

**The National Education and Competence Framework
for Advanced Critical Care Practitioners**

A Discussion Document

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A discussion document

July 2006

Please note that this document has been compiled in conjunction with representatives from The British Association for Critical Care Nurses, The Intensive Care Society, The Intercollegiate Board for Training in Intensive Care Medicine and The Royal College of Nursing.

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The discussion process

The purpose of this document is to share with you progress that has been made within the National Practitioner Programme Critical Care Project with regard to the Advanced Critical Care Practitioner role and to seek your comments on the proposed National Education and Competence Framework. The framework has emerged over a two-year period and builds on the work of the Changing Workforce Programme development sites that tested the role in clinical practice, the National Practitioner Programme Critical Care Board, the Education and Competence Advisory Party, higher education institutions (HEIs) and clinical colleagues drawn from a range of backgrounds, with a specific interest in critical care development.

The National Practitioner Programme Critical Care Board recognise that workforce developments within critical care are not new, and that many critical care units have introduced new roles or have extended the scope of practice of nurses, technicians, physiotherapists, and clinical pharmacists. These developments have been in response to a number of factors including the variations in recruitment and retention patterns, the impact of the Working Time Directive, increasing complexity of care pathways and technology, and awareness of the opportunities to prevent or reduce the risk of critical illness in medical and surgical patients in general ward areas.

However, the local focus in role development has resulted in wide variations in the scope of professional practice, variations in education and training to support role extension and expansion, no mechanism to recognise the transferability of such roles and has potentially led to confusion for the patients and public and variable standards of practice. The purpose of this project was to:

- Describe the role of an Advanced Critical Care Practitioner (level 7 on the NHS Career Framework)
- Describe how the role would function within the critical care team
- Identify the benefits of introducing the role in clinical practice
- Establish a National Framework of Education and Competence to support the development of the role within recognised standards of practice.

The advanced practitioner role is one of two roles that were tested by the development sites. The second role was that of an assistant practitioner in critical care (level 4 on the NHS Career Framework). It is important that the benefits of both roles are considered by the critical care team as part of redesigning a future sustainable workforce for critical care services. The roles are designed to make a significant contribution to the care and management of critically ill patients and their families, as well as offering structured clinical career progression for appropriate members of the critical care team. In future, wider access to such roles may be a possibility, attracting a range of vocationally qualified people and graduates into interesting and challenging career opportunities within the NHS and, more specifically, within critical care services. A similar discussion document on the assistant practitioner role will be produced for wider debate later in the year.

This document outlines a proposed National Education and Competence Framework for the role of an Advanced Critical Care Practitioner. The framework has not yet been prepared to the level of detail required in planning a curriculum. It is anticipated that the framework can be used to inform a national curriculum if wider support for the role is identified through this discussion process and through additional work with the National Workforce Review Team in assessing the future need and demand for such a role.

The framework defines the essential core elements to the role that would lead to formal recognition of the Advanced Critical Care Practitioner, beyond this core there is the possibility of local flexibility to cater for specialist areas.

There will be a range of views about the scope of practice and level of supervision of the Advanced Critical Care Practitioner and to this end there are a number of questions posed at the end of each section of this document. A full list of questions can be found in Appendix 4.

Below we summarise the aspects of the framework where we will be seeking views and comments:

- The National Educational and Competence Framework for the Advanced Critical Care Practitioner as the basis for the development of this role
- Entry criteria to the Advanced Critical Care Practitioner role
- The core competences identified to support clinical practice and role development
- The core clinical skills the Advanced Critical Care Practitioner needs to be able to demonstrate
- The core theoretical study elements identified
- Methods of supervision and assessment
- Limitations of the role in clinical practice
- The Advanced Critical Care Practitioner's contribution to education within the multi-professional team
- The title of Advanced Critical Care Practitioner

We welcome opinions and comments, and as a result of this discussion process, all comments received will inform the final draft of the National Education and Competency Framework. The end result will provide a more robust, nationally agreed process of education and training for the Advanced Critical Care Practitioner role, approved by specified professional bodies, which enables sustainability and transferability of the role nationally.

To provide feedback, please email or click on the following link:

AdvancedCCPFeedback@nwlondon.nhs.uk

Foreword

Critical care services are constantly under pressure to keep abreast of technological and therapeutic advances, with the need to improve access, provide timely and appropriate care in the right setting and rise to the challenges of a changing workforce profile. The changing configuration of service provision over the next 5 – 10 years is likely to increase the demand for critical care services. Acute hospital-based services will cater for patients requiring complex elective surgery with an increased need for critical care intervention and support during the post-operative period and will also provide services for patients admitted as emergencies requiring emergency surgery or clinical support for complex and age-related clinical conditions. It is anticipated that the current workforce profile will not provide a workforce that is sustainable, affordable and able to cope with an increasing demand for critical care services.

Workforce planning has centred on the supply of doctors, nurses, technicians, allied health professionals, health care scientists, clinical pharmacists, and support staff. Workforce numbers and skill-mix has been informed by standards and position statements from professional bodies such as the Intensive Care Society, Royal College of Nursing, British Association of Critical Care Nurses and the National Network of Allied Health Professionals working in critical care services.

Many critical care units have introduced new roles or have extended the scope of practice of nurses, technicians, physiotherapists, and clinical pharmacists. These developments have commonly been in response to local pressures and needs.

Innovative local workforce solutions including extended roles have many benefits for streamlining patient care, creating more job satisfaction for practitioners and encouraging retention of staff that may otherwise have sought clinical challenges elsewhere. However, the demands on the service and the workforce have led to a degree of 'role creepage' with a wide range of new posts being developed with varying methods of training, assessment, role remit, responsibilities and standards in clinical practice. Indeed, some new practitioners seeing a gap in the service have worked to plug the gap by enhancing their skills but with varying support and training from other members of the team. This may provide satisfactory local solutions but creates difficulties in transferability of roles and national recognition for a new role working at an advanced level of practice. There is a need to ensure patient care is delivered safely and provided by competent practitioners with clearly defined roles and responsibilities who feel rewarded for acquiring knowledge and skills that enable national transferability across the NHS. A number of instances have come to the attention of the Critical Care Programme Board where individuals found that qualifications gained in one Intensive Care Unit (ICU) were not accepted when they tried to transfer to another unit. An example of this is cited below.

Example from an acute hospital trust

MH worked firstly as a staff nurse in the ICU for seven years during which time she gained considerable experience, skill and expertise. In 1995 MH gained a sisters post on the ICU and in addition to her sisters' role, trained along with the other sisters, to become a Critical Care Practitioner. The Critical Care Practitioner course ran for a year and although locally run, was well structured and required the students to undertake an intensive tutorial programme, a prolonged period of supervised practice and formative and summative assessment. In addition to this, the Critical Care Practitioner underwent yearly re-accreditation and had to attend a specified number of tutorials.

For personal reasons MH moved away from the area in 2004 and applied to a number of ICUs giving details of her previous position, Critical Care Practitioner role and training. Unfortunately none of the units would accept her Critical Care Practitioner qualification saying that she would have to retrain in their units before she could practice. After a number of months being told the same thing, MH became disillusioned and has since left nursing altogether.

The Advanced Critical Care Practitioner role is already recognisable in various forms across the NHS. Healthcare professionals have accessed a variety of educational routes, with the support of medical colleagues and critical care managers, to develop their skills to meet a local service need.

The role described in this document is based on the medical model of teaching, responsibility and care delivery, and is designed to develop a high level, trained, accredited, recognised, transferable practitioner to address a service need in critical care. The Advanced Critical Care Practitioner will have advanced knowledge and skills in critical care and provide a direct contribution to the assessment, treatment, planning of care, and evaluation of the outcomes of patients with critical illness. The Advanced Critical Care Practitioner will function as part of the critical care team and will work within a defined scope of practice and to clinical standards agreed nationally and applied within a local clinical setting. It is likely that the Advanced Critical Care Practitioner will prescribe elements of care and treatment that will be delivered on an ongoing basis by other members of the healthcare team. The Advanced Critical Care Practitioner will be able to refer the patient for diagnostic tests and to other healthcare professionals for specialist opinion.

The Advanced Critical Care Practitioner as part of the critical care team will have a high degree of autonomy and ability to make clinical decisions, supervised by a medical consultant in intensive care medicine. Senior medical support will be available for clinical advice either directly or indirectly as appropriate. Normally access to medical support will be on-site and within minutes. Advanced Critical Care Practitioners will be required to undertake audit of the service and their practice as well being subject to peer-review and appraisal. It is anticipated that the Advanced Critical Care Practitioner will be involved in the training and supervision of others. Whilst we have not defined a leadership role for the practitioner, over time, and as they find their place within the team we hope that this will evolve.

The Advanced Critical Care Practitioner role is a new way of working for health professionals working in critical care. It is acknowledged that the role described crosses the professional boundaries of many functions within critical care, including medicine, nursing, technical, physiotherapy, and clinical pharmacology. The role is designed to ensure that patients receive timely and effective care. It could be said that the way that the role is described will deliver some elements of medical practice, and may provide a method of closing the knowledge and skills gap likely to result from planned changes to medical training through Modernising Medical Careers, and will provide a highly proficient supporting role to the senior medical team. However,

relying on nurses and allied health professionals (AHP) for recruitment will not meet perceived needs and it is expected that eventually recruitment for these roles from non-healthcare graduates is an option that will probably be explored.

The purpose of this role is not to curtail local innovation where needed, but by defining the Advanced Critical Care Practitioner role, provide a route for career progression whilst retaining the confidence of the rest of the clinical team and patients. However, workforce planning will need to carefully assess the skill-mix required to meet the overall needs and demands of the changing case-mix and changing service provision, as well as the future supply of healthcare professionals.

The development of new roles is often contentious, with perceived threats to the training, role and status of existing healthcare professionals and the need to safeguard standards of patient care. We believe there is a need to define the role of the Advanced Critical Care Practitioner, its scope and limitations in clinical practice and to develop a process of education, assessment and skills acquisition based on National Workforce Competences, which is nationally recognised and transferable and can contribute to the holistic care of patients.

The collaboration of the National Critical Care Programme Board, Education and Competence Advisory Party, development sites, higher education providers, Skills for Health and the support of clinical colleagues with a specific interest in critical care service developments has resulted in the development of this National Education and Competence Framework.

We hope that the discussion process regarding this document will lead to a more robust and transferable Advanced Critical Care Practitioner role that will be a welcome addition to healthcare teams across the NHS. We are keen to receive feedback on the role, title and scope of practice and framework of competences defined within this draft document. We see this as the first step to developing a new career pathway within critical care that can be accessed by existing healthcare practitioners and, in the future, will be available as an attractive career choice for direct entrants.

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Chair, National Practitioner Programme Board for Critical Care

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President, Intensive Care Society
Chair, Education and Competency Advisory Sub-Group

Development of this document

The Changing Workforce Programme emerged from the NHS plan and was charged with testing and developing new ways of working to improve both patient care and patient / staff satisfaction through the best use of skills. The National Practitioner Programme is now continuing the work commenced by the Changing Workforce Programme in a national context. The focus of the project was on new ways of working within Critical Care, in the context of new or redesigned roles. This document has been produced through the work of the National Practitioner Programme Board for Critical Care, Education and Competency Advisory Party (see Appendix 2 for a list of individual contributors).

The Education and Competency Advisory Party was established for a time-limited period to develop a National Educational and Competency Framework for the role of Advanced Critical Care Practitioner. This piece of work draws heavily on the CoBaTrICE competences (Competency-Based Training in Intensive Care Europe) and is supported by the Skills for Health competences.

The content of the document has also been informed through the significant contribution from trainee Advanced Critical Care Practitioners, their mentors/supervisors, managers and clinicians, working within development sites including:

- Hinchingsbrooke Healthcare NHS Trust
- James Paget Healthcare NHS Trust
- Royal Devon and Exeter Healthcare NHS Trust
- Sheffield Teaching Hospitals Foundation Trust
- Shrewsbury and Telford Hospitals Trust
- Southampton University Hospitals Trust
- Southport and Ormskirk Hospitals Trust
- Sussex Ambulance Service

Key stakeholders

Additional contributions and guidance were received from the Intensive Care Society, Intercollegiate Board for Training in Intensive Care Medicine, Royal College of Nursing, British Association of Critical Care Nurses, The Adult Critical Care Stakeholder Forum, Critical Care Networks, Strategic Health Authorities, Skills for Health and the National Workforce Review Team.

Intended audience

- Members of all healthcare professional groups
- Regulators, advisory groups, professional bodies and trade unions within the health sector
- Patients and the lay public
- Strategic Health Authorities
- Deaneries and Workforce Development Directorates
- Higher Education Providers
- Critical care service managers
- Potential employers of Advanced Critical Care Practitioners
- Critical Care Networks

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1 Introduction

1.1 The role of the Advanced Critical Care Practitioner

The emergence of healthcare workers extending their roles and clinical practice skills to meet changing needs is not a new concept. This form of development has often been driven in response to local community and service needs, the skills the individual acquired were not transferable or recognisable in another part of the country. Following the workforce requirements set out in the NHS Plan (2000) it was recognised that there was significant potential to improve the service for both patients and staff by increasing workforce capacity and staff skills within the NHS Career Framework.

Critical care services form an essential part of the care pathway for many hospital patients. The Department of Health (DH) policy document *Comprehensive Critical Care* (DH, 2000) and the Intensive Care Society (2002) defined critical care by three different levels of care: 1, 2 and 3 (see Appendix 1 for definitions of these levels of care). The purpose of the Advanced Critical Care Practitioner role, within this context, is to provide care that is focused around patients and their needs, to save life, recognise acutely ill patients, initiate early treatment, support patients through critical illness and, where appropriate, enable a dignified death. It is hoped that the inclusion of Advanced Critical Care Practitioners to the team will enhance continuity and quality of care. It is envisaged that Advanced Critical Care Practitioners are likely to have an impact within critical care units and as part of the provision of acute services. This may include, outreach, hospital at night and medical assessment diagnostic units, thereby providing a whole systems approach with the appropriate resources and an appropriately skilled workforce in place to support critically ill patients and provide holistic care.

The Advanced Critical Care Practitioner role facilitates a new way of working and complements existing roles within the critical care team. Whilst working autonomously on certain aspects of the patients' care, the Advanced Critical Care Practitioner will always work within a multi-professional team led by a consultant in intensive care medicine.

