

SEA·UK

The Society for Education in Anaesthesia UK

Winter 2023

Newsletter

Inside this issue...

Essay Prize Winners

Special features on:

Educational and training innovations

Creation of a national FFICM Exam Course

The impact of parenting on training

Educational grants and more...

Editors:

Dr Sameh Latif, Critical Care Consultant,
Stockport NHS Foundation Trust

Dr Megan Oldbury, CT3 Core Anaesthetics,
The Mid Yorkshire Teaching Hospitals Trust

@SEATWEETUK

Join SEA-UK Today

Be part of a growing network of passionate educators in anaesthesia across the UK



The Society for Education in Anaesthesia UK is an organisation that works to provide high quality networks and professional development opportunities for education in anaesthesia in the UK and overseas. SEA-UK is here to provide the advice, support and resources you need to excel your career as an anaesthetist, trainer, educator and leader.

There are many benefits of becoming a member of SEA-UK, these include:

Keeping up to date

Receive updates on the latest developments in educational methods with the bi-annual SEA-UK newsletter
Our new website provides the latest updates in education, making it easy to navigate and find the resources you need

Free webinars

Join and access our webinars for free

Attending CPD accredited meetings and workshops

Discounted access to SEA-UK conferences and workshops will keep up to date with the latest developments in education in anaesthesia

Learning from others

SEA-UK online forums provide a space for like-minded educationalists to network and share experiences and discuss future ideas for education and training (available on our website)

Collaborating with others

Discuss the latest issues and innovations regarding the Royal College of Anaesthetists training curriculum and the opportunities and challenges for trainees and trainers
Get support from trainers and educators from across the UK

Building your portfolio

Submit articles on educational topics for free. These are published in our bi-annual newsletter or in the RCoA Bulletin magazine
You will be a member of an organisation that has a national influence on anaesthetic education and development

Thank you for your time and we look forward to you joining us here:
<https://www.seauk.org/join-seauk>



Kind regards,

Cyprian Mendonca
President

Peeyush Kumar
Secretary

Claire Halligan
Treasurer

Umair Ansari
Webmaster

WELCOME

Letter from the Editors



Established 1999
 Charity Number 1091996
 Winter Newsletter 2023
Editors: Sameh Latif and Megan Oldbury
Design: Rachel Holmes 2022

The views expressed by contributors are not necessarily those of the editor or other members of the SEA-UK unless otherwise stated. While every care is taken to ensure that the content of the newsletter is accurate, the editor does not assume responsibility for omissions or errors. The editors reserve the right to edit copy.

Inside this issue

Join SEA-UK today2
 Letter from the Editors.....3
 Letter from the President.....4
 Basildon 2024 ASM.....5-6
 ASM Call for Abstracts.....7
 Nov Webinar Summary.....8-9
 Essay Prize Winners 2023.....10-15
 Special features.....16-29
 Educational grants30
 SEA-UK Membership.....31

Dear Reader,

A warm welcome to the Winter edition of the SEAUK newsletter!



In this edition, we gave the platform to anaesthetists in training to express their views on medical, and more specifically, anaesthetic education. The views expressed are very forward-thinking with a focus on how technology will influence medical education. The articles also highlight the increasing importance of non-technical skills (NTS) and Interprofessional education (IPE) in the field of medicine. Both have shown to improve situational awareness and teamwork in medical practice. We have also included some interesting articles on qualifications in education, some innovative quality improvement projects being undertaken and much more.

An early bird heads up about the next SEA UK annual scientific meeting on the 20th of May 2024 which is being held at the Orsett Hall Hotel in Basildon. Our eminent speakers this year, headed by Dr Fiona Donald (President of the Royal College of Anaesthetists), will cover important issues like expanding the anaesthetic workforce, supporting trainee progression and the CESR route of training. There will also be a free paper session as usual.

We would also like to second the president’s welcome to the new council members of SEA UK; Dr Sarah Thornton, Dr Anil Kumar, Dr Asootosh Barry and Dr Amit Ranjan.

And last but by no means least, we would like to thank everyone who has contributed to this edition of the newsletter for your hard work and commitment to education in anaesthesia.

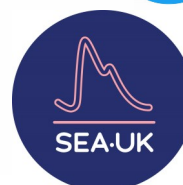
On behalf of the editorial team, we hope you enjoy this winter edition! Wishing you all good health and happiness in the year ahead and we hope to see you at our next annual scientific meeting.

Sameh Abdullatif
 Editor in Chief

Megan Oldbury
 Junior Editor



@SEATWEETUK



*Featured photograph page 1:
 Island of Hoy, Orkney
 Featured photograph page 30:
 Aurora borealis captured near
 Galashiels, Scotland
**Credit: Dr. Cath Livingstone
 Consultant Anaesthetist***



The Society for Education in Anaesthesia UK

Letter from the President

Professor Cyprian Mendonca



Welcome to the SEA-UK Winter 2023 Newsletter

In the spirit of the festive celebration, the Society for Education in Anaesthesia UK is excited to bring you a flurry of updates. It has been a busy year with collaboration and new developments.

Following successful delivery of the face-to-face annual scientific meeting in May, in collaboration with the Association of Anaesthetists, we continued to deliver the online webinar on “FRCA Exams - Road to Success” in August to help both the trainees and trainers in exam preparation.

In September, we received very competitive essays from trainees in anaesthesia and medical students which were submitted to our essay competition. The top scoring essays are published in this newsletter and we would like to extend our congratulations to the writers on their excellent work.

Our November webinar on “Anaesthesia and the Inverse Care Law” was well attended and the write-up from this webinar are also included in this newsletter. On 23rd November, SEA UK delivered a session on educational critical incidents and team training at the Patient Safety Conference of Safe Anaesthesia Liaison Group. On 4th December we delivered a session on multidisciplinary simulation at the Developing Excellence in Medical Education Conference which was very well received.

I am very pleased to welcome our new members Dr Sarah Thornton, Dr Anil Kumar, Dr Asootosh Barry and Dr Amit Ranjan to the council.

The 2024 SEA UK annual scientific meeting will take place on 20th May in Basildon with the theme of advances in medical education and trainee support. We encourage trainees to submit their educational quality improvement projects to present at the ASM and we continue to support these projects through educational grants.

As ever the Society for Education in Anaesthesia is here to support its members and we would like to hear about any suggestions for future events, website updates and how you may get involved in SEA UK activities.

I am sure you all are looking forward to the festive celebrations and a well earned break during the Christmas period. Wishing you all a joyful festive season and a Happy New Year!

Cyprian Mendonca



SOCIETY FOR EDUCATION
IN ANAESTHESIA
www.seauk.org

24th Annual Scientific Meeting

20th May 2024

Orsett Hall Hotel,
Prince Charles Ave, Orsett,
Grays RM16 3HS

Mid and South Essex NHS Trust
Basildon • Southend • Chelmsford



Education in Anaesthesia - Going into the Future

- » Greener anaesthesia: patient and environment protection
- » Future of training: AI technology to enhance the learning experience
- » Future of consent within anaesthesia - implications
- » Supporting trainee progression at each step
- » Expanding anaesthesia workforce - merging professions

- Assessment needs for neurodivergent trainees - the practical aspects
- Supporting doctors in difficulty
- Addressing concerns around differential attainment
- CESR route - clearing the path
- Organising formal teaching - courses and simulations - behind the scenes
- Poster presentations with exciting Prizes

Scan here for
registration:



www.seauk.org/courses

Scan here
for abstract
submission:



The 24th Annual Scientific Meeting—Programme



The Society for Education in Anaesthesia UK

Registered Charity No. 1091996

24th ANNUAL SCIENTIFIC MEETING Provisional Programme

Monday 20th May 2024

Venue: Orsett Hall Hotel, Orsett, Essex, RM16 3HS

8:15	Registration	
8:45	Introduction and Welcome	Professor Cyprian Mendonca President SEA UK
	Session 1	Chair:
09:00	Expanding anaesthesia workforce - merging professions	Dr Fiona Donald President Royal College of Anaesthetist
09:30	Supporting trainee progression at each step	Dr Nancy Redfern Consultant Anaesthetist Newcastle Upon Tyne
09:55	Flourishing in medical education	Dr Louise Younie Queen Mary University of London
10:20	Educational Supervision of neurodivergent trainees	Dr Mary Doherty Consultant Anaesthetist Navan Hospital, Ireland
	A trainee's perspective	Dr Philippa Stennings-Smith Senior trainee anaesthetist Bromfield hospital
10:55	Question and Answers	
11:05	Refreshments	
11:35	Session 2	Chair:
11:35	Review of FRCA exams - the future	Dr Emily Simpson
12:00	Attainment gap	Dr Sekina Bakare
12:25	CESR route - clearing the path	Dr Amarjit Patil Consultant Anaesthetist Manchester University Hospitals
12:50	Question & Answers	
13:00	AGM	
13:20	Lunch	
14:20	Free Paper Session	Chair: Dr Cliff Shelton
15:20	Refreshments	
15:50	Session 3	Chair:
15:50	Science of Longevity - future is here	Prof Nimal Raj
16:15	Greener Anaesthesia - patient and environment protection	Dr Johnny Groome The Royal London Hospital
16:40	Future of training - AI technology to enhance the learning experience.	Dr Daniel Richardson The Royal London Hospital
17:05	Questions and Answers	
17:15	Presentation of prizes and closing address	

Basildon 2024

The 24th Annual Scientific Meeting—Call for Abstracts



The 24th SEA UK Annual Scientific Meeting will be held at the Orsett Hall Hotel, Basildon on 20th May 2024.

