



# Critical Eye

Issue 8

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The Faculty of  
**Intensive Care Medicine**

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# Welcome



**Dr John Butler**  
Clinical Editor

Welcome to the 8<sup>th</sup> issue of Critical Eye. This edition is packed full of interesting articles outlining the latest developments in ICM in the UK. The contents include advice on training in Cardiothoracic and Neuro-critical care, updates from pharmacists and dietitians and an interesting article outlining the development of a virtual journal club from our colleagues in Harrogate.

Surprisingly it was back in May 2000 when the publication of the document Comprehensive Critical Care (CCC) by the Department of Health introduced a number of measures aimed at improving the care of the critically ill patient. This was followed five years later by Quality Critical Care: Beyond Comprehensive Critical Care which reinforced a number of the CCC recommendations. The NHS has undergone extensive changes since the publication of these key strategic documents and further changes are inevitable. With this in mind Dr Peter Nightingale was asked to form a steering committee on behalf of the Faculty to look at the future of critical care in the UK over the next 5-10 years. The group will focus primarily on clinical training, commissioning, and organisation and will be used to inform future editions of the GPICS document. In his article Dr Nightingale gives us an update on the progress of this initiative so far and invites input from ICM clinicians into the process.

In recent years we have seen a number of high profile legal cases involving ICM. Subsequently the ICS and FICM set up a joint group called the Legal and Ethical Policy Unit (LEPU) with the remit of advising on current and future legal issues relevant to our speciality. In the newsletter members of the group provide an informative commentary on 'Identifying the Decision-maker' in which they highlight issues relating to DNA-CPR and care decision making in respect to patients who may lack capacity to consent to medical procedures.

Please send any ideas for future articles or feedback to [ficm@rcoa.ac.uk](mailto:ficm@rcoa.ac.uk).

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Please visit the News and Events section of the website for the latest news items at: [www.ficm.ac.uk/news-events](http://www.ficm.ac.uk/news-events)

# Dean's Statement



**Dr Anna Batchelor**  
Dean

New government, election purdah over, time for action, or at least that's how it feels. The Shape of Training report has been accepted by all four nations and the Academy has asked Colleges and Faculties to look at their curricula to agree what is common between them, what could be post-CST credentialed and to consider if training could be shortened amongst other questions. Shortening training seems universally unpopular among all Colleges, and after using my department trainees as a 'focus group' last week, I can confirm amongst trainees too. This was the same opinion I had heard from many other people. Trainees want to feel ready and competent to take up a consultant post and if their training does not achieve this they are happy to do fellowships or seek extra training and experience abroad. It seems shorter training will just result in more of them spending time abroad, with the real risk they may find the grass greener, or at least nicer than here.

NICE was going to recommend safe nurse staffing levels for wards and Emergency Departments but have been told to stop work. This is potentially a worrying area for us as we are one of the few areas within the hospital with nationally recognised nurse to patient ratios. Several years ago, as well as producing a framework for Advanced Critical Care Practitioners we produced one for Assistant Practitioners. These were Band 4 NVQ trained workers specifically to care for level 2 and 3 patients who would work together with a fully trained nurse to manage a group of patients. There would be the same number of staff to patients but some would be trained to a specific ICM skill set rather than full degree level nurse training. Some units adopted this role but in general it was not too popular. Will it now be time to dust this off? Undoubtedly NHS England will be looking for more financially efficient ways to deliver all services.

I recently attended the Wessex Intensive Care Society meeting (great meeting), and there, as in other places, I was asked about regionalisation of critical care and how to sustain services when specialist services move away from smaller hospitals. Volume outcome relationships are seen in surgical specialties and these relationships are now starting to be seen in ICM; specifically in ventilation and ECMO with both showing a significant improvement in outcome with greater case load. Naturally, it is not just about numbers it's the multidisciplinary team. Trauma centres were able to show improvements in outcome in a very short time and we need to recognise when a patient may do better in another unit. But how do you run a hospital with acute medicine, elective and emergency surgery without critical care? You can't. The skill set of the intensivist is absolutely invaluable to the hospital. I suspect we need to develop some new models of practice. I know of a rotational post between Hereford and Birmingham, are there any others? How is it working? Do hub and spoke systems work? Level 2 beds only and export?


Choosing wisely is an idea that originated in the US and Canada; what should we feed into this agenda?

Recruitment is finished for this year and the latest information I have is we have recruited to 88% of our posts. This was not as high as last year but we did have another 30 posts to fill. We are inching towards the historical level of ICM consultant posts advertised per year but still have a way to go in meeting projected need. The workforce census is running again this year, we are planning to supplement this with two region wide engagements, which will look at requirements at a granular level. This information together with that from CfWI will provide robust data to plan our trainee numbers for future years.

# Guidelines for the Provision of Intensive Care Services

The Faculty of  
**Intensive Care Medicine**



 **intensive care  
society**  
care when it matters

The Faculty of Intensive Care Medicine (FICM) and the Intensive Care Society (ICS) are proud to present the first edition of *Guidelines for the Provision of Intensive Care Services*, also known as GPICS.

GPICS is the first step towards the development of a definitive reference source for the planning and delivery of UK Intensive Care Services, and builds on the previously published *Core Standards for Intensive Care Units (2013)*, which is incorporated into the final chapter of GPICS.

GPICS will be of particular relevance to clinicians involved in management and the design of critical care services, hospital managers, commissioners, Adult Critical Care Operational Delivery Networks, and the NHS England Adult Critical Care Clinical Reference Group.

GPICS also includes clinical chapters and will therefore be of interest to those who undertake clinical audit to improve their practice and for revalidation. Currently the FICM and ICS are co-developing an Audit Recipe Book with recommended audits; future editions of GPICS will link chapters to audit recommendations.

The publication of GPICS is the start of a journey to build a comprehensive index of recommendations and standards for how UK Intensive Care Services should work. GPICS will be updated and grow with the addition of new chapters.

The recommendations in GPICS are, where possible, based on strong evidence. However, we acknowledge that in a number of areas, particularly those dealing with service configuration, the evidence base is incomplete. The Faculty and Society are addressing this 'evidence gap' as a joint initiative by developing a portfolio of evidence-based guidelines.

Join the conversation on Twitter using #GProvisionICS

# Critical Futures



**Dr Peter Nightingale**  
Chair  
Critical Futures Steering Group

In the summer of 2014 the Faculty of Intensive Care Medicine, supported by the other relevant professional organisations comprising the Critical Care Leadership Forum, decided to conduct a forward-looking review of the achievements of *Comprehensive Critical Care*<sup>1</sup> and to consider the place of critical care services in patient management throughout the whole hospital.

*Comprehensive Critical Care* (CCC) was published in May 2000, and introduced a range of measures aimed at improving the care of critically ill patients and addressing pressures that faced critical care services at that time. Although CCC was published by the Department of Health in England, many of the recommendations have subsequently been adopted to a greater or lesser extent by hospitals throughout the United Kingdom. This publication was followed in October 2005 by an interim review from the then Critical Care Stakeholder Forum. Their document, *Quality Critical Care: Beyond Comprehensive Critical Care*<sup>2</sup> (QCC), reinforced a number of the recommendations from CCC in addition to augmenting these with further proposals.

Anna Batchelor, as Dean of the Faculty, asked me to undertake this review to not only identify those recommendations that may no longer be relevant, remain pertinent or which may need strengthening, but primarily to identify emerging challenges for UK critical care that need to be addressed in the medium to longer term (i.e. 5-10 years hence).

This work is not intended to be a duplication of the *Guidelines for the Provision of Intensive Care Services* (GPICS)<sup>3</sup> nor, within England, the NHS Five Year Strategy<sup>4</sup> but is intended to help inform future editions of GPICS and decision making concerning clinical training, commissioning and organisation.

My first thoughts were that this project needed a Steering Group, wide input from all involved in providing critical care services, and that the whole project would likely take 12–18 months. The scope of the project was delineated initially with input from James Goodwin and Daniel Waeland and we wrote the draft Terms of Reference.

I was fortunate to receive support from the names at the end of this article who agreed to comprise the Steering Group. It was emphasised that the Steering Group were not there to represent their parent organisations but to contribute their wide knowledge of critical care provision locally and nationally and to utilise their links to other groups.

As always, finding time for the first meeting of the Steering Group was difficult but we finally met on 17 October 2014. As well as agreeing the Terms of Reference the major outcome reached by the Steering Group was to get an early view from as many people as possible on their thoughts of how CCC had changed practice and how they thought the future may well develop locally and nationally.

It seemed that the best way to publicise the work and obtain input would be through the Critical Care Leadership Forum. I attended their meeting on 12 November 2014 and received many useful comments and support for the project. By January a draft questionnaire had been produced and, as requested, asked respondents about all of the recommendations from CCC and then had a number of open questions about how the future of delivering critical care services might evolve.

At the second Steering Group meeting on 26 January 2015 the feeling was that the questionnaire was comprehensive but that it was too long;

what we really wanted from respondents were their thoughts about future possibilities. Keith Young did a great deal of work in shrinking the questionnaire down by breaking the questions into three headings: Patient Experience, Safety and Outcomes; Staffing and Training; and Organisation and Service Delivery. Tim Evans thought that the questionnaire should be piloted and suggested the authors of GPICS as a useful body to work through.

Although we still had reservations about the size and complexity of the questionnaire it was sent to the GPICS authors for comment. Direct feedback was minimal but hostile; informally I learnt that the questionnaire in its current format was not supported and had irritated a number of people. After much discussion, and a great deal of work by James Goodwin, the questionnaire has been slimmed down dramatically. The questions now focus on gathering the views of the specialty on pressures identified both nationally and locally and how they might be addressed. Questions relating to CCC are relegated to the background.