An Advanced Critical Care Practitioner is defined as someone who is:

A healthcare professional, who has acquired the knowledge, skills and attitudes to deliver an advanced level of holistic care and treatment within the critical care team, under defined levels of supervision and within the scope of practice of their role.

This definition has drawn on the experience of the key stakeholders involved in the development of this document and may undergo some modification following the discussion process and the development of the role.

An Advanced Critical Care Practitioner in conjunction with the medical team can:

- Undertake an extensive assessment of the critically ill patient, including taking a history and completing a clinical examination
- Perform or order diagnostic and therapeutic procedures
- Prescribe medications and fluids (subject to necessary legislation)
- Develop and manage an acute management plan and pathway for the patient
- Perform invasive interventions, advanced airway skills to the level of ALS (Advanced Life Support) provider, vascular access and other practical skills under appropriate supervision dependent on experience
- Teach and educate, patients/relatives and other members of the multi professional team.

1.2 Scope of practice

The scope of practice for the trainee Advanced Critical Care Practitioner is defined by the National Education and Competence Framework for the Advanced Critical Care Practitioner, which addresses both clinical skills and the underpinning knowledge pertinent to the training period and which are necessary to attain, prior to functioning as an Advanced Critical Care Practitioner.

The Advanced Critical Care Practitioner will undertake certain clinical activities, some of which were previously in the domain of doctors. To function at this level requires the authorisation of the employer and the successful completion of a course of theoretical study and the acquisition of clinical competences outlined within the National Education and Competence Framework, during a defined period of training. Precisely who will accredit any qualification is not yet defined however, it is hoped that they will be officially recognised by the Intensive Care Society, Intercollegiate Board for Training in Intensive Care Medicine, Royal College of Nursing and the British Association of Critical Care Nurses.

Advanced Critical Care Practitioners must acknowledge any limitations in their knowledge and skills and must not perform clinical activities they do not feel skilled or competent to perform. As part of training, they must develop an appropriately high level of clinical judgement and decision making. The principles and application of the scope of practice are indicated within the National Education and Competence Framework with the emphasis on knowledge, skills, responsibility and accountability.

Advanced Critical Care Practitioners must act within the formal code of conduct of their present statutory regulator. Trainee Advanced Critical Care Practitioners are required to practice within the structure of the National Education and Competence Framework, obtaining the appropriate level of supervision.

1.3 Continuing professional development

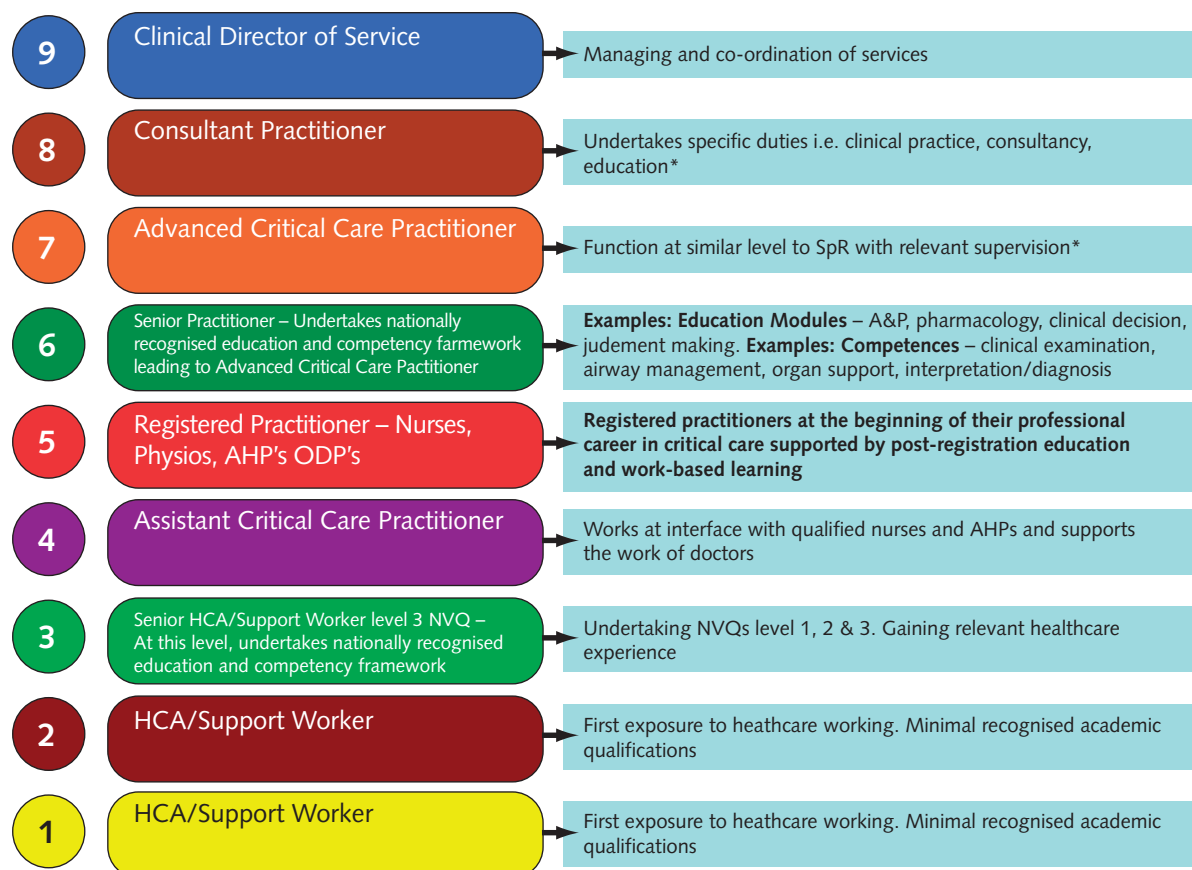
Continuing professional development (CPD) requirements for an Advanced Critical Care Practitioner should be adhered to as defined by their current regulator to remain clinically updated and meet revalidation requirements. It is anticipated that the individual practitioner's development will also be influenced by the critical care environment they are working in and local development needs.

As with any profession, the Advanced Critical Care Practitioner will need to undertake CPD to maintain and update professional competence. The undertaking of CPD should always be carried out in conjunction with the clinical supervisor. This is likely to be assessed through a portfolio approach, through which Advanced Critical Care Practitioners can demonstrate that they have undertaken sufficient learning to support their practice. It is anticipated that the Advanced Critical Care Practitioner will be expected to maintain a specialist and generalist skill-set and level of competence regardless of the field they happen to be working in at any given time. This framework would recommend periodic reassessment of clinical skills.

1.4 Career pathways for becoming an Advanced Critical Care Practitioner

An exercise in mapping the role of the Advanced Critical Care Practitioner to the NHS Career Framework has yet to be undertaken by Skills for Health, but Figure 1 below is a suggestion of what this might look like.

Figure 1 Suggested Career Framework for the Advanced Critical Care Practitioner



* under appropriate level of medical supervision please see Section 7 below.

2 Workforce Planning

A number of issues have driven the current focus on role redesign within the NHS. There is an ever increasing demand on healthcare as the population lives longer and treatments advance with technology. However there remain significant gaps within the workforce to meet patient needs and service development at a time of increasing pressure to maintain cost efficient services. It is vital that service areas continue to recruit new staff but also offer training opportunities for existing staff to broaden their skills as well as developing flexible career pathways for new and existing staff. The challenge for a new way of working and practice within critical care is further driven by the development of Modernising Medical Careers, which in conjunction with the Working Time Directive has resulted in changes to post-graduate medical training and trainee doctors being less present within the clinical environment, with an impact on the continuity and quality of patient care and management. The workforce must be ready to meet these requirements by 2009.

It is recognised that the role of the Advanced Critical Care Practitioner can have a significant impact on the stability, continuity and maintenance of a high quality of critical care service delivery, whilst also contributing to the development of services not previously available and enhancing education and training opportunities across the multi-professional team.

The role should be viewed as a career development opportunity for all traditional professional groups i.e. nurses, physiotherapists, occupational therapists, ODPs etc. However, each of these professional groups has its own recruitment and retention problems which must be considered. It is hoped depending on the outcome of a DH review of registration and regulation that it may be possible for graduates from outside current healthcare roles to access training leading to an Advanced Critical Care Practitioner.

Agenda for Change anticipates this role being banded at level 6 during training and 7 on qualification. A number of the development site leaders have progressed to level 8a. The outcome of undertaking the National Education and Competence Framework training is that it should provide a flexible critical care service, with a team of core staff who have obtained appropriate specialist knowledge, skills and competences to meet the needs of the critically ill patient.

‘Quality Critical Care – Beyond Comprehensive Critical Care’ (Sept 2005) published by the Adult Critical Care Stakeholder Forum has described the following quality indicators that should underpin the service that critically ill patients should receive. It also outlines methods for addressing team effectiveness and it is the recommendation of the Critical Care Programme Board related to this project that when an organisation is considering any service or workforce developments within their critical care services that they view all these documents in parallel. To ensure the delivery of a comprehensive critical care service it is perceived that the Advanced Critical Care Practitioner can contribute to the following quality indicators, which are detailed in full in Appendix 3:

- Patient-centred outcome
- Evidence based care, monitoring and evaluation
- Early warning systems and outreach systems
- An appropriately trained and competent workforce
- Access to effective multi-disciplinary teams available 24/7
- Staff empowerment, support and development
- Flexible service planning
- Effective communications
- Using resources effectively
- Data and information

The critical care team has traditionally been led by consultants with medical trainees from a variety of specialities attached for variable periods, along with nurses and physiotherapists forming the core of the team. Advanced Critical Care Practitioners will not be in addition to these current members but a part of a review of how service is delivered along with training as part of the new critical care team able to deliver a more seamless, continuous service. This team will still be led by a medical consultant, but it is necessary to review the members of the resident team and establish an alternative skill mix where the right person with the right skills can provide the optimum care within the new legislative and workforce development frameworks. Advanced Critical Care Practitioners should maximise the potential of current non-medical staff and provide new opportunities. Over a period of time, Advanced Critical Care Practitioners will become an experienced stable workforce. Because of their skills they will be able to deliver patient care as well as participate in the training of medical trainees, attached to critical care for training in the recognition and treatment of acutely ill patients.

When reviewing team effectiveness, the following factors should be considered:

- Clarity of roles, responsibilities and accountabilities
- Effective leadership of the team
- Effective communication within the team
- Working within agreed clinical protocols and clinical pathways
- Regular peer-review and appraisal
- Regular opportunities for inter-professional learning and continuing professional development
- Regular multi-professional clinical audit

2.1. Benefits of incorporating an Advanced Critical Care Practitioner within the workforce

Data collected from the development sites has highlighted the potential of Advanced Critical Care Practitioners to impact on service delivery in the following areas outlined in Intensive Care Medicine, Crossing the quality chasm: a new health system for the 21st century. (Washington, DC: National Academy Press, 2001)

Timely care

- Practitioner led clinical interventions
- Minimizing delays in treatment / waiting time for patient procedures
- Appropriate investigations and initiation of treatment
- Expertise and experience available at the point of care
- Timely provision of services at the point of need

Effective care

- Providing critical care services “without walls”
- Supporting level 1 / 2 category critical care patients within acute ward areas (see Appendix 1 for definitions of these levels of care)
- Reduced deviation from recognised patient care pathways
- Effective use of care bundles
- Implementation of and adherence to protocols and guidelines

Safety

- Enhanced links between services, ensuring continuity and reduction in duplication
- Enhanced communication of the patients progress
- Practitioner led referrals for investigations and follow-up

Services delivered in the most efficient way possible

- Improved career opportunities for staff / enhanced retention
- Reduced admissions / readmissions to ICU/High Dependency Unit (HDU) facilities
- Enhanced processes for the transfer of critical care patients
- Reduced length of stay
- Reduced 'hand-offs'
- Reduced risk to patients through clinical interventions
- Enhanced transfer times inter and intra hospital
- Enhanced training for junior doctors / multi-disciplinary team
- Working Time Directive compliance
- Enhanced patient experience

Equitable patient care

- Appropriate investigations and initiation of treatment

2.2 Development sites case studies

As part of the exploration of existing roles and the development of New Ways of Working in Critical Care, eight development sites undertook to explore the Advanced Critical Care Practitioner role in clinical practice. The following section summarises cases studies from two of these sites.

Royal Devon & Exeter Foundation Trust

The introduction of an Advanced Critical Care Practitioner role which would cross boundaries both within and outside the general ICU.

The original vision was to introduce the role of Advanced Critical Care Practitioner to ensure continuity and a high standard of care for critically ill patients across the Trust. It was anticipated the practitioner would facilitate early initiation of a package of care tailored to individual need, which might avert unnecessary admissions to the ICU. The work built on other initiatives already implemented such as the Alert and Early Warning Scoring processes.

The Advanced Critical Care Practitioner role could have an impact on:

- Continuity for patients within and outside ICU
- Multi-professional communication, referrals and patient outcomes
- Clinical career structure for healthcare professionals
- Development of non-registered roles
- Planning to meet the Working Time Directive
- Collaborative working across organisational boundaries

The role

The role of the Advanced Critical Care Practitioner working in clinical practice is banded at level 8 within Agenda for Change and branches across the ICU boundary into acute ward areas. The Advanced Critical Care Practitioner undertakes the following autonomous clinical practice:

- Patient assessment – on ITU and with acutely unwell patients in ward areas
- Clinical history taking
- Endotracheal intubation – with direct supervision for assessed difficult intubations or where anaesthetic drugs required
- Central venous catheter insertion
- Arterial line insertion
- Provides airway management, vascular access and other support
- Is a member of trauma team – under indirect supervision
- Initiates therapeutic interventions – i.e. alters ventilation settings according to results

Benefits identified

- Introduction of an advisory bleep service, improving the communication between ICU and acute ward areas
- Nurse to nurse referrals are now a common feature for advice and support
- Enhanced understanding of the Early Warning Score systems
- Patients and relatives approval of the role for both clinical and emotional support throughout their ICU journey
- Quality of care is enhanced through use of protocols
- Care is now provided at the appropriate time, in the appropriate setting
- Clinical and therapeutic interventions are timely to the patients needs
- Patients are seen in a follow up ICU clinic
- The Advanced Critical Care Practitioner is part of the medical on-call rota, enhancing Working Time Directive compliance
- The Advanced Critical Care Practitioner participates in the induction and training of trainee doctors, offering a unique 'buddy role'
- The Advanced Critical Care Practitioner advises trainee doctors regarding patient management and supports their clinical skills acquisition. A role doctors describe as their 'luxury item'
- Consultants are released from routine teaching, enabling them to concentrate on the specialist aspects of their role
- An opportunity for career progression, whilst maintaining a high level of patient contact

Sheffield Teaching Hospitals NHS Foundation Trust

The new role was one element of a wider strategy to manage the changing workforce environment resulting from changes in medical training and the planning of a new 36 bed critical care facility in one of the Trust sites.

