The Research Speed Dating** session is a novel approach which we piloted for HSTs to align them with research projects, a total of 11 STs attended this session.

Clinical researchers with active projects or projects due to start in 1-2 months were invited to participate in the speed dating session. Each researcher delivered a 5 minute presentation of their research and HSTs were provided the opportunity to discuss the research and their interests with each researcher and then rotate to the next. Scoring sheets were provided to each HST and researcher, allowing the HST to select their top three research choices. Researchers were also able to grade their preferred candidate in case there was a particular research area that was over-subscribed.

HSTs were then matched to a researcher. Most trainees were allocated first choice.

**Further training sessions**

HSTs were also invited to attend GCP training and a full day of research workshops: Thinking like a researcher – How to ask the right questions and Protocol Writing Workshop. GCP training is a course which is offered throughout Scotland by local education and training service in clinical research facilities. The research workshops were delivered by an external speaker facilitated by Glasgow Clinical Research Facility education and training service.

Feedback questionnaires were handed to the HSTs to complete.

## Results

HSTs were allocated to actively recruiting projects which were led by academic or pharmaceutical organisations, thus allowing a diverse research experience and best research practice training.

Feedback questionnaires were circulated to the HSTs and all rated the training sessions highly. Those who were further on in their training (ST6) expressed that they wished this support had been available when they started in ST4.

Return rate for completed questionnaires from each training session varied.

90% of evaluation forms were completed for the GCP training (total of 21 attendees) and the training was positively received.



GCP evaluation

A total of 11 HSTs attended the pilot Research Speed Dating Session. 6 feedback forms were returned all providing positive feedback.



Research Speed Dating Evaluation
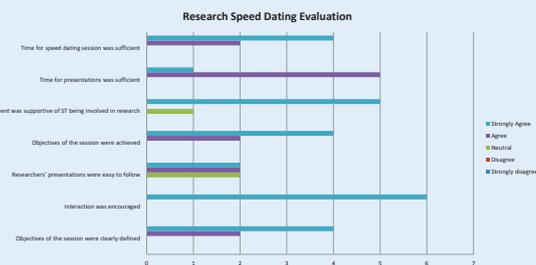
17 HSTs attended the Thinking like a researcher – How to ask the right questions workshop and 15 HSTs attended the Protocol Writing Workshop, however only 3 completed forms were returned – all rated the workshops as excellent. Time will be allocated at the end of future workshops to ensure that forms are completed.

The formal written feedback through the evaluation forms and informal verbal feedback from the STs has been very positive. HSTs who do not have a current placement in NHS Greater Glasgow and Clyde found this support particularly useful. One ST had indicated that they had a project already identified however it was informative to attend the Research Speed Dating Session as this provided oversight of all the research activity in the Health Board.

The HSTs continue to develop links with other researchers within NHS Greater Glasgow and Clyde and have an increased awareness of the research infrastructure available. We will continue to monitor productivity and involvement in research throughout HST training and repeat this programme for this years' ST4 intake

## Conclusion

This programme ensures that HSTs are receiving appropriate research support as well as deliver research training which is essential for those who are interested in pursuing research in the NHS outside the traditional academic setting.

The current view is that research should be embedded in the NHS rather than considered as an 'after thought' and such research support and training ensures that HSTs have exposure to research before moving on to consultant roles where there will be opportunities to have research sessions included in their job plans.

We will continue the research programme with the new intake of HSTs and monitor the current intake's continued involvement in research throughout their training

## Acknowledgements

We thank the staff in the Glasgow Clinical Research Facility Education and Training group for delivering the training.

# Interactive Induction Programme for Undergraduates in ED

Dr Katerina Kimberley, Clinical Fellow in Medical Education, Dr Hannah Smith , ED Consultant

## Introduction:

The Queen Elizabeth University Hospital Emergency Department (QEUH ED) in Glasgow accommodates six final year students every five weeks. The formal feedback is positive, but one-to-one, the undergraduates expressed how intimidated they were at the start. The placement offers an extensive induction with life support training, trauma moulage, orientation to the unit and practical skills sessions. In spite of this, many report feeling overwhelmed and look back on their first shifts with some regret: "I wish I'd just got more involved from the start".