The Steering Group reviewed the changes and the survey was released in mid-June 2015. Please find the survey online at <https://www.surveymonkey.com/r/criticalfuture>.

I am conscious of the fact that in the years since CCC was published there have been a number of clinical, operational and staffing developments (for example, 'care bundles', goal directed therapies, new practitioner roles, central venous line infection monitoring etc) that were not anticipated in 2000, but which have been adopted in many Intensive Care Units. Whilst we are not directly considering these developments at this time, we invite comment on the extent to which CCC recommendations may have assisted or hindered the implementation of these initiatives in your region, as well as your input on how you see UK critical care services evolving. This will allow us to take your views into account as we develop our thoughts.

Each question is structured to allow you to enter as much comment as you wish. Sections of the survey can be completed individually and the document returned to later for completion (please bear this in mind if you are using a public or group-use computer). If you wish to submit articles,

references or other supplementary material then this can be done via [ficm@rcoa.ac.uk](mailto:ficm@rcoa.ac.uk). I would be grateful if you could complete the survey. The more views we can source – from all participants in UK critical care – the better.

## References

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## Critical Futures Steering Group

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# Professional Standards



**Dr Simon Baudouin**  
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The *Guidelines for the Provision of Intensive Care Services* (GPICS) document has recently been published. It has proved to be a very successful collaboration, led jointly by the FICM and ICS, with input and approval from all major critical care organisations including patient representatives. I would like to particularly acknowledge the hard work put in by my co-chair Gary Masterson, Anna Ripley from the Faculty and all the authors who put up with our repeated requests.

So will the document now be like the apocryphal tale of the Tyne Bridge painting, where once the painters reach the Gateshead end they then start again on the Newcastle side? I think that all of us who were involved in the document would probably like a pause. However we should start a debate on what the future structure of GPICS should be like and whether new sections and/or chapters will be needed. I am writing this as the final results of the General Election are released. This has undoubtedly focused the UK on the impact of regions. There will always be a potential tension between national recommendations in the United Kingdom and the legitimate need to match the health service to regional requirements. We did consult with critical care representatives from the devolved nations and their feedback helped shape the document. In the next version of GPICS we should consider commissioning work on aspects of regionalisation of critical care services in the UK. A major part of the regionalisation debate is linked to the geographical location and distribution of hospitals. Small, relatively isolated critical care units remain a feature of the health service throughout the UK as do small, relatively isolated hospitals. This does leave a dilemma for those responsible for staffing smaller critical care units. We strongly believe that critical care should be delivered by fully qualified practitioners who take part in a rota that allows them

to be completely focused on the care of the critically ill during these periods of duty. This standard could be difficult to immediately meet in small units which have historically combined on-call rotas (usually with anaesthesia). We have made it very clear to Commissioners that this should be a goal for some organisations to work towards rather than a penalty. We hope that GPICS will allow critical care providers to strongly argue their case for more resources to fulfil these objectives.

Similar issues of dedicated versus shared critical care rotas were also raised by some specialist groups including those involved in Neurological and Cardiac critical care. We have had a number of helpful discussions with representatives from these groups and there is a general acceptance of the standard that critical care should be delivered by dedicated consultant led teams who are not covering other patient groups simultaneously. Once again some units will need to work towards this goal using GPICS to support their case.

The other area requiring further work that GPICS covers is to improve the evidence base informing the practice of critical care. The JPSC continues work aimed at producing high-quality guidelines. The writing group on ARDS have made further progress using the GRADE methodology. Once we are confident in this methodology and the process involved in creating high-quality guidelines then a set of delirium guidelines will also be produced to the same high standard. The development programme has proved to be complex and time-consuming for those involved. It has become clear that producing our own meta-analyses would not be time efficient and we will therefore base our recommendations on available systematic reviews and meta-analyses. In addition a large number of guidelines already exist. A complimentary approach would be to select existing high-quality pieces of work which would then be endorsed.

# OAA Standards for Maternal Critical Care



**Dr Audrey Quinn**  
Consultant  
Neuro and Obstetric Anaesthetist

In the UK, data shows that an average unit of 5500 deliveries will see nearly one case of severe morbidity every week. However, the exact numbers are unclear as obstetric ICNARC misses many of the admissions managed on maternity units that do not collect CMP data.

Traditionally maternity directorates have been exempted from the hospital implementation and audit of standards of critical care. In recognition of this, the former Royal Colleges' Joint Standing Committee published *Providing equity of critical and maternity care for the critically ill pregnant or recently pregnant woman*, a document summarising and highlighting existing standards. The 2009 confidential maternal enquiry, recommended MEOWS or obstetric early warning scores EWS which were widely adopted, but other important aspects were largely ignored such as staff training and appropriate facilities. Obstetric units continue to operate outside generic hospital critical care initiatives: very few obstetric patients have been included in recent electronic EWS data collection systems (personal communication). Maternity staff are poorly prepared for MCC and only 6% of units have designated critical care staffing and facilities. 'Direct entry' midwifery (omitting general nursing training) with an educational focus on 'normality' is now the main route for midwives to enter clinical practice. The latest confidential enquiry reported concern about persistently high percentage (75%) of indirect deaths, i.e. those not directly attributable to pregnancy such as respiratory failure. A common theme over the last three triennial reports has been failures in the early recognition of clinical deterioration; also a major problem highlighted in the recent Kirkup Enquiry at Morecambe Bay Trust.

New groups are emerging to tackle the organisational challenges in maternal critical care. The OAA

Intercollegiate Maternity Critical Care subcommittee are currently updating the RCoA standards document, due to be published by the end of 2015.

Maternity Enhanced Care, a new level of midwifery care, with associated competencies starting at pre-registration level through to specialist midwives, is currently under review and consultation within the Royal College of Midwives, Royal College of Nursing, Nursing and Midwifery Council, UK Critical Care Nursing Alliance and the National Outreach Forum. This can be viewed on the OAA website.

The evolution of the new FICM and resultant changes to training pose opportunities but also threats to good management of patients requiring MCC. The background of the future intensivists' training will vary considerably, in particular their exposure to obstetrics. There will also be wide variation in obstetric anaesthetists', physicians' and obstetricians' exposure to critical care training. We will be recommending an MCC lead from each subspecialty and regular interactions between critical care, outreach nursing, midwifery and medical staff at hospital level as well as regionally and nationally to address and ensure the best models of care in different size maternity units and also appropriate facilities for a sick mother and child on the ICU. MCC networks should be formed as described in a recent college Bulletin article to regulate appropriate facilities, educational resources and standards.

Pregnancy and childbirth is a major life event for women and their families. The few women who suffer chronic illness or become acutely unwell should receive high standards of care for both their pregnancy related and critical care needs, delivered by professionals with the same level of competencies irrespective of the setting. We have a lot of work to do.



# Identifying the Decision Maker



**Mr Alex Ruck Keene**  
Barrister



**Mr Ben Troke**  
Solicitor

## Who is the decision-maker?

Identifying the decision-maker is particularly important in the context of decisions as to (1) DNACPR; and (2) more widely as regards treatment and care decisions in respect of those who may lack capacity to consent (or to withhold consent) to medical procedures.

Unfortunately, in neither context is there sufficient clarity in either the governing legal frameworks or the guidance issued by professional bodies.

We outline briefly in this article the key principles that should be applied so as to ensure – insofar as possible – this lack of clarity does not translate into fuzzy accountability (or worse).

## DNACPR

The October 2014 Guidance on Decisions Relating to CPR provides (at paragraph 14) that “[t]he overall clinical responsibility for decisions about CPR, including DNACPR decisions, rests with the most senior clinician responsible for the person’s care as defined explicitly by local policy.” It also provides that where care is shared, discussions should take place between the different individuals concerned, albeit with one individual ultimately responsible for the decision-making process, recording and communication.

The guidance is undoubtedly accurate as far as it goes. Unfortunately, what it does not address (perhaps understandably) are the real difficulties that can arise following successful resuscitation with return of circulation (ROSC). As ROSC will normally result in the patient being admitted to ICU, should the ICU team be formally involved in all DNACPR decisions in the hospital? It is difficult to see how this is possible with the limited

resources currently available to critical care.

Alternatively, should the ICU team re-take the decision after ROSC? Or should all patients with ROSC automatically be admitted to ICU whatever their wishes, comorbidities and functional state prior to cardiac arrest?

This situation is further complicated when the referring clinician insists that ‘everything’ is done for their patient and the intensivist is of the view that admission to ICU would not be in the patient’s best interests. Whose view should take primacy? Does it matter whether the critical care service is delivered in an ‘open’ model of critical care where the referring clinician’s view is normally determinative, or a ‘closed’ model where it rests with the intensivist?

It is to be hoped that in the next iteration of the guidance this situation can be addressed directly, because it is not a situation of shared care, but rather care having two stages with substantial implications for responsibility for any DNACPR decision.

In the interim, it is suggested that intensivists should ensure that local policies as to referrals to ICU include express provision as to whether, and when, ICU clinicians should be involved in a decision to impose a DNACPR notice prior to admission to the ICU.

## Decision-making in relation to those potentially lacking capacity to consent

The Mental Capacity Act 2005 (MCA) provides a detailed framework for (1) determining whether a person (over 16) lacks capacity to make a decision or decisions; and (2) if they lack such capacity, for making decisions in their best interests. It is important to note, though, that with very few

# Legal and Ethical Policy Unit

Intensive Care Medicine (ICM) is no stranger to the law. We practice cutting edge medicine with techniques and skills that were undreamed of even a generation ago. Our non-intensivist colleagues expect us to take patients to ICU for ever more marginal benefit. The general public perceives us to be able to work wonders. So it is not surprising that we are unable to live up to some of these expectations and that there is a potential for conflict and dispute.