Visits to eight sites within England, all currently utilizing the role of the Advanced Practitioner highlighted the following inconsistencies:

- The roles involved different levels of prescribing from limited independent prescribing to none
- Different interpretation of the term Advanced Practitioner
- Training varied from no formal training to that of an academic based masters degree with locally devised clinical competences – none of which were specific to critical care or transferable between organisation
- Grade and remuneration varied from F Grade to nurse consultant for individuals performing the same clinical function

A decision was made by the multi-professional implementation team to scope the role and make sense of this confused state prior to the appointment of any Practitioners.

Methodology used

- Interviews with nurses and doctors working in critical care to ascertain their perceptions of the role
- Activity sampling in critical care settings in order to identify how medical staff spend their time and identify the potential interface with advanced practitioner roles
- An evaluation of delays in treatment delivery
- Process mapping of the patient pathway
- Consultation with stakeholders regarding extended scope of practice, competences, educational preparation and outcome measures

Example of some of the findings

- Medical and nursing staff were agreed on the role, scope and level of practice e.g. all felt assessment and management of organ support specific to critical care and independent prescribing was essential to the role, operational management was not part of the role. Autonomous decision making should be on a similar level to specialist registrar (SpR)

- A gap in patient care, which was demonstrated by the evaluation in delays in treatment delivery, highlighted that there were some delays in non-urgent treatment that ranged from 15 minutes to 10 hours
- Process mapping highlighted areas of practice where permanent experienced critical care team members were better placed to deliver elements of patient care than rotating inexperienced medical trainees. Examples include ongoing management of ventilator support, drug and fluid, renal replacement therapy and adherence to protocols and guidelines

The outcomes of the studies provided the infrastructure on which to base the implementation of the Advanced Practitioners and began the process of winning the 'hearts and minds' of those critical to the implementation and success of the new role.

3 Professional and educational values underpinning the philosophy of the National Education and Competence Framework

3.1 Introduction

Professional values are influenced by traditions and practice recognising the context within which practice is taking place. These professional and educational values underpin an Advanced Critical Care Practitioner's conduct and provide the foundations upon which this National Education and Competence Framework is built, emphasising the importance of professional and educational values. These principles should be considered fully by the individual practitioner, manager and the critical care team prior to embarking on the development of this role as they serve to prepare individuals for, and support them in, their clinical practice.

3.2 Professional values for the Advanced Critical Care Practitioner

Professional values that influence Advanced Critical Care Practitioners relate to obligations to patients, to professional practice and to professional development.

3.2.1 Professional values

Professional obligations to patients are:

- A commitment to a partnership of care
- A recognition of the whole person within their social, ethical and cultural context
- The honouring of the relationship of trust with the patient with its concomitant moral and ethical responsibilities
- A dedication to clear, honest and empathetic communication

Professional practice and professional development involves:

- A commitment to:
 - Clinical and technical excellence
 - A professional life and the responsibilities that this implies, especially accountability
 - Lifelong learning and professional self-development
 - Continuous questioning, deliberation and reflection in developing new professional knowledge and understanding
 - Clinical practice commensurate within agreed competences.

- A recognition that:
 - Advanced Critical Care Practitioners assist with clinical interventions on patients as a necessary part of their care, and in that respect, differ from many other non-medically qualified practitioners
 - Advanced Critical Care Practitioners assist with the provision of critical care both within and outside the traditional boundaries of an ICU
 - The dynamic nature of professional knowledge and the ability to work in this environment, requires the recognition of personal limits.
- The ability to:
 - Work with a degree of autonomy within the parameters of the critical care team
 - Engage in the development of the professional group as a whole by sharing knowledge and understanding to influence and change practice
 - Respect and work in collaboration with colleagues
 - Lead where appropriate
 - Focus on the salient features of practice
 - Exercise wisdom
 - Demonstrate sensitivity to the moral and ethical issues implicit in critical care practice in contemporary society
 - Exercise clinical reasoning and develop professional judgement in practice
 - Provide support to other team members in their endeavours to take advantage of learning opportunities.

3.3 Educational values for the trainee Advanced Critical Care Practitioner Programme

3.3.1 Educational values supporting learning in a critical care context

The educational values that have informed the design of this National Education and Competence Framework have drawn on those of the nursing, ODP and medical colleagues following the certificate of completion of training.

They are shaped by two major considerations:

- The complexities involved in the nature of critical care practice itself and the tacit, unstated or implied knowledge and understanding of those who teach in this setting
- The defining characteristics of the educational setting in which trainee Advanced Critical Care Practitioners both learn and practice at the same time.

Technical skills may be taught and assessed but the development of sound judgement is less easy to teach and assess. Both are essential for the development of a good Advanced Critical Care Practitioner. Clinical supervisors and trainee Advanced Critical Care Practitioners must recognise that there are a number of factors that will affect the development of judgement. For the clinical supervisor, their tacit knowledge, which calls on their own personal feelings, expectations, assumptions, beliefs and values will influence this judgement. The clinical supervisor must explore their own tacit knowledge so as to comprehend how they may convey this understanding to the trainee Advanced Critical Care Practitioner.

3.3.2 The defining characteristics of learning in practice

The defining characteristics of the trainee Advanced Critical Care Practitioners educational values and their effect on the working context are described in section 3.3.3 and in table 1 below:

Table 1 The defining characteristics of learning in practice

Defining characteristics	Clinical context
Learning takes place during professional practice and involves both clinical and educational practice elements	It demands patient-centred and learner-centred interaction during the same clinical event with the emphasis on oral communication
Learning requires all clinical events to be seen and treated as educational experiences, whilst also being patient-centred	Learners need to recognise that clinical settings are at all times a learning resource
Learning requires some of the education to be designed with the focus primarily on the learner	Protected critical care teaching time is essential, especially for learning clinical intervention skills
Learning is a collaboration between service provision and higher education	It involves critical debate and enquiry
Learning requires working within the framework of a higher education degree (<i>exit point being at post-graduate diploma level for an Advanced Critical Care Practitioner, with the option given in some institutions to progress to a masters qualification</i>)	It requires self directed learning
Although learning is carried out essentially in the practice setting, it must be complemented by opportunities for reflection	It must involve reflective practice
Learning is concerned with professional development	It requires attention to qualities espoused in being a member of a profession
Learning is under constant scrutiny and development	It needs to be flexible and remain current
Learning requires everyone involved to work both as individual and as team members in a variety of teams	It requires a variety of interpersonal skills and an ability to work in harmony, especially with peers
Cohesive meaningful learning requires many core skills	Trainee Advanced Critical Care Practitioners are required to respond to a wide range of scenarios in their clinical practice and are expected to act appropriately

These characteristics reflect the educational standards espoused by the Royal College of Surgeons in England in *The curriculum framework for the general practice of surgery: the first three years* (2003) and in *The Royal College of Surgeons' curriculum framework for surgery* (versions September 2003 and July 2004)

3.3.3 Educational values underpinning the National Educational and Competence Framework

These are:

- The establishment of a learning partnership between the consultant in intensive care medicine and the trainee Advanced Critical Care Practitioner within the critical care team
- Trainee Advanced Critical Care Practitioners examining their own professional and personal values
- Recognition that clinical practice is the key arena in which trainee Advanced Critical Care Practitioner education takes place and is therefore to be valued
- Trainee Advanced Critical Care Practitioners developing clinical skills through practice and a thorough knowledge of the theory behind that practice
- Trainee Advanced Critical Care Practitioners understanding professional judgement within the context of modern critical care
- Trainee Advanced Critical Care Practitioners understanding the moral and ethical elements relevant to critical care
- Trainee Advanced Critical Care Practitioners developing reflective practice and self-motivation in the learning process
- The importance of lifelong learning, CPD and self-assessment
- The importance of learning to communicate with a range of different people
- The importance of discussion in the process of teaching and learning
- The recognition that intuition and intuitive responses are a fundamental element of developing the expert practitioner
- The importance of research into practice and the development of good practice
- The undertaking of good evaluation to allow development and refinement of the National Education and Competence Framework.

4 The National Education and Competence Framework for Advanced Critical Care Practitioners

4.1 Introduction

This National Education and Competence Framework is intended to guide the education and development of trainee Advanced Critical Care Practitioners in the clinical setting, where not only teaching and learning is carried out in practice but also assessment takes place.

The primary responsibility for the achievement of the required learning rests with the student. The clinical environment provides many of the most important learning experiences for healthcare professionals. Unlike other learning environments, the education of the student is not the primary purpose of such environments and the student must learn how to make best use of the opportunities available without imposing upon patients or disrupting the provision of service.

Academic staff and trainers should use this framework to plan the education of the trainee Advanced Critical Care Practitioner and maximise the educational opportunities in each clinical setting. The trainee Advanced Critical Care Practitioner can then develop their clinical performance in parallel with their understanding in an appropriate context.

4.2 The principles of teaching and learning

The clinical learning environment will be instrumental in enabling students to develop the competences required of the Advanced Critical Care Practitioner. To this end, it is important that students are provided with a broad range of clinical experiences and receive appropriate mentorship/supervision throughout the programme.

The trainee will need to learn how to:

- Gain new advanced skills within the practice setting
- Carry out specialist and core critical care interventions / practices
- Bring core and specialist critical care theory into relationship with critical care practice
- Think about and utilise the complex relationship of theory and practice to support good practice
- Use reflection and deliberation to improve and develop practice
- Use reflection on practice to identify learning and learning needs
- Interrelate appropriately and in a variety of ways with all others in the clinical setting
- Theorise during practice (i.e. how to, during a particular practical incident, formulate new ways of thinking and doing, which go beyond what the text book can offer)
- Theorise practice itself (i.e. how to recognise, in a particular piece of practice, the principles, assumptions, beliefs and theories, which actually shaped that practice).

All these procedural matters will, in turn, determine the formal theoretical knowledge of critical care to be acquired by the trainee Advanced Critical Care Practitioner. The trainee will be responsible for acquiring some theoretical knowledge through self-directed learning.

The National Education and Competence Framework assumes that the trainee Advanced Critical Care Practitioners education is influenced by:

- The professional and educational values espoused by the learners and their teachers
- Sound educational principles for teaching and learning in clinical settings
- The previous knowledge and experience of the trainees, including their knowledge of themselves as learners in practical settings
- The particular expertise of the people they work with, particularly consultants in intensive care medicines
- The needs of practice in the speciality – both within and outside the traditional ICU
- The needs of the particular post – both inside and outside the traditional intensive care unit
- The demands on the trainee's theoretical (medical) knowledge made by practice
- The need to utilise theoretical knowledge appropriately in the clinical setting
- The need to learn to theorise during practice
- The need to learn to theorise practice itself
- The educational quality of the professional conversation between the consultant in intensive care medicine educator and the trainee (previously referred to as 'feedback', but this accentuates only one side of the process)
- The quality of the insights gained via reflection on, and deliberation about, practice
- The possibilities for practical work and its assessment within the particular attachment
- The ultimate need to be assessed summatively (see section 5.2 for definition).

It is anticipated that a range of learning and teaching methods will be utilised including:

Taught sessions formal contact sessions will consist of lectures, seminars, group tutorials and problem based workshops. These will be delivered locally by expert staff from a variety of disciplines and are likely to involve significant involvement of medical consultants.

Group work will involve student led case presentations and reflective based action learning sets using learning diaries. Selected extracts from this work will contribute to the Learning Portfolio to demonstrate personal insights derived from experience.

Directed self-study study guides, recommended texts and e-based materials will form the basis of the work though students would also be expected to critically select a wide range of written material to support individual development needs appropriate to their organisation.

Clinical skills learning the development of clinical skills will take place in the clinical environment supported by simulator-based training. Students will need to extend their skills in cognitive, psychomotor and affective (attitude) domains. There are those clinical skills directly needed to assess, diagnose and treat patients and those affective skills necessary to effectively

communicate with patients and colleagues, manage difficult situations and act professionally in complex organisations.

Students are likely to have a considerable range of existing skills. Base-line assessment and individually constructed skills acquisition learning contracts based on the needs of their specific role will maximize individual potential. Clinical skills laboratories and simulators will be utilized where possible to provide a safe environment for clinical skills learning. Practice based skills development should be planned to offer safe supervisory support from local multi-professional staff with appropriate expertise.

Workplace learning The majority of the programme will be undertaken in the critical care clinical environment in which the student will initially observe practice and progressively work towards developing clinical competence. The curriculum should enable students to be exposed to and gain experience in a range of critical care environments. This will involve observation, working under supervision and then increasingly independent practice as the student progresses through the programme. This experience may also involve visiting other areas, shadowing or consulting experts. A clinical mentor should be identified to offer continuity of support, though students would be expected to frequently discuss case management and clinical decision making with a variety of experienced staff.

4.2.1 Learning partnerships

The establishment of an effective learning partnership between the clinical supervisor* and the trainee Advanced Critical Care Practitioner that moves beyond the traditional approach of apprenticeship, is essential to engaging both parties more thoughtfully in the processes of teaching and learning. This in turn should provide the basis for more motivated and better-directed education. Both the supervisor and the student should make efforts to be adaptable to the normal learning or teaching style of the other.

Key issues for the clinical supervisor are:

- Possession of a detailed understanding of student learning needs in the educational experience
- An understanding of educational principles and values
- Facilitating trainees' professional judgement in educational matters
- The intentions and processes of assessment
- Where the clinical supervisor is involved in processes of formative and summative assessment (see section 5.2 for definition), they must recognise both the different and the common intentions of the two processes.

