RESIDENT EYE

THE MAGAZINE FOR INTENSIVISTS IN TRAINING

ISSUE 21 | WINTER 2024

New name!
New members!

The Faculty of Intensive Care Medicine

In this issue

FICM Learning

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- Simulation Scenario: Acute on Chronic Liver Failure
- Case of the Month #52 The Shocked Patient
- WICM Blog: Being the New Girl
- Podcast: FICMTAQ Update

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Your Lead Intensivist in Training Representative

FICM Lead IiT Representative

We are living through a time of growing upheaval in the wider world as well as within the NHS and our corner of intensive care. I would long for this not to be the case but as Tolkien wrote, "So do all who live to see such times. But that is not for them to decide. All we have to decide is what to do with the time that is given to us." Certainly, that is reflected in the hard work and progress of so many of our fantastic colleagues featured in this publication.

Progress

As I come to the end of my tenure as FICM Lead Intensivist in Training Representative, and as it also happens my 14-year training programme, I reflect on the many things that have changed over this time. For a start, this publication has been renamed *Resident Eye*! Additionally, we have formally adopted the term Intensivists in Training (IiTs) to refer to all doctors in our training programme. When discussing all those in training programmes alongside locally employed doctors, we will use the term resident doctors.

We have seen resolution of the industrial dispute for now and resharpened focus from across the colleges and statutory education bodies to address the flexibility, examination and cost burden on resident doctors. At FICM we published a series of best practice statements to guide IiTs and trainers on flexibility in stages of training and assessment processes, as well as bring forward the entry point of examinations to Stage 1. Important issues around the triple CCT have been addressed with the Joint Royal Colleges Postgraduate Training Board and we have published collaboratively developed guidance and FAQs. Dr Dhruv Parekh has worked hard to address academic clinical fellow benchmarking for ICM recruitment, Dr Taqua Dahab has developed excellent resources for international medical graduates and CCT notification procedures have been simplified. A big step forward this year in recruitment has also seen our future IiTs permitted to simultaneously apply for their partner specialties in the national recruitment round.

Representation

FICM have prioritised strengthening the ability for IiTs to have a robust and early voice on any changes being considered, ensuring those affected have influence at the table. The IiT Subcommittee has only existed for just over two years, but I believe we have made important progress. There are important discussions to be had about the purpose and structure of the examination, the content of the curriculum, the NHS workforce plan and our future as a College of Intensive Care Medicine.

> Every time I go to work and see the struggles of remarkable and enthusiastic residents, I am reminded of the importance of ensuring the system categorically does better.

National Reporting System

In the near future we will have published the outcome of this year's IiT Survey; we have seen examples of excellent practice as well as areas that need improvement. We need to ensure there is a pathway for concerns to be raised without personal ramifications; they need to be seriously considered to prevent the vacuum that social media debate has recently occupied. After a brief hiatus, we have agreed a renewed National Reporting System; please use this system for issues we need to address nationally.

Academy of Medical Royal Colleges

Over this time, I have also served as Chair of the Academy of Medical Royal Colleges Resident Doctors Committee, consisting of the chairs and representatives of the resident doctors' committees across the 24 medical royal colleges and faculties and co-opted members including the British Medical Association. Earlier this year we published the REFORM principles and subsequently consulted on the commitments from Amanda Pritchard to improve the working lives of doctors. The lead employer model will be instituted across all trusts in the UK to streamline human resources and payroll, and changes in the study leave reimbursement will be rolled out this year. This was a commitment at the start of the process to address the rotational nature of training and burden of assessment. A short life working group in FICM has been established to address the specific issue for IiTs.

More recently we have produced work around the significant problems around workforce and recruitment practices that we will review at the Medical and Dental Recruitment and Selection Programme Board, integration of modern technologies and postgraduate education and standardisation of self/educational development time.

We have also worked with the Conference of Postgraduate Medical Deans to continue progress towards a capability, not time based, curriculum with institution of standardised guidance for early completion of training applying to all specialties and programmes.

Future

For me, it has been a long journey, but I have loved the weird niche I have ended up pursuing in advanced heart failure, heart transplantation and mechanical circulatory support. It has also been important that it is the first time a person of colour has held the Chair of the FICM Intensivist in Training Subcommittee.

Undoubtedly, my real joy has always been the colleagues I have worked with over my training. It's why I have so strongly felt the need to do my upmost to improve their experience, even if that challenge led to contention with institutions. Every time I go to work and see the struggles of remarkable and enthusiastic residents, including those from the younger generation who certainly have it the hardest, I am reminded of the importance of ensuring the system categorically does better.

I really look forward to seeing Dr Rosie Worrall, Dr Taqua Dahab and the IiT Subcommittee help to mould Intensive Care Medicine as *the* specialty people want to pursue.

Your Deputy Intensivist in Training Representative

Dr Rosie Worrall
FICM Deputy Lead IiT Representative

One of my biggest aims coming into this role was to improve the flow of communication between Intensivists in Training (IiTs) and the Faculty. When I started to attend Board and CRW (Careers, Recruitment and Workforce) committee meetings; I realised that a lot of the grassroots issues and trainee bugbears do filter upwards and are discussed at length, but this doesn't always filter back down again. With that in mind, I'll focus my update on what exactly happens behind the scenes at CRW.

The CRW Committee answers directly to Board and encompasses a range of subcommittees and co-optees with representation from IiTs, ICM National Recruitment Office, NHSE, Regional Advisors, SAS Doctors, WICM, Pharmacists and ACCPs, and is inclusive of the four nations, smaller units and partner specialties. The agenda is split broadly into the following themes: workforce, careers and job planning, recruitment and subcommittee updates.

Workforce

This particular group focuses around what our current workforce looks like, where the immediate gaps are and trying to predict how this is going to change in the coming years. To petition the likes of NHSE and ultimately the government for more funding, there has to be a business case backed up by data. Unfortunately getting the granular data of exactly who is working where and what they are doing, is partly dependent on audience participation (responses for these surveys is usually about 1 in 3). In previous years, the FICM Census has been sent out to Clinical Service Leads (CSLs). Whilst the 2023 data is currently undergoing analysis and will be released in the coming months, we've had a lot of discussion about the 2024 Census, around who to send it to, what to ask and why. As a result, the 2024 Census was sent out to the whole membership and asked questions about where people started, what they are doing now, and where they see their career going. (As a side note, if you are interested in looking back at the Censuses of previous years, then these can be found in the Workforce Data Bank on the FICM website.)

Careers and job planning

I have been heavily involved in a project to improve careers and job planning resources for those approaching CCT. In October at the inaugural IiT conference, we held a careers workshop, and next year, in conjunction with RCEM, we are planning an EM-ICM specific workshop/ study day. In addition to these new workshops, FICM already endorses the Consultant Intensivist in Transition Course, which was held in Edinburgh earlier in the year. This course always has fantastic feedback, and we are looking at how it might be expanded. I have also been reaching out to consultant intensivists all over the UK, asking for them to share their job plans, and we are in the process of building a resource that showcases the diversity of our workforce and more importantly, gives examples that IiTs can take to their departments to negotiate their future job plans.

> We are in the process of building a resource that showcases the diversity of our workforce and more importantly, gives examples that IiTs can take to their departments.

In certain regions, IiTs have concerns about the number of ICM jobs available and who these jobs are targeted at. In response to this, there is an audit underway of the adverts on NHS jobs to look at the number, location and person specifications of job adverts. In addition, we are looking to survey those who have recently CCT'ed about whether they've had any difficulties securing an ICM job. Watch this space for the next steps...

As well as resources for IiTs, there are several courses aimed at supporting development of both new and established Consultants. FICM run a mentorship scheme for consultants in their first five years of appointment (FICM Thrive). For more established consultants and those looking to move into more senior management positions, CSLs (and aspiring CSLs) are invited to the FICM Clinical Leadership Day.