In recent years, there have been a growing number of cases where disputes have resulted in Court cases. In 2014 there was a successful colloquium to consider the implications to the ICM community of the somewhat Kafkaesque consequences of the Cheshire West decision in the Supreme Court. Following this colloquium, the ICS and FICM decided that it would be sensible to set up a joint organisation, which could advise on current and potential future legal issues of relevance. The result is the Legal and Ethical Policy Unit (LEPU), co-ordinated through the FFICM secretariat.

LEPU comprises clinicians who have an interest in medical law together with representation from the legal community. We aim to comment on developments that are of wider interest to ICM. Unfortunately, LEPU is unable to provide any advice on specific cases.

**Dr Chris Danbury**  
Legal & Ethical Policy Unit Chair

exceptions, the MCA does not provide who is to decide whether the person lacks capacity and (if so) what is in their best interests. This was deliberate because Parliament's intention was that the vast majority of such decisions in the context of care and treatment will be taken informally by those charged with delivering such care and treatment. However, this deliberate silence can in practice cause considerable difficulties in settings where the expertise of different individuals (including the patient's family) is being called upon.

We suggest the following principles provide a route map through:

1. A person who wishes to carry out an act in connection with the care or treatment of another on the basis of their best interests will only be protected from criminal and civil liability if (as a first step) they are reasonably satisfied that the person lacks capacity in the material regard(s);
2. The MCA requires that any assessment that a person lacks capacity must be based on a 'reasonable belief' backed by objective reasons. This requires taking reasonable steps to establish that the person lacks capacity to make the decision in question. What will be reasonable steps for a decision-maker in either of the cases set out above will depend on the circumstances. The more serious the decision, the more formal the assessment of capacity is likely to be necessary.
3. In the hospital setting the doctor or healthcare professional proposing the particular treatment or medical procedure (including a decision not to give treatment) is responsible for ensuring that the patient's capacity is assessed.
4. The doctor or healthcare professional may carry out the capacity assessment themselves. They *may*, however, consider that they cannot do so without the assistance of a specialist (for instance a psychiatrist or a psychologist).
5. It is important to understand, however, that enlisting specialist advice *does not* amount to placing all the responsibility on the specialist adviser. Bear in mind that to have capacity for a decision about treatment a person must understand, retain and weigh up the

information relevant to the decision – including the risks and benefits of the treatment in question – which will be within the expertise of the clinician involved in the treatment, but not, perhaps, any psychiatrist or psychologist subsequently involved.

6. In other words, a treating doctor seeking expert input from a psychiatrist as to whether their patient lacks capacity to consent to a proposed medical procedure is not thereby placing the responsibility upon the psychiatrist to decide whether the medical procedure should go ahead.
7. Rather, it is ultimately for the doctor to consider (with the benefit of such specialist assistance as they have enlisted) whether they have reasonable grounds to believe that the patient lacks capacity to consent to treatment and hence whether they are in a position to proceed on a ‘best interests’ basis. There may be (rare) cases where the decision as to whether a patient has or lacks the capacity is one that can only be resolved by the Court of Protection.
8. In most cases, what will be in the patient’s best interests is a decision that will be reached informally and collaboratively between the clinicians (as clinical experts) and the patient’s family (as experts in the patient), seeking to make the decision that is right for the patient as an individual human being.
9. Importantly, however, in the event of a dispute as to what may be in the patient’s best interests, the MCA does *not* give a special status either to the doctors or to the patient’s family simply by virtue of their respective statuses. If there is a dispute about best interests among available options which cannot be resolved by discussion, then – ultimately – it is for the Court of Protection to decide on the patient’s behalf, the expectation being that it is the treating Trust who will take the matter to court.

“ Intensivists should ensure that local policies as to referrals to ICU include express provision as to whether, and when, ICU clinicians should be involved in a decision to impose a DNACPR notice prior to admission to the ICU ”

10. On the other hand, the fact that a family demand a particular treatment as being, they say, in a person’s best interests, does not compel a clinician to offer it if it would not otherwise be available to the patient if they had capacity – for example as being not clinically indicated, or not funded by the NHS. The way to challenge such decisions about, essentially, resource allocation, is through judicial review not the Court of Protection.
11. Where the patient has made a valid and applicable health and welfare Lasting Power of Attorney giving authority to an attorney (or attorneys) to take decisions as to their treatment (including, potentially, decisions as to life-sustaining treatment), then, whilst it is for the doctor to propose the treatment, the decision as to the patient’s best interests is for the attorney (or attorneys), **not** the doctor. As with a patient with capacity, or any family member, an attorney cannot demand a treatment that the doctors do not consider clinically appropriate.
12. Similarly, where a patient has a court-appointed Deputy with authority to make decisions as to their health and welfare, the Deputy can choose on the patient’s behalf whether to accept medical treatment offered by the treating team. Note that a Deputy can never have authority to make decisions regarding life-sustaining treatment.
13. There will be certain categories of cases relating to serious medical treatment where the authority of the Court of Protection must be sought, most clearly the withdrawal of artificial nutrition and hydration (ANH) from a patient in mechanical circulatory support (MCS) or a persistent vegetative state (PVS). Further guidance can be found in Practice Direction 9E to the Court of Protection Rules. In any case of uncertainty, it is sensible to seek independent legal advice at an early stage.

# Advanced Critical Care Practitioners



**Ms Carole Boulanger**  
Co-Chair  
ACCP Advisory Group



**Dr Graham Nimmo**  
Co-Chair  
ACCP Advisory Group

The Faculty of Intensive Care Medicine (FICM) Advanced Critical Care Practitioner (ACCP) Curriculum 2015 consultation period is now complete. The FICM ACCP Advisory Group would like to thank everyone who took the time to comment. We would especially like to acknowledge Critical Care Networks – National Nurse Leads (CC3N) and British Association of Critical Care Nurses (BACCN) for their positivity during this process and the role development. The support of these two organisations, given that the principle pool of applicants are likely to be from the critical care nursing background, is fundamental in helping to cement the ACCP role as a workforce and career option for staff, patients and intensive care in the UK. These documents form the integral cornerstone defining the ACCP role and ensure standardisation of knowledge, skills, competence and capability commensurate with the role in clinical practice.

Establishment and recognition of this quality standard has led to successful implementation of FICM Associate Member status for ACCPs who meet the stipulated requirements. We have already had a steady stream of successful applicants for this from trained ACCPs who are working in clinical practice at this level. It is well recognised that protection of the title ACCP is not possible so FICM Associate Membership status provides a very effective benchmark in setting the quality standard. This is integral not only for protection of the role, but also provides key quality assurance and governance for hospitals, trusts and health boards and for the quality of care delivery for our patients.

The plans for the 3<sup>rd</sup> National ACCP Conference (hosted at Churchill House and coordinated by FICM) are well underway. We have a selection of eminent speakers including Professor Mervyn Singer, Professor Rupert Pearse and Dr Carl Waldmann. The conference faculty aim to deliver a lively programme of clinical

debate for ACCPs both trained and in training. These sessions will again be coupled with the popular workshops for clinicians and senior nursing teams planning to implement the role in their units. The National Association of ACCPs (NAACCP) will hold their annual AGM at this meeting providing ACCPs from around the UK with an opportunity to have a voice in role progression from this point.

The FICM ACCP Advisory Group has key items on the agenda for the next steps forward:

The ACCP website, via the FICM homepage, currently displays useful information about the role, units and HEIs involved in development of the role. The intention is to extend this information to include toolkits for Trusts, units and clinicians around the set up of the role, from creating a business case to work in practice.

CPD is a clear work stream for the group. The aim is to provide guidance around CPD for the role and how to meet the requirements for organisational performance appraisal processes. This is important for trained ACCPs in this new role to ensure the process effectively ensures the maintenance of the quality standard whilst guiding further development. All ACCPs currently have to maintain registration with their professional body the Nursing & Midwifery Council (NMC) for nurses and the Health and Care Professions Council for physiotherapists. With the advent of revalidation the FICM ACCPAG aims to provide CPD guidance on this.

The NAACCP has an expanding, and evolving, voluntary database of trained and in training ACCPs. However this is likely to be an underestimate of the range of ACCP activity or projected activity across the UK. FICM ACCPAG intends to launch a census with the support of the Regional Advisors to 'map' activity. Please look out for this.

# Workforce: The Year Ahead



**Dr Andrew Rhodes**  
Chair  
FICM Workforce Advisory Group

Workforce planning is notoriously difficult with little workforce data published for Intensive Care Medicine (ICM) in the UK. The recognition by the General Medical Council of ICM as a specialty, some inevitable decoupling from its traditional base in anaesthesia, the (recent) evolution of training systems through Joint, Dual and Single specialty programmes and the changing perceptions of future skill mix requirements from increased specialisation to a more generalist approach being advocated in the Shape of Training Review (2013), means workforce planning for ICM is especially challenging.

The UK standards for staffing of Intensive Care Units are detailed in the *Guidelines for the Provision of Intensive Care Services* (GPICS), published recently by the FICM and the ICS (2015). Together these documents enable a baseline assessment of ICM consultant requirements to be made in order to form the basis of future projection modelling.

Estimates from ICNARC and the Centre for Workforce Intelligence (CfWI) (2015) suggest that there will be a significant increase in demand for ICM services. The impacts upon the current organisation afforded by changing demand, principally through the reassignment of clinical services (e.g. centralisation of vascular surgery) and/or rationalisation of hospital beds remain unclear. The needs of patients and the desire for a 7-day, consultant-delivered hospital service are understood, although the path to implementation is not so clear. Whilst funding is shifting towards supporting outpatient and community-based activity, increased longevity, the rising incidence of diseases such as diabetes and cognitive impairment, and the ever-increasing expectations of the public mean that demand for intensive care will continue to increase. Taking all this into account an increase in the overall bed days required is estimated to be in the order of 4-5%

per annum (comprised of a 7% rise per annum for Level 2 bed-days and an approximate fall of 2% per annum for Level 3 bed-days). This increase in demand will need to be met by a similar scale increase in workforce unless significant changes to the way we practice occur.