*A clinical supervisor is defined as an accredited consultant in intensive care medicine with responsibility for an identified trainee Advanced Critical Care Practitioner within their critical care team

This National Education and Competence Framework supports the belief that the following principles are essential in shaping the education of the trainee Advanced Critical Care Practitioner:

- Observation in clinical settings directed so that trainees learn to see, analyse and interpret all that occurs
- Action (rather than just observation) in the practical setting which is essential to foster learning
- Ongoing dialogue in the clinical setting between educator, clinical supervisor and the trainee, which is a vital part of the learning process
- Clinical supervisors helping trainees to investigate examples of professional judgement in both critical care and educational practice
- Problem-solving by the trainee in a range of different practical activities, using critical thinking, creativity and improvisation
- Clinical supervisors enabling trainee Advanced Critical Care Practitioners to develop their use of the processes of deliberation and reflection, and encouraging self-knowledge and self-appraisal.

There are other key personnel involved in the education and development of the Advanced Critical Practitioner, namely educational supervisors, mentors and teachers. Section 5.3.3 provides more information on the characteristics and responsibilities of these roles.

4.3 The aims and outcomes of the National Education and Competence Framework

4.3.1 Aims of the framework

- That all trainee Advanced Critical Care Practitioners achieve a common standard through nationally accredited education and training
- That incremental development and the demonstration of competence is encouraged to enable the trainee to practice as an Advanced Critical Care Practitioner in clinical practice
- The demonstration of theoretical knowledge, practical skills and an understanding of professional judgement
- Maintains patient safety at its heart and clinical practice as the context for learning
- Encouragement of the development of personal and intellectual attributes necessary for life-long professional development.

The framework will enable the trainee Advanced Critical Care Practitioner to:

- Develop both clinical competence and confidence in caring for patients within a multi-disciplinary / multi-professional team
- Offer care to patients from level 1 through to level 3 critical care status which is based on sound evidence and good judgement
- Review and critique their practice in order to improve it
- Critique the development of new roles in clinical practice.

4.3.2 Outcomes of the framework

On completion of the programme in accordance with the framework, the trainee Advanced Critical Care Practitioner will have demonstrated:

- An understanding of the responsibilities of being an Advanced Critical Care Practitioner and the values that underpin this
- A range of theoretical and practical knowledge related to their core and speciality practice (see competences section below)
- A range of practical clinical skills related to their core and speciality practice (see Table 2 Functions of the Advanced Critical Care Practitioner)
- The development of professional judgement
- Technical and practical clinical skills and their ongoing development
- An understanding of their role within the wider critical care team and the limitation of their scope of practice
- The understanding and use of reflective practice, deliberation and other educational processes appropriate for examining and developing their own professional practice
- An understanding and respect for the multi-disciplinary / multi-professional nature of healthcare and their role within it.

Table 2 Functions of the Advanced Critical Care Practitioner

<ul style="list-style-type: none">• Undertake comprehensive clinical assessment of patient's condition• Request and perform diagnostic tests• Initiate and manage a clinical treatment plan• Undertake invasive interventions within the scope of practice• Provide professional leadership and support within a multi-professional team• Work autonomously in recognised situations• Demonstrate comprehensive knowledge across a range of subject areas relevant to the field of critical care• Critically analyse, evaluate and synthesise different sources of information for the purpose of assessing and managing the care of a critically ill patient• Apply the principles of diagnosis and clinical reasoning that underlie clinical judgement and decision-making• Apply theory to practice through a clinical decision-making model• Apply the principles of therapeutics and safe prescribing• Understand the professional accountability and legal frameworks for advanced practice• Function at an advanced level of practice as part of the multi-disciplinary team as determined by the competency framework• Apply the principles of evidence-based practice to the management of the critically ill patient• Understand and use, relevant techniques to perform evidence-based service development and evaluation.

4.4 Intentions for each part of the Advanced Critical Care National Education and Competence Framework

4.4.1 Progression through the framework

Progression through the framework is largely a matter for consideration by individual HEIs. However, all institutions must ensure that they have in place a rigorous and formally constituted process to ensure that student progress is dependent on the demonstration of appropriate clinical skills and the development and maintenance of appropriate professional behaviour (fitness to practice) as well as what might be considered the standard basis of academic performance.

The clinical supervisor and the trainee Advanced Critical Care Practitioner will need to review, at the beginning of the programme and following formative or summative assessment, the further aims to be achieved by the trainee. This will be guided by:

- The requirements of the core theoretical components
- The requirements of the relevant speciality clinical competences
- The trainee Advanced Critical Care Practitioner's knowledge and existing capability with respect to the theoretical and clinical competences
- The local circumstances of the clinical environment.

4.5 Recommended length of the framework

4.5.1 Overview of the structure of the framework

It is anticipated that students will normally exit the framework at post-graduate diploma level. Some institutions might wish to provide the opportunity to progress to a masters degree upon completion of the required modules that is outside of the remit of this document.

NHS trusts in partnership with higher education providers may develop full-time or part-time routes through the framework in response to local priorities and needs.

The structure of the Advanced Critical Care Practitioner course will be highly dependent on the institution running it and the nature of the entrants previous healthcare background and experience. For this framework, it is therefore only possible to state the structural specification which all courses must meet.

4.5.2 Overall length of the programme

The overall length of the programme leading to exit with a post-graduate diploma will be equivalent in length to a two year post-graduate programme, i.e. the minimum length of the programme will be ninety weeks integrated theory and practice. The two years represents the minimum period of training necessary, based on feedback from the critical care development sites and provides for the understanding that some trainees may need targeted training, which may extend this time. Students will engage in an integrated theory and practice approach over a forty-five week period for each year. This is the minimum length of time required in order to enable the development of the knowledge base and the competences / skills identified, but equally the minimum time in which effective professional socialisation can be achieved. Ninety weeks is equivalent to six semesters (three semesters per year) of a full-time programme. Some programmes may be delivered part-time.

4.5.3 Clinical experience in the framework

It is anticipated that that there will be a seventy/thirty percent split in favour of workplace learning, the majority of which will be undertaken in a critical care clinical environment including taught formal sessions. It should be emphasised at this point that learning in skill centres should complement but not substitute learning in clinical settings.

Ninety weeks should constitute the minimum of 3150 hours of nominal study, assuming a thirty five hour week. Of this time a minimum of 2205 hours should be designated as clinical learning. Up to 945 hours of designated clinical learning time may consist of learning in skills centres but a minimum of 1200 hours will be spent in practice in the clinical area.

A variety of critical care settings will be used in order provide appropriate learning opportunities to develop the knowledge and skills to fulfil the competence requirements. These could include an adult general ITU, neurology and cardiac / cardiothoracic wards. The framework should provide environments where the trainee Advanced Critical Care Practitioner can gain contrasting experience and trusts may include an elective to other specialities dependent on local service requirements outlined in local development plans.

4.6 Criteria for entry to the framework

4.6.1 Major entry groups

It is envisaged that a senior healthcare professional would, in the first instance, be the most likely candidate for the training programme. However, in the future it is anticipated that entry to the framework will be open to applicants such as new / direct entrants to healthcare who may or may not have experience of working in acute care environments. Work carried out by the National Workforce Review team may highlight future workforce patterns for critical care services, illustrating where there are likely to be gaps in the service. It is envisaged that these gaps will fall into level 4 and 7 of the NHS Career Framework.

Prospective trainee Advanced Critical Care Practitioners must, for the present:

- Be registered as a healthcare professional, with recent experience of working within the acute (secondary) critical care sector
- Have practiced at a senior level and demonstrated evidence of post-qualifying continuing professional development in critical care
- Have a bachelor level degree or be able to demonstrate academic ability at degree level
- Is in, or be in, a position to be appointed to, a substantive / recognised trainee Advanced Critical Care Practitioner post or be assured of a whole time equivalent trainee Advanced Critical Care Practitioner post prior to commencing the training framework from their employer.

In addition to the entry requirements outlined above, education providers may require evidence of support from the applicant's host employer and have an identified consultant in intensive care medicine in critical care to act as their clinical supervisor and assessor.

The prospective trainee Advanced Critical Care Practitioner must demonstrate;

- Commitment to patient care and patient safety
- Understanding of the relationships within the multi-disciplinary / multi-professional team, especially with respect to the changing role of critical care
- Recognition of the role and responsibilities of being a trainee
- Understanding of the framework with particular respect to their own work and educational experience
- Aptitude for clinical practice
- Recognition that educational as well as clinical development will be required

4.6.2 Accreditation of prior experiential learning

It is recognised that practitioners currently working as Advanced Critical Care Practitioners may find that their training does not equip them to achieve the depth and breadth of competence set out in this document. Such individuals are an important resource and institutions offering Advanced Critical Care Practitioner programmes set up under this framework will seek to provide tailored fast track courses to meet the needs of these individuals, through the accreditation of prior learning / experiential learning (APL/APEL).

The framework as it stands addresses healthcare professionals with traditional roles / qualifications but workforce requirements will change over time and the role of the direct entry student will need to be addressed. Direct entrants are likely to need a bridging programme to enable them to develop the knowledge and skills to access the programme and this should include a period of observation in a critical care setting to familiarise themselves and gain exposure to this environment.

Question 4

Do the aims and outcomes outlined in the document adequately capture what is expected from the Education and Competency Framework and explain clearly what the Advanced Critical Care Practitioner should be able to demonstrate on completion of the framework?

Question 5

Is the overall length of the programme realistic?

Question 6

Are entry requirements covered adequately for those candidates currently wishing to undertake the role?

5 Assessment, supervision and theoretical components of the framework

5.1 Competence

The framework requires that the trainee Advanced Critical Care Practitioner demonstrate competence in both core and speciality elements within the framework.

In this framework, competence, is defined within a professional context as the broad ability with which a professional person is able to practice to the required standards in a pre-determined range of clinical fields and across a range of situations. This broad definition includes attributes that can be applied, clinical performance (Stuart 2003), and the use of professional judgement (Carr 1993).

Competences therefore are the elements performed to the predetermined standard, which combine to create professional competence in a defined role (Stuart 2003).

5.2 The role of assessment

Assessment is a fundamental aspect of teaching and learning, and is a continuous process. It ensures the appropriate development of the trainee and covers any of the situations in which aspects of their education or training are measured, recognised, or formally appreciated, whether this is by a teacher, an educator, a patient or the learner themselves. It is concerned with demonstrating how well, and in what ways, the trainee Advanced Critical Care Practitioner has profited from the learning opportunities as reflected in their self-knowledge and deliberation with those who teach them.

Assessment is not an exact science. It involves some subjectivity and there is no single method that will overcome this. The professional judgement for the clinical supervisor will always be a key component of the process just as the professional judgement of doctors is a key element in medicine. Teachers cannot help but make everyday, ongoing judgements of those who are learning, and in doing so, in order to be fair, such judgements must be part of a well-planned process and should involve multiple perspectives. The trainee Advanced Critical Care Practitioner and all those who receive the results of such judgements must understand this. The trainee's insight into his / her development will be essential.

Assessment fulfils a number of roles in an educational programme leading to a professional qualification. These can be primarily divided into summative and formative roles.

Summative assessment relates to the setting of standards and of assessments to judge whether they have been met, and thus protect the public and, in this case, the health service, by ensuring that all those qualifying from a programme have achieved the required competences and knowledge, and the skills and professional behaviours that underpin them. Equally, it protects the educational institution by ensuring that there is no devaluation of the degrees or other qualifications that they offer.

Formative assessment is a ‘no stakes’ examination, in as much as failure does not bar progress or affect grades or classification, but it is no less important for that. Its main purpose is to provide feedback and enable students to identify their learning needs, so that they can focus their future efforts effectively. Formative assessment will be a largely continuous, rather than an event based process, with a portfolio playing a key role.

The two types of assessment (formative and summative) both have a role in shaping learning. Whilst formative assessment may enable a student to prioritise learning in response to their current performance profile it is summative assessment that sets the learning agenda in the first place. All candidates look at what they are going to be tested on and what form the test will take, as a major determinant of what they are going to learn. It is vital that assessment should drive students towards education, intellectual development and the application of knowledge and professional judgement, rather than training the simple accumulation of knowledge and the unquestioning use of protocols.

The nature of the assessment process appropriate to one domain may be entirely different from that for another. We need, for example, to know that a student can perform a particular skill. Skills development takes longer for some students than for others and it may be perfectly appropriate for these individuals to go several times around the learning and testing cycle until they have achieved the standard required. It may be perfectly appropriate for students to demonstrate in an examination that they can apply knowledge and professional judgement in a given scenario, but in terms of professional behaviour, we need to know that a student does, habitually act in an appropriate way towards patients (suggesting assessment in practice) rather than that they can behave appropriately in an examination situation.

5.3 Factors guiding assessment

Assessment will take account of professional and educational values, attitudes, knowledge, clinical skills, technical skills and the needs of the employing authority. It will be informed by the:

- Clinical supervisor’s professional judgement
- Need to ensure that assessment provides a quality learning experience for both the trainee Advanced Critical Care Practitioner and the clinical supervisor
- Need to ensure that all learning opportunities are well utilised
- Purpose and the criteria of the assessment being clearly understood by all parties
- Need for multiple perspectives on each assessment
- Recognition that the soundness of the assessment is related to the rigour with which the multiple perspectives are collected, recorded and utilised
- Need for assessment to develop through and across the programme, where differences in specialities need to be taken into account
- Need to engage the trainee Advanced Critical Care Practitioner in self-assessment throughout the process
- Need to ensure that there are no surprises for the trainee Advanced Critical Care Practitioner at the summative and final assessments through effective use of formative assessments

- Need for the trainee Advanced Critical Care Practitioner to satisfy the required standard by the end of each negotiated learning period, and the end of the programme
- Need to subject the summative assessment process of the framework for Advanced Critical Care Practitioner's to quality assurance procedures.

5.3.1 Assessment requirements of the framework

The requirements of the framework are that trainees will maintain a portfolio of evidence. This will contain a record of progress and will inform the assessment process and its outcome. In all assessments (formative or summative), attention to the following information will ensure that multiple perspectives (many observations by one person and / or observations by many different people) on the trainee Advanced Critical Care Practitioners progress will be properly considered.

