Sub-specialty Training in
Pre-hospital Emergency Medicine

Curriculum and Assessment System

Intercollegiate Board for Training in Pre-hospital Emergency Medicine

Produced by the Intercollegiate Board for Training in Pre-hospital Emergency Medicine (IBTPHEM).

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FOREWORD TO SECOND EDITION

At the turn of the current century, we were both struck by the contrast between our training as Emergency Physicians and that as Immediate Care doctors. Despite the fact that we had been fortunate enough to be able to gain experience in established pre-hospital services, we worried about the absence of a formally structured and recognised training programme. We argued passionately that patients with pre-hospital critical care needs had a right to access the same standards of care and professional medical expertise (and regulation) in the pre-hospital phase as they did in the hospital phase. In a spirited attempt to provoke debate about this area of specialist medical practice, we challenged the status quo and highlighted the plight of the critically injured:

"There is currently no system, training stream or workforce in place across the UK to ensure that the needs of these patients are met in a consistent or organised manner." [1]

We wanted everyone involved in emergency care to rise to our challenge.

They did. Our arguments did not fall on deaf ears. In fact, they were not solely our arguments and they were not new: many colleagues from different specialties and disciplines shared these views and we are grateful to them for both channelling and tempering our enthusiasm. We are particularly grateful to The Royal College of Surgeons of Edinburgh's Faculty of Pre-hospital Care for challenging us, in return, to lead the sub-specialty development programme, forge consensus on a curriculum framework and persuade governments and regulators to support the sub-specialty.

This second edition of the Guide to Sub-specialty Training represents the completion of the Faculty's sub-specialty development programme and the maturation of Pre-hospital Emergency Medicine as a properly regulated specialist clinical endeavour. There are training programmes emerging all over the UK and new-generation trainees can benefit from a much more structured and organised training experience. It remains for us to thank the many individuals who have selflessly, usually voluntarily and without payment, worked long hours to ensure the success of the sub-specialty. They know who they are. One name deserves special mention and, in recognition of his wisdom, council and unwavering support, this second edition of the Guide and Curriculum is dedicated to Professor Sir Keith Porter.

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Chairman, Intercollegiate Board for Training in Pre-hospital Emergency Medicine

Dr Roderick Mackenzie
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[1] Mackenzie R, Bevan D. For debate: a license to practice pre-hospital and retrieval medicine. Emergency Medicine Journal 20015;22:286-29.

FOREWORD TO FIRST EDITION

Pre-hospital Emergency Medicine involves providing immediate medical care in what is often a resource limited and physically challenging setting. Add to this the combination of time pressure, a medical emergency and an unfamiliar multi-disciplinary team and one wonders why any healthcare professional would seek to immerse themselves in this area of clinical practice. Yet over many years, a surprising number of doctors have, largely on a voluntary and altruistic basis, chosen to do so. Many of them regard the opportunity to support their local ambulance services and provide medical care in some of the most dangerous, distressing and challenging circumstances as both a privilege and, perhaps more importantly, a truly professional endeavour. In their desire to improve the quality and safety of their care, they have pioneered programmes of education and training, developed highly sophisticated operational services and championed the creation of postgraduate diplomas and professional bodies. Their drive and spirit is encapsulated in the introduction to the Pre-hospital Trauma Life Support Course:

> *"Our patients did not choose us. We chose them. We could have chosen another profession, but we did not. We have accepted responsibility for patient care in some of the worst situations: when we are tired or cold; when it is rainy and dark; when we cannot predict what conditions we will encounter. We must either embrace this responsibility or surrender it. We must give to our patients the very best care that we can - not while we are daydreaming, not with unchecked equipment, not with incomplete supplies and not with yesterday's knowledge"*[1]

In 1994, one of those doctors, now a Professor of Emergency Medicine, challenged our thinking in this area of clinical practice. He wrote: "It needs to progress from a group of enthusiasts of varying qualifications and standards to a fully fledged specialty." [2] It has perhaps taken longer than anticipated but we are pleased to report that the fully fledged specialty (or sub-specialty) has now arrived. What we hope will follow is a new generation of doctors who will benefit from even better access to structured and organised training and a career framework for clinical practice. In turn, our patients will continue to be assured of the highest possible standards of care.

We thank all of those who have contributed to this achievement and dedicate this first edition of the Guide and Curriculum to Professor Myles Gibson, who laid the foundations of Pre-hospital Emergency Medicine as a medical sub-specialty through the creation of the Faculty of Pre-hospital Care.

Professor Sir Keith Porter
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Dr Roderick Mackenzie
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[1] Pre-hospital Trauma Life Support Committee of the National Association of Emergency Medical Technicians in co-operation with the Committee on Trauma of the American College of Surgeons. PHTLS: Pre-hospital Trauma Life Support (Seventh Edition). Mosby JEMS Elsevier, St Louis, 2011.

[2] Cooke MW. Immediate care: specialty or pastime? Injury. 1994;25:347-8.

CONTRIBUTORS TO SECOND EDITION

Almost all of those involved in the development of the first edition of the Guide and Curriculum have been involved to some extent in the review of the curriculum and development of the second edition. The review has been conducted by the Intercollegiate Board for Training in Pre-hospital Emergency Medicine (IBTPHEM) and co-ordinated by:

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This guide was developed by the former Curriculum, Training and Assessment Sub-committee of the Intercollegiate Board for Training in Pre-hospital Emergency Medicine and represents a distillation of the work of a great many people over several years (including the members of the former Faculty of Pre-hospital Care Curriculum Advisory Group).

The members of the Curriculum, Training and Assessment Sub-committee were:

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Approved by the General Medical Council

23 September 2014

Intercollegiate Board for Training in Pre-hospital Emergency Medicine

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SECTION 1.
INTRODUCTION TO PRE-HOSPITAL EMERGENCY MEDICINE

1.1 INTRODUCTION

1.1.1 This document describes the curriculum, training and assessment processes for Pre-hospital Emergency Medicine (PHEM) sub-specialty training. It reflects the General Medical Council (GMC) standards and the UK wide regulations for specialty training (the Gold Guide).[1,2] Where there are differences between the four UK national agencies, the parts of the Gold Guide applicable to these agencies should be regarded as the definitive guidance.

1.1.2 PHEM was approved by the GMC as a medical sub-specialty of the existing specialties of Emergency Medicine and Anaesthetics on 20 July 2011 and of the existing specialties of Acute Internal Medicine and Intensive Care Medicine on 1 October 2013. The processes described in this document apply to PHEM training programmes and trainees entering PHEM sub-specialty training from 1 August 2014.

1.1.3 The PHEM sub-specialty approval process involved a wide range of services, providers and professional bodies. This document represents consensus from NHS, independent sector, defence medical services and third sector pre-hospital education and provider organisations across the UK and condenses many years of educational and operational experience. It reflects the real world challenges of training doctors to deliver high quality and safe emergency medicine in the hazardous, environmentally challenging and safety critical pre-hospital environment. It has evolved from the following documents, all of which are available from the Intercollegiate Board for Training in Pre-hospital Emergency Medicine:

- Pre-hospital and Retrieval Medicine: A new medical sub-specialty (16 June 2008).
- Application for approval in principle for the introduction of the new sub-specialty of Pre-hospital Emergency Medicine: GMC Step 1 Application (18 October 2010).
- Application for approval of the curriculum and assessment system for Pre-hospital Emergency Medicine: GMC Step 2 Application (4 January 2011).
- Sub-specialty Training in Pre-hospital Emergency Medicine: Supplementary guidance following consultation (7 February 2011).
- Sub-specialty Training in Pre-hospital Emergency Medicine. A guide for trainees, trainers, local education providers, employers and deaneries (20 February 2012).
- Sub-specialty Training in Pre-hospital Emergency Medicine. Curriculum Framework and Assessment Blueprint. (20 February 2012).

1.2 THE INTERCOLLEGIATE BOARD FOR TRAINING IN PRE-HOSPITAL EMERGENCY MEDICINE

1.2.1 PHEM training is supervised by the Intercollegiate Board for Training in Pre-hospital Emergency Medicine (IBTPHEM) on behalf of:

- The Royal College of Surgeons of Edinburgh (Faculty of Pre-Hospital Care)
- The Royal College of Anaesthetists
- The College of Emergency Medicine
- The Faculty of Intensive Care Medicine
- The Joint Royal Colleges of Physicians Training Board

1.2.2 The IBTPHEM is responsible for determining the duration, content and assessment of training and, in collaboration with the GMC, the postgraduate training bodies and the Colleges and Faculties, managing the quality of training. This document reflects the current recommendations of the IBTPHEM and is intended to assist trainees, trainers, local education providers, employers, Colleges, Faculties and Deaneries in managing sub-specialty training.