Finally, FICM have also just released an IMG induction pack, which not only guides departments in how to support ICM doctors new to the UK, but is a practical 'how to guide' about how to get existing skills signed off and what the first 12 months might look like from a clinical and learning perspective.

Recruitment

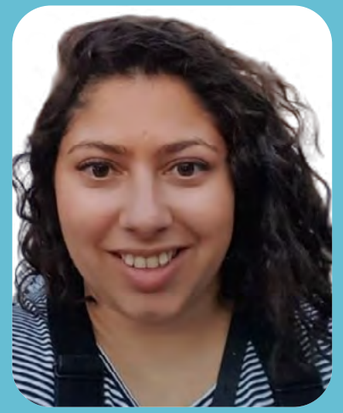
During this section, the Recruitment Leads give an update of the recruitment processes, including the recruitment timeline, any issues that have arisen or require resolving, the number of applicants/appointees and feedback from both candidates and those scoring portfolios or interviewing. There is a huge amount of information around recruitment on the ICMNRO website, but the FICM website is also regularly reviewed to ensure that it is up to date, easy to navigate and signposting appropriately.

We know that the self-scoring matrix causes angst and have released an infographic which shows the distribution of self-assessment scores (range 4 – 34), the mean (between 17 and 22), the cut off score for short-listing (around 12) and as well as other general information around the application process. There is still more work to be done in this area, and we are looking at what data we have and the trends in applicants to ensure that the ICM application process is as inclusive as possible.

The other recruitment issue that has historically affected those wishing to pursue dual training, has been the inability to accept two training numbers in the same recruitment round. This is something that FICM have been working on with ICMNRO behind the scenes, and I'm pleased to say that for the August 2025 ICM intake, applicants will be able to accept two NTNs (one in ICM, and one in partner specialty) in the same year as long as both offers are in the same region. We are in the process of creating an FAQ document to further explain how this will work.

CRW is just one of the FICM committees, all of which have IiT representation. Although progress might sometimes seem slow, behind the scenes there is a huge amount of work being undertaken.

Updates from the Intensivists in Training (IiT) Subcommittee



Dr Giada Azzopardi

Renal and ICM Representative

I'm a renal and ICM trainee based in London and I am representing the dual/triple intensivists in training on the IiT Subcommittee. Having just started, I am aiming to continue the great work of Sofia (the previous representative) as well as highlighting any new issues raised by IiTs.

Please do get in contact if you have any ideas, queries or issues relating to dual/triple training; the FICM FAQs are a great place to start.

I am a dual ICM and anaesthesia trainee in the London Deanery, where I have spent most of my medical training. My main non-clinical interest is research, having recently completed an NIHR Academic Clinical Fellowship with interests in data science and invasive mechanical ventilation; I will commence a PhD in 2025. I am currently a Trainee Editorial Fellow for the journal *Anaesthesia*, and I have interests in medical education, leadership, and understanding and addressing health inequalities through work with the South Asian Health Foundation. Away from work, I enjoy keeping fit and spending time with my wife and family.

I am honoured and privileged to be appointed as the first Equality, Diversity and Inclusion representative on the IiT Subcommittee. I am passionate about improving the training experience for ICM doctors from all backgrounds and addressing the causes of differential attainment. Working with the Faculty's Differential Attainment and Equality, Diversity and Inclusion leads, and with colleagues on the IiT Subcommittee, I hope to review FFICM examination data, ARCP outcomes, and data on recruitment and retention to ICM, and use this to develop resources and advocate for improvements to the examination. I'd be delighted to hear from you, so if you have any ideas for how we can move EDI issues forward, please get in touch.

Dr Mayur Murali

Equality, Diversity and Inclusion Representative

Hi, I am Alex Maidwell-Smith and very recently became the new representative for single specialty ICM on the IiT Subcommittee. I have spent the majority of my postgraduate training in the Severn Deanery having initially studied in London before being drawn back to the South West. I am currently working as a Stage 2 IiT in Bristol.

My aim is to effectively represent the interests of single specialty IiTs from across the country. I feel passionately that single specialty intensivists can bring huge benefits to units whether they are large tertiary centres or smaller district generals and it's great that increasing numbers of people are choosing ICM as a sole specialty.

That being said, the training programme can pose specific challenges. Some are shared with those who are dual accrediting, whilst others are more focused on us as a group. Great things have been done over the last two years in developing the SSY and sharing opportunities that exist nationally, however, the last IiT survey showed that work remains to be done on aspects such as ensuring good opportunities for airway training.

I really hope that over the next two years I am able to bring forward some solutions to these challenges, but for me to be able to advocate on your behalf, I need to know about the problems you're facing so please feel free to contact me via a WhatsApp group we have set up for the purpose, where my email address can also be found.

Dr Alex Maidwell-Smith

Single Specialty ICM Representative

Dr Chris Jacobs

LLP Representative

As your FICM representative for the LLP I have been attending meetings on the LLP development group with the RCoA, looking at how we can improve the platform going forwards. There have been some important stability and security enhancements over the last 12 months with more to come. We have also been working on some 'quick win' functionality upgrades.

A warm welcome to the new IiTs who have joined us in August, hopefully you have managed to get setup on the system and are finding your way around. A reminder, there are LLP resources on the FICM website to help with navigating the essential forms and assessments. If you can think of any way we can improve the resources available to you getting started please let me know!

Dr Gemma Talling

Less Than Full Time (LTFT) Representative

I joined the FICM IiT Subcommittee in June 2024 as the LTFT training representative. This is the first time that this group of trainees has been directly represented and I am honoured to have been selected for the role.

My initial request for LTFT training was rejected because I didn't meet the (then stringent) criteria. Amidst the initial disappointment and dismay that followed, I opted for an educational out of programme experience followed by some maternity leave and time working as a specialty doctor. These experiences enriched my life and work for the better and gave me the confidence and experience to return to training, but this time as an LTFT trainee.

Times have changed for the better and since August 2022, all doctors in training across England in any specialty, now have the right to apply to train less than full time for any well-founded reason, including for their wellbeing or through personal choice.

I am delighted with these developments and the insight of Health Education England. The Category 3 LTFT initiative to allow trainees to work less than full time through personal choice can only enhance the working lives of doctors in training of today. It will not only promote the sense of wellbeing and work life balance amongst the ICU workforce of the future, but it will also serve to promote diversity in the workplace.

The LTFT trainee group is diverse and ever increasing in number. For some, LTFT training allows you to undertake ICM training when you might otherwise not have been able to do so. For others, it can allow you to fulfil caring responsibilities, raise a family, develop hobbies or allow you to complete projects or personal development opportunities.

During my term as the ICM IiT Committee LTFT representative my objectives will be

- to promote LTFT working for current or prospective ICM LTFT residents
- to raise the profile of ICM as a career choice for core trainees
- to assist residents in gaining clarification on LTFT training issues
- to raise awareness of how LTFT residents can maximise educational opportunities during their training
- to gain feedback from IiTs and trainers on how we can improve training to make us a workforce fit for the future

For those interested in working less than full time now or in the future useful sources of information can be found at:

- Delivering greater flexibility | NHS England | Workforce, training and education (hee.nhs.uk)
- Less Than Full-Time Training | The Faculty of Intensive Care Medicine (ficm.ac.uk)

Trainee Research in Intensive Care Medicine

Dr Luke Flower

Academic IiT Representative

I am an ICM ST5 and Co-Chair of the Trainee Research in Intensive Care (TRIC) Network, currently pursuing a PhD at the University of Cambridge. I'm also excited to have been appointed as the new FICM Academic IiT Representative, and I look forward to working alongside FICM and fellow IiTs to expand opportunities for meaningful engagement in intensive care research across the UK.

ICM is a relatively young specialty, with the first intensive care unit established in 1953, staffed in part by medical students who alternated around-the-clock shifts manually ventilating patients with polio. Since these humble beginnings, our specialty has seen tremendous growth, marked in the UK by the founding of FICM in 2010, which is now well on its way to becoming a standalone college.