Account must be taken of:

- The visible performance of the trainee Advanced Critical Care Practitioner
- How the trainee Advanced Critical Care Practitioner has related theory to practice
- The trainee Advanced Critical Care Practitioner's ability to articulate understanding of the values and assumptions that have influenced their performance
- The impact of the trainee Advanced Critical Care Practitioner's performance on others involved
- How the trainee Advanced Critical Care Practitioner has used the learning opportunities provided
- The trainee Advanced Critical Care Practitioner's knowledge of themselves
- How much input there has been from the clinical supervisor
- How the resulting judgements compare with those made of the trainee Advanced Critical Care Practitioner by others
- How the resulting judgements of the trainee Advanced Critical Care Practitioner compare to those made by the trainee Advanced Critical Care Practitioners own assessment

HEIs running the Advanced Critical Care Practitioner programmes will need to develop an assessment strategy for their courses, which achieve the following:

- Fulfils requirements for masters / post-graduate diploma level assessment
- Has high predictive validity for the requirements of the role
- Samples the competency framework appropriately
- Uses a variety of assessment methods
- Contains both formative and summative elements
- Is consistent with assessment loads on other National Practitioner Programmes of the same exit level
- Supports the recommendations outlined in *The principles for an assessment system* by the Post-Graduate Medical Education Training Board (2004).

A variety of techniques exist to assess clinical knowledge and skills and it is likely that institutions will employ a range of methods, which reflect their educational approach, and the requirements of the role. This will need to include techniques, which assess diagnostic ability and case management.

It is likely that institutions will include some of the following approaches:

- Objective Structured Clinical Examination (OSCE)
- Expanded case histories with vivas
- Simulated scenarios
- Clinical vivas
- Multiple choice question examinations
- Direct observation of technical skills with discussion- against set criteria
- Portfolios
- Detailed clinical record of all cases managed
- Seminars.

In the early years of the Advanced Critical Care Practitioner programmes it is envisaged that consultants in intensive care medicine or nominated senior specialist registrars in the critical care setting would carry out assessment of the clinical skills. In time, as the profession evolves, experienced Advanced Critical Care Practitioners may carry out elements of assessment e.g. assessment of individual competences.

5.3.2 Determining levels of supervision

For trainee Advanced Critical Care Practitioners the level descriptors outlined within the context for competence section should be used to inform the assessment of progress in any given situation. This can be seen as a ladder of supervision with progression from demonstrating knowledge through to independent performance.

It is recognised that an Advanced Critical Care Practitioner will not have the wider range of knowledge and skills acquired through full medical training and will work within a supervisory framework. Overall supervision (direct or indirect) will be provided by a consultant in intensive care medicine but elements of supervision could be provided by other senior medical practitioners. Where the supervising consultant in intensive care medicine is not physically present, they must always be readily available for consultation and it is identified that ultimate responsibility for standards of patient care lies with the consultant in intensive care medicine.

It is envisaged that supervising consultants in intensive care medicine will be accountable overall for the work of the Advanced Critical Care Practitioner, in a similar manner to their responsibilities for trainee doctors. Individual Advanced Critical Care Practitioners will still be accountable for their own practice, within the boundaries of supervision and defined scope of practice. The General Medical Council Good Medical Practice Guide (May 2001, 3rd edition) states that: Delegation involves asking a nurse, doctor, medical student or other health care worker to provide treatment or care on your behalf. When you delegate care or treatment you must be sure that the person to whom you delegate is competent to carry out the procedure or provide the therapy involved. You must always pass on enough information about the patient

and the treatment needed. You will still be responsible for the overall management of the patient.

Advanced Critical Care Practitioners work under the supervision of consultants in intensive care medicine throughout their professional lives. Whilst this may appear to contrast with autonomous practice in nursing and other health professions, it should be remembered that all health professionals, including doctors, remain professionally and managerially accountable to others throughout their working lives despite being independent clinically autonomous practitioners. The particular position of Advanced Critical Care Practitioners relates to the fact that they are working in association with and under the supervision of the consultant as an integral part of the critical care team.

5.3.3 Characteristics, roles and responsibilities of the key personnel

Clinical supervisor

The essential characteristics for clinical supervisors are:

- An accredited consultant in intensive care medicine with responsibility for an identified trainee Advanced Critical Care Practitioner within the critical care team.

Clinical supervisors have a responsibility to:

- Ensure opportunities for the trainee's personal and professional development are available
- Be cognisant of the assessment document and the Advanced Critical Care portfolio of evidence
- Teach the trainee within the clinical environment as appropriate to the stage of progression within the programme
- Liaise with the mentor for the assessment of competence in related practice processes
- Undertake the required assessments and ensure that they liaise with all parties as the need arises
- Ensure that the trainee has sufficient opportunity, in a safe environment, to be taught, and to learn the required skills
- Co-ordinate the start and completion date of the programme with the trainee Advanced Critical Care Practitioner, programme manager and mentor
- Take the lead and make the final decision in the assessment of the trainee Advanced Critical Care Practitioner including the completion of documentation
- Provide advice and support and, where necessary, address specific needs such as difficulties in progression
- Ensure that the trainee Advanced Practitioner has access to relevant educational resources e.g. library, intranet, internet
- Act as a guide for audit research

Mentor

The essential characteristics of mentors (as described by the Nursing and Midwifery Council and Healthcare Professions Council) are:

- An experienced professionally qualified practitioner (physician or senior Advanced Critical Care Practitioner) with appropriate education and training to facilitate learning and supervise trainees within a practice setting
- A holder of a recognised mentoring qualification with a requirement that regular yearly updates are received.

Mentors have a responsibility to:

- Be cognisant of the assessment document and the trainee Advanced Critical Care Practitioner portfolio of evidence
- Ensure the assessment documents and portfolio are discussed with the trainee Advanced Critical Care Practitioner during the first week of the course
- Ensure that time is identified for initial interviews in order to assess learning needs and develop a learning contract
- Identify and provide access to learning opportunities and resources to assist the trainee Advanced Critical Care Practitioner to reflect on experiences, to facilitate learning from practice, and to ensure that the learning experience is a planned process
- Liaise with clinical supervisor(s) regarding related practice experiences, and confirm assessment of competence
- Undertake the required assessments and liaise with all parties as the need arises
- Complete the necessary sections of the trainee Advanced Critical Care Practitioner portfolio
- Co-ordinate the start and completion date of the programme with the trainee Advanced Critical Care Practitioner, programme manager and clinical supervisor
- Contribute a supportive learning environment for students
- Be approachable, supportive and aware of individual trainees learning style
- Have knowledge and information of the trainee Advance Critical Care Practitioner Programme of study and practice assessments
- Be willing to share knowledge of patient care
- Encourage the use of enquiry based learning and problem solving
- Offer encouragement to trainee Advanced Critical Care Practitioners to work in partnership with the multi-disciplinary team
- Ensure that the trainee Advanced Critical Care Practitioner has constructive feedback with suggestions on how to make further improvements to progress
- Seek evaluation of the programme from the trainee Advanced Critical Care Practitioner on a regular basis.

Educational supervisor

The essential characteristics for educational supervisors are:

- Working as a lecturer within a HEI
- A holder of appropriate education qualifications
- A holder of a relevant professional qualification

Educational supervisors have a responsibility to:

- Be cognisant of the assessment documents and the trainee Advanced Critical Care Practitioner portfolio of evidence
- Identify and provide access to learning opportunities and resources to assist the trainee Advanced Critical Care Practitioner to reflect on experiences, to facilitate learning from practice, and to ensure the learning experience is a planned process
- Liaise with clinical supervisor(s) and mentor regarding related practice experiences, and confirm assessment of competence has been completed
- Co-ordinate the start and completion date of the programme with the trainee Advanced Critical Care Practitioner, clinical supervisor and mentor
- Contribute to a supportive learning environment for students
- Be approachable, supportive and aware of individual trainees learning style
- Have knowledge and information on the trainee Advanced Critical Care Practitioners theoretical and practice assessments
- Encourage the use of enquiry based learning and problem solving
- Ensure the provision of education instruction from appropriate teachers / lecturers
- Ensure the provision of time for reflection, feedback and monitoring progress
- Ensure that the trainee Advanced Critical Care Practitioner has constructive feedback with suggestions on how to make further improvements to progress
- Review the trainee Advanced Critical Care Practitioner portfolio
- Seek evaluation of the programme from the trainee Advanced Critical Care Practitioner on a regular basis.

Teacher

This is a broad term and refers to anyone who works with the trainee Advanced Critical Care Practitioner to aid their learning. The essential characteristics for teachers are:

- Working within the relevant clinical / healthcare / educational setting
- A holder of relevant professional qualifications
- In possession of expert knowledge to share with trainee Advanced Critical Care Practitioners.

Teachers have a responsibility to:

- Ensure opportunities are available for the trainee Advanced Critical Care Practitioner's personal and professional development
- Be cognisant of the assessment documents as relevant to their area of expertise
- Teach the trainee Advanced Critical Care Practitioner within the clinical environment as appropriate to the stage of progression within the programme
- Liaise with the mentor and clinical supervisor for the assessment of competence in related practice processes
- Undertake the required assessments and ensure that they liaise with all parties as the need arises
- Provide advice and support to the trainee Advanced Critical Care Practitioner whilst working with them
- Provide the trainee Advanced Critical Care Practitioner with constructive feedback and suggestions on how to make further improvements to progress.

Question 7

Are the assessment requirements of the framework adequately and clearly defined?

Question 8

Are the supervision requirements of the framework adequately and clearly defined?

6 Key points of the National Education and Competence Framework

In addition to outlining the recommended theoretical study elements, competences and skills, this framework describes the level of responsibility, the scope of practice and limitations of the Advanced Critical Care Practitioner when contributing to the diagnosis, clinical interventions, treatment and management of the critically ill patient.

The National Education and Competence Framework recognises that the development of common standards of clinical practice requires:

- Recognition of clinical practice as the main area for teaching, learning and assessment
- Fostering liaison between the NHS and local higher education providers
- Entrants to the role to be able to demonstrate appropriate previous experience with an agreed minimum level of clinical experience
- A recognised structure of education and competence that allows the individual practitioner the time for individual professional development
- A process of national approval via recognised professional bodies
- The development of a career pathway which enhances professional and personal development
- A demonstrable improvement in the provision of critical care services

As such, the key areas covered by this framework include the following:

- Theoretical components recommended to underpin the role in clinical practice
- The core competences to determine practitioners level of competence to practice
- Clinical skills to be acquired
- Core learning outcomes
- Supervision processes
- Assessment processes
- Scope of practice and limitations of the role.

6.1 The context for the specification of theoretical study

Public confidence of a new profession relies upon the introduction of a robust regulatory framework that ensures national education and practice standards are in place, adhered to and monitored. The purpose of this framework is to make those national standards explicit and to inform training programmes of the educational outcomes and practice standards that must be met.

This document identifies those standards through competence achievement and outcomes that demonstrate that the graduates are fit for practice. Therefore, the underpinning education can be delivered in a manner that best fits the teaching philosophy of the education establishment and local clinical placement opportunities.

However tightly the specification of minimum standards might be worded, they are still open to different interpretations by individual institutions, teachers and students.

6.2 The recommended core theoretical components

By the end of the training programme the trainee Advanced Critical Care Practitioner must demonstrate their knowledge of the core components of theory outlined below. For full breadth and depth of requirements, please refer to section 7 of this document.

Core anatomy physiology and pathophysiology

- Cellular physiology
- Homeostasis
- Respiratory anatomy, physiology and pathophysiology
- Cardiovascular anatomy, physiology and pathophysiology
- Neurological anatomy, physiology and pathophysiology
- Gastrointestinal and hepatic anatomy physiology and pathophysiology
- Musculoskeletal anatomy physiology and pathophysiology
- Endocrine anatomy, physiology and pathophysiology
- Immune system anatomy, physiology and pathophysiology
- Haematology anatomy, physiology and pathophysiology

History taking and examination

- Admission, history taking and assessment and daily review
- Physical assessment of the critically ill patient
- Effective note writing and ward round case presentation technique
- Medico-legal requirements in the context of written notes

Core radiology

- Indications for chest X ray and chest X ray interpretation
- Indications for CT and MRI scanning and basic head chest and abdominal CT / MRI interpretation
- Indications for thoracic and abdominal ultrasound
- Ultrasound of major vessels for line insertion
- Echocardiography indications for and basic interpretation
- Radiation and radiation governance requirements

Principles of microbiology

- Principles of microbiological sampling including blood culture and bronchoalveolar lavage
- Infection diagnosis and management
- Appropriate antibiotic selection, prescribing, administration and monitoring
- Anti-microbial approach to management of invasive devices
- Principles of infection control

Principles of laboratory medicine

- Biochemistry as it relates to critical care
- Laboratory and near patient testing
- Haematology as it relates to critical care
- Haematology testing and blood cross matching

Clinical reasoning

- Differential diagnosis for commonly encountered critical care conditions
- Physiological diagnosis and decision-making

Principles of pharmacology and prescribing

Including

- Mechanism of drug action
- Pharmacokinetics and pharmacodynamics
- Side effects and their management
- Administration
- Monitoring, therapeutic ranges
- Metabolism and excretion
- Overdose

of the following

- Sedatives
- Analgesics
- Cardiovascular drugs – including anti-arrhythmics and vasoactive drugs
- Drugs acting on the respiratory system
- Drugs acting on the kidney
- Anti-convulsants
- Muscle relaxants

- Therapeutic use of hormones, including insulin, steroids thyroxine
- Drugs acting on the gastrointestinal tract
- Management of patients following accidental or deliberate drug overdose / poisons advice support
- Knowledge about or where to find information about medication patient may be receiving before admission

Technology in critical care

Principles of use and function of equipment used to support patients in critical care to include:

- Safety
- Equipment set up
- Use of alarms
- Cleaning and infection control
- Trouble shooting
- Limitations to their use
- Optimising their use

For the following types of equipment

- Oxygen delivery systems
- Humidification systems
- Ventilators
- Non- invasive ventilators
- Oxygen saturation monitoring
- End tidal CO₂ monitoring
- Blood gas analysers
- Chest drainage systems
- The range of tracheostomy products
- Cardiac monitoring
- Invasive and non-invasive blood pressure measurement
- Cardiac output monitoring techniques
- Defibrillators
- Internal pacemakers
- External pacemakers
- Intracranial pressure monitoring
- Cerebral function monitoring

