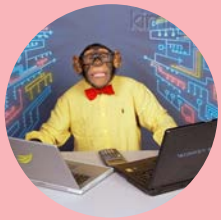
SEA UK

Society for Education and Anaesthesia

Contents

Highlights



Note from the president

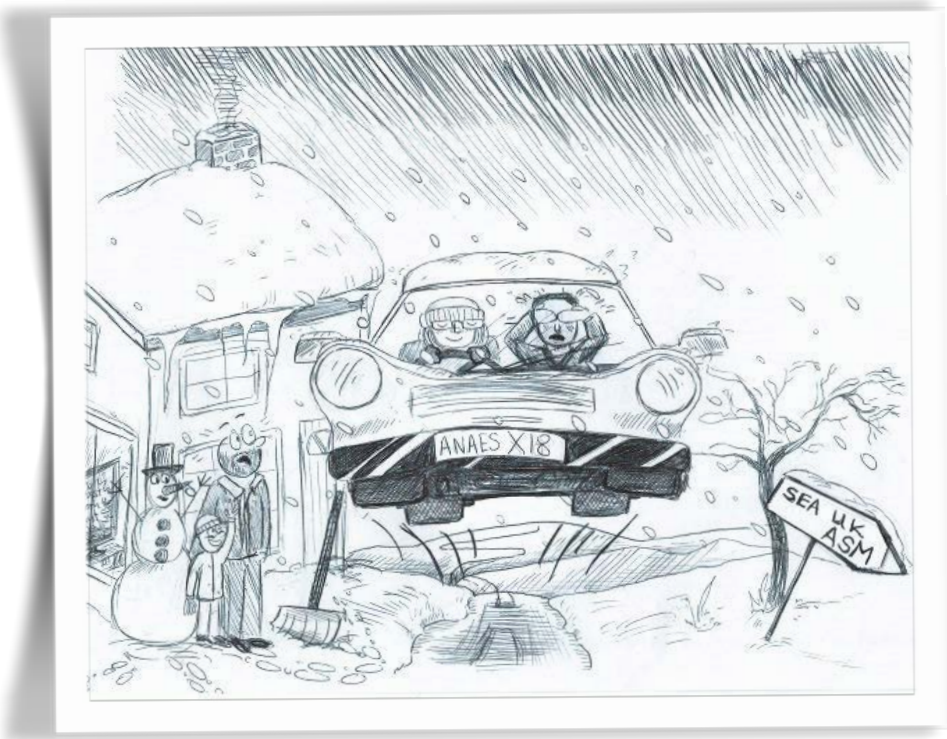
"Summer is upon us - there is decent weather, even in Oldham. And with summer comes the next edition of our newsletter. I hope that you enjoy it."

The 'beast from the east' seems a long time ago but despite its best efforts it didn't prevent us having another successful ASM, this time in Cardiff. The council meeting on the Sunday was marred by that ultimate anaesthetic nightmare - no warm coffee - but the ASM itself progressed in an uneventful if somewhat chilly manner. Speakers and workshop leaders were excellent and we thank them all. Thanks are always due to Claire and Mike, our local organisers for all their hard work. Reports of the various sessions are in this newsletter, a reminder for those who made it and an idea of what you missed for those who didn't.

Plans are well under way for our 2019 ASM. This will be in Edinburgh on 18 March - save the date.

We welcome two new members to council. Natasha was successful in the keenly contested election for trainees' rep. Congratulations Natasha. The unsuccessful applicants were all fantastic educators; thank you for giving it a go and we encourage you to apply for Council posts as your career progresses.

We have had queries from trainees about the trainee rep being post-fellowship. Trainee reps join council for 3 years and opening this to pre-fellowship trainees would inevitably include the distraction that the FRCA would bring. In response however we have introduced a 12 month co-opted pre fellowship trainee position on Council to work with Sue on the newsletter. Congratulations to James, our first post holder in this capacity.