This structural development has been accompanied by significant advancements in patient care, resulting in notable improvements in outcomes. Such progress has been driven by groundbreaking research, with landmark studies like the ARDSNet ARMA trial continuing to shape our daily clinical practice more than 20 years on.

Spotlight

The COVID-19 pandemic further catapulted our specialty into the spotlight, both within the medical community and the public eye. It highlighted the critical role that the intensive care community plays in research, with UK intensivists taking pivotal roles in world-leading studies such as RECOVERY, REMAP-CAP, and HEAL-COVID.

For our specialty to continue advancing, it is essential that we recognise the central role research plays in its progress and work to make it more accessible to the clinical academics of the future. However, recent years have seen ongoing cuts to academic funding, which have made the research landscape increasingly challenging to navigate.

Get involved

While a career in research may not appeal to everyone, the ability to critically evaluate studies, integrate research into daily practice, and advocate for evidence-based medicine is crucial for our specialty's advancement and for ensuring optimal patient care. There are numerous ways IiTs can get involved in research, from formal academic training pathways to OOPRs, SSYs, or collaborating with local, regional, or national research teams.

The TRIC Network is one example of a central hub for those interested in research, whether as a national committee member, a regional representative, or a study collaborator. The network's recent NEAT-ECHO study showcased the potential impact of trainee-led research, involving over 800 resident doctors from 180 critical care units in the UK and Crown Dependencies, who collectively recruited more than 1,000 patients. The first paper from this study has already been published in *Intensive Care Medicine* and has the potential to positively influence both training and practice.

I encourage anyone interested in learning more about research to reach out. I'm always happy to answer any questions I can, and if I don't have the answer, I'll gladly connect you with someone who does.

Emergency Medicine and Intensive Care Medicine

Dr Fraser Watson
Dual ICM and Emergency Medicine Representative

I am currently an ST8 in Emergency Medicine and Intensive Care Medicine in the Southeast Scotland Deanery, and I've had the privilege of serving on the IiT Subcommittee since March 2023 as the dual ICM and EM representative. With the end of training in sight, I've come to deeply understand the challenges faced by IiTs and I'm grateful for the opportunity to advocate for you.

I hope that through the IiT Subcommittee, you have found a valuable resource in raising concerns and driving improvements for all IiTs regardless of their training background. In my role, I've worked to bring key issues affecting EM and ICM dual trainees to the forefront, including efforts to expand resources around consultant job plans, streamline the dual counting of competencies, and address the complexities of working with two different portfolio platforms.

Feedback

Alongside my Subcommittee colleagues, we've been continuously analysing and sharing feedback from the StR survey. Your input has been invaluable in shaping future training to make it as supportive and comprehensive as possible and I want to extend my thanks for your contributions to it. From this, and your other inputs we also recognise great training experiences across the country, and along with my fellow reps, we are working hard to establish best practice guidelines based on these experiences to share and help all IiTs benefit from exemplary training.

ICE-T Committee

I'm also excited to share that we've created the first official trainee network for EM and ICM trainees, the Intensive Care and Emergency Trainees (ICE-T) committee. This group, co-chaired by myself and the EMTA EM & ICM representative, will strengthen ties between FICM and RCEM, allowing us to better collaborate, share experiences, and improve training across both specialties.

Future plans

Looking ahead, we have been working on the first ever EM and ICM careers day due to be held at RCEM's Octavia House in London, in April 2025. This event will celebrate dual training and offer practical advice on onboarding, managing dual training, tackling exams, and building sustainable careers. The programme and how to apply to join us is due to be shared soon.

It's been an incredible journey helping to create spaces where we can learn and grow together as a community. The support from the Subcommittee has been invaluable in this process, and I'm looking forward to continuing this work until I step down next year.

FFICM Prep Course

SAVE THE DATE

Tuesday 4 March 2025

This will be an in-person event held at the RCoA in London. Bookings will open at the end of January 2025 and places will be limited. Check out our website and X for further updates!

www.ficm.ac.uk/events

FFICM EXAMINATION CALENDAR

FFICM FINAL OCSE/SOE	
Exam applications open	9 December 2024
Exam applications close	31 January 2025
EXAM DATE	17-20 March 2025
Fee	Both £720 OSCE £400 SOE £360
Results	15 April 2025

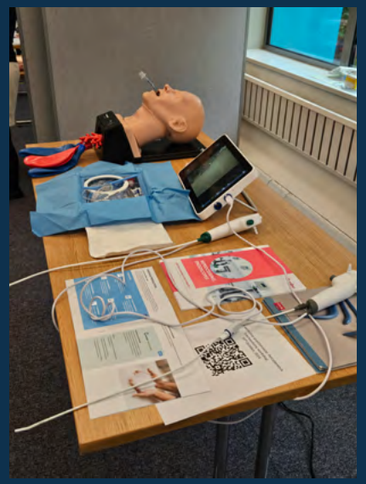
FFICM FINAL MCQ	
Exam applications open	10 March 2025
Exam applications close	24 April 2025
EXAM DATE	26 June 2025
Fee	£580
Results	15 July 2025

For full details please see the FFICM Examination Calendar on the FICM website.

FUTURE INTENSIVISTS 2024

Inaugural FICM IiT Conference

On 10 October 2024 we held the first ever FICM Intensivist in Training Conference, an important day in our history. It was the largest FICM event to be held since before Covid with in person and online attendees, lectures, competitions and workshops. We had an array of national thought leaders in research, education and leadership. This event marks not only the evolution of our specialty but also the growing strength, unity, and potential of our community. Watch this space for more on our plans for 2025!



How does FICM support International Intensivists new to the UK?

Dr Taqua Dahab
ST8 ICM/AIM/GIM
IMG Representative

This summer, the UK ICM community welcomed many International Medical Graduates (IMGs) in training and non-training posts. Coming to a new country, system, culture, and even weather, is a considerable stress to tackle all at once. When you applied and were offered these posts, you probably had a robust portfolio to complete as well. Soon after these achievements appear to you as if they are condensed to shaky starts, a dip in confidence, and some silent tears in an overcrowded NHS corridor. I was there not many years ago.

I still remember the drastic changes in my life when I moved from sunny North Africa to the cold, windy, long nights in the British Isles. These are normal feelings due to complex socio-cultural factors related to moving to a new environment and it is also a hot topic for Differential Attainment (DA). My role in FICM as an IMG IiT Rep is to support you in this phase.

Providing support

FICM is committed to supporting a positive experience for our IMGs, celebrating the diverse experience they could bring to the job, and making them feel valued. We have launched a new resource to support my IMG colleagues settling into ICM posts. The aim is to help you as individuals adjust to a new environment in the first 12 months in the NHS. This resource contains information you may find helpful in organising your personal life in a new country; things like how to open a bank account, register with your local GP, get visa paperwork, understand your tax code and apply for schools for your little ones.

When I wrote a similar draft for the IMGs in my deanery, I wrote in it in an exact sequence from my memories on how I got every day a little (sometimes big) surprise on things that I didn't know. It felt that life was harsh but actually with a little signposting these are straightforward things to tackle. I encourage you, if you are new to the country, to glance at this booklet for some easy wins.

Recommendations for Educational Supervisors

More interestingly, we have published recommendations for Educational Supervisors (ES) to support the IMGs' learning needs in a structured way; these apply mainly to Locally Employed Doctors (LEDs). We developed the 'Initial Assessment of Competencies in ICM' with a number of procedures and Supervised Learning Events related to ICM that could be signed off. It has four components: Practical Procedures, Equipment, Common Presentations, and Resuscitation.