- Peripheral nerve stimulator
- Renal support modalities
- Specialised critical care beds
- The range of wound care products and devices
- Specific equipment for patient transport
- Computerised patient charting and information systems

Discharge planning and rehabilitation

- Optimising post- ICU survival
- Critical care outreach
- Physical and psychological sequelae of critical illness
- Follow-up clinics

End of life care

- Effective pain and symptom support
- Treatment limitation decision making, including advance directives, proxy decision making, do not resuscitate orders
- Effectively communicating treatment limitation decisions. (NB the Advanced Critical Care Practitioner will not be responsible for making treatment limitation decisions but will contribute to decision making discussions as a member of the critical care multi-professional team)
- The role of the patients family in end of life care and treatment limitation decision-making
- Approaches to supporting the patient and family /friends of terminally ill patients
- Bereavement support
- Management of the patient diagnosed brain stem dead
- Understanding how diagnosis of brain stem death is made

(NB the Advanced Critical Care Practitioner will not be responsible for the diagnosis of brain stem death)

Organ/tissue donation

- Management of the brainstem dead organ donor
- Transplant co-ordination
- Discussing donation with families

Patient safety, risk management and clinical governance

- The evidence for protocol use in critical care
- Developing a culture of patient safety
- Management of gases failure in critical care areas
- Management of electrical failure in critical care areas
- Management of critical care units in the event of fire
- Reducing risk in critical care
- Learning from critical incidents

Clinical leadership and management within the context of the multi-disciplinary team

- Dealing with one's own and others poor performance
- Inspiring others
- Introducing innovations
- Organisational issues for critical care and its impact upon the wider healthcare system

Learning and teaching

- Keeping up with research and best evidence
- Developing a habit of enquiry
- Approaches to teaching and learning
- Effective seminar presentation
- Effective conference presentation
- Supervising and mentoring others

Communication

- The unique requirements for effective communication with the critically ill patient and their family and carers
- Communicating effectively in emergency situations
- Communicating effectively when requesting telephone advice or making referrals
- Effective communication in teamwork

Surgical procedures and what they involve

- Understand the nature of specific surgical procedures in order to provide optimum post-operative management and recognise complications

Legal issues

- Treatment limitation decision-making
- Consent and the capacity of the critically ill patient to consent or refuse treatment
- Advance directives
- Proxy decision-making
- Referral to the coroner
- Clinical negligence
- Research on the critically ill patient
- The Human Tissue Act
- Police access to information or tissue samples
- The rights of children, the mentally incompetent and the elderly.

(NB the Advanced Critical Care Practitioner will not be expected to work with children under the age of fifteen. It should be noted however that they may be expected to assist with the management of children for short periods of time in some hospitals. Where that is the case they would be supported in acquiring the appropriate skills.)

Ethics

- Critical care resource management
- Religious beliefs and their relevance in intensive care including end of life issues and care of the body after death
- Cultural and ethnic differences
- Treatment limitation and withdrawal decisions

It is expected that the Advanced Critical Care Practitioner will develop some skills in appraising different sources of evidence and an awareness of research, audit, service development/evaluation.

Question 9

We recognise that the list of core theoretical knowledge is not exhaustive, but do you think there is a key area that is missing?

7 The National Education and Competence Framework

7.1 The context for the specification of competence

The competences identify core elements, which are deemed essential to the role whilst allowing for flexibility within local settings to meet service needs. Each individual practitioner will take professional responsibility for their autonomous practice including the acknowledgement of limitations of their role and when to 'refer the patient on' to medical colleagues.

The Advanced Critical Care Practitioner competences have common components to those of doctors in training allocated to the critical care environment as well as competency frameworks that have developed within critical care nursing. The competences have been developed in consultation with medical training schemes and other National Practitioner Programme projects.

The main source is Competency-Based Training in Intensive Care Europe (CoBaTrICE), a European Society of Intensive Care Medicine Collaborative project. This new competency set has been developed with input from trainers and clinicians predominantly from Europe and will probably be adopted in the United Kingdom as the framework for use in Intensive Care Medicine Training. Utilising a common set of competences clearly illustrates the similarities and differences between the roles of Advanced Critical Care Practitioners and an accredited medical practitioner.

Other competency schemes consulted include:

- Certificate of Completion of Specialist Training (Intercollegiate Board for Training in Intensive Care Medicine)
- Curriculum for Foundation Years in Post-Graduate Education and Training (Academy of Medical Royal Colleges)
- The Medical Care Practitioner Curriculum Framework (consultation document), the Surgical Care Practitioner Curriculum Framework and the Anaesthesia Practitioner Curriculum Framework (National Practitioner Programme)
- National Workforce Competence Framework for Emergency, Urgent and Scheduled Care (Skills for Health)
- Competences identified by the development sites
- Competency frameworks developed by critical care units and critical care networks.

Within the National Education and Competence Framework each competence statement defines the scope of practice expected at 3 levels as follows:

- Is able to perform independently
- Is able to perform with indirect / direct supervision
- Demonstrates knowledge of ...

The level **‘Is able to perform independently’** refers to those generic competences that are considered essential for the general role and remit of an Advanced Critical Care Practitioner working within any critical care setting.

The level **‘Is able to perform under supervision’** refers to those competences that require a level of supervision, from the critical care consultant or designated deputy, due to either the risk associated with the practice element or policy requirements. Supervision falls into two levels:

- **Indirect** – where the supervisor is contactable but does not need to be present with the Advanced Critical Care Practitioner. This level of supervision requires attendance of the supervisor within 5 to 30 minutes. The time allowed for the supervisor to attend would depend on the experience of the individual Advanced Critical Care Practitioner, the clinical condition of the patient and local circumstances.
- **Direct** – where the supervisor is present with the Advanced Critical Care Practitioner

The level **‘Demonstrates knowledge of’** refers to those competences that are not appropriate to identify as essential to the general role. However, some competences designated to this level may be appropriate to develop further if appropriate to local circumstances. There are a number of competences which can not be taken forward due to policy restriction.

As each core competency is described within its domain the practice level and supervision required will be specified using the application of the following Matrix.

Core Competence	
Is able to perform independently	
Is able to perform under indirect supervision (Indirect = supervisor available to Advanced Critical Care Practitioner within 5 – 30 mins)	
Is able to perform under direct supervision (Direct = present with Advanced Critical Care Practitioner)	
Demonstrates knowledge of	

The competences reflect the specific requirements of the role and are intended to complement the existing mandatory requirements of employer/employee responsibilities for standing obligations such as:

- Equipment training
- Infection control
- Health and safety
- Risk management
- Cardio pulmonary resuscitation
- Handling and moving
- Fire safety

The core competences identified in this document are divided into four main domains.

- Clinical
- Professional
- Leadership
- Teaching and supervision

There are a number of competences that may be relevant to more than one domain, however in order to reduce repetition and for the benefit of conciseness they have been placed in the domain most applicable.

7.2 Recommended assessment processes

Assessment of the Advanced Critical Care Practitioner will require access to a number of sources. The National Education and Competence Framework intends to leave this open for individual organisations to adopt the most appropriate sources of assessment available to them in consultation with their local HEI provider, but this must be a rigorous process. Examples of assessment processes can be found in section 5.

7.3 Specification of core competences

To specify competence, it is necessary within the following section to break down the clinical role into a series of component parts. The core component parts include the following:

Clinical core competences

- Resuscitation and first stage management of the critically ill patient
- Interpretation of clinical data and investigations in the assessment and management of critical care patients
- Diagnosis and disease management within the scope of critical care
- Therapeutic interventions / organ system support
- Practical procedures

- Peri-operative care
- Patient comfort and psychological care
- Discharge planning and rehabilitation
- End of life care
- Transport

Professional core competences

- Patient safety and healthcare governance
- Health system management
- Professionalism

Leadership core competences

- Professional relationships with members of the healthcare team
- Development of clinical practice

Teaching and supervising core competences

- Participates in multi-disciplinary teaching and assessment of others

In reality, the Advanced Critical Care Practitioner moves freely between the application of these component competences as required by the clinical situation. It is essential the Advanced Critical Care Practitioners are responsive to the individual patient and their situation, rather than mechanistic, that is, they should apply their knowledge and skills in a flexible patient-centred way in accordance with critical care patient pathways, care bundles and guidelines.

7.4 Core clinical competences

The competences are presented as broad statements and do not specify the individual skills required to undertake a particular competence. Patient care at this level is much more than a list of practical tasks and the use of these overarching statements more clearly reflects the skills required of an Advanced Critical Care Practitioner. Local users may find it helpful for particular instances or particular trainees to break some of these stems down to their component tasks, further guidance on these will be available in the CoBaTrICE framework.

Although there is an expectation that the Advanced Critical Care Practitioner will make limited differential diagnoses, their diagnostic skills will be predominantly physiologically based, the diagnosis of the underlying disease process is not within their defined scope and remains the remit of the broader medical team.

In order for the Advanced Critical Care Practitioner to manage any situation there are a number of common elements they need to undertake as part of an ordered approach to the assessment and management of the critically ill patient including:

- Assess and recognise acute signs and symptoms
- Order relevant investigations and monitoring
- Identify life-threatening conditions
- Formulate limited differential diagnosis
- Understand patho-physiology and altered physiology
- Initiate management strategies and care plans
- Apply protocols and care bundles
- Instigate appropriate 'referral on' mechanisms to the appropriate health care professional

- **Resuscitation and first stage management of the critically ill patient**

The Advanced Critical Care Practitioner will be required to manage a critically ill patient who has acutely deteriorated often in circumstances where the specific cause or underlying medical diagnosis is unclear. The Advanced Critical Care Practitioner will be required to recognise, diagnose and manage the presenting signs and symptoms in order to prevent further deterioration and stabilise the patient's condition with the aim of optimising the outcome of the acute episode.

The altered physiology which the Advanced Critical Care Practitioner may be expected to manage include for example:

- Cardiovascular impairment including hypotension and hypertension, shock (including cardiogenic, hypovolaemic, septic) acute chest pain, rhythm disturbances
- Respiratory impairment including bradypnoea, hypoventilation, tachypnoea, hyperventilation, dyspnoea, the unprotected airway, pulmonary oedema, hypoxaemia, hypercarbia, dyspnoea, collapse or consolidation, pleural effusion, pneumothorax (simple and tension) upper and lower airway obstruction
- Gastro-intestinal impairment including abdominal pain and distension, upper GI haemorrhage, diarrhoea and vomiting
- Metabolic, hormonal and toxicological derangement including electrolyte and acid-base disturbances, hypothermia and hyperthermia
- Neurological impairment including, altered consciousness, acute confusional states, coma, acute seizures
- Haematological impairment including severe anaemia and coagulation disorders
- Musculo-skeletal impairment including burns
- Genito-urinary and renal impairment including altered renal function

The competences which are required for the Advanced Critical Care Practitioner to undertake this element of the role are highlighted in Matrix 1

Competency Matrix 1

Resuscitation and first stage management of the critically ill patient	
Is able to perform independently	<ul style="list-style-type: none">• Can recognise, assess, stabilise and manage a critically ill patient who has acutely deteriorated or collapsed• Can diagnose and manage cardiopulmonary resuscitation to ALS provider level to include the management of common arrhythmias• Can manage the post resuscitation period including the management of the airway, circulation, dysrhythmias and metabolic state• Can triage and prioritise patients appropriately within the critical care environment

- **Interpretation of clinical data and investigations in the assessment and management of critical care patients**

The Advanced Critical Care Practitioner will be required to synthesise large amounts of data in order to promote an informed assessment and management plan which will include the ability to make a proper physical examination of the following systems in the context of critical care:

- Cardiovascular
- Respiratory
- Gastrointestinal
- Metabolic
- Neurological
- Nutritional state
- Muscular skeletal
- Genito-urinary and renal

The competences which are required for the Advanced Critical Care Practitioner to undertake this element of the role are highlighted in Matrix 2

Competency Matrix 2

Interpretation of clinical data and investigations in the assessment and management of critical care patients	
Is able to perform Independently	<ul style="list-style-type: none"> • Obtains a history of the current condition and previous health status and performs an accurate clinical examination • Undertakes timely & appropriate investigations including microbiological sampling • Performs, interprets and adjusts respiratory management plans according to blood gas analysis • Within legal frameworks can order and interpret chest x-rays • Can monitor appropriate physiological functions and recognise and manage trends in variables • Can integrate clinical findings with laboratory investigations to form a differential diagnosis of organ dysfunction. • Can initiate and manage basic organ support as defined in the Critical Care Minimum Dataset
Is able to perform under indirect supervision (Indirect = onsite & off site)	<ul style="list-style-type: none"> • Integrate clinical findings to advanced organ support after consultation with critical care consultant as defined in the Critical Care Minimum Dataset
Demonstrates knowledge of	<ul style="list-style-type: none"> • Indications for Computerised Tomography (CT) imaging • Indications for Ultrasound Scan (USS) imaging • Indications for Magnetic Resonance Imaging (MRI) imaging • Indications for Echocardiography (transthoracic/transoesophageal)

- **Diagnosis and disease management within the scope of critical care**

The Advanced Critical Care Practitioner will be required to make accurate limited diagnosis to ensure the initiation of prompt treatment plans appropriate to their scope of practice. The Advanced Critical Care Practitioner will be required to review the patient's clinical progress and modify treatments according to the patient's response. Although there is an expectation

that Advanced Critical Care Practitioners will make limited differential diagnosis and actively participate in disease management as part of the multi-professional team it is not within their remit to diagnose and manage the disease processes themselves. This remains the remit of the wider medical team.