Finally sorry for contributing to the great GDPR request deluge. Advice on the implications of GDPR for societies such as ours has been conflicting to say the least but we appreciate and rely on contact with members and value your input. Any ideas on how to make our society better? Please get in touch.

Regards,

Janet

Editor's note

Welcome to the Summer edition of the SEA newsletter. This is the second year of our editorship and there are due to be many changes as mentioned in the president's note. It has been a long winter but the ASM in March usually signals the end of the cold weather. Unfortunately, this was not the case this year and the ASM brought with it another large volume of bad weather. This caused a great deal of Whats app traffic and some of the council were unable to attend.

The council who managed to attend have provided short excerpts of meeting programme items for your interest. This may inspire you as readers and members to organise an ASM or local meeting in your area.

SEA UK ASM Programme Monday 19 March 2018 City Hall Cardiff

09:00	Registration and Refreshments	
09:20	Introduction and Welcome by the President	Dr Janet Barrie
09:30 – 10:10	**Keynote 1**	**Chair** - Dr Janet Barrie
	Chimps, Computers and Pressure to Attain	Dr Trevor Gedeon
10:10 – 10:30	Annual General Meeting	
10:30 – 10:55	Refreshments	
11:00 – 12:00	**Workshops**	
1	Education in Developing World Anaesthesia	Dr Ben Greatorex, GAT
2	Fatigue and Educational Attainment	Mike Farquhar
3	Excellence in Medical Education	Dr Melvyn Jones
4	Implications of the New Junior Doctor Contract	Dr Alison Cooper
12:00 – 13:00	**Free Papers**	**Chair** - Dr Richard Ramsaran
13:00 – 13:50	**Lunch**	
13:50	**Keynote 2**	Chair – Dr Cyprian Mendonca
	Differential Attainment	Dr Katherine Woolf
14:35 15:35	**Workshops**	
1	Education in Developing World Anaesthesia	Dr Ben Greatorex, GAT
2	Fatigue and Educational Attainment	Mike Farquhar
3	Excellence in Medical Education	Dr Melvyn Jones
4	Implications of the New Junior Doctor Contract	Dr Alison Cooper
15:35 – 15:55	Refreshments	
15:50 – 16:35	**Keynote 3**	Chair – Dr Peeyush Kumar
	Changing Education – Making it Happen	Professor Aidan Byrne
16:35	**Presentation of Prizes and Closing Address**	Dr Janet Barrie

As you may have noticed there have been several articles in the RCoA bulletin and there are plans for more. We would encourage you as members to contribute to this programme. In addition there are plans for the website which are covered in greater depth further on in this newsletter. Should you want to contribute to the new editions to the website, please contact the SEA UK administrator.

James has now joined our team and we look forward to his assistance and input. We hope you enjoy the newsletter and, as always welcome constructive feedback.

Annual scientific meeting programme Keynote reports

CHIMP MANAGEMENT REVIEW

The first keynote speaker was Dr Trevor Gedeon of the Chimp management programme who gave a lively and entertaining introduction to the Chimp management model of behaviour. Everyone in the room acknowledged that there were times when we had reflected on a situation and wished we had acted differently. The chimp model aims to help people understand why this happens and give techniques to minimise it happening.

In essence the brain, in this model, comprises three 'regions':

- The 'Chimp'. Impulsive and instinctive, it reacts rapidly to a situation and it's impulse is the fight, flight or freeze of evolutionary instincts to perceived threats.
- The 'Human'. Logical, rational and controlled, it thinks, plans and responds purposefully but relatively slowly.
- The 'Computer', a store of the information and beliefs on which we base our life and responses. Both the Human and the Chimp can write to the Computer, and the material stored there can be positive or negative, helpful or hindering. Unhelpful scripts are known as 'Gremlins' whilst constructive ones are 'Autopilots'. Also in the computer is the 'Stone of Life' containing our worldview, values, beliefs and fundamental orientation in life. The implication is that these are relatively static.

So that's the anatomy. How does it work?