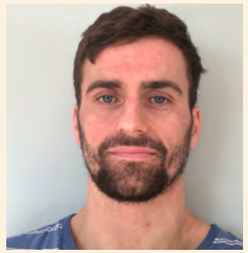
Upon completion, your ES would be able to generate the certificate for you to practice with distant supervision. This structural way of assessing your competencies helps to take into consideration all previous experience you have from abroad but in a UK fashion. It eliminates the anxiety of thinking about what is the next step in your development, and what is expected from your supervisor. The FICM has circulated this document to all Head of Schools, Regional Advisors and Faculty Tutors; make sure to signpost your supervisor to this valuable document if you feel they have not seen it yet.

What can you do?

I want to emphasise the importance of kindness in supporting your IMG colleagues who are starting new in the department. They are likely experiencing a significant amount of invisible stress. It's nice to be understanding and supportive, not only within the ICU walls but also in other aspects of their lives. Take the time to get to know them, invite them to team nights out, suggest activities for them to do on the weekends, and ask about how their children are adjusting to schools here. In some cases, they may not understand local slang or idioms, so it's helpful to explain these to them. With time, they will pick it up. These small touches are what truly matters to new IMGs, and help them to be a valued part of the 'community of practice'.

I remember having to create a Scouse dictionary for IMGs due to my frustration with new slangs when I started! The deanery now circulates it to all IMGs starting rotations in the Merseyside! Saying this though, I still don't know when dinner time is in the North?

Photo by Billy Joachim via Unsplash.



Dr Edward Smith
ST8 ICM & Anaesthesia
West Midlands

The Medical Year

A concern for many, embraced by a few, the medical year is required for all core anaesthetic trainees entering Intensive Care Medicine training without a year of post-F2 medical training. In 2022 I started an incredibly constructive and informative year, leaving behind difficult experiences in the pandemic.

On the sound advice of colleagues, I elected for time in gastroenterology, haematology and renal medicine. I also worked one day a week in acute medicine. I was not on an on-call rota for the year, which was fantastic and really gave me some extra time and sleep to reflect and learn. I used the occasional weekend to locum to maintain anaesthesia and ICM skills.

Pathway for anaesthetists

A pathway for anaesthetists coming to medicine for a year is slowly emerging in my hospital and by the end of my year most of those around me seemed to understand my training role. If there was doubt, I was always honest that I was working as an SHO and would try and help with cannulas and discharge summaries. I also helped with central access on the wards which is a much greater challenge than in theatres. In return, I felt really appreciated and was given time to gain my FUSIC heart certificate and some really focused specialty teaching. TTP reads very differently in an ICM textbook when a haematogist has discussed it with you for an hour.

Communication

Medical specialties vary tremendously to Intensive Care Medicine. The direct patient communication required is of a different style, and their ward round and team management skills are impressive. The conversations I had were often more therapeutic and in positions of disagreement as opposed to ICM. For example, telling a patient with anorexia nervosa that the NG tube which became dislodged overnight is going back in or telling a patient with severe lupus not to risk taking the flight they had planned, was a real challenge. I really struggled talking to a man dying with AML and realised that often in ICM the direct patient:doctor emotional transference isn't there.

Ward rounds

Leading ward rounds, assigning tasks to F2s and exploring issues such as colleagues' learning needs, good performance, late arrival, jobs not done etc, were a real learning curve for me coming from anaesthesia. Some of these team and time management skills were the most useful lessons.

Back to ICM

Heading back to ICM and anaesthesia I had a surprisingly high number on my badge and occasionally had to remind people I was just coming back. There were also specific areas which took me a while to get back to full speed, such as obstetric anaesthesia. Yet when I review patients on the ward or in the ICU my depth of understanding is far deeper and when I discuss their care with my well acquainted colleagues the discussions are more meaningful. I wish you all an enjoyable year of training and please email via the FICM secretariat if I can help.

Tips for the medical year

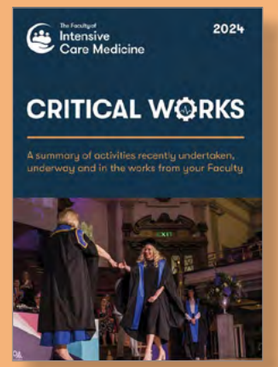
- Help with the ward jobs.
- Be honest that you are working at SHO level.
- Call for help with critically unwell patients earlier than you'd expect.
- Try and work normal working days only.
- Develop a side line e.g. ECHO or write a paper.
- Try and do the odd locum to stay in touch.

FICM Thrive

Become part of FICM Thrive!

Are you interested in helping someone develop their career, find their perfect work/life balance, or do you need that extra something to help you achieve your goals?

Visit www.ficm.ac.uk/careersworkforce/ficm-thrive for more.



Critical Works is a summary of past, current and future work undertaken by FICM. This is the first edition published since 2019, and is focused on the last couple of years of post-Covid work. If you would like to be involved in any Faculty work, please contact us contact@ficm.ac.uk.

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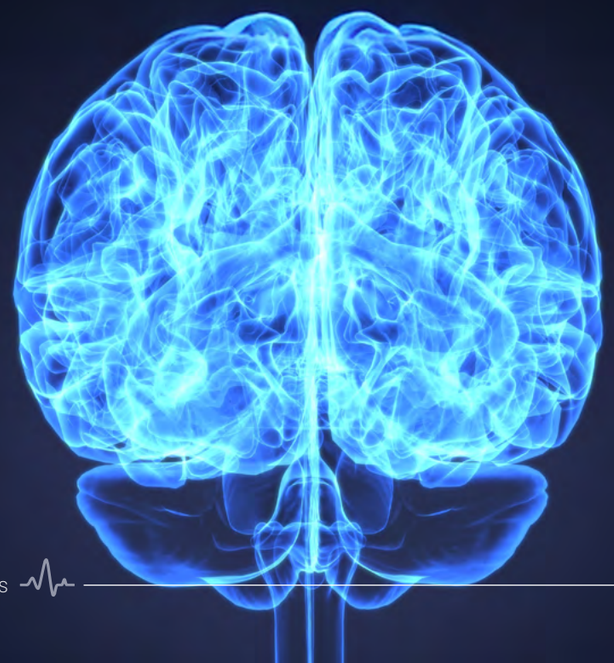
Diagnosing Death using Neurological Criteria

Dr Jacyntha Khera
ST7 Dual ICM & Anaesthetics Trainee
London Trainee Rep for Organ Donation

As an ST5 on a neuro intensive care unit I witnessed my first neurological death tests being performed — a rare occurrence for most in our training, and yet we are expected to execute the diagnosis of death with complete accuracy and understanding.

An updated Code of Practice for the Diagnosis and Confirmation of Death (Code) by the Academy of Medical Royal Colleges (AoMRC) will 'go live' on the 1 January 2025. With changes and ongoing challenges to diagnosing death, it is important that we, as IiTs, need to be informed.



In 2008, the AoMRC published their last Code for Diagnosing Death. This Code gave intensivists a new apnoea test for neurological criteria, as well as, for the first time in the UK, criteria for diagnosing death after cardio-respiratory arrest. In 16 years, we have seen significant advances in medical therapies; particularly in resuscitation, intensive care, neurosurgery and organ donation. While death itself has not changed, diagnosing and confirming death can present many clinical, ethical and communication challenges. An update was well overdue.

Currently for the diagnosis of Death using Neurological Criteria (DNC), we use the 2008 Code in conjunction with the FICM-endorsed testing forms which were first created in 2012 to promote greater consistency with the Code. Over time amendments have been made to the testing forms, incorporating lessons learnt from international clinical cases; such as the addition of therapeutic decompressive craniectomy to the 'red flag' patient groups — which now requires diagnostic caution and the use of ancillary testing.

Time for change

A clear, updated Code is necessary to learn the lessons of the past and modernise current practice. In updating the Code, the UK is now more aligned with international consensus in diagnosing death taking intentionally similar approaches to Australia, New Zealand, Canada and the World Brain Death Project.