This call is unrestricted, however, prizes will be awarded to trainees only.

Prizes

Oral presentation: Two prizes

Poster presentation: Three prizes

Deadline for submissions: **5pm on 8th March 2024**

Submitting an Abstract – Guidance notes

Your submission must be related to an educational topic. We are not a forum for purely clinical presentations. All submitted abstracts will be assessed and ranked. The top six abstracts will be chosen for oral presentation and judged on the day for the prizes. If you wish to have your work to be presented as a poster only, you must specify at the time of submission. All posters will be judged on the day for the prizes.

Abstract should include

- Title, authors (identifying speaker and grade), employing institution
- Introduction/Methods/Results/Discussion or Conclusion
- Abstracts should be no more than 300 words in length (excluding the title, authors and up to 3 references)
- Maximum 1 table or a graph or a figure can be included
- Results must be included in the abstract, rather than just "results will be presented"
- No smaller than Arial Font 10 point.
- Include whether your submission has been previously presented anywhere (this is generally acceptable providing results are still recent)
- You may submit more than one abstract, providing all work is distinct from each other

Please send to Dr. Peeyush Kumar, Abstracts Co-Ordinator (secretary@seauk.org) with a copy to Cath Smith, Society Administrator (administrator@seauk.org) as a Word document, by **5pm 8th March 2024**.

Late submissions will not be accepted.

In submitting an abstract you confirm that you, or the presenting author, will register and pay to attend the conference. When submissions are accepted, all participants must confirm their involvement by registering and paying the conference fee by **Friday 19th April 2024**. We cannot guarantee that presenters who miss this deadline will be included in the official conference publications including the abstract book.

The abstracts will be judged by a panel of the SEA UK 2024 abstract team. The corresponding author will be notified by 29th March 2024.

SEA-UK November Webinar



Anaesthesia & the Inverse Care Law: How to balance the needs of patients with the needs of the Anaesthetic Workforce

Dr Tracy Langcake

Specialty Doctor in Anaesthetics, SEA UK Council Member
The Mid Yorkshire Teaching Hospitals Trust



Dr Cliff Shelton – Introduction

The inverse care law is a play on the inverse square law and pertains to the relationship between medical staffing and the demand for that staffing. The terminology originated from an article by Julian Tudor Hart (a GP in Wales) in 1971 - an interesting quote 'in areas of the most sickness and death General Practitioners have more work, larger lists, less hospital support and inherently more clinically ineffective traditions and consultations than in the healthiest areas'. The inverse care law is most often discussed in relation to GP's, however hospital doctors were also included in the paper 'hospital doctors struggle with heavier case loads, with less staff and equipment, more obsolete buildings and suffer recurrent crises in the availability of hospital beds and replacement staff'. This resonates with most of us now where the availability of medical care tends to vary inversely to the needs of the population served. Has anything really changed in the last 20 – 30 years?

The waiting lists have been steadily increasing for at least a decade indicating that there is a problem with the capacity of the healthcare system meeting the needs of the population. The demand for anaesthetists is already outstripping the capacity and is only predicted to get worse. Currently, the shortfall is around 2000 anaesthetists with the prediction for 2040 of a shortfall of 11000 anaesthetists. When looking at addressing the shortfall you need to look at not only new anaesthetists coming into the profession, but also how many and why others are leaving – the most commonly cited reasons were wanting to work/live abroad and retirement.

Looking at a map of under-doctored areas there seems to be a strong correlation to areas of increased childhood obesity, smoking, adult obesity as well as a number of other chronic illnesses and is mostly found in post-industrial cities and coastal towns. This can have an

impact on training as rotating to a hospital that is under-doctored poses a number of challenges.

Prof Adrian Brooke – Workforce Alignment in Anaesthesia.

Talking about how healthcare inequalities are being addressed by profiling the medical specialities training investment.

This is not a new concept as it has been talked about for years but it is a new take on an old theme. It is a phased process that started in 2018 and will take 10-15 years, it involves re-profiling the investment in training posts so that it is more in line with the needs of the population. There is a clear correlation between the number of medical professionals in an area and the outcomes and continuity of care within that area. Learners are both current and future service providers and it has been noted that they are more likely to practice in the area they are trained.

While there has been an increase in training posts there is also a move to improve the distribution of the posts to align with the needs of the population. This is true for undergraduates as well as postgraduates. This will be introduced gradually and will not affect any of the academic posts or the trust-funded posts. The investment re-profiling will not only involve redistribution, but also expansion of posts meaning that the percentage of posts that are moved is fairly small, but still enough to make an impact in the areas that need it most. This is a phased process with specialties being allocated to different phases and using the current and predicted healthcare needs the decisions are made regarding redistribution and expansion. For trainees already in post, this redistribution will not affect them, trainees will not be moved from posts once they are allocated to an area.

SEA-UK November Webinar



Anaesthesia & the Inverse Care Law: How to balance the needs of patients with the needs of the Anaesthetic Workforce

Dr Matt Gaines and Dr Neha Baduni – Training and Working in Under-Doctored Hospitals

Discussing their experiences of working within under-resourced hospitals.

Both Dr Gaines and Dr Baduni faced numerous challenges when working in an under-resourced hospital, including not having access to necessary training modules and having to go to a separate hospital to gain the necessary training. Due to understaffing or lack of equipment, lists were frequently cancelled resulting in multiple trainees on lists competing for SLEs and WPBA and loss of educational opportunities.

Another challenge when working in under-resourced hospitals is the reliance on locums. This caused a loss of a feeling of permanence and belonging. There was a chaotic system of accountability for the unit between the hospitals leading to confusion, a lack of continuity, and a stressful situation of not knowing who to ask for help and who would take responsibility for the unit.

Situations like these cause demotivation and are disheartening. However, there were some positives. It forced them to be more assertive about what they expected from a placement and how to ensure that they achieved those expectations. It pushed them to stay up to date with practices and to work more autonomously than in other posts.

But how do we improve the experiences of trainees when they go to this type of post? There needs to be more clarity on which modules are available at the hospital so training needs can be met, centralised teaching especially for core trainees would help in these situations. Trainees should also take advantage of the opportunities for QI projects at these posts.

Dr Liz Brewster and Dr Michael Lambert – Why do Doctors work in Under-Doctored Areas?

Talking about the inverse care law is not only referring to a lack of doctors, but how difficult it is to get doctors to work in a specific area. Mapping Doctors is a research project funded by NIHR. The project started in October 2022 and the team has 30 months to complete the study. The study is looking at three areas that are under-doctored and one that is not; looking at the relation between medical training pathways, recruitment and retention and socioeconomic deprivation. The project will use both archival information, as well as interviewing 100 doctors. There is evidence that medical students train where they want to stay and stay where they train. There is a correlation between recruitment, retention and healthcare inequalities.

Factors influencing whether you move to an area or stay in an area include the overall experience of working in the area, whether the area provides adequate support and then a multitude of external factors that are not related to the work itself. Using interviews, the study aims to uncover these reasons and use this information to help recruitment and retention in under-doctored areas.

SEA-UK Essay Prize Winner 2024



Should interprofessional education (IPE) be included in the anaesthesia curriculum?