The number of doctors that can be employed will ultimately be determined by the money available to employ them. In times of relative plenty (e.g. 1998-2008) expansion in consultant opportunities was rapid; more recently this has slowed significantly. Such swings are particularly apparent in specialist areas where significant capital investment is needed, of which ICM may be the exemplar. With the ongoing economic climate and the NHS' *Five Year Forward View*, it seems unlikely that there will be significant investments in the consultant workforce without stringent requirements to improve efficiency and productivity through changing the traditional working practices. Despite these important caveats, the CfWI have attempted to estimate the future supply of ICM consultants. These projections were based around estimates/assumptions concerning training and departure from the specialty. They estimate that by 2033 there will have been a 31% expansion in anaesthesia and ICM CCT holders. It is likely that this will be insufficient to meet the increasing needs associated with the growing demand.

In order to further inform the workforce planning debate, the FICMWAG will undertake several pieces of work, that each of us may be asked to contribute to. First, we will repeat the FICM annual census, and second we will be working with some regions to do granular modelling of workforce requirements. This will include working to reconcile these projections with their current trainee and consultant numbers and to model how they may need to be adjusted to meet current and anticipated service demand.

# Cardiothoracic Intensive Care



**Dr Nick Fletcher**  
**President**  
**Association of Cardiac Anaesthetists**

Many of the innovations that we take for granted today in critical care practice such as the pulmonary artery catheter, critical care echocardiography and extra corporeal circulatory assistance evolved within Cardiothoracic Intensive Care Medicine (CTICM). CTICM itself has undergone many significant changes in the past decade as it has evolved to meet the needs of changing patient demographics, disease burden and treatments. We have an ageing population undergoing more complex and innovative surgical procedures, whilst there has been a significant increase in acute cardiology in the majority of centres. Extracorporeal units for management of severe acute cardiorespiratory disease, with one exception, are sited in tertiary Cardiac Intensive Care Units in the UK. There are currently 36 units of varying size in the UK that provide about 15% of total critical care activity. These units can be summarised on 3 levels: (1) cardiac surgical Intensive Care Units, (2) mixed cardiac surgical and medical intensive care and (3) a combination of (1) and (2) with extra-corporeal support and transplant patients.

There is, of necessity, a close working relationship with our surgical colleagues as outcomes are closely linked to the technical success of surgical procedures. Similar to general intensive care, a cardiac intensivist may be a non-anaesthetist, although 95% of consultant clinicians will have also some sessions in cardiothoracic anaesthesia. CTICM out of hours rotas have been in the spotlight recently with GPICS and the work of the Clinical Reference Group (CRG) on commissioning arrangements. Combined out of hours rotas to cover both cardiac anaesthesia and intensive care has been a successful model to date for predominantly surgical units, whether this can provide the necessary continuity of care going forward is an area where there is no outcome data and currently the subject of much discussion.

The participation of cardiac intensivists in combined multidisciplinary clinical meetings with cardiologists and surgeons is a great example of team working. An increasing proportion of CTICUs contribute to the Assessment of Risk for Cardiothoracic Intensive Care (ARCTIC) model, which is a subspecialist section of the published ICNARC benchmarking. Most units also contribute to two other benchmarking national audits, resulting in a constant and intense level of outcome scrutiny.

The training of future cardiac intensivists is a priority for all those with an interest in CTICM. To further this career development pathway, FICMTAC has produced a Special Skills Year in cardiothoracic intensive care with the support of ACTA, essentially describing the core skills and knowledge required of a consultant in CTICU. The Special Skills Years in echocardiography and ECMO for ICM will also be delivered by selected CTICU units. A recent survey for Cardiothoracic Intensivists in ACTA suggested that less than 40% of units had a deanery ICM trainee in the last year. It is hoped that this will increase with the expansion of recruitment in ICM training posts. The current requirements for a consultant in cardiothoracic anaesthesia and intensive care to have a dual CCT and sufficient post fellowship clinical experience *and* competence in transoesophageal echocardiography are challenging to say the least.

A career in Cardiothoracic Intensive Care is certainly a stimulating and challenging prospect. Technical and clinical advances, particularly in extracorporeal support will radically change the sub-specialty in coming years. The implications and impact of the Shape of Training review and the NHS England service specifications for commissioning together with the requirements for more consultant delivered care are yet to be played out.

# Neurocritical Care



**Dr Ian Tweedie**  
Immediate Past President,  
NACCS



**Dr John Andrzejowski**  
President  
NACCS

The provision of Neurocritical Care (NCC) in the UK has been evolving over the last decade. In 2004, Martin Smith's editorial asked if NCC had 'come of age?'<sup>1</sup>. The formation of the NCCNet (network), that has recently been subsumed into the Neuroanaesthesia & Critical Care Society of Great Britain & Ireland (NACCS), has provided a point of contact for clinicians involved in NCC and given national bodies an outlet from whom to seek advice and input that can influence the future of NCC provision in the UK.

According to the *Guidelines for the Provision of Intensive Care Services* (GPICS)<sup>2</sup>, Neuro-Critical Care is "... devoted to the comprehensive care of critically ill patients with neurological or neurosurgical disease. Care of such patients requires an understanding of the physiology and pathophysiology common to brain diseases in general as well as the skills and knowledge to treat a range of specific conditions." The relationship between the brain, other organs and their support is also part of the holistic care required in NCC.

Data from the USA (where NCC was recognised as a separate specialty in 2005), suggests better outcomes for all types of brain injury when managed in NCC units rather than General Critical Care units. Many of these studies were from small single units raising concerns regarding bias and some were retrospective studies with no adjustment for confounders. It is also possible that such Neuro-units may not admit patients most likely to die, thus skewing results. A larger meta-analysis however, has confirmed better outcomes and mortality in NCC units<sup>3</sup>.

The 2005 *TARN Report*<sup>4</sup> drew attention to lower mortality in Neuroscience Centres, but didn't explain why; was it due to 'cherry picking' by the

Neuroscience Centres, leaving only the potentially poor outcome patients in the district general? The more recent RAIN study<sup>5</sup> strongly supported the TARN findings even though brain injury is now largely managed in tertiary centres. Finally there is ICNARC evidence that other neurological pathologies such as spontaneous intracerebral hemorrhage also do better in specialist units<sup>6</sup>.

It is accepted that outcome following brain injury is better in Critical Care units within a neuroscience centre; evidence from the RAIN database is only suggestive that it is even better in standalone NCC units.

Some of the theoretical reasons for why outcomes might be better in a unit that deals with larger numbers of NCC patients include:

- Experienced staff giving brain-centred care leading to earlier recognition of neurological deterioration.
- Greater adherence to brain protective protocols and greater access to and use of monitoring such as intracranial pressure and Electroencephalography.
- Infrastructure which allows rapid access to neurosurgical input, imaging and theatre space.
- Early input of specialist physiotherapy and rehabilitation.
- Close working relationships with the neurosurgical and neurological specialists.
- More optimistic attitudes to long stay neurologically injured patients.

GPICS and the Clinical Reference Group service specification for critical care pose challenges to some single specialty units. The suggested employment of intensivists with the FFICM qualification may be difficult for such units for the foreseeable future.

The proposed KPIs (e.g. readmission rates) that will contribute to the critical care dashboard may also be inappropriate to apply in such units. Throughout the UK, there is a mixture of single specialty NCC units and ‘pods’ of NCC beds within a general critical care area; both appear to provide good outcomes. We question the wisdom of having to apply these guidelines in their current form and putting unnecessary additional stress on those units that at present may not conform, but which do perform.

The ideal might be the large critical care area where skills and sub-specialty backup is available to the sickest patients. However, we would caution that the evidence showing that patients do better in a neurocritical care environment is not ignored. A model of subspecialist ‘pods’ within larger critical care areas, that are staffed consistently (medically and nursing) with clinicians who have specific knowledge and skill in the care of the injured brain, might encourage doctors to train and work in neurocritical care as intensivists, whilst being able to keep up their skills in other areas of critical care such as renal or cardiac.

Finally, critical care is organised on a regional network basis, but single specialty critical care units don’t always fit into this model although they provide tertiary support for their regions. NCCNet argued that a national network for neurocritical care would be a better solution in terms of standard setting, benchmarking, audit/research and dissemination of best practice<sup>7</sup>. We are concerned that adult critical care is being taken out of the specialist commissioning portfolio and is to be commissioned locally. It remains to be seen if this is the best way to commission tertiary specialist critical care.

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## Faculty Calendar 2015

<b>September</b>	24th	MEETING:	FICM/ICS Joint Standards Committee
	29th	MEETING:	FICM Training & Assessment Committee
	29th	MEETING:	Regional Advisors Meeting
<b>October</b>	5th-6th	EVENT:	FFICM Preparation Course
	15th	MEETING:	FICM Board Meeting
<b>November</b>	17th	MEETING:	FICM/ICS Joint Standards Committee
	24th	MEETING:	FICM Training & Assessment Committee



# Major Trauma Networks in England



**Dr Chris Moran**  
National Clinical Director for  
Trauma, NHS England

The organisation and standard of major trauma care in England has undergone a revolution over the past 5 years. London led the way by establishing three Major Trauma Centres (MTC) within the capital city. These went live in April 2010 and a fourth commenced in April 2011. The regional trauma networks went live 12 months later, in April 2012, so that there are now 27 designated MTCs in England: 11 for adults and children, 9 for adults only, 5 for children only and 2 collaborative centres. Two cities, Manchester and Liverpool, lacked a single hospital that had all services on site that could fulfil the service specification of a Major Trauma Centre. The hospitals in each city have formed a collaborative to provide major trauma care.