[1] A Reference Guide for Postgraduate Specialty Training in the UK – the 'Gold Guide' 2010.

[2] Standards for curricula and assessment systems. General Medical Council, 2010.

1.2.3 The IBTPHEM website (www.ibtphem.org.uk) provides access to the terms of reference of the IBTPHEM and its committees together with useful additional information for trainees, trainers and the public. The most up-to-date versions of the curriculum and assessment system, the associated workplace based assessments and a range of template documents are also available on the website.

1.2.4 The IBTPHEM encourage feedback regarding this guide, the associated curriculum framework and any aspect of PHEM sub-specialty training.

1.3 WHAT IS PRE-HOSPITAL EMERGENCY MEDICINE?

1.3.1 The term 'pre-hospital care' covers a wide range of medical conditions, medical interventions, clinical providers and physical locations. Medical conditions range from minor illness and injury to life threatening emergencies. Pre-hospital interventions therefore also range from simple first aid to advanced emergency care and pre-hospital emergency anaesthesia. Care providers may be lay first responders, ambulance professionals, nurses or physicians of varying backgrounds.

1.3.2 All of this activity can take place in urban, rural or remote settings and is generally mixed with wider out-of-hospital and unscheduled care. The complexity of unscheduled and urgent care provision is illustrated in figure 1.1. [3] Another useful way to conceptualise this breadth of clinical providers is to use the levels of practice described in the Skills for Health Career Framework for Health (figure 1.2). [4] The Career Framework describes the level of autonomy, responsibility and clinical decision making expected of a healthcare professional operating at a particular level.

1.3.3 Sub-specialist PHEM practice relates to the ***Emergency Response, Primary Scene Transfer*** and ***Secondary Emergency Transfer*** functions highlighted in figure 1.1 at the level of the Consultant (level 8) practitioner illustrated in figure 1.2. PHEM relates to that area of medical care required for seriously ill or injured patients before they reach hospital (on-scene) or during emergency transfer to or between hospitals (in-transit). It represents a unique area of medical practice which requires the focused application of a defined range of knowledge and skills to a level not normally available outside hospital.

1.3.4 There is a long established tradition of provision of voluntary and charitable emergency pre-hospital care by physicians in the UK. Building on the success of these individuals and services, the aspiration of the IBTPHEM is that each NHS Ambulance Service should have consistent immediate access to deployable sub-specialist PHEM services 24 hours a day. Other key drivers for the development of PHEM as a medical sub-specialty are:

(a) to meet existing demand for on-scene and in-transit medical support (sometimes referred to as pre-hospital 'enhanced care'),[5,6]

(b) to improve the quality and standards of pre-hospital critical care,[7]

(c) to improve equity of access to on-scene and in-transit medical support, [8]

(d) to improve governance of pre-hospital care and inter-hospital transfer services, [9]

(e) to support the Care Quality Commission essential standards for quality and safety in pre-hospital care, [10]

[3] Direction of Travel for Urgent Care: a discussion document. Department of Health, October 2006

[4] See http://www.skillsforhealth.org.uk/workforce-transformation/customised-career-frameworks-services/

[5] A license to practice pre-hospital and retrieval medicine. Emerg Med J 2005;22:286-293.

[6] NHS Clinical Advisory Groups Report. Regional Networks for Major Trauma. 2010.

[7] Views regarding the provision of prehospital critical care in the UK. Emerg Med J 2009;26:365-370.

[8] Availability and utilisation of physician-based pre-hospital critical care support to the NHS ambulance service in England, Wales and Northern Ireland. Emerg Med J 2012;29:177-181.

[9] Clinical governance in pre-hospital care. J R Soc Med, 2001;94(Suppl 39):38–42.

[10] Care Quality Commission. Essential standards for quality and safety. March 2010.

(f) to improve professional training and development of pre-hospital personnel, [11]

(g) to provide a robust *medical* incident response (MERIT) [12] capability and,

(h) to provide *medical* leadership for pre-hospital care services and providers. [13]

[11] Competence in prehospital care: evolving concepts Emerg. Med. J. 2005;22;516-519

[12] Department of Health. NHS Emergency Planning Guidance: Planning for the development and deployment of Medical Emergency Response Incident Teams in the provision of advanced medical care at the scene of an incident. 2009.

[13] As defined within the Medical Leadership Competency Framework available at www.institute.nhs.uk

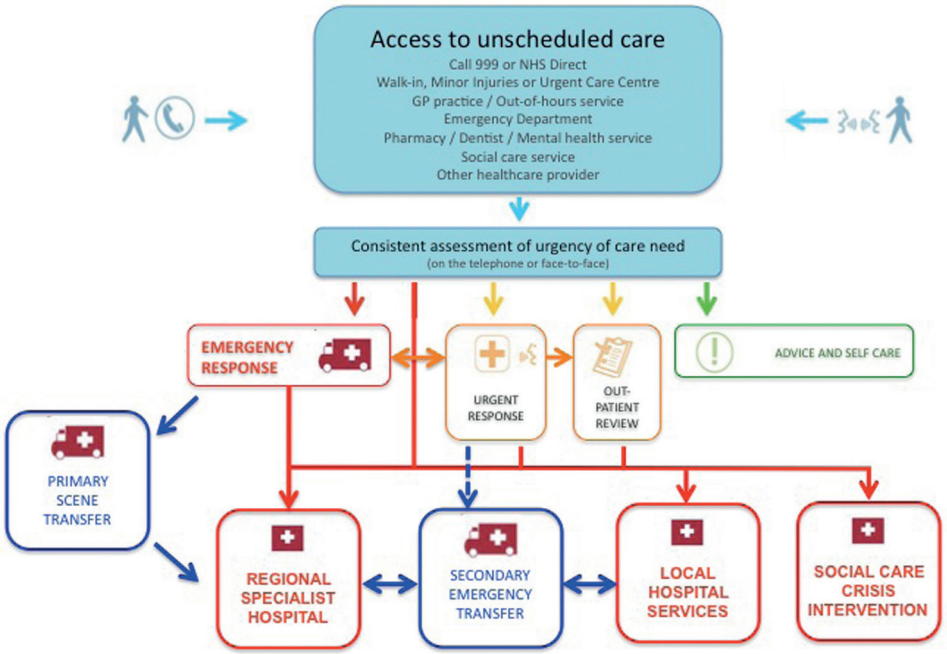


Figure 1.1. Conceptual model of effective urgent care. Adapted from: Direction of Travel for Urgent Care: a discussion document. Department of Health, October 2006.

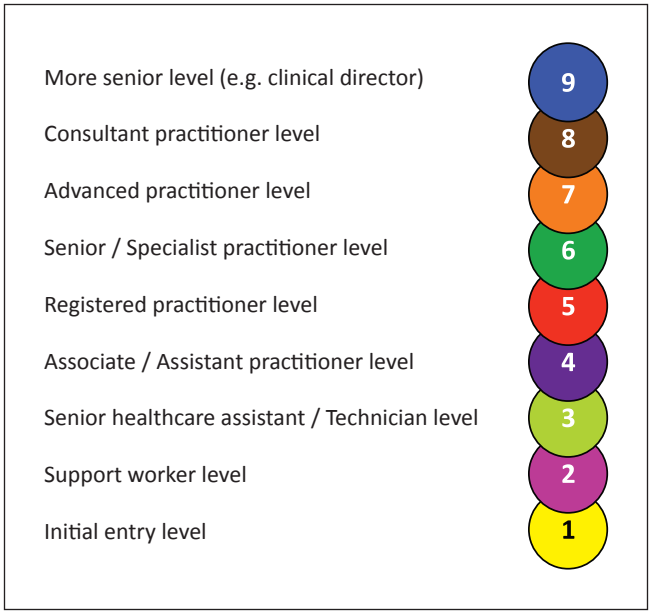


Figure 1.2. Skills for Health Career Framework

1.3.5 The IBTPHEM estimates that ten full-time equivalent (FTE) sub-specialist consultants would be required per region to achieve the aspirations of the sub-specialty. However, many regions encompass large populations and/or geographical areas and distinct PHEM services may be justified in several parts of the UK (perhaps more closely aligned to Major Trauma Centre outreach and retrieval services or Air Ambulance Services than to regional NHS Ambulance Services). Workforce estimates are therefore based on 200 to 250 FTE consultants in PHEM across the UK. Given that all will have at least a 50% commitment to their base specialty, this FTE would relate to a head count of 600 to 750 sub-specialty trained doctors nationally.