The Chimp responds more rapidly than the Human and messages about new information or situations are passed to the chimp first. That may have an evolutionary advantage in the true emergency where the fight, flight or freeze response is appropriate. Fortunately true emergencies are rare, unfortunately the Chimp is still consulted first and responds faster than the Human, particularly when circumstances are uncomfortable.

In these circumstances the Chimp switches off the Human and then checks in the Computer for advice on how to respond. If he likes what he finds in the Computer he hands control back to the Human, if not he takes over. Once calm, control passes from Chimp to Human, who often responds with the familiar 'why on earth did I think/say/do that?' feeling.

Well this is all very well but what has it got to do with medical education? Work is often perceived as being stressful with rota gaps, bed shortages and an uncertain medico-legal climate. Add in the loss of learning opportunities and exam pressure and it becomes an environment in which Chimps - whether those of trainees or supervisors - may feel threatened. Ideally we will all act like adult Humans at all times but reality is not like that. In a crisis both trainees and supervisors may need the opportunity to 'sound off' before being capable of engaging with the issue rationally. Let them, listen, then go back and address the issue once the Chimp has offloaded.

The Computer contains what is stored there, whether by the Chimp or the Human. This is where much educational theory comes in as we can help each other store positive scripts. This may be done by;

- Fostering a sense of safety (How do we respond to an incident? What is that or our department or our Trust?)
- Affirming growth via honest but constructive feedback.
- Valuing non-standard career pathways.

Chimp is a model and like all models, has limitations. Some may find the cartoon-ish representations confusing or unhelpful. Others may find it gives a clearer language or picture than that we got through our neuroanatomy courses.

If it helps, use it.

Picture, creative commons licensing.
chimp https://commons.wikimedia.org/wiki/File:Chimpanzee_(3265647592).jpg human

DIFFERENTIAL ASSESSMENT

Dr Antonia Rich, Health Psychologist and lecturer from UCL Medical School gave an overview of differential attainment and explored how this influences the performance of medical students and doctors in UK.

Differential attainment is a term used to refer to a systematic difference in outcomes when grouping cohorts by protected characteristics and socioeconomic background. UK universities and NHS are legally required to monitor the admission and progress of students by ethnic group. Doctors from black and minority ethnic (BME) groups and international medical graduates (IMGs) are more likely to fail postgraduate assessments and have poorer academic and outcomes compared with white doctors in UK, USA, Canada and Australia.

Amongst the nine protected characteristics under UK Equality act 2010, Dr Rich highlighted how the race influences the outcome of academic performance in exams and other assessments such as annual review of competence progression, recruitment into foundation and specialist training.

"Life outside work is an important element in minimising burn out and leading to satisfactory progression in training."

UK undergraduate performance: A third of all UK medical students and junior doctors are from minority ethnic groups. The data from Manchester Medical School in 1994 has shown that male medical students with Asian surname are more likely to fail the final clinical examinations than other students. In 2002, a review of factors influencing medical school success demonstrated underperformance of BME candidates.

A further systematic review and meta-analysis in 2011, showed that UK trained doctors from minority ethnic groups tend to underperform academically compared to their white counterparts. Ethnic difference in attainment seems to be consistent feature of medical education in the UK and is present across all medical schools. An interesting finding from the studies is that the ethnic gap also exists in machine marked written exam paper and highlights the fact that language issues in communication and examiner bias are unlikely to be the primary

cause. A 2014 exam data showed that 71% of candidates from UK medical school passed compared with 43% of IMGs. For UK graduates across all exams, white candidates are more likely to pass (76% pass rate) compared with their ethnic minority counterparts (63.5%).

UK Post graduate performance: Recruitment offers to F2s in 2012-14 showed that across all first round applications, 77% women received offer compared to 70% of men. 71% ethnic minority UK primary qualified applicants were offered place compared to 81% of white applicants with UK primary qualification. In response to the concerns regarding relative underperformance of IMGs in MRCP GP exams, GMC commissioned a review. This review published in 2013, found a significant difference in failure rate between different groups of doctors in both clinical skills OSCE (CSA) and applied knowledge test components of MRCGP examination.