The changes

The updated 2025 Code provides updates to specific clinical criteria, including paediatrics. It also gives advice and guidance to healthcare professionals on communication in the period around when the diagnosis and confirmation of death occurs.

Table below highlights some of the changes due to be implemented within the updated 2025 Code.

New major change	2008 Code	2025 Code
Time of death in Neurological criteria	Legal time of death is when the first test indicates death due to the absence of brain-stem reflexes.	Death is confirmed using neurological criteria at the time of completion of the second set of clinical tests, or if ancillary investigations are used after clinical testing, the point at which the final two doctors undertaking the process are satisfied that all the relevant neurological criteria to diagnose and confirm death are met.
The neurological criteria apnoea test starting and end arterial blood targets	Starting $PaCO_2 \geq 6$ KPa. Minimum 5 minutes rise of $PaCO_2 \geq 0.5$ kPA. End $PaCO_2 \geq 6.5$ kPa, pH < 7.4	Starting $PaCO_2 \geq 5.3$ KPa. Minimum 5 minutes rise of $PaCO_2 \geq 2.7$ kPA End $PaCO_2 \geq 8.0$ kPa, pH < 7.3
Addition of a Communication section	Not included	Advice and guidance provided for communication to relatives in the period when the diagnosis and confirmation of death occurs.

Major changes in updated 2025 Code of Practice for the Diagnosis and Confirmation of Death.

What is the next step?

Along with the updated 2025 Code by the AoMRC, there will be new FICM-endorsed testing forms for neurological death to be used clinically. Clear guidance will be in place for the termination of the old form, with a change-over period and a set date for its initiation. That date is planned for the 1 January 2025.

New Code education

To implement the updated Code and FICM-endorsed testing forms, the FICM held a webinar and posted the updated documents and resources to the website.

Within my role as London Trainee Representative in Organ Donation, I have implemented the course MEPOD (Modular Educational Programme for Organ Donation). In collaboration with NHSBT, we have developed three simulation modules covering the topics of DNC, Donor Management and Optimisation and Donation after Circulatory Death.

Our aim has been to share the excellent teaching provided by the over-subscribed National Deceased Donation Course more widely to a multi-disciplinary audience. Thus far, MEPOD has been delivered in five hospitals across London and KSS with an aim of a national roll-out. To align with the newly released 2025 Code, we will be updating our modules to enable practical simulation sessions covering new changes and associated nuances.

Driving change

For intensive care to progress in line with the updates in the diagnosis of death, we need to continuously thrive to improve and get on board with change.

As this year closes in, we welcome this overdue update with the aim to make diagnosing death on our ICU clearer. Clearer for us as a wider group of professionals, or to that ST5 trainee experiencing their first neurological death tests, but more importantly for patients and their relatives who are at the centre of why this matters.

Further information

Keep watching the AoMRC, FICM and NHSBT website pages for further information.

As an intensivist, what do you need to do and know about the new Code?

1. **Please familiarise yourself with the updated 2025 Code.**
2. **Please prepare yourself, so that from the 1 January 2025 you will only use the updated intensive care professionally endorsed Testing Form.**

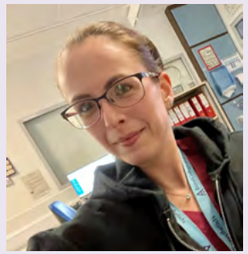
- **Blue form:** For use in adults and children older than 2-years
- **Yellow form:** For use in infants between 37-weeks to 2-years, corrected gestational age.
- There is no longer a short or long form.

- From **1 January 2025** please remove all older versions of the form from your ICU.

3. **Please make use of the education materials listed below:**

- 2025 AoMRC Code - Key Updates to DNC
- AoMRC Code 2025 Update Summary
- DNC Testing Form Draft 2.1 (PDF)
- The NHS Blood and Transplant website also has additional resources and educational videos.

My alternative path to Intensive Care Medicine



Dr Tamsin Lane

ST8 Anaesthesia & Intensive Care Medicine

When I opened my A-Level results, a long time ago indeed, I didn't receive an offer from medical school and was somewhat floundering about what to do with my life. It was through contacts I made volunteering with St John Ambulance that I found myself doing bank auxiliary work at my local hospital and residential respite care for children with additional needs. I realised I loved the holistic nature of nursing and, a year later, I applied to do my Registered Nurse training.

I graduated four years later with a Masters of Nursing Science. Graduating in the midst of an NHS jobs crisis meant that, despite my degree and registered nurse status, I was forced to return to my respite care work.

Eventually I was able to secure registered nursing employment and, despite over an hour-long commute, I was excited. My nursing career was finally beginning! After 10 months I was able to secure a job closer to home and, six months later, made the move into intensive care on a tertiary neurosurgical unit. It was during my time on ICU that the idea of transitioning from nursing into medicine began to form in my mind. A colleague had just started her medical degree, and it got me wondering, "Why not try again?"

After embarking on the UKCAT, going through the UCAS process again, and securing my graduate NHS bursary, I was off to Medical School! My interest in intensive care stayed with me throughout those early years of my training as I continued bank nursing regularly on the ICU local to my medical school. It is at this point that I should say a massive thank you to the whole team there who couldn't have been more supportive or encouraging.

So it is that 11 years after my Academic Foundation Programme including an F1 rotation on ICU, the ACCS Anaesthesia programme, success in two rounds of ST3 interviews to allow me to dual train, and a whole host of post-graduate exams, I am finally just one year away from becoming an ICU consultant!

I never expected one of the biggest challenges to be managing the varied reactions to my background. Since I secured my medical school place, I have been asked the expected questions about my chosen path: What me made want to go into medicine? But I've also been asked questions like, "Was nursing not good enough for me?" I've even been told in anonymous feedback that I "should forget I used to be a nurse". My response to both is a resounding "No". My nursing experience taught me so much about patient care and I feel it is one of the biggest strengths in my clinical practice. It was a huge part of my life and career that I refer to daily.

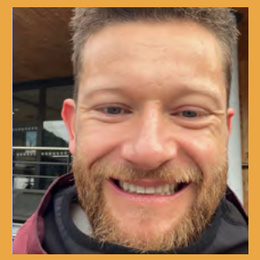
Throughout our training the importance of multi-disciplinary working is emphasised, as is the need to treat patients as individuals. However, how can we hope to make this a reality if we can't yet appreciate and respect the individualities of our workforce and how they can contribute to, and benefit patient care? We all come from different backgrounds and have been afforded different opportunities to achieve our goals. And, with the ever-expanding categories of roles within the NHS, the need for this basic appreciation and respect is paramount.

ORCA:

Our take on the future of radiology education within Intensive Care Medicine

Dr Alex Small
ST8 in Anaesthetics and ICM

Dr Manoj Wickramasinghe
CT4 in Anaesthetics



Dr Max Ridley
Consultant in Anaesthetics and ICM

Dr James Morgan
Consultant in Anaesthetics and ICM, West Yorkshire TPD

Dr Alex Sawer
ST5 in Radiology

Essential to the investigation and management of almost all patients on an ICU is the interpretation of medical imaging and its integration into the patient's management. In addition, this is a regularly examined but poorly performed in, area within the FFICM. Standardised, evidenced-based, free and peer-reviewed education into this field is limited.

The challenge

Paired with this issue, is the burgeoning field of Point of Care Ultrasound (POCUS), and particularly critical care echocardiography. In addition to the comprehensive FUSIC modules provided by the ICS, there are a number of other ways to accredit in POCUS and advanced critical care echocardiography. Whilst these options all demonstrate a clear accreditation pathway, there is once again a lack of standardised education options within this field. There are also many novel uses for POCUS beyond echocardiography, which almost entirely lack recognised peer-reviewed training packages. Consequently, the idea for Online Radiology for Critical and Acute Care (ORCA) was born.

What is ORCA?