1.3.6 The development of this cadre of sub-specialty trained doctors should not be regarded as diminishing or de-emphasising the importance of individuals (including non-specialist medical practitioners and allied health professionals such as paramedics and nurses) continuing to provide clinical service at different levels of the Skills For Health framework. Instead, the sub-specialty is a mechanism by which this area of medical activity can be aligned with other areas of specialist medical practice and existing practitioners can be better supported. The IBTPHEM also believes that, by addressing the key drivers in paragraph 1.3.4, the sub-specialty will result in strong medical leadership within all areas of pre-hospital clinical practice and help to substantially develop services and standards across all levels of pre-hospital care.

1.3.7 The NHS Ambulance Services in the UK primarily deploy state registered paramedics. Specialist paramedics with a defined additional range of pre-hospital critical care knowledge and skills (often referred to as Critical Care Paramedics) have also been developed in many regions. [14] Multi- professional teams already work in many areas of specialist clinical and critical care and the combination of doctors and paramedics working closely together in pre-hospital care has been associated with effective operational services and good outcomes. The strengthening of education and training for doctors will support the further development of specialist paramedic practitioners and enhance the delivery of PHEM by doctor-paramedic teams.

1.4 WHAT IS THE ROLE OF A SPECIALIST IN PRE-HOSPITAL EMERGENCY MEDICINE?

1.4.1 PHEM encompasses the underpinning knowledge, technical skills and non-technical (behavioural) skills required to provide safe pre-hospital critical care and safe transfer.

1.4.2 ‘Pre-hospital’ refers to all environments outside an emergency department resuscitation room or a place specifically designed for resuscitation and/or critical care in a healthcare setting. It usually relates to an incident scene but it includes the ambulance environment or a remote medical facility. Implicit in this term is the universal need, for this specific group of patients, for transfer to hospital. Although a component of urgent and unscheduled care (figure 1.1), PHEM practice relates to a level of illness or injury that is usually not amenable to management in the community setting and is focused on critical care in the out-of-hospital environment.

1.4.3 ‘Critical care’ refers to the provision of organ and/or system support in the management of severely ill or injured patients. It is a clinical process rather than a physical place and it requires the application of significant underpinning knowledge and technical skills to a level that is not ordinarily available outside hospital. Hospital based critical care is typically divided into three levels: Level three (intensive care areas providing multiple organ and system support), level two (high dependency medical or surgical care areas providing single organ or system support) and level one (acute care areas such as coronary care and medical admission units). In the context of PHEM, all three levels of critical care may be required depending on the needs of the patient. In practical terms, the critical care interventions undertaken outside hospital more closely resemble those provided by hospital emergency departments, intensive care outreach services and inter-hospital transport teams.

[14] www.collegeofparamedics.co.uk

1.4.4 'Transfer' refers to the process of transporting a patient whilst maintaining in-transit clinical care. A distinction between retrieval and transport (or transfer) is sometimes made on the basis of the location of the patient (e.g. scene or hospital) and the composition or origins of the retrieval or transfer team. Successful pre-hospital emergency medical services in Europe, Australasia and North America have recognised that many of the competences required to primarily transport critically ill or injured patients from the incident scene to hospital are the same as those required for secondary intra-hospital or inter-hospital transport. In this guide, and the associated PHEM curriculum, the term 'transfer' means the process of physically transporting a patient whilst maintaining in-transit clinical care.

1.4.5 The IBTPHEM has consulted a wide range of individuals and organisations regarding the scope of practice of sub-specialist practitioners. Consensus has been reached: The sub-specialist in PHEM must be capable of providing at-scene and in-transit clinical care to a level commensurate with independent consultant practice at level 8 on the Skills for Health framework. To achieve this, they must have fulfilled the requirements for specialist registration (i.e. Certificate of Completion of Training or Certificate of Eligibility for Specialist Registration, CESR) in a relevant acute specialty (in the first instance, and for the purposes of this guide, Emergency Medicine, Anaesthetics, Acute Internal Medicine or Intensive Care Medicine) and have developed and demonstrated additional competence across the spectrum of activities that constitute the clinical practice of PHEM. These additional competences are described in detail in section 2. They include:

(a) Good Medical Practice
(b) Working in emergency medical systems
(c) Providing pre-hospital emergency medical care
(d) Using pre-hospital equipment
(e) Supporting rescue and extrication
(f) Supporting safe patient transfer
(g) Supporting emergency preparedness and response
(h) Operational practice
(i) Team Resource Management
(j) Clinical Governance

1.4.6 A sub-specialist in PHEM, as defined above, should be capable of fulfilling a number of career or employment roles which include, for illustrative purposes, provision of on-scene, in-transit and/or on-line (telephone or radio) medical care in support of PHEM service providers such as:

(a) NHS Acute Hospitals (particularly regional specialist hospitals with an outreach and transfer capability);
(b) NHS Ambulance Trusts (e.g. as part of regional Medical Emergency Response Incident Teams (MERIT) or their equivalent);
(c) The Defence Medical Services;
(d) Non-NHS independent sector organisations such as immediate care schemes, air ambulance charities, event medicine providers and commercial ambulance and retrieval services.

1.4.7 The PHEM sub-specialist practitioner role is uniquely challenging. The tempo of decision making, the hazards faced at incident scenes, the relatively unsupported and isolated working conditions, the environmental challenges, the resource limitations and the case mix all make this a very different activity compared to in-hospital practice. The remainder of this guide describes the training structure, curriculum framework and assessment system to ensure that that individuals undertaking this role are properly equipped to face the challenges.

1.5 EXPANSION OF PRE-HOSPITAL EMERGENCY MEDICINE SUB-SPECIALIST PRACTICE

1.5.1 PHEM is currently a sub-specialty of Emergency Medicine, Anaesthetics, Acute Internal Medicine and Intensive Care Medicine. The curriculum framework and assessment system have therefore been designed to complement and enhance core specialty training in these specialties. This guide should therefore be considered in the context of the current approved curricula and training management infrastructure for these specialties.[15-18]

1.5.2 To reflect the broad nature of pre-hospital emergency medical practice, the IBTPHEM continues to aim to expand the range of specialties for which PHEM sub-specialty training can be accessed. At the present time, prototype training fellowships are being developed for paediatrics and some relevant surgical specialties. There are currently no fixed timescales for further expansion of specialties with access to subspecialty PHEM training. The IBTPHEM website should be consulted for further updates.

1.5.3 A parallel process is underway with respect to individuals within the CCT specialty of General Practice (GP). The existing regulatory framework and the potential changes in GP training make this a complex process. GP's in training should contact the Curriculum Committee or access the IBTPHEM website to obtain further information.

1.6 RECOGNITION OF PRE-HOSPITAL EMERGENCY MEDICINE SUB-SPECIALIST PRACTICE

1.6.1 Medical Practitioners are currently only eligible for PHEM to be added to their entry on the Specialist Register if (a) they hold a CCT or CESR in one of the four approved core specialties **and** (b) they have completed a prospectively GMC-approved PHEM training programme. Such programmes commenced in August 2012 but will have limited capacity for some years.

1.6.2 Although the GMC will not accept historical training experience from within the UK, it will allow CCT or CESR holders (or applicants) who trained in PHEM overseas to apply for their PHEM training to be recognised as equivalent for the purposes of UK PHEM sub-specialty recognition. The GMC should be contacted directly regarding the process for such applications.

1.6.3 There is also currently no mechanism for doctors who hold GP registration to have a sub-specialty added to their entry on the Register.

1.6.4 In recognition of the existing historical expertise in PHEM practice across the UK and the regulatory barriers to broader access to PHEM sub-specialist registration, the Faculty of Pre-hospital Care of the Royal College of Surgeons of Edinburgh, in collaboration with the IBTPHEM, has developed a process by which experienced PHEM practitioners who are on the Specialist Register or GP Register, may apply for recognition of their PHEM experience and Faculty Accreditation as a Consultant (Level 8) Practitioner in PHEM.