Thus, the adult population of 44 million is served by 22 centres whilst the 9 million children in England have access to 16 centres. All of these MTCs have facilities to provide comprehensive resuscitation, definitive care and rehabilitation for the full spectrum of injuries encountered in polytrauma.

Each MTC is supported by a network of designated Trauma Units. 112 hospitals fulfil this role and have the facility to receive, resuscitate and triage trauma patients with onward and safe transfer of the patient to the nearest MTC if this is needed for definitive care. Resuscitation may require emergency laparotomy or thoracotomy to control exsanguinating haemorrhage. Pre-hospital teams use triage tools, based upon physiology, anatomical

injury and mechanism of injury, to determine if a patient may have suffered major trauma. Triage positive patients are transported to the nearest MTC, by-passing all hospitals on route, provided the transfer time is 45 minutes or less and the patient does not have an immediate life-threatening injury, such as unrelieved airway obstruction.

The system also has a third tier of hospital, the Local Emergency Hospital. These hospitals have Accident and Emergency Departments but lack the facility

to receive and resuscitate patients with major trauma. They are always by-passed by emergency services but need to be part of the network and have facility for transfer of patients whom arrive without contact with the emergency services.

The changes in the trauma system have been underpinned by

excellent data collection by the Trauma Audit and Research Network (TARN) and a change in the financial system with the development of a 'Best Practice Tariff' for major trauma and a new system of payment that better reflects case complexity. The past 3 years have seen a significant shift in the point of care for major trauma patients in England. In the year 2011, 9,115 patients with severe injuries (ISS>9) were directly admitted to the (yet to be designated) MTCs and a further 4,143 had a secondary transfer to these hospitals. The change in the pre-hospital networks resulted in 15,880 direct admission to a MTC in the year 2014, with a further 7,907 secondary transfers.

“The development of the Major Trauma Networks has allowed the rapid introduction of innovations in clinical practice and a reorganisation in care pathways”

Thus, 23,787 patients with major trauma received definitive care in a MTC, a 56% increase in 3 years. The case-mix is similar in most MTCs, with 55% of patients suffering severe polytrauma with an Injury Severity Score (ISS) >15 and 45% having an ISS 9-15. Many of these cases have complex musculoskeletal injuries with a lower chance of death but the potential for severe long-term disability. 98% of injury in England is due to blunt trauma with penetrating trauma being more common in the centre of a small number of cities. Overall, 80% of patients will have a limb or spinal injury, 60% a head injury, 30% a chest injury and 5% abdominal injuries.

The development of the Major Trauma Networks has allowed the rapid introduction of innovations in clinical practice and a reorganisation of care pathways. Evidence-based measures have included the widespread use of Tranexamic acid in patients with haemorrhage. In 2011, only 30% of eligible patients were receiving this simple intervention. By 2015, this had risen to over 80% with many patients now receiving it pre-hospital.

Likewise, massive transfusion protocols, allowing resuscitation with blood and blood products, have been adopted by all MTCs with many now using point-of-care testing for coagulopathy to guide transfusion requirements at a very early stage. An early trauma CT scan has become routine to allow rapid identification of significant head, spine and torso injuries. The diagnostic radiologist has become an integral part of the trauma team as has the interventional radiologist: embolisation is being used more and more frequently to manage pelvic and intra-abdominal haemorrhage. Another rapid change in clinical practice has been the development of surgical stabilisation of severe chest wall injuries in adults, using plates to fix multiple rib fractures. Most patients can still be treated non-operatively within a chest trauma pathway that includes appropriate neuro-axial analgesia but about 5% of patients with multiple rib fractures

benefit from surgery, which can significantly reduce complications and length of stay, both on ITU and in hospital. This service, which is ideally provided by a joint team of thoracic and orthopaedic surgeons, is being established in all adult MTCs.

The MTCs in England have seen the development of a new Major Trauma Service in most centres. These focus on the holistic care of the patients, ensuring good communication and coordination between the various specialties involved in the management of polytrauma. Intensive Care

Medicine remains integral to this but the development of major trauma services and coordinators has meant that this communication, which often failed once the patient left critical care, now continues during their ward care and rehabilitation. The larger MTCs now have designated Major Trauma Wards, which allow these complex cases to be managed as a cohort with focused nursing and rehabilitation care. The huge psychological

impact of these life-changing injuries, on both patients and relatives, is now being recognised and the availability of psycho-social support is steadily increasing. One of the biggest impacts has been in rehabilitation medicine. The manpower issues in this specialty have long been recognised and the development of MTCs provides an opportunity to increase provision and also enhance the role of Allied Health Professionals.

So, has it made a difference? TARN have calculated the Probability of Survival (Ps) using a case-mix adjustment that includes age, gender, Glasgow Coma Scale, injury severity score and comorbidities. Data has been normalised to the year 2008. In England, during the financial year 2011/12, the Ps was 1.1 and not significantly better than 2008. Since the introduction of the regional Major Trauma Networks in 2012, there has been a significant improvement in the probability of survival and in 2014/15, the Ps had significantly improved to 1.57, a 47% improvement in just three years! This translates to approximately 600 additional survivors per year.

Yes, changing the system has made a difference.

“ All Major Trauma Centres have facilities to provide comprehensive resuscitation, definitive care and rehabilitation for the full spectrum of injuries encountered in polytrauma ”

# Training and Assessment



**Dr Alison Pittard**  
Chair  
FICMTAC

As summer approaches you may be wondering what the weather will be like! The Training and Assessment Committee has been considering the future too but in terms of potential changes to the way doctors are trained and keeping our curriculum contemporary. The GMC has an annual window in which updates and/or changes to curricula can be submitted. We are regularly approached by other bodies to ensure that our curriculum is consistent with changes in national policy, e.g. this year we had to confirm we adequately cover child sexual exploitation. Other requests mean we have to amend the wording slightly so that it is obvious we comply with requirements. All alterations, however small, need to be prospectively approved by the GMC and we submitted ours, along with two new Specialist Skills Year modules in April. If all goes to plan, by the time you read this we will have had our approval and trainees will have a choice of 11 modules from August.

The new modules, Home Ventilation and Education, together with those already established, offer trainees on our single CCT programme a fantastic opportunity to gain experience in a specialist area of Intensive Care Medicine. Not all regions will want, or be able, to offer all modules. These are therefore a portfolio of approved modules from which a training programme can choose to offer. Some modules stop short of including a higher qualification as a mandatory component, for example the PGCert is not a requirement of the education module as this has financial implications, nor is ACCE accreditation a requirement for the ECHO module as this will take longer than 12 months although trainees are expected to register and sit the written component of the ACCE. As trainers get more experience supervising modules there will undoubtedly be changes to make and the

Faculty is happy to receive comments but they can only be submitted to the GMC on an annual cycle.

So what has been happening since the Greenaway report? There have been discussions between the Academy, HEE, GMC, the devolved nations and all health ministers regarding the Shape of Training. There is broad endorsement to move on to the next stage but thankfully it will be at a slower pace than originally thought. There was a general anxiety that Shape of Training would shorten training to a specific number of years. A letter was sent to all four ministers stating that Colleges and Faculties would find it difficult to be constrained in this way. If there is a good reason that the training programme is a certain length and it is successful, it shouldn't be changed.

The outcome from the steering events held last year and discussions with ministers is that there are four high level principles and four focus areas. It is recognised that consultants of the future are likely to have a professional career that changes with time and new roles may take the place of ones held at the beginning of one's consultant career. This would require training and funding. Overall I think the outlook is much more promising although I'm not so sure the same thing can be said for the British weather!

# Quality Assurance



**Dr Jonathan Goodall**  
**Chair**  
**FICM Quality Assurance Working Party**

That education and training in Intensive Care Medicine is of the highest standard is surely the ultimate aim of all of us involved in its delivery. Established 18 months ago, the Quality Assurance Working Party (QAWP) a sub-committee of FICMTAC, aims to ensure that these laudable aims are achieved: that ICM training delivered is of the highest quality for all ICM trainees in the United Kingdom.

Our first task was to improve our own understanding of the terminology, as it can be confusing! The GMC describe three processes: Quality Assurance (QA), Quality Management (QM) and Quality Control (QC).

QA is the over-arching activity (QM and QC sit under this umbrella). It is the responsibility of the GMC, is based on its statutory remit, and includes the policies, standards, systems and processes used to maintain and improve the quality of medical education and training in the UK.

QM is the means by which medical schools, deaneries (LETBs) ensure that local education providers for which they are responsible meet the GMC's standards. QC is the responsibility of local education providers (for example individual training units and Trusts), who must ensure that local education delivery meets local, regional and national standards.

The place of the Faculties and the Colleges is not restricted to a single part of the process, but is integral to the effective delivery of specialty training at many levels.

All QA processes (medical and otherwise) use a widely accepted 'four stage' framework:

- Adopting and setting standards
- Self assessment using collected and shared evidence

- External assessment and validation
- Reporting of outcomes

We already have clearly defined standards to which we work, and which we use when delivering training. These include both GMC standards (for example Good Medical Practice) and 'specialty specific' standards (including the FICM training curriculum).

Much of our work as the QAWP has been focused on developing a process to gather evidence to use in quality management of FICM training. We want to use data from as many sources as possible (including external validation of units using RA reviews and trainee surveys), to feed into the self assessment and validation parts of this process. Using multiple sources will better inform us and should increase the quality and reliability of the information we obtain.