Dr Lema Imam

**ST3 Anaesthetics (London North West Hospitals)
Northwick Park Hospital**

Introduction

Interprofessional education (IPE) is defined by the World Health Organisation (WHO) as ‘occur[ing] when two or more professionals learn about, from and with each other to enable effective collaboration and improve health outcomes’ (1). The Centre for the Advancement of Interprofessional Education (CAIPE) add that competency-based outcomes are shared between the different professions within a common framework (2). Furthermore, the values they promote include respecting the differences between disciplines, ensuring equality, and promoting individual identities within the learning environment.

Within health education in the UK, there is a lack of high-quality IPE that is universally available and formalised. This means that within the anaesthesia training curriculum, it cannot be imposed as opportunities are limited, and the value is inconsistent as it varies by the region and provider. However, CAIPE offers guidelines and a handbook for educators and organisations to build effectiveness and efficiency in developing and delivering IPE. This should form the building blocks in allowing IPE to become recognised as a highly beneficial form of education. It should also reduce the barriers to integration into healthcare training programmes and beyond.

Integrating IPE into the national healthcare training curricula has several potential and demonstrable benefits, including promoting cohesion between professions. This can be achieved by providing insights into the scope of various occupations, gaining perspectives from different roles and promoting teamwork and critical thinking to overcome problems or achieve the goal of delivering excellent health care.

Anaesthesia Curriculum

The anaesthesia curriculum in the UK (outlined in the Royal College of Anaesthetists curriculum for the certificate of completion of training [CCT]) currently includes the following in the ‘education and training’ domain of learning:

“Theatre teams should undergo regular, multidisciplinary training that promotes teamwork, with a focus on human factors, effective communication and openness.” (3)

This demonstrates an understanding from the college of the importance of multidisciplinary learning for every anaesthetist in training. This also shares the responsibility between the individual anaesthetist in training and the organisations and educators to ensure IPE is experienced during training. Thus, IPE is already recognised within the curriculum, and the question is how it can further be formalised and better delivered.

In the anaesthesia curriculum, the generic professional capabilities (GPC) highlight the importance of successful teamwork and how this might evolve during training:

“Stage 1 - Works effectively as a member of a clinical team

Stage 2 - Demonstrates safe and effective followership and leadership in clinical teams

Stage 3 - Leads and participates in complex and diverse teams in all situations” (3)

The GPC framework (as set out by the shape of the training review) is included in all postgraduate curricula, meaning that the training providers and organisations have a responsibility to address these. Hence, there are already established common goals between different

SEA-UK Essay Prize Winner 2024



Should interprofessional education (IPE) be included in the anaesthesia curriculum?

specialities, although this is still within the same overarching profession. The theme of effective teamwork also spans specialty-specific domains e.g. in perioperative medicine:

“Facilitates safe multi-disciplinary peri-operative care and promotes the principles of public health interventions and efficient use of healthcare resources” (3)

Established examples of IPE that may be provided during anaesthesia training include life support courses or the PROMPT (Practical Obstetric Multi-Professional Training) course. Local simulated teaching sessions can also offer IPE, though the extent of the MDT input and the quality of the education may vary.

Benefits of IPE

In the current context of the NHS, there are ever-increasing demands on healthcare services as the ageing population expands. On top of this, the ongoing advancements in medical practice mean we are continuing to offer more treatments for what were once deemed untreatable conditions and acute illnesses. Further, navigating the Coronavirus pandemic coupled with an unstable politico-economic climate (with an unsatisfied healthcare workforce undertaking strike action) means that increasing efficiency and effectiveness will be vital to ensure the continual delivery of high-quality care in this NHS.

In the cases of failing NHS trusts, analyses often highlight the failure of communication between members of different teams. Notably, the Ockendon report states;

‘A review team has also heard directly from staff that there was a culture of ‘them and us’ between the midwifery and obstetric staff, which engendered fear amongst midwives to escalate concerns to consultants’ (4).

This is in keeping with a common theme in failing NHS systems, where professionals lack cohesive teamwork. There is a clear need to ensure collaboration to not only prevent service failure but to enhance the quality to the best that can be achieved.

Effective IPE has been shown to enable effective collaborative practice (1), which has many benefits. On an individual level, it enhances employee morale, promotes more consistent growth and development, and celebrates the different skills and characteristics between individuals within a team. At an organisational level, it improves efficiency and the standard of care delivered and contributes to better staff retention. The WHO report that effective collaborative practice can decrease the length of hospital stay, total patient complications, and clinical error and mortality rates (1).

Though the pandemic brought many challenges, it also highlighted the need for effective teamwork and cohesiveness, accelerating the growth and knowledge expansion of the multidisciplinary team (MDT). It allowed for skill development to be prioritised and shared amongst team members. This helped foster camaraderie for teams to share different perspectives positively. Thus, the teams utilised their different characteristics and skills in tackling a problem and provided greater awareness of other team members roles. However, redeployment and a focus on a narrow scope of practice (prioritising COVID-19 patients) endangered the development of professional identities, especially in specific individuals with highly specialised though obsolete skill sets (5). In formalised IPE, lessons from the pandemic can be learned to address and prevent these adverse consequences.

Barriers to IPE

The WHO suggests that IPE is more widely adopted at an undergraduate compared to a postgraduate level (1). Despite the well-evidenced advantages of effective team collaboration and the link between IPE to achieving this,

SEA-UK Essay Prize Winner 2024



Should interprofessional education (IPE) be included in the anaesthesia curriculum?

IPE is not universally and formally adopted within specialty training. The barriers to this need to be addressed and can include time limitations, where there are difficulties in finding a time where all members of the MDT can attend within a department or organisation.

Sources of funding can also form an obstacle, as all departments involved will need to commit to an ongoing contribution (if one speciality decides not to allocate time and funding, the strength and value of the IPE diminishes). Finally, the team members involved will need to establish common goals, which may be arduous as individuals may have differing and sometimes conflicting needs and personal goals.

Conclusion

There are clear benefits in establishing more effective teamwork within the NHS, and this is considered a vital part of anaesthesia training. IPE can aid in achieving this, and the existing barriers need to be tackled to allow training and education to reflect the working environment. This will contribute to the ultimate purpose of delivering high-quality healthcare within the NHS during training and beyond.

Works Cited

1. World Health Organisation. Framework for Action on Interprofessional Education & Collaborative Practice. Geneva: Health Professions Networks Nursing & Midwifery Human Resources for Health; 2010.
2. Barr, Hugh, et al. Interprofessional Educational Guidelines. CAIPE; 2017. ISBN 978-0-9571382-6-1.
3. Royal College of Anaesthetists. 2021 Curriculum for a CCT in Anaesthetics. [Internet] August 2021. [Cited: 2023 September 22]. Available from: <https://www.rcoa.ac.uk/sites/default/files/documents/2023-02/2021%20Curriculum%20for%20a%20CCT%20in%20Anaesthetics%20v1.1.pdf>
4. Ockendon, Donna. Final findings, conclusions and essential actions from the Ockenden review of maternity services at Shrewsbury and Telford Hospital NHS Trust . s.l. : Department of Health and Social Care, 2022. ISBN 978-1-5286-3229-4.
5. Academy of Royal Colleges. Multi-professional team-working The experience and lessons from COVID-19. Academy of Royal Colleges. [Internet] October 2021. [Cited 2023 September 27]. Available from: https://www.aomrc.org.uk/wp-content/uploads/2021/10/Multi-professional_team-working_experiences_from_COVID-19_1021.pdf

SEA-UK Essay Prize Winner 2024



Should non-technical skills be taught and assessed at undergraduate level?

Mark Ramzy-Riad
3rd Year Medical Student
University of Leeds School of Medicine



Medicine is an ever-evolving field, and with healthcare services facing increased pressure to deliver high-quality, patient-centred care, the 21st century has emerged as an era that places a profound emphasis on patient safety. In this rapidly changing landscape, the need for healthcare professionals who can communicate effectively, and adapt to diverse social and cultural environments cannot be understated.

The intricacy of patient care in the modern operating environment requires a great variety of qualities and skills from anaesthetists and other doctors. Conventional training emphasises the acquisition of the practical knowledge and technical skills to ensure competent practice. However, satisfactory patient outcomes can only be achieved if appropriate plans can be executed effectively. To do this, they must gain theoretical knowledge and practical competencies, whilst also utilizing a specialized group of qualities known as non-technical skills (NTS).

These skills were first identified in the 1990s to make sense of the surge of aviation accidents occurring throughout the world. These skills were then taught to pilots via crew resource management courses (1). NTS are described as:

"The cognitive, social, and personal resource skills that complement technical skills and contribute to safe and efficient task performance." (2)

In essence, they enhance workers' technical skills, and typically include situation awareness, decision-making, teamwork, leadership, and the management of stress and fatigue.