[15] The College of Emergency Medicine. Curriculum and Assessment Systems for Core Specialty Training ACCS CT1-3 and Higher Specialty Training ST4-6 Training Programmes. June 2010 (revised 30 May 2012)

[16] The Royal College of Anaesthetists. Curriculum for a CCT in Anaesthetics, Edition 2, Version 1.5, August 2010.

[17] Joint Royal Colleges of Physicians Training Board. Specialty Training Curriculum for Acute Internal Medicine, August 2009 (Amended August 2012).

[18] The Faculty of Intensive Care Medicine. Curriculum for a CCT in Intensive Care Medicine, Edition 3, August 2011.

1.6.5 Detailed regulations pertaining to Faculty Accreditation and the application process are available from the Faculty of Pre-hospital Care. In summary the process involves two steps:

(a) Step 1 is successful completion of the Fellowship in Immediate Medical Care (FIMC) of the Royal College of Surgeons of Edinburgh. In recognition of the fact that the FIMC by examination will not be available for access by non-trainees until July 2015, a Step 1 (FIMC) exemption process has been developed specifically for those individuals who are applying for Faculty Accreditation. The Step 1 exemption process will only be available for Faculty Accreditation applications received between 1 August 2015 to 31 July 2017. The criteria for Step 1 exemption closely reflects the historical and current entry and success criteria for the FIMC by examination.

(b) Step 2 is submission and satisfactory assessment of a portfolio of clinical and operational experience that demonstrates their knowledge, skills and experience and reflects (a) the content of the GMC approved PHEM Curriculum and (b) the domains of the Skills for Health descriptors for the Level 8 (Consultant) practitioner. The process for review of the portfolio closely reflects the GMC CESR process.

1.6.6 Successful applicants are entitled to describe themselves as a Faculty Accredited Consultant (Level 8) Practitioner in Pre-hospital Emergency Medicine (PHEM). They will receive a certificate of Faculty Accreditation jointly endorsed by the Faculty of Pre-hospital Care and the IBTPHEM. This certificate will be valid for five years and renewal will require evidence similar to that required for the purposes of GMC revalidation.

1.6.7 The Faculty and IBTPHEM are in discussion with the GMC regarding whether successful Faculty Accreditation can be accepted by the GMC as evidence of eligibility for PHEM sub-specialty recognition. The Faculty should be contacted for any updates related to this process.

SECTION 2.
THE PRE-HOSPITAL EMERGENCY MEDICINE CURRICULUM

2.1 PURPOSE OF CURRICULUM

2.1.1 The curriculum defines the objectives, content, outcomes and process of training and the competences needed in order to be recommended for a certificate of completion of PHEM sub-specialty training.

2.1.2 As a sub-specialty of Emergency Medicine, Anaesthetics, Intensive Care Medicine and Acute Internal Medicine, the PHEM curriculum has been closely mapped to the current curricula for these core specialties. This ensures that it is complementary and covers the additional discrete areas of underpinning knowledge and technical skill required of the PHEM specialist.

2.1.3 The trainee in PHEM will enter sub-specialty training with a relatively high level of medical expertise in one of the four core specialties (see section 3) but with potentially little or no experience of how to apply that expertise in the pre-hospital environment. The curriculum aims to balance the knowledge and skills of the in-hospital emergency physician, anaesthetist, intensivist or acute physician with the needs of the critically ill patient in the pre-hospital environment.

2.2 CURRICULUM DEVELOPMENT

2.2.1 The curriculum was developed over a considerable time period using consensus development processes with trainees, other healthcare professionals and PHEM practitioners. The development process is described in detail on the IBTPHEM website. The derived curriculum relates to what should be expected of a newly 'qualified' consultant in PHEM across the four nations of the UK.

2.2.2 The Curriculum framework is illustrated schematically in figure 2.1. It comprises six sub-specialty specific and four cross-cutting themes. 'Themes' are over-arching areas of PHEM professional practice. The framework diagram illustrates the central importance of Good Medical Practice and the relationship between the cross-cutting generic themes of Operational Practice, Team Resource Management and Clinical Governance to the six specialty specific themes. The diagram also emphasises the inter-relationship of all themes – none stands alone.

2.3 CURRICULUM CONTENT

2.3.1 Within each theme are a number of discrete work roles or activities which are referred to as 'units'. Each unit contains grouped or related 'elements' of under-pinning knowledge, technical skill and behavioural attribute or non-technical skill – otherwise referred to as 'competences'. These elements are described in detail within the full version of the *Curriculum Framework and Assessment Blueprint for Pre-hospital Emergency Medicine (the Curriculum)*. The ten themes and their composite units are described below.

2.3.2 Cross-cutting theme - Good Medical Practice (GMP)

Good Medical Practice (GMP) is the term given to the core ethical guidance provided to doctors by the GMC. Other healthcare professional regulators such as the Nursing and Midwifery Council and the Health and Care Professions Council provide similar guidance. GMP sets out the principles and values on which good practice is founded; these principles together describe medical professionalism in action.[19] The principles within the four GMP domains are listed below and provided in further detail within the curriculum. In all themes within the Curriculum Framework, relevant GMP domains are assigned to every element. This assignment ensures that the assessment tools used for any particular element incorporates the relevant aspect of GMP.

[19] General Medical Council, 2013

Domain 1. Knowledge, skills and performance

1.1 Develop and maintain your professional performance
1.2 Apply knowledge and experience to practice
1.3 Record your work clearly, accurately and legibly

Domain 2. Safety and Quality

2.1 Contribute to and comply with systems to protect patients
2.2 Respond to risks to safety
2.3 Protect patients and colleagues from any risk posed by your health

Domain 3. Communication, partnership and team work

3.1 Communicate effectively
3.2 Work collaboratively with colleagues to maintain or improve patient care
3.3 Teaching, training, supporting and assessing
3.4 Continuity and coordination of care
3.5 Establish and maintain partnerships with patients

Domain 4. Maintaining trust

4.1 Show respect for patients
4.2 Treat Patients and colleagues fairly and without discrimination
4.3 Act with honesty and integrity

Figure 2.1. Schematic representation of the PHEM Curriculum Framework.

2.3.3 Cross-cutting theme A. Operational Practice

Maintaining safe and effective operational practice is a generic or cross-cutting theme of professional practice within PHEM. This theme concerns the knowledge, skills and non-technical skills required to maintain safe and effective operational practice within a pre-hospital emergency medicine service provider. The units within this theme are:

A.1 Apply the curriculum framework to local operations
A.2 Respond to incidents by road
A.3 Respond to incidents by air
A.4 Utilise telecommunications and voice procedure
A.5 Apply principles of dynamic risk assessment at incident scenes
A.6 Provide scene management
A.7 Maintain records
A.8 Apply infection prevention and control principles and procedures
A.9 Apply moving and handling principles and procedures
A.10 Apply principles of Equality and Diversity

2.3.4 Cross-cutting theme B. Team Resource Management

Contributing to effective Team Resource Management is a generic or cross-cutting area of professional practice within PHEM. This theme concerns the knowledge, skills and non-technical skills required to work as part of a multi-disciplinary team in the high hazard, resource limited, environmentally challenging and time pressured pre-hospital environment The units within this theme are:

- B.1 Understand human factors and their role in patient and team safety
- B.2 Maintain situational awareness
- B.3 Understand and apply principles of decision making
- B.4 Communicate effectively
- B.5 Employ effective team working
- B.6 Demonstrate leadership and followership
- B.7 Manage stress and fatigue
- B.8 Understand and apply principles of error investigation and management

2.3.5 Cross-cutting theme C. Clinical Governance

Application of clinical governance principles and techniques is a generic or cross-cutting area of professional practice within PHEM. This theme concerns the knowledge, skills and non-technical skills required to ensure that clinical governance principles and mechanisms are applied to clinical practice. The units within this theme are:

- C.1 Understand and apply principles of clinical governance as applied to pre-hospital practice
- C.2 Manage and support continuous professional development
- C.3 Utilise clinical evidence to support clinical practice
- C.4 Utilise and prepare documents that guide practice
- C.5 Support and apply clinical audit
- C.6 Understand and apply organisational risk management processes
- C.7 Support training and development
- C.8 Understand and apply quality management processes

2.3.6 Specialty theme 1. Working in emergency medical systems

Specialist practitioners in PHEM operate within wider Emergency Medical Services (EMS) Systems. These systems have a number of inter-dependent components. Having an understanding of these components, the way in which they interact and the wider regulatory framework surrounding them is essential to effective professional medical practice in this field. The units within this theme are:

- 1.1 Understand Emergency Medical Services (EMS) Systems models and components
- 1.2 Understand pre-hospital operational environments
- 1.3 Understand the training and regulation of pre-hospital healthcare personnel
- 1.4 Understand the process of ambulance emergency call handling, prioritisation, dispatch categorisation and resource management
- 1.5 Understand the role of pre-hospital emergency medical services within EMS
- 1.6 Understand the law relevant to Pre-hospital Emergency Medicine practice
- 1.7 Work effectively with emergency services
- 1.8 Work effectively with acute hospital services
- 1.9 Provide EMS clinical advice, support and co-ordination
- 1.10 Understand the pre-hospital and acute sector management structures within the wider healthcare system

2.3.7 Specialty theme 2. Providing Pre-hospital Emergency Medical Care

Sub-specialist training in PHEM currently commences after completion of ST4 in Emergency Medicine, Anaesthetics, Intensive Care Medicine or Acute Internal Medicine (see section 3). Trainees therefore have experience of emergency clinical care in the hospital environment. The established principles and techniques used in those settings often need to be modified for effective pre-hospital emergency use. In addition, the provision of emergency medical care in a relatively unsupported environment requires a greater in-depth knowledge of resuscitation in all age groups. The units within this theme reinforce resuscitation concepts learned during higher specialist training and relate them to the pre-hospital operational environment. The units within this theme are:

- 2.1 Assess patients in the pre-hospital phase
- 2.2 Provide immediate pre-hospital clinical care
- 2.3 Provide cardiopulmonary resuscitation in the pre-hospital environment
- 2.4 Manage acute medical emergencies in the pre-hospital environment
- 2.5 Manage injury in the pre-hospital environment
- 2.6 Provide analgesia, procedural sedation and anaesthesia in the pre-hospital environment
- 2.7 Manage obstetric emergencies in the pre-hospital environment
- 2.8 Manage the newborn in the pre-hospital environment
- 2.9 Manage injured or ill children in the pre-hospital environment
- 2.10 Manage the bariatric patient in the pre-hospital environment
- 2.11 Manage elderly patients in the pre-hospital environment
- 2.12 Manage acute behavioural disturbance in the pre-hospital environment
- 2.13 Provide end-of-life care and immediate management of bereavement

2.3.8 Specialty theme 3. Using Pre-hospital Equipment

Pre-hospital and in-transit emergency care requires use of a wide range of medicines, devices and portable equipment. Practitioners must be competent in both the application and operation of specific equipment items and the principles underlying their function and design. The units within this theme are:

- 3.1 Apply equipment governance principles and practice
- 3.2 Understand and use personal protective equipment
- 3.3 Operate all types of commonly used pre-hospital emergency medical device
- 3.4 Operate common non-medical pre-hospital equipment
- 3.5 Manage and administer medicines

2.3.9 Specialty theme 4. Supporting Rescue and Extrication

Pre-hospital emergency medical services are frequently targeted at patients who, because of physical entrapment, physical geography or functional geographic constraints, cannot just be taken to the nearest appropriate hospital. This competence theme focuses on the underpinning knowledge, technical skills and non-technical skills required to manage a trapped patient and effectively interact with professional rescue service personnel at common pre-hospital rescue situations. The units within this theme are:

- 4.1 Work within the rescue environment
- 4.2 Understand entrapment
- 4.3 Support extrication
- 4.4 Clinically manage the trapped patient

2.3.10 Specialty theme 5. Supporting Safe Patient Transfer

This theme covers the competences required to make destination hospital triage decisions, select the most appropriate transport platform, provide safe, effective and focused in-transit critical care and ensure that the patients' condition and immediate needs are communicated to receiving hospital clinical staff. As with other competence themes, many of the elements are common across all clinical services. The constituent units within this theme are:

5.1 Understand the concepts underpinning transfer medicine
5.2 Understand the applied physiology of patient transfer
5.3 Co-ordinate and plan patient transfer
5.4 Prepare patients for transport
5.5 Utilise a range of patient transport modalities
5.6 Clinically manage patients during transport

2.3.11 Specialty theme 6. Supporting Emergency Preparadness and Response

This theme encompasses the competences required to ensure that practitioners are appropriately prepared and equipped for larger scale emergency incidents in terms of their understanding of emergency planning and the principles of major incident management. The units within this theme are:

6.1 Understand principles of emergency preparedness, response and recovery
6.2 Respond to emergencies at operational (bronze) level
6.3 Respond to emergencies at tactical (silver) level
6.4 Manage chemical, biological and radiological (CBR) emergencies
6.5 Understand the psychosocial and mental health aspects of multiple casualty incidents

2.3.12 The full curriculum framework, detailing the elements of underpinning knowledge, technical skill and non-technical skill is provided in Part 2 of this document.

2.4. LEARNING METHODS

2.4.1 The curriculum framework tables presented in Part 2 define each element of knowledge, technical skill and non-technical skill and relate these to:

(a) The relevant GMP domain – to ensure that the assessment tools used for those particular groups of elements incorporate the relevant aspect of GMP
(b) The phase of training (see section 3)
(c) Recommended assessment methods (see section 4)
(d) Recommended learning methods

2.4.2 The recommended learning methods have been adapted from established learning methods within the specialties of Emergency Medicine, Anaesthetics, Intensive Care Medicine and Acute Internal Medicine. They are described in table 2.1. These were applied during prototype Faculty of Pre-hospital Care PHEM Training Fellowships. They were then further adapted according to the feedback provided by trainees, trainers and local education providers.[20]

2.4.3 Trainees in PHEM will be experienced adult learners with differing learning styles. The list of recommended learning methods should therefore be tailored to the individual. The list is not exhaustive but is to serve as a guide for trainers and trainees.

2.4.4 The IBTPHEM provides, through its Training Committee, training and guidance for trainers in relation to supporting these learning methods (see section 5).

[20] Sub-specialty Training in Pre-hospital Emergency Medicine. Supplementary guidance following consultation. 7 February 2011

Method	Description
Directed Reading (DR)	Reading recommended texts, journal articles and monographs (whether available online or offline)
Lectures and Tutorials (LT)	Use of lectures, small group teaching and tutorials (including practical skills sessions) where the learning is moderated by the teacher
Deliberate Practice (DP)	The repeated execution of a skill or task (without having to have a mentor present)
Simulation Learning (SL)	The simulation (at any level of fidelity and reality) of a situation in order to attain pre-determined learning objectives (e.g. simulated patients, simulated incident scenes, use of models, tabletop exercises)
Reflective Practice (RP)	Reflection upon past events to critique performance and so guide further development
Role Modeling (RM)	Role modeling is a process that allows trainees to learn new behaviours without the trial and error of doing things for themselves
Collaborative Learning (CL)	Learning from peers through discussion of situations, cases or concepts
Experiential Learning (EL)	Observation of or participation in events experienced by the learner

Table 2.1. Recommended learning methods

2.5 IMPLEMENTATION AND MANAGEMENT OF CURRICULUM

2.5.1 The curriculum and assessement system is managed by the IBTPHEM. Organisations with statutory responsibility for postgraduate training (e.g. Local Education and Training Boards in England, the NHS Education Scotland Deaneries, the Welsh Deanery and the Northern Ireland Medical and Dental Training Agency) who wish to implement the curriculum should consult the IBTPHEM to ensure that lessons identified from training programmes can be shared.

2.5.2 The IBTPHEM is responsible for curriculum review via its curriculum committee. The curriculum is formally reviewed on a two yearly cycle. The curriculum will indicate the date of formal review and document version.

2.5.3 As with all other specialties and sub-specialties, and in accordance with the GMC Quality Improvement Framework, the IBTPHEM are required to submit annual reports regarding the progress and effectiveness of sub-specialty training and seek approval for any change to the curriculum and assessment system from the GMC.

2.5.4 The IBTPHEM encourages all involved in implementing and using the curriculum to provide active feedback to inform the review process. It will aim to take into account new clinical and service developments, reports from sources such as trainees, educational supervisors, programme directors, deaneries, local education providers (LEPs), and patients.

SECTION 3.
TRAINING IN PRE-HOSPITAL EMERGENCY MEDICINE

3.1 TRAINING OVERVIEW

3.1.1 Sub-specialty training in PHEM takes place in the context of UK wide specialty training in Emergency Medicine, Anaesthetics, Intensive Care Medicine and Acute Internal Medicine. The relationship between LEPs, organisations with statutory responsibility for postgraduate training, the IBTPHEM and the core CCT specialties is illustrated in figure 3.1.[21] For ease of reference, organisations with statutory responsibility for postgraduate training throughout the UK, such as Local Education and Training Boards in England, the NHS Education Scotland Deaneries, the Welsh Deanery and the Northern Ireland Medical and Dental Training Agency, are all referred to in this guide as Deaneries.