The 'FICM Quality Nexus', uses data from a broad range of inputs. These are as diverse as Regional Advisor's reports, GMC and ICM trainee surveys, FFICM examination results, Deanery/LETB visits and outcomes of ARCPs. The aim of this process is to inform the Faculty on the quality of training nationwide, to identify areas of good practice and highlight any issues of concern. The data gathered will be used to maintain and improve the quality of ICM training at local, regional and national levels.

The information collected using the Nexus will be collated into an annual report for the FICM Training and Assessment Committee. The first QA report will be available in the summer of 2015 and will be published on the FICM website: QAWP would be pleased to hear of any views and ideas generated as a result! Importantly the strength of quality data maximises with time, as we are able to move from snapshots to longitudinal reviews.

# FFICM Examination



**Dr Andy Cohen**  
Chair  
FFICM Examiners

Looking back over my first year being responsible for the FFICM exam it seems to be maturing slowly like a fine wine. The format is now established; a machine marked test comprising of multiple true false questions and single best answer questions with no negative marking; a Structured Oral Exam with independent marking by each examiner and no option for a single examiner veto; and an Objective Structured Clinical Exam. The OSCE is a flexible format used to test a wide range of skills including simulation and communication.

The way the exam is structured requires the opinion of many examiners to create a candidate's final mark. The principle of having as many examiners as possible to independently assess each candidate recognises that examiners are fallible and is used to reduce the risk of bias. Even simple changes like having examiners in the oral exam only ask each candidate a single question promotes this principle.

There is considerable demand from teachers and those wishing to become future examiners to visit the exam. Unfortunately, although we welcome visitors, we have very few places available. It came as a great surprise to me to find that once we offer the opportunity to visit that it is not uncommon for those who have accepted our invitation to fail to attend and often with no warning. I would ask that if you have accepted our invitation to observe the exam that you give this the greatest priority. If you find that despite all efforts you cannot attend it helps if you let us know as early as possible. Visiting the exam is a valuable opportunity for those involved in preparing trainees for the exam but it also is a good way of feeding back to the examiners comments on the running of the exam. During the last two sittings of the exam we were pleased to

welcome a member of the RCoA Lay Committee. Feedback from patients helps us consider the patient perspective in our assessment system.

The new cohort of examiners have settled in to examining and have become members of the various examiner subgroups where most of the work is done preparing each new exam. After each exam a report is published on the website providing statistics about the exam, details of questions asked and any issue raised by examiners.

Often examiners are asked to describe the standard being looked for in the FFICM. In my last report I note that examiners had discussed this recently and agreed that they were looking for "a doctor in training who is familiar with the syllabus and has done the necessary bookwork. They would clinically be at the level of a registrar who would be able to formulate a plan of care for a critically ill patient with appropriate consultant backup. Passing the exam is a requirement of progression to ST7 of the intensive care medicine training programme and the standard is set to reflect this".

Annual	MCQ	OSCE/SOE
Pass	103	85
Fail	30	47
Total	133	132
Pass rate	77.44%	64.39%
Fail rate	22.56%	35.61%

The data in the tables shows a summary of the success rate of candidates in various parts of the exam over the last two sittings. It should be remembered that not all candidates sit all components of the exam.

	MCQ		OSCE/SOE	
	Jul-14	Jan-15	Oct-14	Mar-15
Applications	51	87	58	77
Withdrawn	1	3	0	3
Absent	1	0	0	0
Pass	34	69	38	47
Fail	15	15	20	27
Total	49	84	58	74
<b>Pass rate</b>	<b>69.39%</b>	<b>82.14%</b>	<b>65.52%</b>	<b>63.51%</b>

During the discussions at the end of each day's examining examiners have the opportunity to feedback comments that can be published in the exam report. Some topics seem to come up repeatedly such as the need to have a structured approach to the presentation of ECG and radiology and the need to consider the whole syllabus, in particular the basic foundations of knowledge upon which our specialty is based.

At its meeting in November 2014 the FICM Training and Assessment Committee approved the creation of an FFICM Examination Sub-Committee (FESC) to oversee the running and future development of the FFICM. It also agreed that this committee could implement an Exam Prize. Each year the performance of the cohort of candidates will be reviewed to see if any candidate has

performed at such a standard as to warrant a prize. The FFICM prize will be awarded to a candidate who has achieved a maximum score in the SOE and achieved a consistently high standard throughout the rest of the exam. It is hoped that this will be introduced in 2016.

Again I would like to thank the RCoA Examinations Department without whose considerable help and expertise we would not have been able to conduct the examination so smoothly. I would also like to thank Dr Vickie Robson (Deputy Chair), the Chairs of the various parts of the exam – Jerome Cockings (Audit), Gary Mills (SOE), Jeremy Cordingly (OSCE) and Jeremy Bewley (MCQ) – as well as all of the Court of Examiners – for all their hard work in setting and running this examination.

### FFICM Examination Calendar July 2015 - July 2016

	FICM MCQ Examination		FICM OSCE/SOE Examination	
Applications and fees not accepted before		Mon 19 Oct 2015	Thurs 13 July 2015	Thurs 4 Jan 2016
Closing date for Exam applications		Thurs 26 Nov 2015	Thurs 3 Sept 2015	Thurs 25 Feb 2016
<b>Examination Date</b>		<b>Tues 12 Jan 2016</b>	<b>Tues/Weds 13-14 Oct 2015</b>	<b>Tues/Weds 19-20 April 2016</b>

### FFICM Examination Calendar July 2016 - June 2017

	FICM MCQ Examination		FICM OSCE/SOE Examination	
Applications and fees not accepted before	Mon 11 April 2016	Mon 17 Oct 2016	Thurs 14 July 2016	Thurs 5 Jan 2017
Closing date for Exam applications	Thurs 2 June 2016	Thurs 24 Nov 2016	Thurs 1 Sept 2016	Thurs 23 Feb 2017
<b>Examination Date</b>	<b>Tues 12 July 2016</b>	<b>Tues 10 Jan 2017</b>	<b>Tues/Weds 11-12 Oct 2016</b>	<b>Tues/Weds 28-29 Mar 2017</b>

# Trainee Update



**Dr David Garry**  
FICM Trainee Representative

UK healthcare continues to evolve – one General Election, one mission statement (*The NHS Five Year Forward View*), Shape of Training and its potential reforms... Amongst all this the Faculty is hard at work to ensure that our specialty has solid foundations, and continues to look forwards.

First things first. Congratulations to those who were successful at the recent ICM recruitment process, and welcome to our new FICM trainee members. Many congratulations also to those of you who were successful at the recent (fifth) sitting of the FFICM Final examination. The pass rate for the January MCQ was 82%, and 63.5% passed the March OSCE/SOE component to achieve the Fellowship in Intensive Care Medicine. Those with a keen eye might note that the pass rate has dropped – this should be expected as the cohort of very senior trainees who initially sat the exam has made way for trainees who have progressed through the new ICM curriculum and who are sitting the exam at an earlier stage of their training. Please do pay attention to the exam feedback that the Faculty provides as certain areas continue to show poor performance, and it would not be surprising to see them crop up again at some point soon!

The recently published *Guidelines for the Provision of Intensive Care Services* (GPICS) document is a real milestone for the UK ICM community, a great example of cross collaboration between the FICM, the Intensive Care Society and their multi-professional partners. It is a great reference for the planning and delivery of UK Intensive Care Services, and its structure makes it very easy to dive in and digest in small portions.

I hope all trainees out there received the most recent edition of *Trainee Eye* with the launch of a critical appraisal section, written by trainees for trainees.

Looking towards future editions, please do contact myself or Ian if you have an appraisal that you would like to submit, or an article that may be of interest, such as a year abroad, a fellowship or some research that you may be involved in.

A huge thanks to all the trainees (there were quite a few of you) who got in touch with questions and comments ahead of the Faculty Board away day. Your feedback was very well received and will help to improve things moving forwards. The Faculty will soon launch its first exam prep course, and there will soon be an Examination Prize, the winner of the inaugural prize is likely reading this (i.e. it could be you!).

For those of you undertaking the single CCT programme, the choices continue to expand for your Special Skills Year. For aspiring teachers there will soon be a module in education, and for those of you keen to explore care outside of the traditional hospital inpatient setting there will soon be a module in Home Ventilation. Further modules are planned, as always watch this space! Although not all modules will run in all regions.

This will be the last time that I contribute to *Critical Eye* as Trainee Representative. It has been a privilege and a real pleasure to help represent ICM Trainees at the Faculty, and I would like to thank you all and the Faculty for your support during my tenure. Ian Kerslake will be taking over as Trainee Representative in November, and there will soon be elections for a new Trainee Representative Elect. I would strongly encourage you to consider applying as it is an incredibly fulfilling and worthwhile opportunity. In the meantime please do email myself or Ian if there is anything you would like to discuss ([ficom.ac.uk](http://ficom.ac.uk)).

# Harrogate ‘Virtual’ ICM Journal Club



**Dr Rob Tuffin**  
ICM Consultant



**Dr Oliver Prince**  
Specialty Doctor

Like many departments throughout the country we have had to meet the challenge of continuing to deliver high quality postgraduate education in the face of changing working patterns. Upon taking on the role of Faculty Tutor at Harrogate I was keen to add a journal club to our repertoire as I felt it would encourage trainees to learn the skills required to dissect a paper and assess its relevance to their practice, a key component of evidence-based medicine.

It quickly became apparent however that any attempt to implement the traditional model of a journal club (a paper stuck up in the office and a lunchtime chat about it) was going to struggle to gain traction or momentum as the physical numbers of trainees on any given day was limited to a handful at best. As such we felt it best to move the journal club into the ‘virtual learning environment’ (VLE) as this would allow us to get round the limitations imposed by being confined to a particular place and allow our trainees to learn at a time convenient to them.