A comprehensive and reliable NTS assessment tool for anaesthetists is the Anaesthetists' Non-Technical Skills

(ANTS) system, which is a scoring system that assesses four broad categories of task management, decision-making, teamwork and situational awareness. These NTS are integral to ensuring not only the proficiency but also the safety and effectiveness of medical professionals in their practice.

NTS are vital for patient safety, as they mitigate errors stemming from poor communication and dysfunctional teams. Physicians are required to master these skills to deliver optimal patient care. Deficiencies of these skills are associated with increased chance of preventable harm, leading to adverse events (1).

A significant percentage of adverse intraoperative events are due to failures in NTS. Studies across a multitude of high-risk professions (including medicine) have demonstrated that 50–80% of errors or adverse events are due to human behaviour related to NTS (3). These statistics underscore the critical role that NTS play in ensuring patient safety and the quality of care. In fact, research from Norway suggests that up to 70% of adverse events occurring in hospitals are due, in part, to insufficient execution of NTS. This alarming figure highlights the direct impact of inadequate NTS on patient outcomes. Moreover, the top two contributors to surgical medico-legal cases in Canada were errors in decision-making and situation awareness (4). This evidence emphasises how poor NTS can significantly increase the risk of patient harm, emphasising the urgent need for healthcare professionals to be proficient in these essential skills to enhance patient safety and overall healthcare quality.

These findings challenged the traditional model of medical education (which principally emphasized technical expertise and cognitive knowledge) and make a compelling case for the integration of a universal NTS

SEA-UK Essay Prize Winner 2024



Should non-technical skills be taught and assessed at undergraduate level?

training framework within the undergraduate curricula. This will require a paradigm shift in traditional medical education. Fortunately, there is increasing awareness that NTS are essential for competent practice, and medical education programmes, such as at the University of Aberdeen, are starting to incorporate NTS.

In order to be adequately prepared for their role as junior doctors, medical students are expected to learn about NTS in medical school, with the goal of reaching a necessary proficiency level by graduation. Similar to aviation, NTS education should be integrated into the core curriculum early in undergraduate medical education. However, numerous studies have revealed an insufficient number of objectives within the undergraduate medical curricula involve NTS, suggesting it's unlikely that NTS are being properly introduced to prospective surgeons and anaesthetists (5).

Most medical schools in the UK heavily rely on clinical placements as the primary method for teaching NTS, but the ever-increasing service demands and time constraints of senior doctors inevitably result in fewer opportunities for students to learn these skills in the clinical environment, leaving them feeling underprepared for foundation training in terms of NTS (2). Additionally, the stressful nature of theatre work and reported flaws in communication among team members emphasize the urgency of introducing NTS in the undergraduate curricula. This introduction could potentially be the solution to preventing adverse events stemming from inadequate teamwork and communication. This has already been discussed by the Parliamentary Report into Patient Safety, July 2009:

'Lack of non-technical skills can have lethal consequences for patients. However, the NHS lags unacceptably behind other safety-critical industries, such as aviation, in this respect. Human Factors training must be fully integrated into undergraduate and postgraduate education.'

To ensure that healthcare professionals possess these essential skills, education in NTS should be delivered early as part of the core curriculum. Delaying such education until after undergraduate training risks undervaluing its importance and could lead to less effective integration into professional practice. Therefore, it is imperative to recognize NTS as integral to medical education, and to introduce them as early as possible in the education journey, which will help to prevent the formation of bad habits that may persist throughout healthcare education and practice (6).

To ensure both learning and competence of NTS, educational interventions must be paired with routine assessments. However, assessing NTS has proven to be complex, due to its subjective nature.

Recent evidence has shown that simulated clinical scenarios play a key role in undergraduate NTS education. Specifically, simulated ward rounds offer a valuable platform for honing NTS such as communication, teamwork and decision-making. Behaviours exhibited in simulated environments have been found to be predictive of professional conduct in clinical settings (2). Given that literature strongly supports the use of simulation as a tool for preparing students for clinical practice, simulated ward rounds are considered to be a fundamental part of all future interventions to implement NTS education in undergraduate medical education.

While most studies demonstrate that NTS training enhances participant learning, the retention of these skills can diminish over time. The maintenance of exceptional NTS throughout a healthcare worker's career can enhance clinical outcomes and care standards. Therefore, it is important to periodically revisit NTS throughout undergraduate education. However, medical students experience continuous stress due to the rigorous curriculum, and introducing an additional module could potentially have adverse effects on learning.

SEA-UK Essay Prize Winner 2024



Should non-technical skills be taught and assessed at undergraduate level?

To conclude, NTS are not currently taught or assessed adequately enough at the undergraduate level (5). Since they are critical for competent practice and patient safety, NTS should be deliberately cultivated and incorporated into a comprehensive educational curriculum, ensuring that healthcare staff are well-prepared for safe practice, which will contribute to the reduction of errors stemming from deficient NTS (6).

References

- (1) Cole DC, Giordano CR, Vasilopoulos T, Fahy BG. Resident physicians improve nontechnical skills when on operating room management and leadership rotation. *Anesth Analg* [Internet]. 2017 [cited 2023 Sep 19];124(1):300–7. Available from: <https://pubmed.ncbi.nlm.nih.gov/27918336/>
- (2) Pollard J, Tombs M. Teaching undergraduate medical students non-technical skills: An evaluation study of a simulated ward experience. *Adv Med Educ Pract* [Internet]. 2022 [cited 2023 Sep 19];13:485–94. Available from: <http://dx.doi.org/10.2147/amep.s344301>
- (3) Scott J, Revera Morales D, McRitchie A, Riviello R, Smink D, Yule S. Non-technical skills and health care provision in low- and middle-income countries: a systematic review. *Med Educ* [Internet]. 2016;50(4):441–55. Available from: <http://dx.doi.org/10.1111/medu.12939>
- (4) Surgical Safety in Canada: A 10-year review of CMPA and HIROC medico-legal data [Internet]. Patientsafetyinstitute.ca. [cited 2023 Sep 19]. Available from: <https://www.patientsafetyinstitute.ca/en/toolsResources/Surgical-Safety-in-Canada/Pages/default.aspx>
- (5) Lee A, Finstad A, Gawad N, Boet S, Raiche I, Balaa F. Nontechnical skills (NTS) in the undergraduate surgical and anesthesiology curricula: Are we adequately preparing medical students? *J Surg Educ* [Internet]. 2021 [cited 2023 Sep 19];78(2):502–11. Available from: <https://pubmed.ncbi.nlm.nih.gov/32839149/>
- (6) Rosenkrantz O, Jensen TW, Sarmasoglu S, Madsen S, Eberhard K, Ersbøll AK, et al. Priming healthcare students on the importance of non-technical skills in healthcare: How to set up a medical escape room game experience. *Med Teach* [Internet]. 2019;41(11):1285–92. Available from: <http://dx.doi.org/10.1080/0142159x.2019.1636953>

Special Features



Educational and Training Innovations in Maintaining Excellence in Anaesthetic Education



Dr Farheen Samad

**CT3 Anaesthetics (East Yorkshire Deanery)
Northern Lincolnshire & Goole NHS Trust**

Over the decades, interplay between humans and machines has been a defining theme in technological advancements. These advancements have gradually been incorporated into training methods in anaesthesia, giving rise to a variety of approaches that cater to different learning styles. Education in anaesthesia is now more inclusive, accommodating the needs of learners and providing a versatile and comprehensive training experience. I briefly share the latest innovations in my anaesthetic training and I am intrigued to see what future developments hold and the advancements that will emerge in the years to come.

Exposure to advanced airway techniques such as fibre-optic intubation (FOI) is limited. FOI is a gold standard technique for expected difficult airways, though few opportunities during training and clinical practice present themselves to confidently use a fibre-optic bronchoscope. The ORSIM flexible bronchoscope simulator addresses this gap by enabling users to practice intubating difficult airways using a replica bronchoscope. This compact and lightweight device is easily transportable, making it accessible in any clinical area and suitable for users with varying skill levels. The simulator offers a range of clinical scenarios and exercises, allowing users to manipulate a bronchoscope while visualizing the selected airway case on a laptop screen, creating a realistic intubating environment. This device is especially valuable for novices who might not encounter FOI cases but also for experienced anaesthetists aiming to enhance or refine their skills. The ORSIM provides a safe and risk-free environment for practicing and improving techniques.