Fair training pathway for all: *Understanding the experiences of progression*. This GMC led program aimed to understand the nature and causes of differential attainment. A qualitative semi-structured interview with trainees and trainers concluded that BME UK graduates and IMGs can face additional difficulties such as cultural differences, separation from families, stress and anxiety that can impede learning. The interventions should focus on improving trainee-trainer relationship at work and organisational changes to improve trainee's ability to seek social support outside work.

Protective processes to minimise the effect on differential attainment include building positive trainer-trainee relationship, facilitating peer support, improving trainee wellbeing by enabling trainees to gain support outside work. Life outside work is an important element in minimising burn out and leading to satisfactory progression in training.

In summary, the evidence supports fairness of Royal College examinations, but additional work is needed to address the differential attainment in work-place based assessments and recruitment. More openness to overcome individual and organisational sensitivities around race, further research that spans specialties and focuses on recruitment and training and sharing of examples of good practice from other specialties likely to make change happen.

Further reading

1. Dewhurst NG, McManus IC, Mollon J, Dacre JE, Vale JA. Performance in the MRCP(UK) Examination 2003–4: Analysis of pass rates of UK graduates in the Clinical Examination in relation to self-reported ethnicity and gender. BMC Medicine 2007, 5:8.

2. Dillner L. Manchester tackles failure rate of Asian students. BMJ 1995; 310:209.

3. Ferguson E, James D, Madeley L. Factors associated with success in medical school: systematic review of the literature. BMJ 2002; 324:952-7.

4. https://www.gmc-uk.org/Differential_attainment___workshop_slides_60167693.pdf_62013620.pdf_70343606.pdf

5. https://www.gmc-uk.org/static/documents/content/2017-05-08CONFIDENTIALFairPathwaysPart2FinalReportForPublication.pdf

6. Kathleen McLoughlin, Lindsey Pope, Elaine Walsh, Aisling Jennings & Tony Foley (2018) The MRCGP Clinical Skills Assessment: an integrative review of evidence, Education for Primary Care, DOI: 10.1080/14739879.2018.1427510

7. Woolf K, Potts H. W. W, McManus I. C. (2011). Ethnicity and academic performance in UK trained doctors and medical students: Systematic review and meta-analysis. BMJ; 342, 584.

8. Wakeford R. International medical graduates' relative under-performance in the MRCGP AKT and CSA examinations. Educ Prim Care 2012; 23(3):148-152.

9. Woolf, K., Rich, A., Viney, R., Needleman, S., & Griffin, A. (2016). Perceived causes of differential attainment in UK postgraduate medical training: A national qualitative study. *BMJ Open*, *6*(11), 1–10.

Annual scientific meeting programme workshop reports

EDUCATION IN DEVELOPING WORLD ANAESTHESIA

(attended and summarised by Sarah Fadden)

This fascinating workshop, led by Dr Ben Greatorex from Inverness, explored the unique opportunities for personal and professional development exemplified by one clinician's experience of working, and training others, in developing world anaesthesia.

The workshop focused on the Voluntary Service Overseas (VSO) organisation, specifically its work in Ethiopia. The selection process for VSO, as for other overseas charity organisations, is rigorous and involves a written application, interviews (remote and face-to-face) and team exercises. Successful candidates are placed on a database and are matched to placements, each lasting usually 1-2 years. Training courses are undertaken prior to commencing a placement, both in the UK (for example, on facilitating change and conflict management) and in-country (pertaining to language and culture). The objectives for VSO anaesthetists at their base hospital include supporting the development of the Critical Care service, teaching local trainees and co-workers, and supervising pre-assessment and complex theatre cases. The challenges of working in a resource-poor environment, coupled with the delivery of training that is both relevant and workable, are evident. The balance between didactic lecture-based and hands-on simulation-based teaching is particularly important in a setting where differences in language and culture must also be taken into account. There are a number of well-established teaching packages that are utilised by developing world anaesthesia education schemes. For example, the Safer Anaesthesia from Education (SAFE) project, developed collaboratively by the Association of Anaesthetists of Great Britain and Ireland (AAGBI) and World Federation of Societies of Anaesthesiologists (WFSA), promotes the delivery of short courses in obstetric or paediatric anaesthesia and also nurtures in-country faculty for the future. The ability to ascertain which clinical and educational interventions are most appropriate and sustainable is pertinent to anaesthetists working in all environments. Moreover, the

opportunities for research and management (including Quality Improvement Projects) in developing world locations are vast.