The most immediate and obvious concern at the outset was to ensure that the educational goals would be met, namely that the trainees would learn to identify what makes a piece of research valid and relevant. To achieve this, their learning had to be guided and structured regardless of when it might be occurring, as such there had to be some clear rules and access to senior support and feedback.

In practice the virtual journal club works by a paper being emailed out at the beginning of the month with a named trainee allocated to provide a summary of its content, focusing in particular upon its design, statistical quirks and implications for daily practice. A copy of the paper is also posted on a tailor made site on our Trust intranet

which also allows participants to post comments or ‘blog’ their views on the paper in question, this blogging also occurs in a simpler fashion by participants being encouraged to hit the ‘reply all’ button to the emailed version of the paper. All comments are moderated so that in the event of any abusive or offensive language (this has never happened thankfully!) they can be removed from the discussion thread. At the end of the month a consultant provides feedback to the trainee about their critique, fills in any gaps that have not been done so already by the online group and then places the paper in question into a wider historical context, perhaps even posting out other relevant papers. The whole discussion thread is then archived on the dedicated Trust intranet site together with the paper itself to allow people to access it again at any point in the future. The whole process then starts again at the beginning of the next month.

We’ve been running the virtual journal club now for 18 months and the feedback has been universally positive, particularly as people appreciate the barriers that rotas and service delivery frequently place in front of educational initiatives. However from a personal viewpoint the most satisfying aspect of the whole process has been the interest shown from our colleagues in other disciplines and teams. The journal club community has steadily grown to include nursing and physiotherapy staff so now also serves as a platform to help foster better multidisciplinary working. Hopefully it will eventually become a truly inter-professional educational resource, something that perhaps may never have occurred within the confines of a traditional journal club.



# ICM National Recruitment 2015



**Dr Tom Gallacher**  
ICM National Recruitment Lead

Recruitment to ICM training occurred in April and was again held at The Hawthorns – West Bromwich Albion’s football ground in Birmingham. We invited 240 candidates for interview with 137 posts available. For the first time, Scotland were able to offer posts via the National Recruitment process and thus with all 4 nations involved for the first time the process is now truly national.

We filled 120 of the available 137 posts giving an overall fill rate of 88%. There were a larger number of appointable candidates but due to the requirement for both specialty programmes of a dual programme to be in the same Deanery some Deaneries were oversubscribed whilst others were undersubscribed.

“ The August 2015 intake will be the last opportunity for trainees above ST5 in a partner specialty to apply for a Dual CCT programme with ICM ”

Following discussions with the General Medical Council they have agreed to remove the requirement for a trainee to commence training in their second specialty of a dual programme within 18 months of commencing their first specialty in

order to be awarded dual CCTs. This now means that a CESR(CP) will no longer be required to be placed on the Specialist Register for the second specialty to which the trainee is appointed regardless of the length of time from when they were appointed to their first specialty programme. Though this was always merely a paperwork issue in that

both a CESR(CP) and a CCT allow entry onto the specialist register it was a source of confusion with some interpreting this as an absolute time limit for appointment to a dual programme with ICM.



*Assessors reviewing marking .*

*Photographs by: James Goodwin*

However, as has already been mentioned in previous articles, the Faculty have agreed in conjunction with our partner Colleges that from the 2016 recruitment round onwards (interviews to be held in spring 2016), trainees will not be able to apply for Dual CCTs if they are beyond the end of ST5 in their initial specialty of appointment at the time of interview for ICM.

The August 2015 intake is therefore the last opportunity for trainees above ST5 in a partner specialty to apply for a Dual CCTs programme with ICM. This has been well publicised in advanced in order to avoid any trainee wishing to dual train being prevented from doing so.

Our interview process was attended by a lay observer on each of the three days and formal feedback was very positive with only a few minor recommendations for improvement which will be considered by the Recruitment Sub-committee

in due course. We also introduced a quality assurance process for this year's Recruitment round where a small group of experienced interviewers observed the various stations across the multiple streams in an attempt to confirm that the individual stations in the multiple streams were consistent in their assessment of candidates or to pick up any inconsistencies in order to inform next year's process. As part of this quality assurance, and in addition to the trainees' post-interview feedback forms, we invited formal structured feedback from the interviewers as well as inviting the interviewers to feedback to us any other issues they may have which could help improve the 2016 process. A quality assurance report will be produced and this with the comments and suggestions we received from the interviewers, will be considered by the Recruitment Sub-committee in due course with a view to making changes to next year's process where appropriate.



*Assessors received a morning briefing prior to interviews.*



*Candidates were asked to write a short presentation as part of the interview process.*

# Regional Advisor Update



**Dr Daniele Bryden**  
Lead RA

There were many new faces at this year's RA, FT and TPD day in February. Although the people in post may have changed, the issues they face roll on, hence the importance of such meetings. Feedback from the event was very positive with great support for the inclusion of TPDs and the ability for attendees to network. It was almost my last official role as Deputy Lead RA and I'm delighted that Mark Carpenter, RA for Northern Region, has been elected to take over. Mark will be working on the programme for next year's meeting and welcomes any suggestions.

Having taken over from Chris Thorpe as Lead RA, I too felt very much the new girl in class attending my first recent FICM Board meeting. Although operating at a much higher level of engagement with national bodies, the board is discussing many of the issues we experience at the coal face as clinicians and trainers. Currently we're examining the impact that job planning and the lack of SPA time is having on people's ability to fulfil their professional training responsibilities as Tutors and Regional Advisors and whether this would impact on their willingness to take on these additional roles in the future. It is clear that many of you are providing support to trainees within generic rather than identified SPA time and there is an inevitable inconsistency therefore in time that is provided by Trusts to facilitate these activities off site.

It is to our specialty's credit that we have a reputation for providing a high standard of training even if the value of that is not being recognised by many Trusts, and many of you are in effect using your own time to make this happen. How long that goodwill can continue to be used without recognition remains to be seen, and we must

maintain pressure via the GMC and Deaneries/ LETBs on employers. The topic will also be on the agenda for our combined Regional Advisors/FICM Training and Assessment Committee meeting on 29 September when we will look at the data in more detail, so do make your views known to your local RA.

The RCoA has recently produced guidance on approval of job descriptions, job plans and person specifications for new consultant posts. The sharp eyed amongst you will have noticed that the RCoA document contains very broad brush considerations of requirements for ICM posts. It was felt that the best place for detailed guidance to assist RAs (and those constructing the job descriptions) was on the FICM website, where we would be better able to take account of the fact that posts may be for ICM in conjunction with medicine or Emergency Medicine rather than anaesthesia alone.

However the RCOA guidance contains key top line requirements, including the requirement that posts for stand alone neuro and cardiac ICUs with a minimum of 1 DCC-PA of daytime critical care must be reviewed by the RA in ICM. It will be up to the local RA in conjunction with the relevant units to decide on the minimum skillset needed, but this is an important and necessary change in light of the development of the *Guidelines for the Provision for Intensive Care Services*. You can find that guidance on the Regional Advisors page of the website at [www.ficm.ac.uk/training-icm/regional-advisors-icm](http://www.ficm.ac.uk/training-icm/regional-advisors-icm).

Finally my thanks to all fellow RAs for comments and suggestions please keep them coming as they form the basis for how we move forwards.

# Spotlight on Training in the North East



**Dr Mark Carpenter**  
Deputy Lead RA

The North East ICM training scheme has moved seamlessly over the last few years from the old joint system to the new single and dual systems. The northeast has a long history of supporting training in ICM with the old parent specialty Joint scheme, and now the new scheme is bedding in nicely thanks to the hard work of the Training Programme Directors James Ryan and Suzy O'Neill. ICM training sits within the Health Education Northeast (HENE) School of Anaesthesia and Intensive Care Medicine.

A need to supply increasing numbers of properly trained intensivists has allowed HENE (formerly the Northern Deanery), and local Trusts to support a rapid increase of trainee numbers and we are able to appoint 10 ICM trainees per year. We are now in the position that we will hopefully be able to supply our local Trusts with enough fully trained intensivists in the near future. HENE and the school board have always been very supportive of ICM training, allowing an expansion of numbers whilst others struggle to recruit and have numbers reduced.

Training in ICM is based in our two major trauma centres in Newcastle and Middlesbrough, offering all specialist areas within ICM. We also have a number of large general hospitals providing ICM training throughout the region. Our partner specialties of Anaesthesia, Medicine and Emergency Medicine are based at the same hospitals, all within reasonably easy commuting distances.

If you are thinking of doing ICM and want to do so in a region with innovative training, good hospitals and a nice place to live (but you can still get back to the other bits of the country if you want to), then the Northeast offers all these things. Feel free to get in touch if you want more details.

The North East has a number of initiatives to further enhance training in the region:

- The North East scheme has a regular organised and well received teaching programme for ICM interested trainees, which rotates around the region on a regular basis. This covers the curriculum over a 2 year period. [www.nsaicm.org](http://www.nsaicm.org)
- The North East Intensive Care Society organises local meetings of high quality.
- We organise an FFICM preparation course run in Sunderland twice yearly. [www.fficmcourse.co.uk](http://www.fficmcourse.co.uk)
- A 'New to ICU' course is run in one of local trusts annually.
- The [www.iccueducation.co.uk](http://www.iccueducation.co.uk) website, run by Dr Peter Hersey is a valuable resource for training and curriculum requirements.
- Simulation and ultrasound: HENE have recently set up a patient safety faculty with simulation and human factors streams. There are links with simulation facilities throughout the region including with Teeside University for ultrasound simulation. We have FICE mentors at all of our ICM training units.
- Social media and #FOAMed: for more information follow the various strands on Twitter @nsaicm, @HealthEd\_NE, @iccueducation, @NEsimulation, @mcarpenter1967.
- Research: both of our main training units and most of our other units are active in research.