A popular avenue to exchange knowledge and share case studies is through social media platforms. Numerous educational videos are accessible globally on YouTube, including content from NYSORA and the Royal College of Anaesthetists, as seen in campaigns such as 'No Trace = Wrong Place'. Twitter has facilitated the dissemination of learning; anaesthetists can share clinical cases and generate threads for in-depth clinical discussions. Additionally, WhatsApp has transformed the way clinical learning and updates are communicated through the convenience of mobile phones. During the Covid-19 pandemic, platforms like Zoom and Microsoft Teams became vital for anaesthetists, providing easy access to clinical meetings and ensuring continuity in teaching and education despite lockdown restrictions.

Proficiency in regional nerve blocks can diminish, resulting in a loss of confidence. The 'Needle Trainer' addresses this challenge as a live ultrasound machine with a non-invasive 'virtual' retractable needle. It allows the user to simulate invasive procedures like regional blocks in a safe yet real-time environment without harm or compromising clinical safety. Artificial intelligence (AI) systems are now integrated into educational devices. For instance, 'ScanNav' offers real-time AI assistance in conjunction with an ultrasound machine, by identifying and displaying relevant anatomical structures for regional nerve blocks.

As we anticipate the future, the evolution of technology in anaesthetic education has enhanced our training approaches by improving accessibility and closing educational gaps. The ORSIM, AI-driven tools, and social media platforms offer a glimpse into the further developments the future might hold!

Special Features



Should all educationalists have a qualification in education?

Dr Gyee Vuei Phang MBChB MRCP FRCA
ST5 Anaesthetics (Warwickshire School of Anaesthesia)
University Hospitals Coventry and Warwickshire



The question of whether all educationalists should have a qualification in education is a matter of debate. According to the Cambridge Dictionary, an educationalist is a person who has a special knowledge of the principles and methods of teaching. Briefly, here are my arguments both for and against this topic.

With respect to arguments in favour, having a formal education in the field of education provides educationalists with the necessary knowledge, skills, and understanding of effective teaching methods, curriculum development, and educational psychology. A qualification in education ensures that educationalists are equipped to create engaging learning environments, design effective assessments, and meet the diverse needs of learners^[1,2]. Additionally, a qualification in education helps educationalists stay updated with the latest research, trends, and advancements in the field. It enhances their ability to critically analyse educational theories and teaching practices, enabling them to make informed decisions that positively impact student learning. Supervisors with additional qualifications are likely to have more knowledge to guide trainees to pursue educational quality improvement projects and research^[3]. Finally, having a qualification in education also provides credibility and trustworthiness to educationalists, as it demonstrates a commitment to professional development and continuous learning. It gives confidence to students and fellow educators in the expertise and competence of educationalists.

In terms of arguments against it, educationalists come from various backgrounds with different skill sets and knowledge. Some may have special expertise in specific subjects or areas that are relevant to education, even without formal education qualifications. Furthermore, some educators may have obtained their knowledge and

skills through non-traditional pathways, like experience-based learning, mentorship programs, or self-study. Requiring qualifications could exclude these capable individuals from becoming educationalists. In addition, the field of education encompasses various roles beyond traditional classroom teaching, such as educational administrators, counsellors, and researchers. Requiring educational qualifications for all may limit the diversity of perspectives and experiences within these roles.

On a personal level, whilst I may not consider myself a formal educationalist, I have been involved in providing teaching to medical students and other healthcare professionals on an informal level. All of us have contributed to medical education during our career as a doctor, some more than others. However, I think, while given the opportunity, we should take the offers available to obtain a qualification in education as this can serve as a solid foundation and can enhance one's ability to educate students effectively and ethically. I am currently one of the teaching fellows at my hospital and I am incredibly grateful to be provided the opportunity for a funded Postgraduate Certification in Medical Education. With this extra qualification, I hope to be able to provide a better and more effective learning experience for everyone.

References:

Srinivasan M, Li ST, Meyers FJ, Pratt DD, Collins JB, Braddock C, Skeff KM, West DC, Henderson M, Hales RE, Hilty DM. "Teaching as a Competency": competencies for medical educators. *Acad Med.* 2011 Oct;86(10):1211-20.

Bligh J, Brice J. Further insights into the roles of the medical educator: the importance of scholarly management. *Acad Med.* 2009 Aug;84(8):1161-5.

Barrie J, Walwyn S. Being a good educational supervisor. *BJA Educ.* 2021 Mar;21(3):102-109.

Special Features



MSc Med Ed Programme - An Interview with Dr Michael Dumont

Dr Michael Dumont
CT2 Anaesthetics
University Hospitals Coventry & Warwickshire NHS Trust



My name is Dr. Michael Dumont, and I am currently a CT2 anaesthetic trainee. I have always enjoyed teaching, even before my medical career started. After missing out on a core training place during FY2, I decided to pursue a PG Cert (Med Ed) for extra portfolio points, but also to hopefully learn some new skills and enable me to be a more effective teacher. I am currently in my final year of the MSc Med Ed programme, which I hope to complete in July.

Which university are you currently studying with and how did you choose your university?

I'm currently studying at Swansea University, on a part-time, remote study basis. I originally chose Swansea because they offered staggered start dates for their PG Cert course, so I was able to start studying in January rather than waiting until September. The application process was very simple and was done via the university's online portal. It required a short personal statement and an academic reference, but otherwise, I just needed to submit my personal details as per any other application. I received an offer within two weeks and went from there. There are many other universities that offer the same course on a part-time, remote basis.

How are you able to fit studying in around a full-time medical job?

The PG Cert and the MSc are run over the same three university terms as the full-time, resident degree courses. They are split into three modules and run one module per

term. Because it is remote, the material is generally made available on the online portal and you are free to work through it and complete the assessments in your own time, as and when you are able. You are given the deadlines for the summative assessments at the beginning of the module, but it is up to you how and when you complete them.

I found for the PG Cert, I was able to comfortably work through the material and complete the assessments in one or two weekends per term, depending on the assessment and volume of material. There were times when it was difficult to motivate myself to spend that time doing the work, especially if the week had been particularly busy or I had been on-call at work, but having set deadlines and summative assessments did help motivate me to get the work done.

The MSc is a bit more intensive, and I found myself having to dedicate more time to complete it to the standard required. However, I was still able to comfortably meet all deadlines while rotating through acute medicine and emergency medicine, so it's definitely achievable.

Was it easy to convert to the MSc course?

I can only speak in the context of Swansea University, but yes, it was very easy. I had to surrender my PG Cert certificate but did not have to re-apply. I was automatically enrolled on the MSc course and the credits from the PG Cert were added to my academic record.

Special Features



MSc Med Ed Programme - An Interview with Dr Michael Dumont

How are you funding this?

This is the tricky part. I have chosen to self-fund my studies. The PG Cert was just under £3000, with payments split over the terms. The MSc is approximately £3300 per year, again split over the three terms. I have only been able to do this by picking up locum shifts and putting the money aside to cover the university costs. This has worked out at may be three or four extra shifts per term, just to be able to afford to do this. I am very lucky that I do not have many pressing commitments outside of work, but not everybody is in the same boat.

Trainees in clinical teaching fellowships are often able to have a PG Cert funded (in part, if not entirely) from their medical education department and are given time to be able to complete it within their job plan. However, this requires taking a year out and applying for one of these posts which again, may not be for everyone.

Is it worth all of that time and money?

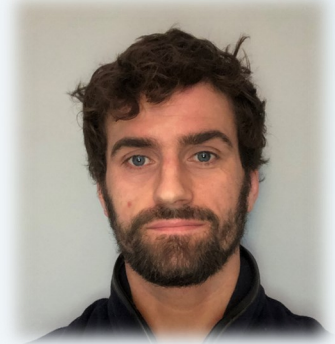
This is a really difficult question to answer. I have genuinely enjoyed learning about the theories and research in medical education, along with the cognitive and psychological topics that are covered in the curriculum. But it became clear that medical education research is fraught with issues and limitations that make it very difficult to draw meaningful conclusions from. Have I learned things that I can translate into my own teaching practice? Yes, somewhat. There were modules on feedback and delivering simulation debriefs, which I have been able to use to some effect. But otherwise, it has been quite vague.

Ultimately, formal qualifications in medical education carry significant weighting in speciality training applications. Under “teaching” in the Anaesthetics ST4 self-assessment criteria, a PG Cert scored 3 points, a PG Dip was 5 points, and an MSc Med Ed was the maximum 6 points. There is no other way to score the maximum but making a major contribution to a regional/national teaching programme during anaesthetic training will also score 5 points (the same as a PG Dip). This may be significantly less time-intensive and cheaper to do, so worth considering if the extra point is worth the financial commitment required for a masters.