Education in developing world anaesthesia is challenging and rewarding, for anaesthetists at all stages of training and with different levels of experience. In an era of very structured UK training curricula, participating in developing world anaesthesia teaching schemes is one method of broadening the educational panorama for everyone involved. With thanks to Dr Greatorex for his fascinating talk and also resource recommendations:

- General Information
  - https://www.aagbi.org/internationals/volunteer-opportunities-overseas
- VSO
  - https://www.vsointernational.org/volunteering/volunteering-pro/jobs/medical-and-healthcare-volunteer-jobs
- MSF
  - https://www.msf.org.uk/job-profile/anaesthetist
- Lifebox Fellowships
  - http://www.lifebox.org/fellowships/
- THET Map
  - https://www.aagbi.org/international/thet
- SAFE Courses
  - https://www.aagbi.org/about-us/aagbi-fundraising/safeafrica/how-get-involved
- UK Emergency Medical Team
  - https://wp.uk-med.org/?page_id=20
- BASIC ICU Courses
  - http://www.cuhk.edu.hk/med/ans/icubasic.htm
- RCoA OOPT
  - https://www.rcoa.ac.uk/careers-training/oope-and-oopt/working-training-developing-countries

EXCELLENCE IN MEDICAL EDUCATION

I attended a very interesting workshop focused on the concept of "Excellence in Medical Education." This session was facilitated by Dr Melvyn Jones, a GP and GP trainer, senior lecturer at UCL and a council member of the Academy of Medical Educators (AoME). The audience was varied mix of trainees and consultants with varying levels of experience, qualifications and included training programme directors, course organisers with the main proportion of people where educational supervisors (ES).

In small groups we first worked through 3 questions - What is medical excellence? / What is good education? - Teachers who understand their audiences – checks prior knowledge, backgrounds and how they perform. Education is not a one-way process – benefits to educators as well as those being educated. It is a multidisciplinary affair. How do I recognise this? Feedback – both quantitative and qualitative, people turn up to good educator sessions and we can measure the outcomes of the learners. How do I demonstrate this? – feedback, formal training and how you teach and learn. Utilising the GMC guidance on promoting excellence in education.

We then reviewed the case of Bawa Garba and its relation to medical education. We talked through debriefing and the role of the ES in supporting reflective practice. ES need to ensure we provide safety both for trainees and patients. What other support do we offer as ES – i.e. return to work.

Dr Jones did an introduction to the AoME and discussed the Anaesthetists as Educators programme. (www.medicaleducators.org, www.rcoa.ac.uk/anaesthetists-educators-aae,) Excellence in education occurs with self, team and leaders and across the whole system. Successful healthcare providers have good education at their heart. Other thoughts raised included the experiential learning cycle and how we can use the GMC survey across specialities to understand how we can improve education.

Finally, from the varied and well textured discussion we brought out suggestions to improve our own excellence in medical education – 1) Join the AoME 2) specific feedback – peer review, other feedback from specialities, share feedback – share good stuff, disseminate, asking for feedback – improving, fatigue, film teaching, engage feedback -? Focus group – end of session, 3) thanking educators 4) evidence - record keeping of activities as build and develop pdp, 5) GMC survey- how we have improved, how can I use benchmarking 6) monthly education meetings – facilitate how to improve plan how to change what to do 7)Reflective practice - how can I improve? How valuable my teaching is – changing method, increase engagement, no death by PowerPoint, 8) where areas are lacking career advice etc etc ask the students

FATIGUE AND EDUCATIONAL ATTAINMENT

Fatigue is a hot topic in the world of anaesthesia and it was no surprise that this workshop was very popular with delegates. Dr Michael Farquhar, a consultant in sleep medicine at Evelina Hospital London, spoke very engagingly on the subject of sleep and fatigue. Introducing the topic, he stressed the importance of sleep on our physical and mental health. He demonstrated, with the aid of a hypogram, how we cycle through the different stages of sleep; deep sleep “recharges our batteries” and REM (dream sleep) is important for consolidation of learning. So not only is sleep restorative but also essential for learning - a good nights sleep will help retain knowledge. Passing the FRCA is not necessarily about burning the midnight oil!