Critical care diseases and conditions should be specified according to national and local need but may include for example:

- Sepsis including shock syndromes, inflammatory response, common infection causing organisms, multi-organ failure sequelae
- Cardiovascular disorders including crescendo or unstable angina, acute myocardial infarction, left ventricular failure, right ventricular failure, pulmonary embolus, cardiac tamponade, atrial tachycardia, ventricular tachycardia, atrial and ventricular fibrillation and pacing box failure
- Respiratory disorders including pneumonia, asthma, chronic obstructive airways disease
- Gastro-intestinal disorders including altered nutritional states (obese to cachetic), pancreatitis, jaundice, hepato-biliary disorders
- Metabolic and endocrine disorders including diabetes, adrenal insufficiency, thyroid and electrolyte disorders
- Neurological and neuromuscular disorders including head injury, epilepsy, brain death, critical illness neuropathy
- Haematological disorders including major blood transfusion, immuno-suppression, immuno-incompetence
- Renal disorders including acute renal failure

The competences which are required for the Advanced Critical Care Practitioner to undertake this element of the role are highlighted in Matrix 3

Competency Matrix 3

Diagnosis and disease management within the scope of critical care	
Is able to perform under indirect supervision (Indirect = onsite & off site)	<ul style="list-style-type: none"> • Can manage the care of the critically ill patient with specific medical conditions • Can manage the care of the critically ill patient with chronic and co-morbid diseases and identify the implications of chronic disease on the critically ill patient • Manages the patient with pulmonary infiltrates including acute lung injury syndromes (ALI/ARDS) and their causative factors • Can manage the care of the septic patient • Can identify and minimise factors contributing to impaired renal function • Can identify and minimise factors contributing to impaired liver function
Demonstrates knowledge of	<ul style="list-style-type: none"> • How to manage a patient in the critical care environment following trauma • How to manage a patient in the critical care environment following burns • How to manage a patient in the critical care environment following spinal injuries • The implications of critical illness in the context of pregnancy • How to manage a patient in the critical care environment following intoxication with drugs or environmental toxins • How to identify significant changes in raised intracranial pressure • How to manage a patient preparing for or following organ transplantation • How to manage a patient with a malignant disease

- **Therapeutic interventions / organ system support**

The Advanced Critical Care Practitioner will be required to initiate, manage and perform interventions for continued patient organ support within the critical care environment.

In order for Advanced Critical Care Practitioners to undertake patient organ support they need to undertake an ordered approach to the initiation and delivery of the therapeutic interventions which takes account of a number of key elements including the ability to:

- Describe and identify relevant anatomy
- Understand pathophysiology and altered physiology
- Understand the implications and risks associated
- Describe and perform methods and techniques
- Ensure safe use and management of equipment and monitoring devices
- Order relevant investigations and monitoring
- Initiate therapeutic strategies and care plans including modification according to patient response
- Instigate appropriate 'referral on' mechanisms to the appropriate healthcare professional

Legal frameworks for drug and blood prescribing and local arrangements for medicine use need to be considered.

The competences which are required for the Advanced Critical Care Practitioner to undertake this element of the role are highlighted in Matrix 4

Competency Matrix 4

Therapeutic interventions / organ system support	
Is able to perform Independently	<ul style="list-style-type: none"> • Can independently prescribe drugs and therapies • Can manage and wean patients from invasive ventilatory support • Can initiate, manage, and wean patients from non-invasive ventilatory support • Can manage fluids and vasoactive drugs to support the circulation including the drug groups Vasopressors and Inotropes • Can request and administer blood and blood products • Can correct electrolyte, glucose and acid-base disturbances • Can assess and prescribe nutritional support • Can manage continuous renal replacement therapy
Is able to perform under indirect supervision (Indirect = onsite & off site)	<ul style="list-style-type: none"> • Manage the care of the critically ill patient with specific acute medical conditions • Can initiate invasive ventilatory support • Can initiate continuous renal replacement therapy • Can manage antimicrobial drug therapy in consultation with appropriate medical teams • Can manage multiple organ dysfunction (MODS) and the interactions between organ system support interventions
Demonstrates knowledge of	<ul style="list-style-type: none"> • Mechanical assist devices to support the circulation • Mechanisms for prescribing blood and blood related products

- **Practical procedures**

The Advanced Critical Care Practitioner will be required to initiate and perform practical procedures required to facilitate organ support and therapeutic interventions.

In order for the Advanced Critical Care Practitioner to undertake the relevant practical procedures they need to undertake an ordered and safe approach to the execution of the procedures which takes account of a number of key elements including the ability to:

- Describe and identify relevant anatomy and physiology
- Understand the implications and risks associated with the procedure(s)
- Describe, understand and perform methods and techniques
- Ensure safe use and management of equipment
- Order relevant investigations
- Prioritise workload order
- Prepare the patient and environment for the procedure
- Ensure safe approach to and execution of the procedure
- Initiate therapeutic strategies and care plans including modification according to patient response
- Manage procedure aftercare and complications
- Ensure use of aseptic technique
- Instigate appropriate 'referral on' mechanisms to the appropriate healthcare professional

Legal frameworks for consent need to be considered.

The competences which are required for the Advanced Critical Care Practitioner to undertake this element of the role are highlighted in Matrix 5

Competency Matrix 5

Practical procedures	
Is able to perform independently	<ul style="list-style-type: none"> • Can perform comprehensive airway assessment • Can perform emergency airway management to ALS provider standard • Can initiate and manage oxygen administration devices • Can perform needle thoracocentesis for immediate management of tension pneumothorax • Can initiate and manage appropriate methods for measuring cardiac output and derived haemodynamic variables • Can perform peripheral venous catheterization • Can perform central venous catheterization, including renal replacement catheters, using USS and landmark techniques • Can perform arterial catheterization and arterial blood sampling • Can perform external cardiac pacing • Can perform defibrillation & cardioversion • Can perform electrocardiography (ECG/EKG) • Can perform nasogastric tube placement in critical care patient • Performs urinary catheterization
Is able to perform under direct supervision (Direct = present with Advanced Critical Care Practitioners)	<ul style="list-style-type: none"> • Can manage an airway by intubation to Mallampati Grade II if no drugs are required • Can manage the airway during percutaneous tracheostomy • Can manage the airway during procedures requiring sedation e.g. cardioversion • Can perform thoracocentesis via chest drain for pleural effusions using Seldinger technique
Demonstrates knowledge of	<ul style="list-style-type: none"> • How to recognise and manage difficult intubation • How to manage a failed intubation • How to perform thoracocentesis via a chest drain for pleural effusions using Seldinger technique • Invasive and non-invasive methods of measuring cardiac output • The principles of Sengstaken tube use (or equivalent) and placement and the management of portal hypertension • The indications for and safe conduct of gastroscopy

- **Peri-operative care**

The Advanced Critical Care Practitioner will be required to manage critical care peri-operative patients appropriate to their scope of practice in collaboration with multi-professional teams.

The competences which are required for the Advanced Critical Care Practitioner to undertake this element of the role are highlighted in Matrix 6

Competency Matrix 6

Peri-operative care	
Is able to perform under indirect supervision (Indirect = onsite & off site)	<ul style="list-style-type: none">• Can manage and optimize the pre-operative care of the high risk patient• Can manage and optimize the pre-operative care of the elective patient• Can manage the post operative care of patients following high risk / emergency and elective surgery
Demonstrates knowledge of	<ul style="list-style-type: none">• How to manage the care of the patient following cardiac surgery• How to manage the care of the patient following craniotomy• How to manage the care of the patient following solid organ transplantation

- **Patient comfort and psychological care**

The Advanced Critical Care Practitioner will be required to support patients and dependants in a compassionate and understanding manner during the period of the patient's critical illness.

In addition to the core skills the Advanced Critical Care Practitioner will need:

- Effective communication skills and the ability to explain difficult clinical information using terms and language understandable to the patient and relatives
- Enable patients and relatives to make informed choices and understand the consequences of the choices they make
- Provide supportive care and coaching (distraction techniques) through difficult procedures

The competences which are required for the Advanced Critical Care Practitioner to undertake this element of the role are highlighted in Matrix 7

Competence Matrix 7

Patient comfort and psychological care	
Is able to perform independently	<ul style="list-style-type: none"> • Can identify and aim to minimise psychological sequelae of critical illness for patients and dependants • Can recognise the risks of sedative and neuromuscular drugs in the critically ill patient and limitations of assessment in the setting of multiple organ dysfunction or failure • Can manage the appropriate use of sedation and neuromuscular blockade, including the assessment of both
Is able to perform under indirect supervision (Indirect = onsite & off site)	<ul style="list-style-type: none"> • Can manage the assessment, prevention and treatment of pain including the use and prescription of patient controlled analgesia • Can manage the administration of analgesia via an epidural catheter including top-up analgesia, the management of overdose and inappropriate placement

- **Discharge planning and rehabilitation**

The Advanced Critical Care Practitioner will be required to support the rehabilitation process of the critically ill patient which starts on admission to critical care and continues after discharge. The Advanced Critical Care Practitioner within their scope of practice needs to minimize the physical and psychological consequences of critical illness.

The competences which are required for the Advanced Critical Care Practitioner to undertake this element of the role are highlighted in Matrix 8

Competency Matrix 8

Discharge planning and rehabilitation	
Is able to perform independently	<ul style="list-style-type: none">• Can identify and minimise the long term consequences of critical illness• Can inform patients and carers about the requirements for continuing care after discharge from critical care• Can manage the safe and timely discharge of patients from the ICU / HDU
Demonstrates knowledge of	<ul style="list-style-type: none">• The physical and psychological challenges for rehabilitation• The significance and relevance of critical care patient follow-up both within hospital and following discharge

- **End of life care**

The Advanced Critical Care Practitioner within their scope of practice may be required to actively participate in the management of the dying patient. This involvement will include situations where management and care plans include the limitation or withdrawal of treatment to a critically ill patient where the emphasis of care is placed on the minimization of distress to both the patient and their dependants.

In addition to the core skills, the Advanced Critical Care Practitioner will need to:

- Take account of ethical issues
- Minimise the distress to patients and dependants

The competences which are required for the Advanced Critical Care Practitioner to undertake this element of the role are highlighted in Matrix 9

Competency Matrix 9

End of life care	
Is able to perform independently	<ul style="list-style-type: none">• Can manage the appropriate aspects of the procedure for withholding or withdrawing treatment once agreed with the multi-disciplinary team• Can communicate care plans and discuss end of life care with patients and their dependants• Can manage the process of palliative care of the critically ill patient
Is able to perform under indirect supervision (Indirect = onsite & off site)	<ul style="list-style-type: none">• Can optimise organ function ready for brain death testing

- **Transport**

The Advanced Critical Care Practitioner may be required to transport critically ill patients in a safe manner both for intra and inter-hospital transfers.

To consider national and local transportation guidelines including those produced by of the Intensive Care Society.

The competences which are required for the Advanced Critical Care Practitioner to undertake this element of the role are highlighted in Matrix 10

Competency Matrix 10

Transport	
Is able to perform independently	<ul style="list-style-type: none">• Can undertake transport of the critically ill patient outside the ICU/HDU including the mechanically ventilated and spontaneously breathing patient in accordance with local guidelines and standards

7.4.1 Professional core competences

• **Patient safety and health system management**

The Advanced Critical Care Practitioner will have a responsibility to promote and participate in patient, visitors and staff safety. This responsibility involves a professional approach to the maintenance and improvement of healthcare systems, standards and processes in the delivery of the service.

In order for the Advanced Critical Care Practitioner to contribute to patient safety and healthcare management systems they need to undertake an ordered approach which takes account of a number of key elements including the ability to:

- Behave in a professional manner
- Identify and minimize risk in the work environment
- Apply protocols and guidelines
- Adhere to local and national policy and guidelines
- Communicate and document appropriately
- Develop collaborative care plans
- Participate in monitoring processes

The competences which are required for the Advanced Critical Care Practitioner to undertake this element of the role are highlighted in Matrix 11

Competency Matrix 11

Patient safety and health system management	
Is able to perform independently	<ul style="list-style-type: none"> • Participates in a daily ward round as part of the multi-disciplinary team • Complies with local infection control measures • Identifies environmental hazards and promotes safety for patients & staff • Identifies and minimises risk of critical incidents and adverse events • Organises a case conference with multi-disciplinary team involvement • Applies protocols, guidelines and care bundles • Applies appropriate critical care scoring systems for assessment of severity of illness, case mix and workload • Can demonstrate an understanding of the Advanced Practitioner position within the wider and local organization including clinical responsibilities, levels of accountability and systems of working

- **Professionalism**

The Advanced Critical Care Practitioner will be expected to function in a capacity of an autonomous practitioner within a specialist healthcare team. This will demand a level of professional behaviour appropriate to the position of the practitioner within the healthcare organization and setting. This includes the elements of maintaining competence and standards of care delivery, the maintenance of ethical standards, critical appraisal, and continuing personal and professional development.

Professionalism includes elements of communication, professional relationships with patients and relatives and self-governance as described below:

Communication

- Understands communication is a two way process
- Sensitive to the reactions and emotional needs of others
- Able to communicate at all levels
- Gives accurate information and ensures comprehension, clarifies ambiguities
- Listens
- Appropriate use of non-verbal communication

Professional relationships with patients, relatives and carers

- Focuses on the needs of the patient family and carers
- Maintains trust and reassures appropriately
- Listens
- Is polite and caring
- Seeks the views and opinions of the patient
- Shows respect for patients' wishes, privacy, dignity and confidentiality
- Unprejudiced
- Views each patient as an individual.

Self-governance

- Accepts responsibility for safe patient care, including continuity of care
- Shows initiative and adopts a proactive, problem solving approach
- Manages stress
- Decisive when action is needed
- Respects and applies ethical principles
- Promotes the highest quality of practice, education and research
- Unbiased

- Interested and motivated
- Seeks learning opportunities has insight into personal educational needs, strengths and limitations
- Seeks help, appropriately acknowledges and learns from mistakes
- Recognises and seeks to address unprofessional behaviour in others
- Manages time and organises self effectively
- Appropriate attire and personal hygiene
- Accessible, punctual and reliable.

The competences which are required for the Advanced Critical Care Practitioner to undertake this element of their role are highlighted in Matrix 12

Competence Matrix 12

Professionalism	
Is able to perform independently	<ul style="list-style-type: none"> • Communicates effectively with patients, relatives and carers • Communicates effectively with members of the multi-professional health care team and other agencies • Can maintain accurate & legible records • Involves patients, dependants and carers in decisions about care and treatment as appropriate to the critical care setting • Respects cultural and religious beliefs and demonstrates an awareness of the impact on care of the critically ill patient and their dependants and carers • Ensures patient confidentiality and applies legal frameworks related to patient information • Takes responsibility for safe patient care appropriate to level of practice • Formulates clinical decisions within his/her area of practice with respect for ethical and legal principles in the multidisciplinary team context • Is aware of the implications of consent and relevant issues as applied to the critical care environment

7.4.2 Leadership core competences

- **Professional relationships with members of the healthcare team**

The Advanced Critical Care Practitioner will be required to be approachable and to lead and delegate appropriately. This includes the promotion of respect and value of others' roles, effective exchange of information and support of all members of the multi-disciplinary team. The Advanced Critical Care Practitioner will be required to demonstrate punctual and reliable behaviour and to arrange cover for absence. The individual practitioner is required to behave as an ambassador for the role of Advanced Practitioners acting professionally and behaving considerately towards other professionals and patients, acting as a role model.