Special Features



The Creation of a National Educational Course for the FFICM Exam



Dr Edward Smith

ST7 Anaesthetics and Intensive Care Medicine

University Hospitals Coventry and Warwickshire NHS Trust

Context

Approval for the establishment of the faculty of intensive care medicine (FICM) was granted in 2010 (1). The first sitting of the FICM fellowship exam was in January 2013. It was originally an examination of multiple true and false questions and single best answer (SBA) questions, it has since become a purely single best answer questions examination. At the time of writing, trainees will need to have completed primary level examinations in their base specialty of anaesthesia, emergency medicine or medicine, as well as being in stage two of ICM training to be considered eligible to sit the examination (2).

Problem

Whilst preparing for my FICM examination in 2022-2023 I noticed that there was a lack of courses, particularly for the single best answer component of the examination. I sat the A-line course, which was a virtual setup and very helpful, but there was little else. I relied on textbooks, online resources and question books.

Formulation

My training is based in the West Midlands. University Hospital, Coventry hosts a wide variety of educational courses, many of which are for the FRCA exam. I attended many of these courses in preparation for the FRCA, which I completed in 2019. I gained much insight into how these courses were organised and were run.

Action

I contacted Intensive Care colleagues to gauge the level of interest for running such a course and the availability of faculty. I provided colleagues with documents explaining the difference between long and short SBAs, shared the FICM curriculum and gave examples of previous questions in their designated field. I asked each faculty member to write five to ten questions. The majority of my contributors had recently passed the FICM themselves. Some specialist input was sought for specific areas, such as a consultant obstetric anaesthetist writing maternity questions and a consultant gastroenterologist writing gastroenterology topics. I also wrote many questions myself. Interestingly each author had a different style which added to the richness of the material.

I set up a Google drive® to store the material and set restrictions to guard my author's intellectual material. I then communicated with my local medical education department, who supported me through several stages, such as planning the style of the course, setting the course within the correct time-frame prior to the exam and advertising.

I decided on a Zoom® format, one day, ten-minute quizlets of ten questions with discussion and analysis. Furthermore, I planned lectures from the deputy lead of FICM SBA on the exam, from myself on hints and tips, and another on useful guidelines and research for the exam.

Special Features



The Creation of a National Educational Course for the FFICM Exam

Course Prep

Several very supportive colleagues gave up their time to go through questions with me. They were classified as good/edit/no use. I then put them into the quizlet lectures. The process of streamlining was continuous.

I promoted the course by word of mouth, asking a regional advisor to distribute a poster among her colleagues and sharing the poster. Several kind colleagues assisted with this resulting in a reasonable number of bookings.

My Experience

The hardest part to date was assembling a reasonable bank of questions. I communicated regularly with my authors and was careful to ensure there was no plagiarism. Some authors needed feedback on the quality of their questions. I put a lot of hard work into the course as its sole founder and director. Other challenges included making questions presentable, planning the days itinerary, and promoting the course. I have made firm instruction handouts for my conveners for the day of the course, and I have backup plans for some eventualities including my internet connection not working.

References

(1) <https://www.ficm.ac.uk/aboutusaboutthefaculty/history-of-the-ficm> [last accessed 6/10/2023]

(2) <https://www.ficm.ac.uk/trainingexamstrainingcurriculaandassessment/icm-curriculum> [last accessed 6/10/2023]



Special Features



Novel Spiral Curriculum for Novice Anaesthetists

Dr. Amit Kurani¹, Dr Fabian Uys¹, Dr Rupinder Kaur²
¹CT1 Anaesthetic Trainee ²Consultant Anaesthetist
 West Hertfordshire Teaching Hospitals Trust

Introduction

The field of anaesthesia is renowned for its complexity and precision, as well as being a postgraduate speciality. As we all once remember, joining this post-graduate profession at the start of our careers can be difficult to navigate. At West Hertfordshire Teaching Hospitals Trust we recognised the need for a transformative approach to the training of the novice anaesthetist and we have created a novel spiral curriculum tailored to the unique challenges faced by novice anaesthetists as they join our profession.

The Royal College of Anaesthetists has created a useful guide on the capabilities required of a novice anaesthetist to be able to progress in their training and responsibilities to join the on-call rota, known to us all as the Initial Assessment of Competence (IAC) (1). This is achieved by gaining competencies in the Entrustable Professional Activities (EPA) 1 & 2 at the supervision level of 2b (Supervisor within the hospital available for questions).

For novice anaesthetists, this progression can feel overwhelming. The novice curriculum encompasses a vast range of knowledge and skills, from airway management to detailed pharmacology of drugs used in day-to-day practice. Novice anaesthetists grapple with an avalanche of new information, practical challenges, and the growing need for reduced supervision, transitioning from level 1 to level 2b with minimal guidance on how to achieve this.

This has led to a bespoke spiral curriculum being developed within our Trust to offer a structured framework for learning and development towards the IAC.

Instead of tackling the EPAs in a linear fashion, the novel curriculum organises them into thematic clusters, with each theme recurring every four weeks. This structure allows novice anaesthetists to revisit and reinforce their understanding of specific topics, promoting deeper

learning, skill development and progression of supervision levels.

As an example (*figure 1*), during the first week, novice anaesthetists are directed towards achieving supervised learning events for the pre-operative assessment. This is then revisited four weeks later, on the fifth week and ninth week. Our survey has shown that our novice anaesthetists have progressed from supervision level 1 to 2b and that they feel more comfortable. This is repeated on consecutive weeks for other clusters including the pre-operative preparation and induction of anaesthesia, intra-operative management and post-operative management with each cluster repeating every four weeks.

Benefits of the Novel Spiral Curriculum

Enhanced learning: The thematic approach allows novice anaesthetists to delve deeper into specific areas, promoting comprehensive understanding and skill development.

Structured progression: The curriculum's design aligns with the increasing complexity of tasks, ensuring that novices are adequately prepared for the responsibilities that lie ahead.

Improved supervision: Novice anaesthetists were able to demonstrate progression and reduced supervision levels as they revisited clusters every four weeks.

Conclusion

Innovation is the cornerstone of progress. The spiral curriculum developed at West Hertfordshire Teaching Hospitals Trust offers a structured and effective approach to the novice anaesthetist's education. This curriculum ensures that novice anaesthetists have a structure to follow during their first few months in our exciting profession.

References:

Professional Activities: IAC & IACO. The Royal College of Anaesthetists. Available at: <https://rcoa.ac.uk/documents/2021-curriculum-assessment-guidance/>