Ensuring good sleep and improving sleep requires us to optimise our sleep environment and sleep routine. Dr Farquhar touched on several factors that can affect these, including alcohol, caffeine and exercise. However, the impact of electronic devices on sleep routine seemed particularly important when considering trainees and learning. Trainees have grown up with electronic devices such as iPhones and tablets and these have been shown to have a major impact on sleep. Light, particularly in the blue end of the spectrum (phone screens), can suppress melatonin secretion and when added to the stimulatory effect of engaging in an activity this can have a significant impact on sleep. Even the slightest disruption such as checking a message or checking the time on a phone during the night can affect the natural sleep cycles. Dr Farquhar suggests having an "electronic curfew" 30-60mins before bed and also avoiding the use of phones as an alarm clock - this is interesting advice for those who read an iPad or phone before bed…..even if it is for educational purposes!

Night shifts are an unavoidable part of being an anaesthetist. Dr Farquhar discussed how regularly work night shifts affects sleep routines and makes achieving good quality sleep more difficult. Sleep deprivation can rapidly have an impact on even the healthiest people. Moderate sleep deprivation, equivalent to being awake for 16-18hours can have the same effect on reaction times as being at the legal blood alcohol limit! In the long term, significant sleep disruption increases risk of cardiovascular disease, diabetes, obesity as well as cognitive function. It is important that we recognise the impact that working night shifts has on our health and ability to function effectively as anaesthetists, educators and learners. The "hero" attitude needs to be challenged and there needs to be a cultural shift in how to approach working nights. We have a personal and professional responsibility to prepare ourselves and optimise sleep in order to function at our best. There is no "magic bullet" or "one size fits all" approach but we should each carefully consider how we prepare before for the shift, during the shift, after the shift and how we recover from a run of nights. Elements to consider included power naps, caffeine, snacks, hydration and the "physiological 4am dip". This was an informative and thought provoking session which encouraged us to challenge the way we approach our work-life-sleep balance.

THE IMPLICATIONS OF THE JUNIOR DOCTORS' CONTRACT FOR EDUCATIONAL SUPERVISION.

This was a repeat of the well-received workshop delivered at the 2017 ASM. Fewer people signed up for the workshop this time, reflecting the contract not being in operation in Wales. However Dr Alison Cooper led a wide ranging discussion of the implications of the new (English!) junior doctors' contract for trainees, the ES and the Trust. The presence of trainees actually working under this contract added a further dimension as they shared their experiences from the receiving end.

In essence every post should have a generic work schedule covering not only the rota template for the job but also an outline of the learning opportunities offered there. Discussion amongst the trainees present suggested that this wasn't happening universally.

The ES should then meet with the trainee during the first couple of weeks of their joining the department and personalise this work schedule to the needs of the trainee. This may include rota amendments, for example for LTFT trainees. Alternatively it may include signposting the learning opportunities available to the needs of the trainee. Examples include exam preparation, the experience needed for module sign-off or exposure to QI/audit

and other aspects of training in the non-clinical aspects of practice. This is officially the responsibility of the named ES but can be delegated to the named CS, particularly if the named ES is on a remote site. The trainees, sadly, indicated that this wasn't universally happening either.

One feature of the new contract is that failure to meet this personalised work schedule has consequences for the department and ultimately for the Trust. The pathway depends on whether this is a failure to meet the learning opportunities offered, or related to patient or doctor safety. In either instance the doctor should complete an exception report as soon as possible after the event and this is passed to the named ES in the first instance.