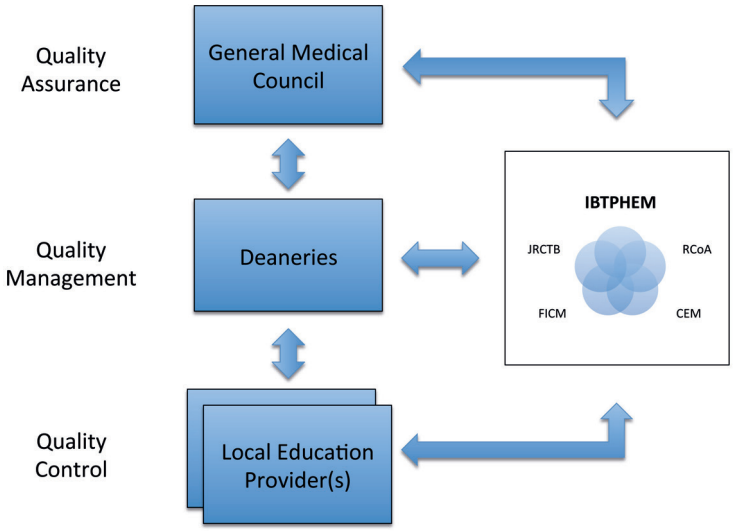


Figure 3.1 Quality framework for PHEM training and relationships between LEPs, the IBTPHEM, the Colleges and Faculties, the Deaneries and the GMC.

3.1.2 It is recommended that trainees who might be interested in PHEM but who have had little previous exposure to the sub-specialty consult their nearest PHEM Training Programme Director for details of opportunities to observe PHEM services or otherwise gain some experience of the operational environment and clinical practice. Details of sub-specialty training programmes in PHEM can be obtained from the IBTPHEM (www.ibtphem.org.uk).

3.1.3 The PHEM trainee is required to undertake a minimum of 12 months whole time equivalent sub-specialist training in PHEM (in approved PHEM training posts) and successfully complete the required formative and summative assessments in order to be recommended for a certificate of completion of PHEM sub-specialty training.

3.1.4 Training in PHEM may be undertaken before or after completion of the core specialty CCT programme. For trainees who are pre-CCT, PHEM training is undertaken after the fourth year of specialty training (ST4). For post-CCT trainees, PHEM training may be undertaken at any stage.

3.2 STRUCTURE OF TRAINING

3.2.1 For pre-CCT trainees, Deaneries and LEPs are able to design training programmes that integrate the recommended minimum 12 months whole time equivalent PHEM training into core specialty training. Although there are many possible ways of integrating PHEM sub-specialty training with core CCT training, the IBTPHEM recommend one of three options.

[21] Quality framework for specialty including GP training. General Medical Council, April 2010

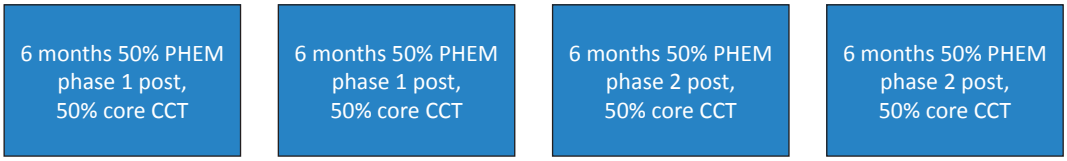
(a) a 24 month period of PHEM training blended with core CCT training (Scheme A) – figure 3.2

(b) a 24 month period of alternating 6 month blocks of sub-specialty PHEM and core CCT training (Scheme B) – figure 3.2

(c) a 12 month period of PHEM training inserted into core CCT training (Scheme C) – figure 3.3

3.2.2 Scheme A comprises four six month posts which each provide a blended mixture of PHEM and core specialty training that in total gives 12 months of PHEM training and 12 months of core specialty training over 24 months. This blending is achieved by proportionally splitting the PHEM and core CCT training in a way that is complimentary. Figure 3.2 illustrates the proportional split that has been found to be most successful. Experience has also shown that two 'paired' trainees are required for LEPs to effectively deliver Scheme A. Trainees must commence scheme A with the majority of time allocated to PHEM training.

Scheme A - Blending of 12 months PHEM training into extended core ST5/6



Scheme B - Alternating of 6 months PHEM training with core CCT training

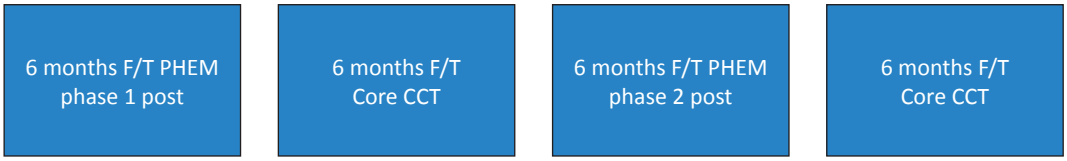


Figure 3.2 Diagrammatic representation of Scheme A and B training programmes

3.2.3 Scheme B comprises alternating six month posts within PHEM and the core CCT specialty of the trainee. Scheme B may fit more conveniently with core CCT training placement rotations but the gap between phases 1 and 2 (see below) may potentially compromise PHEM training. Nonetheless, Scheme B illustrates another way of achieving 12 months whole time equivalent PHEM training.

3.2.4 Scheme C comprises two full-time six month posts undertaken outside of core specialty training. Scheme C is the preferred model for post-CCT trainees but is an intensive programme. Scheme C is illustrated in figure 3.3.

Scheme C - Addition of 12 months PHEM at ST5/6/7 or post core CCT

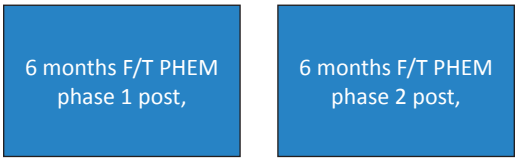


Figure 3.3 Diagrammatic representation of Scheme C training programme

3.2.5 All PHEM training programmes will take place after ST4 and should be expected to extend core specialty training by one year (figure 3.4). Experience gained through prototype Training Fellowships has suggested that a blended model of training delivery (Scheme A) is the preferred model for pre-CCT trainees with little or no previous PHEM experience as it allows more time for PHEM competences to develop and embed whilst retaining core specialty training experience. It also more closely reflects the future sub-specialist working pattern of a consultant in PHEM.

3.2.6 Those with a CCT in either Emergency Medicine, Anaesthetics, Acute Internal Medicine or Intensive Care Medicine who meet the person specification will be able to apply competitively for a training grade post in PHEM. Trainees on this pathway are likely to undertake 12 months full-time training (scheme C).

3.3 PHASES OF TRAINING

3.3.1 All training programmes, regardless of which scheme is followed, will comprise three distinct phases of whole time equivalent (WTE) training:

(a) Phase 1(a) – Initial training

(b) Phase 1(b) – Development training

(c) Phase 2 – Consolidation training

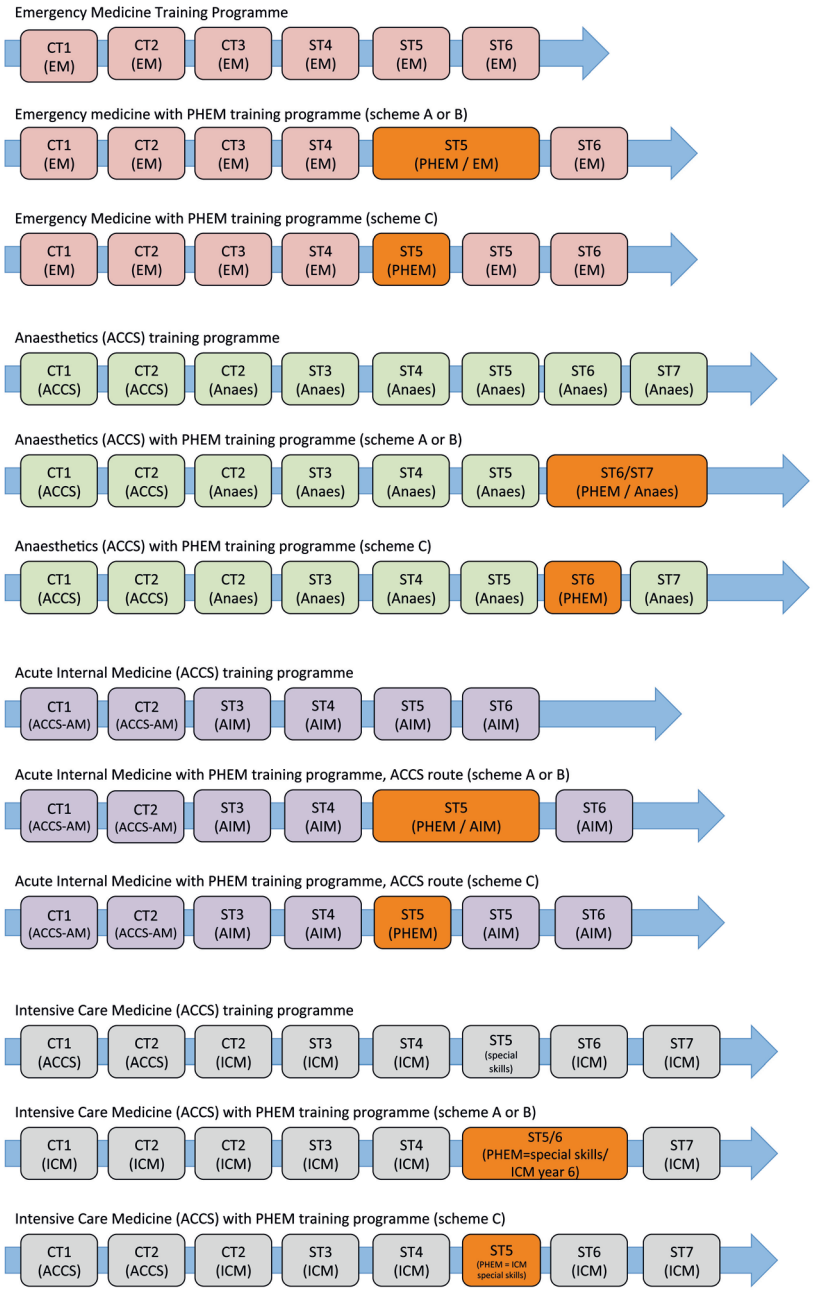


Figure 3.4 Comparison of PHEM training schemes and their relationship to core CCT training pathways in (a) Emergency Medicine, (b) Anaesthetics, (c) Acute Internal Medicine and (d) Intensive Care Medicine. PHEM sub-specialty training within Emergency Medicine and Acute Internal Medicine extends core specialty training by one year. Trainees should liaise with local core specialty and PHEM training programme directors as it may be possible within Anaesthesia and Intensive Care Medicine to incorporate PHEM sub-specialty training within the core CCT programme envelope. All illustrated schemes relate to the ACCS route.

3.3.2 In a 12 month WTE programme, phase 1(a) would typically last 1 month, phase 1(b) would typically last 5 months and phase 2 would typically last 6 months. For those in a Scheme A training programme, the phases last slightly longer in proportion to the amount of PHEM being undertaken: for example, an 80% PHEM programme, phase 1(a) would typically last 4 to 6 weeks. Progression from one phase to the next relies upon successful assessment (see section 4).

3.3.3 Phase 1(a) involves dedicated training to allow the trainee to operate under supervision with a LEP in phase 1(b). Throughout phase 1(a), trainees will be taught the phase 1(a) clinical knowledge and skills (as defined in *the Curriculum*, receive an induction with the LEP and be taught the LEP specific knowledge and skills. Much of this training will be using patient simulators with an experienced faculty, and may be provided at a regional or supra-regional level. Section 4 describes the mandatory formative assessment at the end of phase 1(a) that allows progression to phase 1(b) of training.

3.3.4 Phase 1(b) involves directly supervised operational practice and demonstration of the phase 1(a) and 1(b) competences under close supervision. Trainees are expected to progressively become more autonomous in their practice during this phase, whilst retaining a high level of supervision. Section 4 describes the mandatory national summative assessment at the end of phase 1 that allows progression to phase 2 of training.

3.3.5 The trainee in phase 2 is expected to develop a greater depth of knowledge and improved clinical performance whilst retaining, at a more remote level, appropriate supervision. This phase may be undertaken with a different LEP to phase 1 to allow for exposure to a different case-mix or pre-hospital environment. Section 4 describes the mandatory summative assessment at the end of phase 2 that will provide information for the final Structured Training Report (STR), core CCT Annual Review of Competence Progression (ARCP) and recommendation via the IBTPHEM to the GMC regarding completion of sub-specialty training.

3.4 MANAGEMENT OF TRAINING

3.4.1 The IBTPHEM is responsible for determining the duration, content and assessment of training in PHEM. Deaneries who provide PHEM training programmes must comply with the GMC generic standards for training and should fulfill the IBTPHEM requirements for LEPs in section 5.

3.4.2 Trainee and training programme management structures should reflect those in place for the parent CCT specialties. The Deanery must have a PHEM Regional Training Committee and a Training Programme Director who will be the trainee's point of contact.

3.4.3 All elements of work in training posts must be supervised with the level of supervision varying depending on the experience of the trainee and the clinical exposure and case mix undertaken. A minimum of 20% direct supervision of trainees is expected throughout PHEM training. As training progresses the trainee should have the opportunity for increasing autonomy, consistent with safe and effective care for the patient.

3.4.4 Trainees will at all times have a named Educational Supervisor and Clinical Supervisor, responsible for overseeing their education. Depending on local arrangements these roles may be combined into a single role of Educational Supervisor. The responsibilities of supervisors are as defined by the GMC and are reproduced in section 5.

3.5 ENTRY TO TRAINING

3.5.1 Recruitment to PHEM sub-specialty training will be managed nationally through a national recruitment scheme. The scheme recognises that not all regions will be able to deliver sub-specialty training and aims to:

(a) provide equity of access to approved training programmes

(b) foster fair, criterion-referenced and competitive entry to programmes

(c) support quality management of training programmes

(d) guide workforce development and planning

3.5.2 The IBTPHEM has asked the Lead Deanery (Health Education East of England) to act as the co-ordinating body for national co-ordinated recruitment to PHEM sub-specialty training until such time as an independent specialty and sub-specialty National Recruitment Office is formed. The co-ordinating body will undertake all aspects of the recruitment process including advertising, application handling, assessment and matching of successful candidates to places.

3.5.3 The principle of national co-ordinated recruitment is that any PHEM service provider which meets, either alone or in partnership, the criteria and standards for LEPs, may become an LEP within a Deanery training programme. Any approved LEP can then offer training posts to the Deanery programme for inclusion in the national PHEM recruitment scheme. In the initial phases of sub-specialty development, LEPs may have national recruitment posts and locally organised recruitment posts within an approved programme. It is expected that all approved training posts will be accessed via the national recruitment scheme from August 2015.

3.5.4 National co-ordinated recruitment will be on an annual basis according to the timetable outlined in table 3.1. A detailed description of all declared national scheme posts within approved training programmes will be available to all applicants. Postgraduate Deans, Heads of Schools, and PHEM Training Programme Directors will be provided with copies of any adverts and post/programme descriptions so that all will be fully aware of the commencement of recruitment.

Month	**Process**
September	PHEM Training Programme Directors and Deaneries declare the number of posts they have available for appointment in the next recruiting cycle.
October	Standard adverts will be published on the NHS jobs and IBTPHEM websites. Deaneries may also advertise on their websites.
October/November	Long-listing and Short-listing
November/December	Selection and matching process
February/August	Successful applicants commence training

Table 3.1. Outline timetable for national recruitment process

3.5.5 Applications will be made online using software already widely used in postgraduate training and a standardised application form based upon the national specialty registrar template. Applicants will be asked to rank all training programmes and posts they are willing to be considered for in order of preference. It is possible that on completion of the recruitment process, a successful candidate's preferences cannot be accommodated due to them already being filled by higher ranking candidates. Applicants should be aware that they will not be offered a programme they have not expressed a preference for in their original application.