Special Features



Novel Spiral Curriculum for Novice Anaesthetists

Week	Teaching and SLE theme	Suggested SLEs	Suggested lists to attend:
1	EPA 1: Pre operative assessment	Anaesthetic hx taking and examination, airway assessment, Review of prev anaesthetic charts - what to look for, predicting a difficult airway, anaesthetic consent progress, communicating anaesthetic plan to patient and addressing concerns	CEPOD, Gynaecology, Breast, General Surgery, UL orthopaedics
2	EPA 2: Pre-operative preparation	Anaesthetic equipment check, machine check, using different airway equipment, starvation policy, common drugs: propofol, thiopental, fentanyl, alfentanil, rocuronium, atracurium, volatiles - sevo and iso, anti emetics, emergency drugs, TIVA	CEPOD, Upper limb ortho list, gynaecology, ENT
3	EPA 2: Intra-operative care	Demonstrates mask ventilation, SGA insertion, ETT insertion, use of DL and VL, use of airtrac, perform RSI, understand physiology of GA, managing extubation including laryngospasm, positioning in surgery and implications	CEPOD, ENT, gynae
4	EPA 2: Post operative care	Handing over to recovery using SBAR, managing post operative pain acutely in recovery - multimodal analgesia options available to the anaesthetist in acute pain crisis.	Any
5	EPA 1: Pre operative assessment	Anaesthetic hx taking and examination, airway assessment, Review of prev anaesthetic charts - what to look for, predicting a difficult airway, anaesthetic consent progress, communicating anaesthetic plan to patient and addressing concerns	Elective site - General surgery, Breast, Gynaecology, ENT, UL ortho list
6	EPA 2: Pre-operative preparation	Anaesthetic equipment check, machine check, using different airway equipment, starvation policy, common drugs: propofol, thiopental, fentanyl, alfentanil, rocuronium, atracurium, volatiles - sevo and iso, anti emetics, emergency drugs, TIVA	Elective site - General surgery, Breast, Gynaecology, ENT, UL ortho list
7	EPA 2: Intra-operative care	Demonstrates mask ventilation, SGA insertion, ETT insertion, use of DL and VL, use of airtrac, perform RSI, understand physiology of GA, managing extubation including laryngospasm, positioning in surgery and implications	Elective site - General surgery, Breast, Gynaecology, ENT, UL ortho list
8	EPA 2: Post operative care	Handing over to recovery using SBAR, managing post operative pain acutely in recovery - multimodal analgesia options available to the anaesthetist in acute pain crisis.	Elective site - General surgery, Breast, Gynaecology, ENT, UL ortho list
9	EPA 1: Pre operative assessment	Anaesthetic hx taking and examination, airway assessment, Review of prev anaesthetic charts - what to look for, predicting a difficult airway, anaesthetic consent progress, communicating anaesthetic plan to patient and addressing concerns	any
10	EPA 2: Pre-operative preparation	Anaesthetic equipment check, machine check, using different airway equipment, starvation policy, common drugs: propofol, thiopental, fentanyl, alfentanil, rocuronium, atracurium, volatiles - sevo and iso, anti emetics, emergency drugs, TIVA	any
11	EPA 2: Intra-operative care	Demonstrates mask ventilation, SGA insertion, ETT insertion, use of DL and VL, use of airtrac, perform RSI, understand physiology of GA, managing extubation including laryngospasm, positioning in surgery and implications	any
12	EPA 2: Post operative care	Handing over to recovery using SBAR, managing post operative pain acutely in recovery - multimodal analgesia options available to the anaesthetist in acute pain crisis.	any

Figure 1

Special Features



Is Virtual Reality the Future of Anaesthetic Education?

Julia Harrington

ST5, South London School of Anaesthesia

Asootosh Barry

Consultant, Lewisham and Greenwich NHS Trust

Over the last two decades, simulation-based training has become integral to the development of skills in anaesthesia. For practical skill training, simulators have been criticised as even technologically advanced models are limited in their ability to replicate a real patient and offer inter-patient variability (1). With the advent of virtual reality (VR) based technology, practice of skills can now be offered in high-fidelity ways aligned with true human anatomy. Alongside technical skill training, critical incident management has also been trialed using VR to present a virtual learning environment for interprofessional communication and complex decision-making (2). Technological advances in digital education are often well-received by anaesthetists, but the potential role of VR in anaesthesia training is still not well-defined.

Simulation and VR alike are based on experimental learning theory, involving the cycle of action and reflection. The overarching advantage of VR over conventional simulation is the ability of the training system to provide a realistic and dynamic learning environment without threat to patient safety. VR training can combine technical actions with multidisciplinary collaboration, led either by in-person trainers or by sophisticated artificial intelligence driven algorithms (3). Performance data can be rapidly gathered for assessment, and again automated systems have been developed for the process of debrief and feedback. Cases of technically challenging and rapidly evolving clinical scenarios are universally difficult to reproduce in a training environment in anaesthesia. The benefit of VR not only includes real-time immersion in a safe environment, but also allows for coaching within the scenario, for example, to reposition learners' hands (3). VR for training in regional anaesthesia with models allowing likeness to human anatomy have also been trialed successfully (1). VR offers the option of performing the same practical skill in differing clinical contexts over a short space of time, including varying degrees of complexity, which fits well into a competency-based training model. With regards to

human factors, rare emergencies that may be encountered in theatre can be reproduced allowing the development of non-technical skills in a more realistic setting than the imagination demanded from a simulation scenario.

But how real is real? Criticisms of VR based training are centred around the gap in translation that may occur from a computer game environment to a patient, with the VR environment not totally aligned to the fine-tuning required in managing a real patient. One of the criticisms of VR training is that anaesthetists could become less empathetic due to learning being centred around a digital environment. There is a paucity of research evaluating the effectiveness of VR training in comparison to other educational methods. One meta-analysis found that comparing virtual patients to traditional education showed similar results for knowledge but favoured VR in skill acquisition, which is promising (4). The cost of technology and barriers to implementation in lower resource settings are clear drawbacks.

The future of VR in anaesthetic education is exciting and evolving. Higher quality research is needed to identify exactly where and how VR can be implemented within conventional anaesthetic training programmes.

References

- Grottke O, Ntoubas A, Ullrich S, et al. Virtual reality-based simulator for training in regional anaesthesia. *British Journal of Anaesthesia* 2009; 103: 594–600.
- Shewaga R, Uribe-Quevedo A, Kapralos B, Lee K, Alam F. A serious game for anesthesia-based crisis resource management training. *Computers in Entertainment*. 2018; 16: 1-16.
- Orser BA, Spadafora SM. Competence-Based Training and Immersion Virtual Reality: Paradigm-Shifting Advances in Medical Education. *Anesth Analg*. 2022 Aug 1;135(2).
- Kononowicz AA, Woodham LA, Edelbring S, et al. Virtual Patient Simulations in Health Professions Education: Systematic Review and Meta-Analysis by the Digital Health Education Collaboration. *J Med Internet Res*. 2019 Jul 2;21(7):e14676

Special Features



When To Call For Help—Simulation for Medical Students

**Dr Aneela Aziz (SAS), Dr Megan Duffy (SAS),
Dr Khaled Girgirah (Consultant), Emma Smith
(Clinical skills educator)
Royal Bolton Hospital**

Introduction

Clinical placements in the final year of medical school focus on preparing students for practice as foundation year doctors working within the NHS. Exposure to Anaesthetics and Critical Care as a student can be limited and emergency scenarios that may require help can feel daunting.

Emergency Scenario Simulation

To address this issue, we have designed and implemented simulation-based teaching for fifth year medical students that runs for half a day to improve their skills and knowledge within a safe environment. The session focusses on common clinical scenarios that they may encounter involving post-operative complications whilst working on a surgical ward. All cases require input from seniors, an anaesthetist or Critical Care.

The students attend the patient who requires a clinical review in pairs. They complete an assessment and manage the case, as they feel appropriate. The patient will respond to the treatment given. A number of resources that would be available on the ward are provided including clinical guidelines, which they can refer to for help.

The scenario always requires escalation to a senior. In order to do this, they must use a phone provided as part of the simulation and handover. Once senior help arrives, the simulation may end or further ward-based management and escalation may be implemented with senior support.

Observations

We found that although medical students are familiar and confident with carrying out an assessment using the A to E structure and are aware that they need senior help to

manage the scenario they often struggle with how to get help. In a hospital setting this could be critical.

Debrief

As well as reflecting on the clinical aspects of the case, a large part of the debrief involves further discussion on escalation of care and how to call for help whether it be pulling the emergency buzzer to alert staff on the ward, using the bleep system to ask for senior help or how to put out a peri-arrest and arrest call. We also go through and practice using the SBAR framework so they can succinctly communicate a clinical scenario that requires immediate attention.

Feedback

100% of participants either strongly agreed or agreed that the session was an engaging learning experience in which they were able to explore ideas and ask questions based around the scenarios. When asked how they felt we could improve the session the recurring answer was for more teaching sessions like this to take place covering a wider range of scenarios.

Conclusion

The teaching provided fulfils both education and training and quality and safety improvement domains described in the 2021 Curriculum for CCT in Anaesthetics.

It is an example of an intervention that can be used to reduce the risk of clinical deterioration and therefore improve patient safety by providing a framework that students can use to manage and escalate patient care more effectively when they become Doctors.

References

1. Rotella JA, Yu W, Ferguson J, Jones D. Factors influencing escalation of care by junior medical officers. *Anaesth Intensive Care*. 2014 Nov;42(6):723-9. doi: 10.1177/0310057X1404200607. PMID: 25342404.
2. Royal College of Anaesthetists (2021) Curriculum for a CCT in Anaesthetics. Available at: <https://www.rcoa.ac.uk/2021-curriculum-cct-anaesthetics> [Accessed 13 November 2023].

Special Features



'Return to Anaesthesia' – A return to work course for anaesthetic trainees

Rosada Jackson¹, Lizzie Thompson², Jane Donald³, Sarah Wimlett⁴
¹Royal Devon University Healthcare NHS Foundation Trust, ²Somerset NHS Foundation Trust, ³North Bristol NHS Trust, ⁴University Hospitals Plymouth NHS Trust



Returning to training after time out for any reason can be a difficult transition. Trainees often report loss of confidence in clinical decision-making, imposter syndrome, and difficulties in adjusting to new life circumstances outside work.