"Both the safety and educational exception reports are presented to the Trust board on a quarterly basis and recurrent themes can be highlighted."

Educational exception reports which can't be dealt with by the ES are escalated to the Director of Medical Education for the Trust. Obviously raising these reports early gives the department and Trust maximum opportunity to replace the lost learning.

Safety exception reports are usually related to exceeding hours of work or failure to achieve breaks for food. The ES can authorise either payment (in which case the exception must be raised within 7 days of the event) or time off in lieu (in which case the report can be submitted within 14 days). Safety exception reports which cannot be dealt with by the ES are escalated to the Guardian of Safe Working (GoSW). There is anecdotal evidence that trainees are reluctant to submit safety exception reports, possibly due to the perception that their reputation may suffer.

Both the safety and educational exception reports are presented to the Trust board on a quarterly basis and recurrent themes can be highlighted and discussed. As Alison put it, "exception reports provide the data to use to drive change' - but only if it is submitted.

It is much better however to avoid exception reporting by getting the personalised work schedule correct right at the beginning of the trainee/ES relationship. As Alison also put it, " We should do what we say we do and stick to it" - surely the essence of good educational supervision.

Grant reports

Report 1: Dr Bowness reflecting on new techniques learnt for awake video laryngoscopy, the development of a UK based course and participant experience.

I am writing a summary report of my visit to Dr Iljaz Hodzovic as part of my SEA Travel Grant award. The report below outlines the visit I undertook and what I learned from it. I would like to thank the Society for Education in Anaesthesia (UK) for this opportunity, which has been of great value to me.

I spent one week in January/February 2018 visiting Dr Iljaz Hodzovic (School of Medicine, Cardiff University) for a project which focuses on awake videolaryngoscopy (AVL).

AVL is a relatively new technique used to secure an awake airway in cases of anticipated difficult laryngoscopy/intubation. Although it is not a panacea for managing the difficult airway, when compared to awake fibreoptic intubation (AFOI) there are some potential benefits. These include being faster to perform and a shorter learning curve due to the similarity of psychomotor skills to those used in asleep laryngoscopy. One drawback is the lack of familiarity amongst many anaesthetists as it is a relatively new technique.

Even amongst the highly skilled group of interested consultants in my hospital, this is still a new skill and relatively little experience when compared to other techniques such as awake fibre-optic intubation (AFOI). During my visit I attended Dr Hodzovic's clinical practice at the Royal Gwent Hospital, and attended his AVL course where I performed and underwent AVL and intubation myself. This was a hugely educational and enjoyable experience; an invaluable learning opportunity which is not easy to obtain elsewhere. It has not only developed the way I perform this technique, but also informed the way I will consent patients for this process in future. In addition it was an opportunity to review the challenges of starting this kind of course in the UK, with Dr Hodzovic himself.

Looking at these challenges and participant experience has been an interest of mine for some time. In particular, the recipients' experience of pre-procedural anxiety, intra-procedural pain and response (coughing/gagging), as well as whether (post-procedure) they would be willing to undergo this procedure again purely for the purpose of training anaesthetists. During the course I attended with SEA UK support we gathered some information on undergoing this procedure and plan to present it at the European Airway Management Congress later this year. We feel this information can be used to provide valuable information for patients and improve the consent process for this procedure in future.

Report 2 : Setting up a 'Managing Emergencies in Paediatric Anaesthesia' simulation course in Kenya - a report

Together with David de Beer (Great Ormond Street Hospital) and Rebecca Gray (Red Cross Childrens' Hospital, Cape Town) I was invited by Dr Mark Newton to instruct on a training week for a group of African Paediatric Anaesthetic leads. The course was based at Kijabe Hospital (http://kijabehospital.org/) in Kenya and fifteen lead anaesthetists from Kenya, Zambia, Zimbabwe, Malawi, The Democratic Republic of Congo, Tanzania and Rwanda joined us. Most of these anaesthetists are the only, or one of just a handful, of dedicated paediatric anaesthesia providers in their country of origin. They are also, in the main, responsible for the training of registrars/residents, medical students and non-physician anaesthetists in their countries of origin.