In response to this challenge we created a "Day One Checklist" for the undergraduates to complete with an assigned junior trainee. The "Day One Checklist" was rapidly renamed "The Treasure Hunt" by our junior trainees.

### DAY ONE CHECKLIST

| | |
|---|---|
| Use POD system. What are the three different types of PODS available for? | |
| Be observed taking bloods and put in Venflon (NB. Not from a patient with a BBV) | |
| Use Student Paperclip to indicate that you are seeing a patient <br> *Every time you see a patient independently attach your paperclip to the patient notes to indicate that the patient has been reviewed by a student.* | |
| Take a history, examine, formulate a management plan & present a patient who has not yet been assessed by a doctor | |
| Push a patient to X-ray | |
| Find ground floor CT | |
| Find transfer bags | |
| Find training room (& learn door code) | |
| Download iResus App onto smart phone (if you have one) | |
| Use blood gas analyser | |
| Watch a nurse take a handover from a paramedic | |
| Do an ECG & learn how to record patient details on the ECG machine | |
| Learn what you can and can't put in the macerator (found in the sluice) | |
| Learn what you can and can't put in a sharps bin | |

## Methods:

This issue was identified through informal feedback to the department's educational clinical fellow. We began to observe the differences between students who integrated rapidly and those who were more reticent. Undergraduates who integrated fastest were more likely to ask questions on initial shifts, offer help and complete simple tasks for medical staff. We thought about all the activities an undergraduate may participate in during their block and created our checklist. The final list contained tasks such as assisting a patient to X-ray to setting up equipment for suturing. The checklist also posed questions to ask various staff, from Consultant-in-Charge to Triage nurse,

## Outcomes/results:

Induction was previously a tutor-centred passive activity[1] The addition of the second phase of the induction is designed to be learner-centred. The aspiration is that the immediate integration into the team will improve the learning environment and their feelings of self-efficacy. The checklist was introduced as a pilot over two consecutive blocks and feedback was unanimously positive.

"..The Introduction days and first day checklist were very helpful, made it a lot easier to fit into the A&E setting. .."

"..i found it very useful to have a dedicate time to familiarise ourselves in new department by having a list to check and buddy to help .."

## Conclusion:

Undergraduates find our ED an intimidating environment[2]. This perception does not persist, but can be inhibitive at the start.

They now have a checklist to complete in order to familiarise themselves with the department and staff. The new aspect of the induction is self-led and courages integration into the team from day one.

## References:

1. Dean Parmelee, L.K.(2012). Team based learning:A practical guide:AMEE Guide No 65. Medical teacher, Vol.34,iss.5.

2. Thomas,I. (2012). Building student engagement and belonging in Higher Education at a time of change: Final report from What works? student retention & success seriously? Perspectives of Medical Education, Vol.3,iss 3, pp 222-232.

| | |
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# INDUCTION FOR MEDICAL AND SURGICAL PAEDIATRICS IN ABERDEEN – A REDESIGN

**Birgit Rieck[1], Emma Ross[1], Lucy Adam[1], Gillian Winter[1]**

[1] Royal Aberdeen Children's Hospital, Foresterhill, Aberdeen, Scotland, United Kingdom, AB25 2ZG
Corresponding author: birgit.rieck@nhs.net

**NHS Grampian**

## Introduction

The induction to a new work place is an essential tool to improve coping of new staff and increase patient safety. It is therefore crucial that all relevant information is covered and the contents are conveyed in a memorable and educational way.
The redesign of the induction was trainee led and has been accompanied by continued quality improvement.

## Methods

A questionnaire was used to assess the previous induction. This highlighted that the current induction was insufficient and essential information was not being covered. An induction improvement team was created and the induction redesigned. Since then we are gaining feedback immediately after the induction and delayed feedback at the end of the staff's rotation to ensure continued cover of relevant information and maintenance of the quality of induction.