ORCA is a free access, peer-reviewed and evidence-based interactive learning platform that is hosted on the Postgraduate Virtual Learning Environment (PGVLE). Its innovative design bridges the gap between diagnostic, procedural and therapeutic radiology and demonstrates a technique to allow integration into daily clinical practice. The platform standardises the process of learning by using a modular format, split between demonstrational real time videos, instructional components, and interactive presentations. There is no assumed prior knowledge; it can therefore take you through the journey of never having picked up a probe or seen a CT head, to being able to diagnose pulmonary hypertension or an extradural haematoma.

As well as supporting the early stages of POCUS skill and knowledge acquisition, ORCA also provides a continuous scaffolding to guide the user's journey from a basic to advanced skill level. Additionally, ORCA allows delegates to engage with monthly case studies to enhance dynamic clinical incorporation.

What challenges have we faced?

ORCA truly is a labour of love. Countless hours have been poured into meetings, filming sessions, e-learning modules and WhatsApp chats! This is undoubtedly a significant commitment but has also been hugely educational for all of us, as well as great fun.

The future?

This unique platform focuses on minimising the burden placed on trainers, standardising the understanding, acquisition, and performance of skills, and championing the integration of radiology into a broad acute care clinical evaluation. We hope that ORCA will go some way to assist the mandatory accreditation in POCUS within the EM and AIM curricula, as well as address the paucity, and regional variation, of registered mentors. Mandatory accreditation may even become the case in ICM, particularly for echocardiography, and has already been supported by strong evidence from the recent initial NEAT-ECHO publication. Not only is POCUS a diagnostic tool, but with the right training and application it is an invaluable advanced haemodynamic monitor which can guide therapies in our most unwell cohort of patients. Additionally, free and peer-reviewed educational packages covering interventional procedures, such as regional anaesthesia and vascular access, will hopefully improve safety and access to training in these fields.

Our vision is for this platform to be used to enhance free, high quality, peer reviewed learning across the UK and beyond, to enhance the care of our acutely ill patients. If you would like to subscribe, contribute to ORCA or provide feedback, please scan the QR code, contact us on ORCAyorkshire@gmail.com or find us on X/Twitter @ORCA_education!

Dr Hans Van Huellen
ST6 Anesthesia and Intensive Care Medicine

Tabletop Simulation in Critical Care

The mention of 'simulation training' will conjure in many of us memories of examining a plastic mannequin, anxiously waiting for some clinical emergency to manifest.

While lab-based simulation is a regular feature for many intensivists, sim training can also look entirely different: conducted in groups around a table, involving boards, cards and tokens to simulate complex clinical scenarios.

Tabletop sim is a low-fidelity option, but it can nevertheless be highly immersive and versatile, requiring no dedicated space and being easily portable. For these reasons it has been used in major incident and disaster preparedness training, where high-fidelity sim would be impractical. Instead, we developed a turn-based tabletop exercise simulating day-to-day work in the intensive care unit — to our knowledge, the first of its kind.

Gamification

Using dice rolls, event cards and wooden pawns, our sim might at times feel like playing a boardgame. Gamification has its benefits — we found high levels of buy-in and enthusiasm among participants, even those who had mixed or negative attitudes towards traditional simulation. Playing a boardgame certainly adds entertainment and feels less daunting; however, too much gamification can diminish the immersive aspect and the overall educational experience. Our sim therefore remains actively facilitated by educators trained in simulation teaching, who will also conduct a debrief at the end to deepen the learning experience.

Board design

We designed several boards, representing a top-down view of clinical areas in which the simulation takes place. Patients are represented by cards, which also provide details as to their clinical condition, investigation results and functional background among other things. ICU doctors and nurses of various grades and skillsets are represented by coloured pawns, which can be moved around the different areas.

Team working

Each simulation involves a small group of learners 'in charge' of the ICU for several turns before handing over to another group. In our experience, the most rewarding experiences happen in interprofessional groups, pairing doctors, nurses and ACCPs for instance. Starter cards determine initial staffing levels and bed occupancy. According to these, the clinical areas will be populated with simulated patients which vary in terms of their clinical condition and acuity.

Each turn, participants will review patients on their unit and respond to them either improving or deteriorating. They will also receive referrals from other areas, which have to be reviewed by allocating their clinicians in order to gain further information and make decisions around admissions to ICU. Through these decisions or event cards that are played each turn, tasks are generated. As staff members can only perform a finite amount of tasks or patient reviews each turn, discussions around task prioritisation and resource allocation form a large part of the simulation.

Feedback

We think of our sim as a novel experiential teaching modality, complementing more traditional methods. Feedback from participants has been overwhelmingly positive and we are currently running pilot sessions across several hospitals. We found it particularly useful for teaching wider organisational skills, which are otherwise difficult to practice. The FICM 2021 curriculum specifically mentions that "Intensive Care Medicine specialists will have the skillset and competence to lead and manage a critical care service, including the multidisciplinary clinical team and providing contemporaneous care to a number of critically ill patients". Tabletop sim can help you address this learning need.

New Updates and Resources for Intensivists in Training

Ms Natalie Bell
Faculties Training Manager

The Faculty has been hard at work this year, launching several key updates and resources designed to support Intensivists in Training (IiTs). These changes, aimed at enhancing your experience and easing your pathway through training, span recruitment, curriculum guidance, support, and educational resources. Here's a roundup of everything new.

1. Recruitment Updates and Guidance

Our ICM ST3 National Recruitment page has been revamped to provide clearer, more structured information for resident doctors.

2. Resources for International Medical Graduates (IMGs)

Recognising the unique challenges faced by International Medical Graduates, we've created a dedicated page with comprehensive guidance and resources to support IMGs as they navigate working in ICM in the UK.

3. Curriculum Simplifications and Special Skills Years

With the cessation of the Joint CCT programme, we've streamlined our curriculum information to make it more accessible. This includes new, simplified pages explaining the HiLLO capability levels in the curriculum and a dedicated section for Special Skills Years (SSYs), complete with region-specific training offerings.

4. Lifelong Learning Platform (LLP) Guidance

We've updated the LLP guidance to make it easier for new doctors on the ICM CCT Programme to link their core training evidence to the curriculum; ensuring your evidence is clearly documented and aligned with the required capabilities. We've also included guidance for IiTs on the Dual ICM & Anaesthesia CCT on how to replicate their placements across both sides of the platform. Make sure you refer to the comprehensive guidance on completing ESSRs in the LLP well in advance of any upcoming ARCPs.

5. A Fresh Look for the IiT Landing Page

Our Intensivists in Training landing page has undergone a makeover! It now serves as a central hub with links to all the relevant resources and explanations to guide you through your training journey.

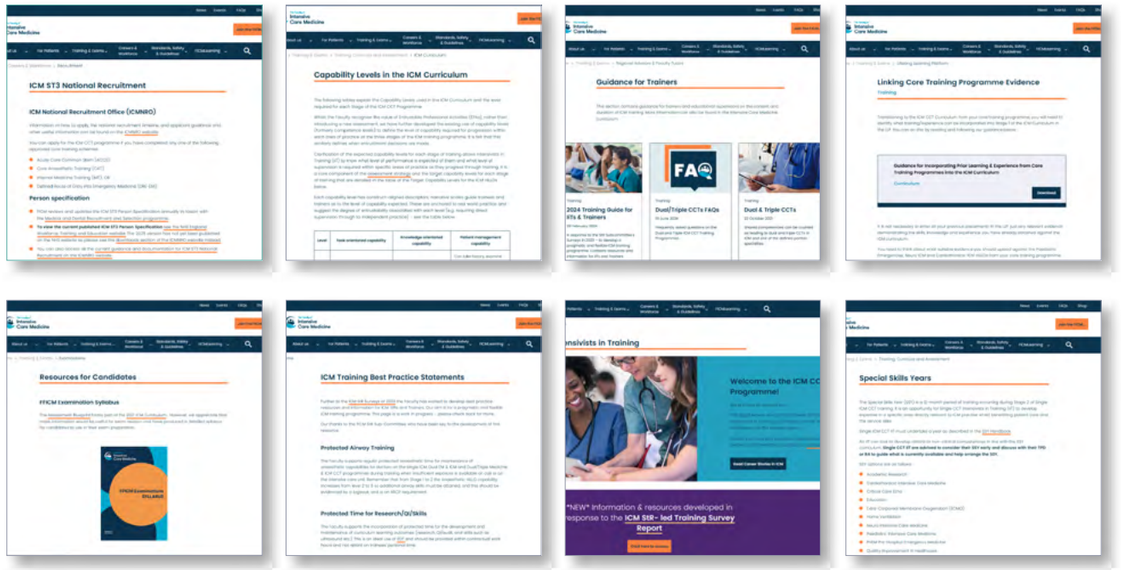
6. Streamlined Completion of Training (CCT) Process

We've simplified the ICM CCT notification process by introducing a user-friendly online form that you can submit up to four months before your CCT. Be sure to submit on time to avoid delays – and remember, forms submitted earlier will not be processed.