# Spotlight on Critical Care Pharmacists



**Mr Greg Barton**  
Specialist Pharmacist  
Critical Care/Burns

Critical care is an exemplar care environment; it draws on all the talents and expertise available to create the best possible patient care. The use of medicines is one of a handful of interventions that are employed in every single critically ill patient. Pharmacists are perfectly placed to optimise this aspect of care as part of the team, by integrating their theoretical and practical knowledge and experiences of pharmaceuticals, pharmacology, pharmacokinetics, pharmacodynamics, pharmacoconomics and therapeutics into the care processes. These skills are supplemented by a more general medicines management role which is also needed in order to make the environment and work systems as safe as possible.

Although a large proportion of our input is still reactive (e.g. correcting 'errors') an often overlooked and significant part of our role is making proactive interventions to maximise therapy, such as dosage alteration secondary to therapeutic drug monitoring (TDM) or in renal dysfunction. In a recent study (Shulman et al., 2015) these therapy optimisations accounted for more than 50% of our interventions. Also shown in this study was that approximately 6% of our interventions result from consults, where a member of the team has approached the pharmacist for advice. This reflects our growing role as the medicines experts in the multi-professional team.

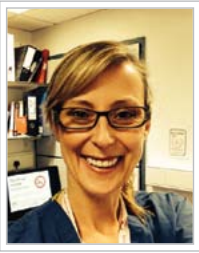
Evidence supporting the role of the pharmacist in critical care in preventing patient harm is everywhere starting with the benefit of simply having a pharmacist attending the ward (Klopotowska et al., 2010) though integration of the pharmacist into the consultant lead ward round (Leape et al., 1999) to proactive activities

such as pharmacist led sedation holds (Marshall, Finn, & Theodore, 2008). This evidence extends to cost savings as well in areas such as sedation and infection management (MacLaren, Bond, Martin, & Fike, 2008).

Moving forward, *Guidelines for the Provision of Intensive Care Services* is an opportunity to review and adjust existing services for critical care. A recently conducted and as yet unpublished UK pharmacy workforce survey finds that 3% of organisations have critical care units without pharmacist input of any level and a further 5.5% of organisations are utilising pharmacists who self-assess as not meeting the minimum competence level for working in critical care. Even in the 97% of organisations where there are pharmacists on critical care, 12.5% have no cover pharmacist for leave and a further 20.1% of organisations use pharmacists to cover leave who are not critical care trained. Overall the time that pharmacists spend on critical care is less than expected and it is abundantly clear that weekend services are almost non-existent. If the clinical and financial benefits of pharmacy input into patient care and safety systems are to be fully realised, then these deficits will require attention.

In terms of developing the existing workforce to meet the recommendations set out in GPICS, the United Kingdom Clinical Pharmacy Association (UKCPA) have over the last 10 years developed a curriculum, syllabus and framework for assessment of level of practice. These elements supported by the recent launch of the Faculty of the Royal Pharmaceutical Society will allow pharmacists to both gain recognition for the level of their expertise and critical care units to be assured that they are getting what they pay for.

# Spotlight on Critical Care Dietitians



**Ella Segaran**  
Advanced Dietitian for Critical Care

Patients in the critical care setting are at risk of malnutrition (Heyland 2011). Mechanically ventilated patients require artificial nutrition support (enteral or parenteral) to meet nutritional needs and those not intubated may still require nutrition support i.e. oral, enteral or parenteral nutrition. Evidence suggests that provision of nutrition to critically ill patients is complex and not all patients gain the same benefit from nutritional support (Alberda 2009). Given the lack of nutrition training and knowledge of healthcare professionals (Mowe 2008) the Critical Care dietitian is best placed to provide nutritional advice to the multi-disciplinary team on the optimal way to manage the nutritional needs of critically ill patients (GPICS 2015).

The accumulation of energy and protein deficits during an admission results in poorer outcomes including increased length of stay, prolonged mechanical ventilation and increased infections (Villet 2005). Whilst feeding protocols have long been the standard practice on the ICU, evidence continually suggests that their use alone is not sufficient to prevent nutritional deficits and individualised nutrition support is recommended (Heidegger 2013). This may be in the form of supplemental parenteral nutrition or post-pyloric feeding which require careful review to avoid complications. Consideration of many factors needs to be taken into account including nutritional status, age, degree of inflammation, number of organ failures, comorbidities and projected length of stay. The critical care dietitian will have the highly developed knowledge, skills and expertise within the field of critical care, to be able to manage the complex issues seen in these patients. They will also lead on the development and implementation of guidelines and protocols, as well as being central to the provision of teaching and education of the MDT.

Regular audit to ensure the effectiveness of the protocol and other nutritional interventions will also be undertaken.

Analysis from the International Nutrition Survey continually shows a direct correlation between total amount of funded dietitians in critical care and the better provision of nutrition support and earlier initiation of enteral nutrition (Heyland 2010, 2011). The combination of a dedicated ICU dietitian and feeding protocol was required to increase energy provision, increase the use of combined feeding methods to achieve targets and reduce inappropriate use of parenteral nutrition (Sogel 2012). Within the first 7 days after extubation, oral intake has been shown to be inadequate, with patients receiving <50% of estimated requirements. Patients are at high nutritional risk as the result of the critical illness and poor nutritional intake. ICU patients who are discharged to the wards should continue to receive dietetic follow-up to support rehabilitation.

The Critical Care Specialist Group of the British Dietetic Association (BDA) is the national body and clinical interest groups for all dietitians interested in critical care. The group aims to provide a nationwide forum for critical care dietitians to share information and best practice as well as providing support, guidance and education. Members have access to an online network forum and receive two newsletters per year. The group runs one study day each year, which is open to both members and non-members. The Critical Care Specialist Group of the BDA has a representation on the Critical Care Leadership Forum (CCLF) and the Nurse/ Allied Health Professions Committee of the Intensive Care Society, reinforcing the importance of the dietitian and the role of nutrition support in critical illness.

# Consultations: FICM Responses

Full versions of the FICM responses to consultations can be found on the FICM website. The below are summaries only.

## Monitor:

### Exploring international acute care models

- Tiered risk is a model clinicians in many specialties have tried to support for many years in the UK against a great deal of resistance from some clinicians and hospitals who would potentially see the higher risk, 'more interesting' patients moved elsewhere.
- It would need to be part of a wider view of the hospital. Assuming other services also moved into a tiered risk model then it would be possible to run units which were essentially PACU/level 2 units in some hospitals. This would necessitate some export/retrieval of unexpected level 3 patients, and elective patients at particularly high risk being operated on elsewhere. This facilitates elective surgery requiring a higher level of post-op care to take place and continued support for acute medicine.
- The existing critical care networks are already in place and would be able to help to deliver such a model but continuing resistance should not be under-estimated.
- It would be necessary to consider whether clinicians would choose to work in such a unit. Whereas anaesthetic departments could take on the management of a PACU they would not have the skill set to manage acutely ill medical patients and in many cases acute medicine is already under pressure so may not be able to take on this extra work.
- An important and probably limiting issue is that even small hospitals in the UK are actually quite big, and the critical care workload is high and increasing as expectations rise, so this model may be valuable in remote areas but much less relevant or usable in more urban areas.
- FICM supports the training of ACCPs and their amalgamation into the ICM workforce to increase flexibility; however it is necessary to recognise, just as with trainee doctors, the limits of their training and their need for consultant supervision and support.

## Royal College of Physicians:

### AKI Toolkit

We assume that the AKI toolkit is intended to guide doctors working on general medical and surgical wards outside the critical care unit. If correct, we would like to limit our comments to the recommendations related to the management of severe AKI and referral to the critical care department.

### Management of hyperkalaemia

The guidelines should be clear that treatments for high k are all only temporising.

- The toolkit recommends treatment with 8 units Insulin in 50ml Dextrose 50%. However, in most hospitals, Dextrose 50% is no longer available.
- It is recommended to use 10ml Ca gluconate repeatedly up to 5x within 60mins without a recommendation to contact the renal or critical care team urgently. In our opinion, treatment with Ca gluconate should only be repeated once (if absolutely necessary) before the renal or critical care team are contacted.
- In our opinion, the presence of hyperkalaemia with ECG changes should prompt an urgent discussion with the renal or critical care team

### Management of metabolic acidosis

- The toolkit advises to contact the renal or critical care team in case of metabolic acidosis and pH <7.15. In our opinion, the referral should be made much earlier, ie if pH <7.25

### Assessment of fluid responsiveness

- It is recommended to use "passive straight leg raising" to assess fluid responsiveness. This test is not well known to doctors working outside the critical care unit. Therefore, it would be necessary to guide clinicians and advise them how to interpret the results and how to respond.



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15 CPD POINTS PENDING



# SICS Scottish Intensive Care Society

## 25<sup>th</sup> Annual Scientific Meeting SICS AGM, Annual Dinner & Ceilidh Thursday 21<sup>st</sup> & Friday 22<sup>nd</sup> January 2016 Old Course Hotel, St Andrews



### Guest speakers include

Sean Bagshaw, Jean Chastre  
Charles Hinds, Julia Wendon  
Tim Walsh, Peter Andrews  
Tim Wigmore, Mark Midwinter

### Topics Include

Best Practice (Acute Kidney Injury,  
Acute Hepatic failure, Trauma)  
Frailty and ageing population  
Emerging pathogens and new  
antimicrobial therapies for  
pulmonary infections  
The immunocompromised patient  
Goal-directed therapy: past, present  
and future

Poster and free paper presentation abstract submission  
deadline: Friday 2<sup>nd</sup> October at 5 p.m.

For further details please see the SICS website or  
contact Julie Fenton:

Email: [Julie.Fenton@luht.scot.nhs.uk](mailto:Julie.Fenton@luht.scot.nhs.uk)

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