## Results

Key topics were identified via the initial questionnaire. It was decided that interactive sessions in workshop and simulation format would be the preferred means of teaching, to ensure participation and interaction, thus enabling increased learning outcomes.
Workshops were designed, scenarios written and thoroughly documented to ensure continuous high quality teaching despite changing of the personnel providing induction.
New induction handbooks were written for medical and surgical paediatrics.
The new induction consists of 2 simulations of BLS and sepsis 6 scenarios and 7 workshops for medication prescription, fluid prescription, neutropenic sepsis, blood letting and cannulation, essentials, observation charts and other records and escalation. The workshops consist of a short presentation with discussion afterwards (sleep), demonstrations with discussion afterwards (escalation, PEWS, essentials), demonstrations and opportunities to practice (blood letting and cannulation) and a short demonstration with individual and group work afterwards (neutropenic sepsis, fluid prescription, prescription and analgesia). It furthermore contains a provided lunch and a hospital tour.
This induction has run four times now and the participants persistently rate the workshops and simulations as good to outstanding.

| Time | Session | Type of session |
|---|---|---|
| 09:00-09:15 | Welcome | Video, Speech |
| 09:15-09:45 | Escalation scenario | Workshop |
| 09:45-10:00 | Sleep | Workshop |
| 10:00-10:15 | SurgicalhHandover | Speech |
| | | |
| 10:30-12:00 | Workshops | Various |
| 12:00-12:45 | Tour through hospital | Walk |
| 12:45-13:30 | Lunch | |
| 13:30-14:50 | Workshops | Various |
| | | |
| 15:00-16:30 | Workshops | Various |
| | | |
| 16:40-17:00 | Over to you | Q & A |
| | Quiz | Quiz |

Figure 1: Induction time table

| Workshop slots | | Type of workshops |
|---|---|---|
| 10:30-12:00 | Workshops | 1) BLS (45min) |
| | | 2) Neutropenic sepsis (22min) |
| | | 3) PEWS charts (22 min) |
| | | |
| 13:30-14:50 | Workshops | 1) Essentials (20mins) |
| | | 2) Fluid prescription (20mins) |
| | | 3) Prescription and analgesia (40 mins) |
| | | |
| 15:10-16:30 | Workshops | 1) Sepsis 6 (40min) |
| | | 2) Blood letting and cannulation (40mins) |

Figure 2: Workshop schedule
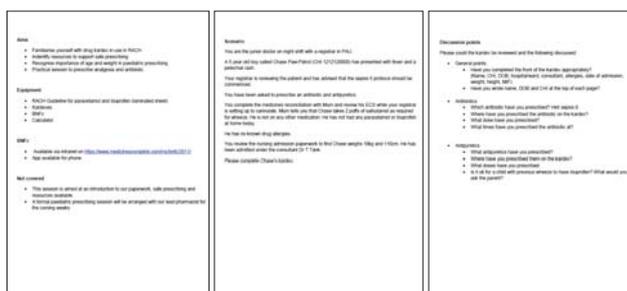


Figure 4: Excerpt from prescription and analgesia workshop manual



Figure 3: Excerpt from neutropenic sepsis workshop manual
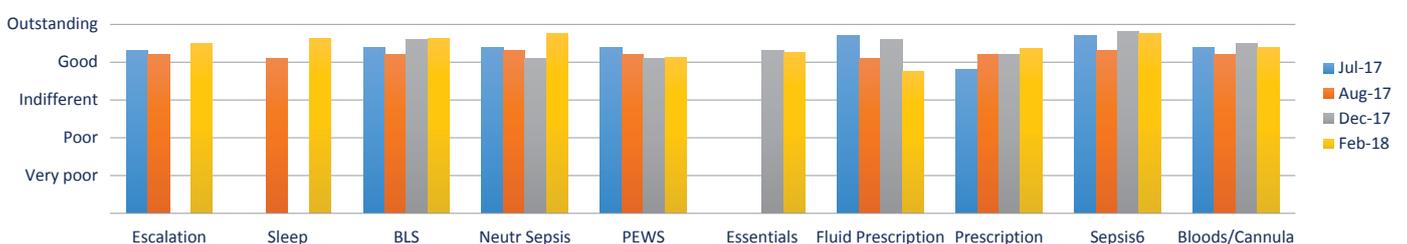


Figure 5: Feedback from participants of induction

## Conclusion

We feel that with the incorporation of simulation and interactive workshops we have found a novel and effective way of teaching new members of staff essential information about paediatrics and our children hospital in a multidisciplinary way.