7. Meet Your IiT Representatives

For the first time, we now feature a page with bios, photos, and contact details for all our StR Subcommittee Representatives and regional STC Representatives. This is your go-to for networking and representation at the Faculty level.

8. New Guidance and Best Practice Resources



In response to feedback from the 2023 StR Subcommittee Surveys, we've introduced several resources to support you in navigating the ICM training programme. These include:

- Best Practice Statements for both IiTs and Trainers
- Updated FAQs for both the ICM CCT and dual/triple CCT programmes
- A National Reporting System to ensure concerns are appropriately escalated if they cannot be resolved locally
- Support for Intensivist in Training – we have a dedicated page for resources for personal and professional support during your training
- Educational Development Time – Explanation of how EDT should be applied and used in the ICM CCT Training Programme.
- Explore the resources that will help you manage your training more effectively here.

9. Supporting Our Trainers

We now publish a list of our Faculty Tutors across the UK. We've also updated our Guidance for Trainers to include new links and remove outdated references. We encourage you to direct your Trainers to this updated page to ensure they have the latest information.

10. FFICM Exam Support

On the examination front, we are working on developing a resource for the simulation station to add to the Resources for Candidates page where you can find all the related information on the FFICM Exam including past questions and example answers. Also do not forget to regularly check the FFICM Exam Regulations for the latest updates as we constantly review our processes and standards to ensure they are fit for purpose.

11. Fresh Content Weekly on FICMLearning

Finally, don't forget to check out our regularly updated content on FICMLearning. From simulation scenarios to real-life cases and podcasts, there's always something new to help you in your training. Some highlights include:

- Simulation Scenario: Acute on Chronic Liver Failure
- Case of the Month #52: The Shocked Patient
- Blog: The Rules of Email Etiquette
- Podcast: FICMTAQ Update

The Faculty is committed to providing robust support and resources for Intensivists in training. We encourage you all to explore these updates and make the most of the new tools available to you. Here's to continued learning and success in your ICM journey!

The Induction App

Dr Anna Kahn-Leavitt
ST7 Intensive Care Medicine

This article reflects on the journey of creating 'Induction', sharing insights into its development, the collaborative effort of resident doctors that kept it running, and the challenges posed by market forces when it was acquired by venture capital. I explore the broader implications of doctor-led innovations, emphasising the balance between functionality, monetisation, and the future of technology in intensive care. It also offers practical advice for those looking to develop healthcare apps themselves.

As a Foundation doctor in North-West Thames, I helped build Induction, an app that was more successful than we ever imagined; it is second in popularity among doctors only to the British National Formulary (BNF).

Small beginnings

It started with one SHO who had a particularly comprehensive little black book of all the numbers that mattered in the hospital. When it was sold to an Australian venture capital firm in 2019, the app had the largest and most accurate directory of doctors in the UK outside of the GMC.

Group effort

It was only possible because hundreds of resident doctors like me kept the directories up to date and acted as hospital super-users. My perspective challenges the notion that today's residents are self-centered or less resilient. It's worth considering the effort involved in creating and maintaining resources like the Induction database, which continues to support our community effectively.

It warms my cold-registrar-heart to arrive at a new hospital, as I did only last month, and find in the Induction directory "payroll lady who picks up" (she did). It's like finding the code to the staff bathroom written in the door frame or the old 2015 junior doctor strike signs stacked with the most recent round behind the TV in the mess. It's proof we're all in this together and we can achieve immortality (at least until the next CQC inspection).

One of the things that made Induction unique among doctor-led QI projects is that it never went down, and its simplicity allowed us to test code meticulously to keep the app "zero-defect." Unfortunately, this is also a tale of market forces and how venture capital clouds the clearest of visions. Not every app needs to be loaded up with features, not every useful piece of software has a clear route to monetisation, and Induction remains my biggest QI success and failure.

Writing apps

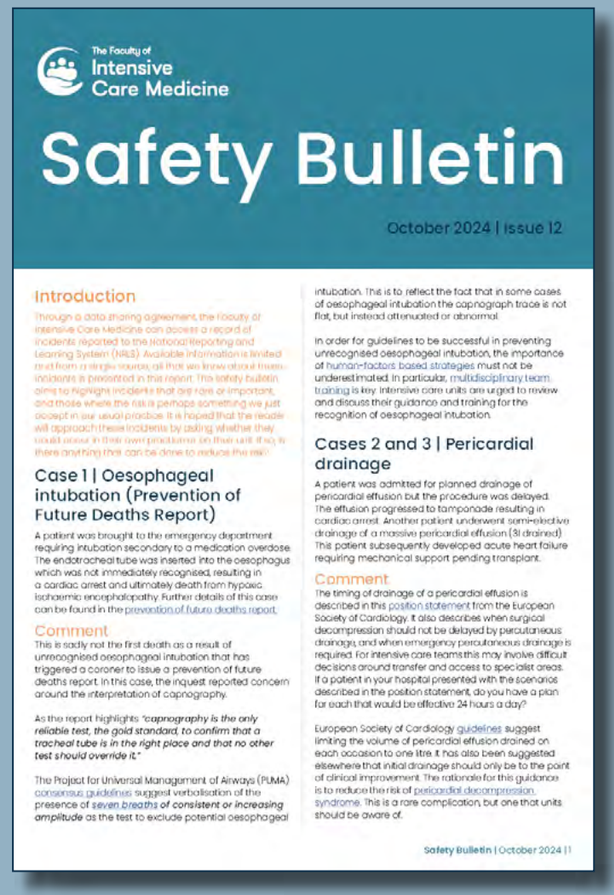
I get asked if I can write an app with each hospital rotation. The answer is that, once you've done it a few times, it's pretty easy and takes a day or two. If you have a basic understanding of coding, I suggest a program called *.bubble* (which I use and like). If you can just about order the right PAX wardrobe parts on the IKEA website, I recommend using Jotform's app-building function. It bypasses the bureaucracy and cost of the Apple and Google stores by having you share the app via a QR code where it is downloaded directly to your phone home screen (technically as a weblink). Honestly, it suits most departmental needs. Check out the two examples given here via QR code, both built on Jotform.

ALS algorithms for patients on mechanical life support.