The Advanced Critical Care Practitioner needs to demonstrate competences and behaviours relevant to:

- Leadership
- The importance of working within a multi-professional environment
- Collaboration and consultation
- Clinical support
- Awareness of own behaviour and its effects on others

The competences which are required for the Advanced Critical Care Practitioner to undertake this element of the role are highlighted in Matrix 13

Competency Matrix 13

Professional relationships with members of the healthcare team

Is able to perform independently	<ul style="list-style-type: none">• Collaborates, consults and promotes team-working• Ensures continuity of care through effective communication with the multi-disciplinary team• Appropriately supervises, and delegates to others, the delivery of patient care as appropriate to his/her level of expertise and practice• Supports clinical staff outside the critical care unit to enable the delivery of effective care as appropriate to the Advanced Critical Care Practitioner scope and level of expertise
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- **Development of clinical practice**

Dynamic development of clinical practice is essential for the Advanced Critical Care Practitioner to deliver high quality patient care. Transparent evaluation and audit of the service delivered provides crucial evidence for the improvement of clinical standards not only enhancing local care delivery but adding to the body of knowledge promoting best practice within the wider critical care community.

This competence will include elements relating to:

- Current developments in clinical practice and guiding principles of critical care professional and specialist organisations
- Current developments and guiding principles of the local NHS trust and regional critical care network

Competency Matrix 14

Development of clinical practice	
Is able to perform independently	<ul style="list-style-type: none">• Seeks learning opportunities and integrates new knowledge into clinical practice, including that of clinical decision making• Takes a lead to develop clinical and professional practice relevant to the role in order to ensure the delivery of high quality best practice care• Participates in research or audit & quality assurance activities under supervision• Supports patients (and their dependants and carers, as appropriate) in understanding the evidence base for their care and clinical management in terms of their personal circumstances

7.4.3 Teaching and supervising core competences

- **Participates in multi-disciplinary teaching**

As members of a multi-disciplinary team Advanced Critical Care Practitioners have teaching responsibilities to colleagues, patients and their relatives and therefore need to develop the skills, attitudes and practices of competent teachers and supervisors relevant to the clinical area and their role.

This competence will include attention to the following elements including:

- Educational methods and principles relevant to the role and clinical environment
- Assessment methods and principles relevant to the role and clinical environment
- Continuing professional development
- Self-directed learning
- Organisational structures supporting education and training
- Cross professional education and training

The competences which are required for the Advanced Critical Care Practitioner to undertake this element of the role are highlighted in Matrix 15

Competency Matrix 15

Participates in multi-disciplinary teaching	
Is able to perform independently	<ul style="list-style-type: none">• Participates in the educational activities and teaching of the multi-disciplinary team and other groups appropriate to the role and level of knowledge• Delivers teaching sessions on an aspect of clinical practice relevant to the local setting, utilising appropriate preparation and teaching methods• Maintains accurate & legible education and training records / documentation• Takes responsibility and participates in the continuing professional development of staff and others relevant to the role and position within the organization• Demonstrates a learner centered approach to practice by facilitating and supporting the learning of other students, trainees and colleagues
Demonstrates knowledge of	<ul style="list-style-type: none">• The basic principles of how adults learn

Question 10

Do you feel that the core competences covered under the four domains of clinical, professional, leadership and teaching and supervision, adequately cover the remit of what the Advanced Critical Care Practitioner will be required to do?

Question 11

Do you have any further comments regarding either the Education and Competency Framework document or the role?

8 National recognition and transferability

To ensure national recognition and transferability of the role, ideally there would be regulatory and accreditation frameworks in place to ensure common standards across all Advanced Critical Care Practitioners and practitioner programmes. In the current absence of these frameworks it is hoped that this National Educational and Competency Framework will be accepted as a best practice guide for development of this role to the highest standards. It is supported and endorsed by the Intensive Care Society, Intercollegiate Board for Training in Intensive Care Medicine, Royal College of Nursing and the British Association of Critical Care Nurses.

9 Glossary of terms

Clinical assessor	An accredited physician with responsibility for assessing trainee Advanced Critical Care Practitioners in the practice setting. The roles of clinical assessor and supervisor may be combined.
Clinical supervisor	An accredited physician with responsibility for supervising an identified trainee Advanced Critical Care Practitioner within their multi-disciplinary team.
Competence	In this framework, competence, is defined within a professional context as the broad ability with which a professional person is able to practice to the required standards in a pre-determined range of clinical fields and across a range of situations. This broad definition includes attributes that can be applied to clinical performance (Stuart 2003), and the use of professional judgement (Carr 1993).
Core knowledge	The knowledge base to underpin professional practice that is common to all Advanced Critical Care Practitioner programmes irrespective of the particular specialty.
Core syllabus	The detail of the generic subject knowledge and range of skills required by all Advanced Critical Care Practitioners regardless of specialty focus. This has been developed and agreed upon by a broad spectrum of academic advisors and specialty associations within the Intensive Care Society.
Critical care patient	See Appendix 1 detailing levels of critical care.
Differential diagnosis	Distinguishing between two or more diseases and conditions with similar symptoms by systematically comparing and contrasting their clinical findings, including physical signs and symptoms, as well as incorporating the results of laboratory tests and other appropriate diagnostic procedures.
Direct supervision	Where an appropriately qualified physician works alongside the trainee Advanced Critical Care Practitioner to monitor and assess performance and to verify compliance with appropriate standards/care protocols.
Indirect supervision	Where an appropriately qualified physician is readily available in physical proximity to provide guidance and advice to the trainee Advanced Critical Care Practitioner undertaking duties in accordance with appropriate standards/care protocols.
Mentor	An experienced professionally qualified practitioner (i.e. physician, senior Advanced Critical Care Practitioner) with appropriate education and training to facilitate learning and supervise trainee Advanced Critical Care Practitioners within the practice setting.

National Educational and Competency Framework	The main educational document providing the background, development, entry routes, definitions, structure of education and training, and assessment strategy for trainees on the programme.
Patient-centred care	Care which a) explores the patients' main reason for the visit, concerns and need for information b) seeks an integrated understanding of the patients' world – that is their whole person, emotional needs and life issues c) finds common ground on what the problem is and mutually agrees on management d) enhances prevention and health promotion e) enhances the continued relationship between the patient and health professional.
Procedural skills	These relate to the awareness of various clinical procedures associated with routine and non-routine tasks and the ability to implement the procedure effectively.
Professional judgement	The application of relevant knowledge and experience within the context provided by clinical standards (that reflect the collective judgement of the profession) and rules of professional conduct in reaching decisions where a choice must be made between alternative possible courses of action.
Specialist knowledge	The knowledge relevant to a particular specialty, which is over and above the core knowledge expected of all Advanced Critical Care Practitioners in any specialty.
Tacit knowledge	That which is developed from experience. Most practitioners have a high level of tacit knowledge in their specialist area. This means that they undertake activities without having to think very hard about them. However, the danger is that they use only tacit knowledge for practice and not develop new ways of thinking about their practice, this could lead to errors.

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Appendix 1: Intensive Care Society – Levels of Care 2002

Level 0

Patients whose needs can be met through normal ward care in an acute hospital.

Level 1

Patients at risk of their condition deteriorating, or those recently relocated from higher levels of care whose needs can be met on an acute ward with additional advice and support from the critical care team.

Level 2

Patients requiring more detailed observation or intervention including support for a single failing organ system or post-operative care, and those stepping down from higher levels of care.

Level 3

Patients needing monitoring and support for two or more organ systems **one** of which may be basic **or** advanced respiratory support.

Appendix 2: Main contributors to the National Educational and Competency Framework

Critical Care Programme Board members:

Dr Anna Batchelor – Consultant in Anaesthesia and Intensive Care, Royal Victoria Infirmary and President, Intensive Care Society. Chair, Education and Competency Advisory Sub-Group

Dr Chris Heneghan – Immediate past Chair, Intercollegiate Board for Training in Intensive Care Medicine, Consultant in Anaesthesia of Intensive Care Medicine, Nevill Hall, Abergervenny

Maura McElligot – Chair, Royal College of Nursing Critical Care Nursing Forum, Critical Care Lecturer, City University, London

Gerri Nevin – Critical Care Forum, Royal College of Nursing, Head of Division Critical Care, University of Central England, Birmingham

Julie Pearce – Chair, National Practitioner Programme Board for Critical Care, Chief Nurse Hampshire & Isle of Wight SHA, NHS South Central

Chris Smith – National Chair British Association of Critical Care Nurses, Lead Critical Care Nurse, Southampton University Hospitals NHS Trust

Sandy Thompson – Project Manager for the Critical Care project, National Practitioner Programme

Dr Sam Waddy – Junior Doctors Representative, Trainee Division of the Intensive Care Society

Barry Williams – Patient Representative, AlphaCare (Rehab) Ltd

Fran Woodard – Director of Modernisation Initiative

Carol Woods – Associate Workforce Designer for Critical Care Project, National Practitioner Programme

Keith Young – Policy Manager Adult Critical Care Team, Department of Health

The Education and Advisory Party were:

Catherine Bailey – Senior Nurse, Intensive Care Unit & Advanced Practitioner Project Lead, Sheffield Teaching Hospitals NHS Foundation Trust

Dr Anna Batchelor – Consultant in Anaesthesia and Intensive Care, Royal Victoria Infirmary and President, Intensive Care Society

Andrew Butcher – Programme Manager, Skills for Health

Dr Jane Eddleston – Clinical Director Critical Care and Consultant in ICU/Anaesthesia at Manchester Royal Infirmary & Clinical Advisor to the Department of Health for Adult Critical Care

Jane Fox – Programme Manager, Skills for Health

Professor Kate Gerrish – Professor of Nursing Practice Development, University of Sheffield /Sheffield Teaching Hospitals NHS Foundation Trust

Jenny Manning – Project Manager, Skills for Health

Jane Osgathorp – Senior Nurse, Practice Development, Papworth Hospital NHS Foundation Trust

Sandy Thompson – Project Manager for the Critical Care project, National Practitioner Programme

Jan Townes – Practice Development Fellow, Bournemouth University

Carol Woods – Associate Workforce Designer for Critical Care project, National Practitioner Programme

Claire Young – Research Nurse, Dept of Academic Anaesthesia, University of Sheffield and Northern General Hospital Sheffield

Appendix 3:

Quality indicators*

Quality indicator	Description
Patient-centred care	The need to keep the patient at the centre of care by treating all patients as individuals and wherever possible, respect their choices about their own care. This will mean that care may have to be organised across a number of boundaries
Evidence-based care, monitoring and evaluation	The use of best evidence, in tandem with continuous monitoring and evaluation, to inform clinical and non-clinical decisions and activities. This includes the systematic audit of packages of interventions that are based upon high level evidence (care bundles) proved to enhance patient care and outcomes
Early warning systems and outreach systems	The use of track and trigger systems on general wards and appropriate intervention tools and systems to assist clinical teams to refer to critical care as necessary
An appropriately trained and competent workforce	This will include the staff working in the critical care area as well as those working elsewhere within the hospital whose clinical practice will require them to be competent in the recognition of critical illness

* Published by the Audit Critical Care Stakeholder Forum in Quality Critical Care – Beyond Comprehensive Critical Care, Sept 2005

To have access to effective multi-disciplinary teams available 24/7	To have effective multi-professional teams in which members have clear individual roles and share knowledge, skills and best practice. To demonstrate a culture of shared learning and respect in which all disciplines recognise and work within the boundaries of their knowledge and experience and take full responsibility for their actions. To create an effective workplace culture of openness, mutual challenge and support to ensure the delivery of effective patient-centred care
Staff empowerment, support and development	The continuing support and development of all staff so that they possess the competences, knowledge, skills and experience necessary for the delivery of a safe, effective and patient-centred service
Flexible service planning	To have in place mechanisms that enable flexible and collaborative service planning which is informed through the continuous evaluation and monitoring of service outcomes and feedback from all stakeholders involved in the patient's journey
Effective communication	To have effective communication systems within the critical care team, with patients and relatives and within the hospital or trust. This should include an effective Critical Care Delivery Group in each hospital with the remit to oversee the development and performance of their critical care services. Critical care teams are encouraged to contribute to their local clinical networks
Using resources effectively	To manage resources (staff, equipment, technology) effectively and in accordance with public accountability
Data and information	The collection and use of robust critical care data is essential to support operational and clinical decisions including the future commissioning of services, evaluation of clinical care and benchmarking against other providers, both locally and nationally

Appendix 4: Summary of questions asked in document

Question 1

Do you think that the title 'Advanced Critical Care Practitioner' is an adequate role descriptor, which meets the needs of both the patient and the profession? If not why not?

Question 2

Do you think that the definition of the role as defined in section 1.1 adequately defines the remit and potential scope for this new way of working?

Question 3

Do you have any comments on the suggested potential training routes and / or length of time for non-traditional entrants?

Question 4

Do the aims and outcomes identified in the document adequately capture what is expected from the Education and Competency Framework? Do they clearly explain the skills and understanding that the Advanced Critical Care Practitioner should be able to demonstrate on completion of training?

Question 5

Is the overall length of the programme realistic?

Question 6

Does the document make clear the entry requirements for those candidates currently wishing to undertake the role at this point in time?

Question 7

Are the assessment requirements of the framework adequately and clearly defined? If not, why not?

Question 8

Are the supervision requirements of the framework adequately and clearly defined? If not, why not?

Question 9

We recognise that the list of core theoretical knowledge is not exhaustive, but do you think there is a key area that is missing?

Question 10

Do you feel that the core competences covered under the four domains of clinical, professional, leadership and teaching and supervision, adequately cover the remit of what the Advanced Critical Care Practitioner will be required to do?

Question 11

Do you have any further comments regarding either the Education and Competency Framework document or the role?

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