The concept of a Managing Emergencies in Paediatric Anaesthesia (MEPA https://mepa.org.uk/) training week at AIC Kijabe Hospital in Kenya was first discussed in 2016 at the World Congress of Anaesthesia in Hong

Kong but it was in the middle of 2017 that the idea became a reality. Our plan was to modify the MEPA course for the Low-Middle Income environment and train a group of local 'faculty' who can go ahead and deliver the course, all over a five day period.

On arrival at the hospital we found the Kijabe Hospital Simulation Centre to be an outstanding facility, ably managed by a local technician and overseen by Dr Mark Newton (a consultant anaesthetist who trained in the USA.) We spent the first day adapting the scenarios so they would maintain fidelity with local anaesthetic practice. This mainly entailed changing all anaesthetics to a spontaneously breathing technique with Halothane as the only volatile agent available.

Day two was intense, putting the entire local faculty through the full eight scenarios from the MEPA course. Fortunately most of the candidates had had some previous exposure to high fidelity simulation so were able to engage wholeheartedly.

Day three was configured to be a 'Train the trainers' day, with the aim of introducing the entire local faculty to some of the theoretical and practical aspects of running a simulation course. This was a large task. Training in simulation is generally undertaken over the course of two to five days but we were required to complete this in one day. A combination of lectures, videos, small group teaching and practical sessions were used.

Fortunately the groups were very receptive and not afraid to risk 'getting it wrong,' as a result we found that they rapidly embraced the philosophy behind high fidelity simulation and made great progress. At the end of the day they had split into two groups, designed their own scenarios, tested them on each other and taken on the challenge of debriefing with 'good judgement.' We briefed the team before and after running each scenario to

help them to apply the debriefing principles they had learned in the morning, this 'debriefing the briefer,' was an essential part of the learning. Day three finished with an outline of the MEPA courses that were planed over the next two days and distribution of printed versions of each of the MEPA scenarios they were to run.

Day four saw the two teams of local faculty deliver the MEPA course to a group of ten local candidates who were a mix of residents, fellows and non-physician anaesthetists. Each local faculty doctor had at least one opportunity to manage the computer, act as a 'confederate' during a scenario and to participate in a debriefing, all with close support from the international faculty.

On Day five, ten Kenyan non-physician anaesthetists completed the MEPA course which was ran by the local faculty. It was apparent that the international faculty were able to sit back and intervene very little as our local faculty handled the many challenges that inevitably present themselves in this type of workshop with aplomb. We felt pride and an element of redundancy!

The MEPA scenarios required minimal adaptation to be appropriate for non-physician anaesthetists in this context. They engaged thoroughly with the scenarios and enthusiastic discussion of the medical content as well as non-technical skills ensued in the debrief.

This type of workshop involves not only having confidence in the subject matter (paediatric anaesthetic emergencies) but also the ability to think on your feet and adjust to a variety of turns that a conversation in the debrief may take, all the while allowing the main learning points to be revealed without teaching them didactically. The debriefing is centered around adult education principles. Debriefers hold the belief that many of the answers to the questions and conundrums that come up are already known within the group and that allowing them to find the learning themselves makes for a richer educational experience. Basic medical training is generally delivered in a didactic (teacher centred) style so this learner-centred approach can be challenging to the beginner sim educator.

"High fidelity can be achieved without high technology."

It is clear to me that the doctors we trained were thinking of applications beyond merely the delivery of MEPA. In fact, for all but the Kenyan attendees it is unlikely that they will be able to deliver a MEPA workshop in the near future as none have access to a high tech baby manikin. We spent time discussing how high fidelity can be achieved without high technology (including the use of more simple manikins with various apps available for android and iPad monitors). It is hoped that with the development of lower cost technology, high-fidelity high-technology simulation may become increasingly accessible to low resource settings, as this week has proven how very powerful this educational tool can be to health workers in this setting.