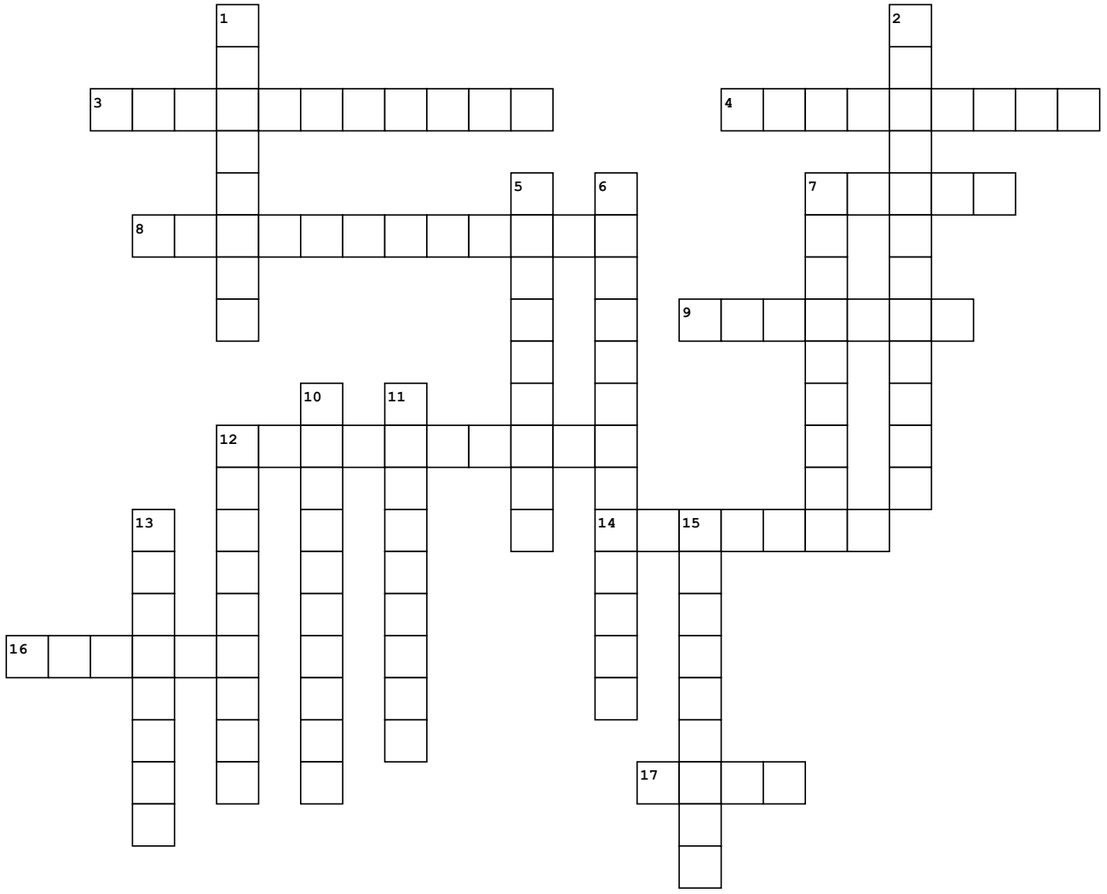
Logbook for FUSIC Heart.

Future of technology

All of us want to know what the future of intensive care technology holds. There's no question that if we return to Intensive Care in 50 years, it will be transformed by technology, but there is a risk that the only driver in software development will be the potential for profit. For the same reason nobody will fund a study on gargling saline for tonsilitis, who would develop an app just to reduce the friction in intensive care doctors' daily lives? We will either be reliant on QI projects like mine, or we will need funding for technology innovation as much as for clinical research.



ACCU Cardiac Crossword



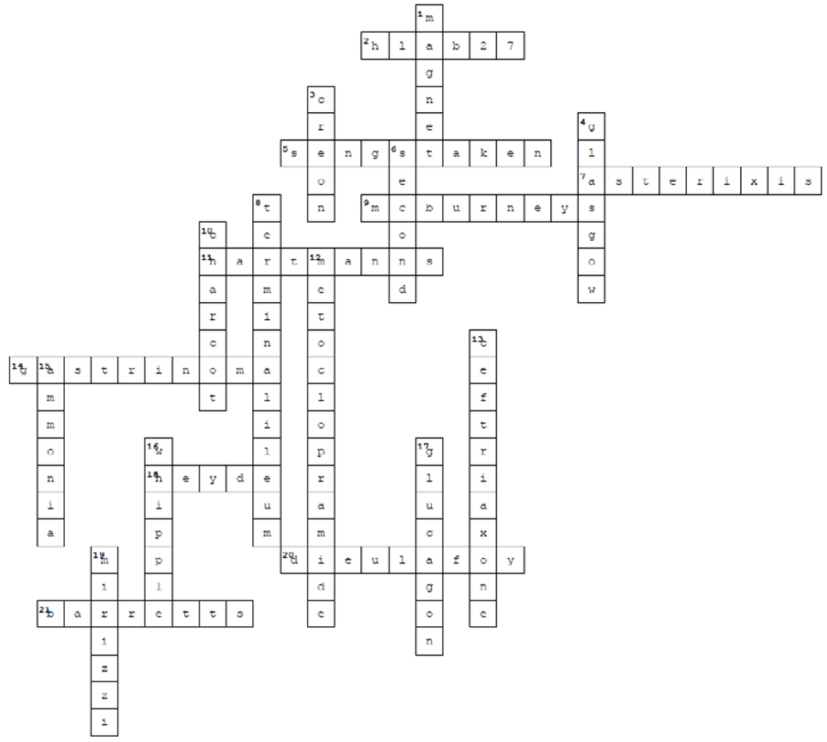
Across

3. Drug class good in chronic but poor in acute heart failure
4. Positive intrathoracic pressure reduces LV...
7. Degree of heart block with P waves bearing no relation to QRS
8. Pure beta agonist chronotrope used in bradycardia
9. AF rate controlling drug with positive inotropy
12. AF chemical cardioversion. Avoid in structural heart disease.
14. Short acting beta blocker used in shock refractory VF
16. Evidence of pulmonary oedema on thoracic ultrasound
17. Gold standard CO equation (CO = VO2/Ca-Cv)

Down

1. Classification of aortic dissections (A and B)
2. ? = Cardiac output x body surface area (2.6-4.2 l/min/m2)
5. Oral alpha 1 agonist vasopressor
6. Vasopressor which works by reducing cGMP
7. Octopus pot cardiomyopathy
10. Pulmonary Wedge Pressure estimates pressure where in the heart?
11. Post MI muscle rupture causing pulmonary oedema, shock and pansystolic murmur
12. Four level classification of shock (cold, warm, wet, dry)
13. Invasive cardiac monitoring catheter used to assess left atrial pressure
15. Shown to improve rate control in fast AF in the LOWMAGHI trial

ACCU Gastroenterology Crossword: Answers



Across

2. Genotype in IBD, Ankylosing Spondylitis, etc
5. Balloon tamponade of bleeding oesophageal varices
7. Coarse flapping movement of the hands in encephalopathy
9. Point where the appendix is located
11. Resection of the rectum and sigmoid colon/type of fluid
14. Abdominal tumour presenting with abdominal pain and recurrent peptic ulcer disease
18. Syndrome of colonic angiodysplasia associated with aortic stenosis
20. Abnormal vascular lesion of the stomach
21. Oesophageal metaplasia secondary to reflux

Down

1. Ingestion of two or more of this type of foreign body necessitates urgent surgical removal
3. Pancreatic enzyme replacement therapy
4. Score of consciousness, pancreatitis, bleeding and outcome
6. Part of the duodenum where the biliary and pancreatic ducts enter
8. Most common site for a small bowel obstruction (8,5)
10. Pain, fever and jaundice
12. Preferred antiemetic in autonomic neuropathy
13. Antibiotic in bleeding varices
15. Blood test used to diagnose hepatic encephalopathy
16. Pancreaticoduodenectomy
17. Hormonal treatment for oesophageal foreign bodies
19. Common bile duct obstruction secondary to a cystic duct stone

Crosswords created by Dr Harry Yong

The Faculty of
Intensive
Care Medicine

www.ficm.ac.uk

@FICMNews

Churchill House | 35 Red Lion Square | London WC1R 4SG
tel 020 7092 1688 | *email* contact@ficm.ac.uk