We collaborated with SuppoRTT (Supported Return to Training) to survey local trainees returning to clinical medicine after a leave period of more than three months to find out what would improve their return to training experience. Almost all anaesthetic trainees rated a hands-on refresher day involving simulation as 'very useful' in this regard. This is likely due to the high acuity nature of the speciality, where swift decision-making and sound practical skills are essential.

The use of simulation training to enhance patient safety within anaesthesia is well established¹ and part-task trainers are a core resource for practicing skills such as epidural anaesthesia and airway management. Bringing all these elements together on a single day allows trainees much greater exposure to a range of scenarios than they might encounter purely on their supernumerary days at work. There is also a clear benefit to a trainee's wellbeing by learning alongside colleagues going through a similar experience.

Previously in Peninsula, anaesthetic 'return-to-work' simulation has been conducted on an ad hoc basis by some Trusts (but not all). We therefore teamed up with Severn Deanery to expand their existing 'Return to Anaesthesia' day and promote delivery and access to training across the whole of the Southwest. We aimed to create a supportive environment to build confidence, refresh clinical skills and knowledge, and allow trainees to connect with other people going through the same transition back into anaesthetics.

Our first course had eight returning trainees (six from maternity leave, two from career breaks). Our pre-course questionnaire highlighted the following concerns from trainees around returning to work:

Drug-dosing, work/life balance, managing breastfeeding and expressing around on-calls, imposter syndrome, loss of knowledge, confidence, complex decision-making and managing emergencies.

The day was structured to address all these concerns with a 'skills and drills' circuit followed by group case-based discussions to focus on decision-making. We then ran a series of sim scenarios with supportive debrief covering paediatrics, obstetrics, and various other anaesthetic emergencies. We finished with a talk on 'tips and tricks for coming back to work' presented by a recent returnee.

Special Features



'Return to Anaesthesia' – A return to work course for anaesthetic trainees

The following aspects of our course were particularly valued:

Telling candidates the topics of the sims in advance – 6/8 trainees (75%) said they preferred this and it made the day feel less like an assessment, but did not detract from the learning. This helped to maintain psychological safety and stay true to the supportive aims of the course.

Including a normal paediatric sim – we resisted the temptation to have a clinical challenge in every sim. When returning to work, anaesthetising a normal 2 year-old uneventfully is enough of a challenge. Feedback highlighted candidates appreciated this.

Communal hot lunch – this kept trainees together and the conversations over lunch were invaluable for sharing experiences and peer support.

Following the success of this day, we look forward to running it every three months alternating between Severn and Peninsula Deaneries.

References

¹ British Journal of Anaesthesia, 119 (S1): i106–i114 (2017)

With thanks to SuppoRTT for funding the course

**“Such a useful programme,
both from an educational and
well-being standpoint”**

**“This day has made me feel
happier about going back to
work”**



**“It's nice to feel that someone wants to
support you coming back to work at a time
when you can feel that you're just a massive
inconvenience for the department”**

Special Features



The Impact of Parenting on Training in Anaesthesia: Regional Pilot Survey

Juleen Fasham¹, Rosada Jackson², Bijal O’Gara³, Sarah Wimlett³, Lauren Weekes³

¹ Torbay and South Devon NHS Foundation Trust ² Royal Devon University Healthcare NHS Foundation Trust

³ University Hospitals Plymouth NHS Trust

The new curriculum has been designed to match the training requirements for the anaesthetists in training in the 2020s. What does a 2023 trainee look like? Does parenthood impact training in anaesthesia and vice versa? The recent Royal College of Surgeons’ (RCS) report¹ into the impact of parental and caring responsibilities on surgical careers showed that 36% of respondents did not think a career in surgery was compatible with parenthood. This prompted several of us to explore a similar survey amongst anaesthetists. While there may be an assumption that training in anaesthesia is more compatible with parenthood, it seems the reality may not align with this perception.

The Royal College of Anaesthetists (RCoA) supports delivery of this survey at a national level, ensuring that the data gathered will be listened to and considered. The survey questions have been adapted from the original survey conducted by the Nuffield Trust for the RCS, looking at the implications of parenting on training and training on family life, with an additional section exploring the perceptions of training for those who are not parents. There is substantial opportunity for free text answers in the survey to ensure we are collecting all views. The survey has been piloted within the Peninsula and Severn Deaneries with ongoing adjustments through feedback. The aim is to ensure data collected at a national level will be suitable to adequately express the views of anaesthetists in training (AiT).

The 95 responses to the pilot survey had a predisposition to parents and later stages of training. These are some of the most striking responses from the survey:

- 19% of respondents felt a career in anaesthesia was not compatible with parenthood.
- 27% agree or strongly agree that parenting plans, decisions and experiences made them less likely to pursue a career in anaesthesia. The biggest issues seem to be childcare options compatible with working hours.
- 63% of respondents think that parenting plans and decisions meant they did not progress through training as expected compared to 13% of respondents who were not parents.
- 54% of parents felt they were less able to take on leadership roles, 75% felt less able to take on additional activities and 63% felt less likely to achieve career goals.
- 61% of those who responded felt that their work duties compromised the health of their baby during pregnancy.
- 45% have considered leaving the speciality due to parenting plans/decisions.
- Half of parents who responded stated childcare options had influenced their career decisions.

Special Features



The Impact of Parenting on Training in Anaesthesia: Regional Pilot Survey

Childcare was a recurring theme within the free text answers, especially related to hours and cost. When asked what you would change to make parenting experiences better, the most common suggestions were more certainty about location, flexibility around training, and childcare. In addition, there were many positive comments regarding departmental support and access to support networks.

Overall, based on the feedback from AiTs in the Peninsula and Severn Deaneries, it is believed that a career in anaesthesia is generally compatible with parenthood. Challenges faced are primarily practical in nature, such as arranging childcare and managing time for additional responsibilities. There appears to be some regional variation between the two deaneries, but we are unable to draw conclusions from this yet. We suspect that there could be further variations when this is carried out at a national level. The level of engagement with this pilot survey demonstrates this is an issue that AiTs feel strongly about, and we look forward to reviewing the national data and the conversations this opens up regarding training as an anaesthetist and parenthood.

Reference:

¹ Hutchings R, Lobont C, Fisher E and Palmer W (2023) Future proof: The impact of parental and caring responsibilities on surgical careers. Research report, Nuffield Trust





SEA-UK Educational Grants

How to apply

Application: Use 1-inch margins max, strictly in 11 point Arial script, single spaced, submitted as a word document or pdf file.

Page 1: Single page detailing title of project, applicants (names, positions, qualifications, contact numbers and emails).

Page 2: The body of application must be no longer 500 words. This should include details of the project undertaken and the costings involved.

Please send applications to: administrator@seauk.org.

We are pleased to invite members to apply for one of 4 x £500 educational grants.

Criteria: SEA-UK grants can be used towards any prospective educational research and quality improvement activities that falls within the broad interest of education in anaesthesia.

Funding may be sought for:

- Travel to undertake an educational activity that is generally not available in the region.
- Travel to present the original research activity
- Projects that develop education for anaesthetists which strive for excellence above and beyond current available activities
- Necessary fees for access to data or to complete the project which must be justified

Applicant must already be a SEA-UK member to apply (or join at the time of submission).

Specific Exclusions: No retrospective funding can be given. We cannot subsidise OOPE. We cannot support teaching on courses and postgraduate courses.

All publications must acknowledge SEA-UK as a funder. On completion of the activity a report, including an 800-word article for the newsletter, is expected. You may be invited to speak at our ASM.



Membership

Membership fees:

Full membership is £25 per annum paid by direct debit

How to join:

Online form: <https://www.seauk.org/join-seauk>
or download and fill in the GoCardless direct debit form
available at www.seauk.org

Please send to:

Cath Smith
SEA-UK Administrator,
PGME,
Rotherham NHS Foundation Trust,
Moorgate Road,
Rotherham
S60 2UD

administrator@seauk.org



Benefits of joining

- Receive updates on latest developments in education
- Bi-annual newsletter
- Free webinars
- CPD accredited meetings and workshops
- Learn from others in our educational forums
- Updates regarding curriculum changes for trainees and trainers
- Build your portfolio
- National influence within anaesthetic education
- Opportunities for website development
- Discounted entry to ASM





@SEATWEETUK