3.5.6 Long-listing will be undertaken by the co-ordinating body and will be based on the person specification and confirmation of eligibility to commence sub-specialty training. The PHEM person specification available from the recruitment pages on the IBTPHEM website (www.ibtphem .org.uk) describes the detailed eligibility requirements. In summary:

(a) The earliest application for pre-CCT training is at ST3

(b) The earliest commencement of PHEM sub-specialty training is at the end of ST4

(c) Applicants must have been awarded core specialty NTN for an approved parent specialty

(d) Applicants must have MCEM or primary FRCA or equivalent

(e) Entry is conditional on successful ST4 ARCP

3.5.7 Short-listing, if required, will be undertaken using established processes and a short-listing panel which will include IBTPHEM and LEP representatives. All successfully shortlisted candidates will then be invited to a selection centre. The selection process will be confirmed in detail by the co-ordinating body but will typically be a total of thirty minutes between a number of stations (e.g. General interview station, Patient scenario station and Communication / team resource management station).

3.5.8 The selection centre will operate in keeping with standard national recruitment processes. Candidates will be scored using a standard framework. Appointable candidates will be ranked in order of merit. Once the final ranking has been confirmed, co-ordinating body staff will complete the matching process using the candidate's previously declared preferences. For all appointable candidates, offers will be based on firstly where the candidate is ranked and then the candidates preference (i.e. the top ranked individual is matched to their first choice programme, the second ranked candidate if possible will receive their first choice, unless it has already been filled and so on).

3.5.9 Once offers are accepted, details of applicants will be passed on to the respective Deanery who will take over all correspondence. The co-ordinating body will provide further detailed guidance regarding the recruitment scheme (available through the IBTPHEM website).

3.5.10 The advantages of a national recruitment scheme is that it will allow trainees who wish to train in PHEM to apply in open competition for the programmes available nationally. If successful through shortlisting and selection, candidates are then matched to the programmes offered within the sub-specialty, based on the maximum appointments to be made and the candidates' programme preferences in rank order. The scheme will therefore enable the sub-specialty to ensure that the appropriate numbers of trainees are being trained.

3.6 PROGRESSION THROUGH TRAINING

3.6.1 Progression through training is dependant upon successful completion of formative and summative assessments and evidence of satisfactory progression through the curriculum. On appointment to a training post in PHEM, all trainees are required to register with the IBTPHEM in order that training numbers and progression can be monitored. In the future, it is intended that following enrolment, trainees will be given access to an electronic Portfolio for PHEM. In the interim, trainees are encouraged to maintain records of all aspects of training – duty hours, clinical cases, assessment tools etc. These records will form an essential component of PHEM programme structured training reports (STRs).

3.6.2 The trainee is responsible for ensuring that the Portfolio is kept up to date, arranging assessments and ensuring they are recorded, preparing drafts of appraisal forms, maintaining a personal development plan, recording their reflections on learning and recording their progress through the curriculum.

3.6.3 Educational supervisors and trainees should work together to provide this evidence of progression at regular meetings. The Educational Supervisor, when meeting with the trainee, should discuss issues of clinical governance, risk management and any clinical incidents involving the trainee. The Educational Supervisor should be part of the PHEM clinical specialty team. Thus if the LEP clinical directorate/clinical director has any concerns about the performance of the trainee, or where there are issues of doctor or patient safety, these can be discussed directly with the Educational Supervisor.

3.6.4 Opportunities for feedback to trainees about their performance will arise through the use of the workplace based assessments, regular appraisal meetings with supervisors, other meetings and discussions with supervisors and colleagues, and feedback from STRs and the ARCP.

3.6.5 A formal process of appraisal assists with training and development, ensures adequate supervision during training, and provides feedback to trainees. All appraisals should be recorded in the PHEM Portfolio. The trainee and educational supervisor should have an appraisal meeting at the beginning of each post to review the trainee's progress, agree learning objectives for the post ahead and identify the learning opportunities presented by the post using the curriculum framework. A mid-point review meeting should be conducted within each post to ensure trainees are progressing satisfactorily.

3.6.6 On completion of each placement, post or programme, trainees should review their progress with their Educational Supervisor using evidence from the PHEM Portfolio related to their phase of training. Specific concerns may be highlighted from this appraisal. It should also record the areas where further work is required to overcome any shortcomings. Further evidence of competence in certain areas may be needed, such as planned workplace based assessments, and this should be recorded. If there are significant concerns then the Training Programme Director should be informed.

3.7 DURATION OF TRAINING

3.7.1 Trainees are expected to undertake a minimum of 12 months whole-time equivalent training in approved training posts. This may take place over a time period agreed with the Training Programme Director. Training time may have to be increased depending upon a trainee's progress.

3.7.2 It is recognised that each training provider is likely to provide a slightly different clinical case mix or environment exposure. Services in large UK cities will, for example, offer different cases and challenges to services operating in a remote and rural area. For that reason, with the agreement of the Training Programme Directors and in the context of an approved programme, trainees may split their training between different LEPs.

3.8 LESS THAN FULL TIME TRAINING (LTFT)

3.8.1 Trainees are entitled to opt for less than full time training programmes in PHEM. This training shall meet the same requirements as full-time training and the Deanery shall ensure that the competences achieved and the quality of part-time training are not less than those of full-time trainees. These posts are not supernumerary and may fit easily into existing training programmes running Scheme A. Deaneries will be able to give advice on this.

3.8.2 In order to comply with GMC guidance, retain competence and acquire new knowledge and skills, LTFT trainees would still normally be expected to work a minimum of 50% of full time.

3.8.3 LTFT trainees should assume that their clinical training will be of pro-rata duration compared with the full time indicated/recommended, but this should be reviewed during annual appraisal by their Training Programme Director, Specialty Training Committee and Deanery.

3.9 COMPLETION OF TRAINING

3.9.1 Completion of training is achieved by successful completion of an approved training programme of appropriate duration combined with successful assessment as detailed in section 4 and the award of an IBTPHEM certificate of completion of sub-specialist training.

3.9.2 The IBTPHEM, via its National Training Review Panel, is responsible for making recommendations to the trainee's core specialty ARCP panel regarding eligibility for inclusion of sub-specialty registration in PHEM on the specialist register.

3.9.3 Pre-CCT PHEM trainees will have recognition of PHEM sub-specialty training included in their core specialty CCT application. The GMC will initiate the process once the core specialty CCT training programme has been completed.

3.9.4 Post-CCT PHEM trainees will need to apply separately to the GMC for the addition of the PHEM sub-specialty to their existing entry on the specialist register. The process for making this application is available from www.gmc-uk.org.

3.10 RESEARCH

3.10.1 There is currently no specific provision for academic training within the sub-specialty program. Where appropriate, Deaneries may integrate PHEM training with the academic training program. After completion of Academic Clinical Fellow and PhD posts an 'academic' PHEM trainee would extend the Academic Clinical Lecturer Post from 3 years to 4 years, integrating PHEM sub-specialty training in exactly the same pattern as the sub-specialty program integrates with ST4-6 for trainees who are not in an academic training program.

SECTION 4.
THE ASSESSMENT FRAMEWORK FOR PRE-HOSPITAL EMERGENCY MEDICINE

4.1 INTRODUCTION TO ASSESSMENT

4.1.1 The purpose of assessment is to:

- assist learning and development
- evaluate progress and support transition through training
- ensure achievement of necessary competence relevant to the work role
- ensure trainees possess the essential underlying knowledge, technical skills and behaviours
- assure the profession and public regarding the standards of performance
- inform trainees' Structured Training Reports (STRs) and Annual Review of Competence Progression (ARCP), identifying any requirements for targeted or additional training where necessary and facilitating decisions regarding progression through the training programme

4.1.2 The integrated assessment system for PHEM mirrors, in many respects, the established assessment systems for the core CCT specialties. It measures progress of trainees against the curriculum for sub-specialist PHEM training and is composed of a mixture of workplace based assessments and summative assessments at the end of each phase.

4.1.3 The overall assessment system (figure 4.1) comprises:

(a) A defined number of educational and appraisal meetings.

(b) A target number of work-place based training and learning opportunities over the full twelve months WTE of subspecialty training.

(c) A locally managed structured formative assessment towards the end of the initial phase of training.

(d) A nationally co-ordinated and managed structured summative assessment towards the end of each of the developmental and consolidation phases of training.

(e) Structured training reports from Educational Supervisors.

(f) An overall review of training by the IBTPHEM National Training Review Panel.

4.2 ASSESSMENT FRAMEWORK

4.2.1 The assessment framework utilises a combination of formative and summative assessment. Figure 4.1 illustrates the duration of each phase of PHEM training and the relationship between continuous workplace based assessments and end-of-phase summative assessments for both phase 1 and phase 2.

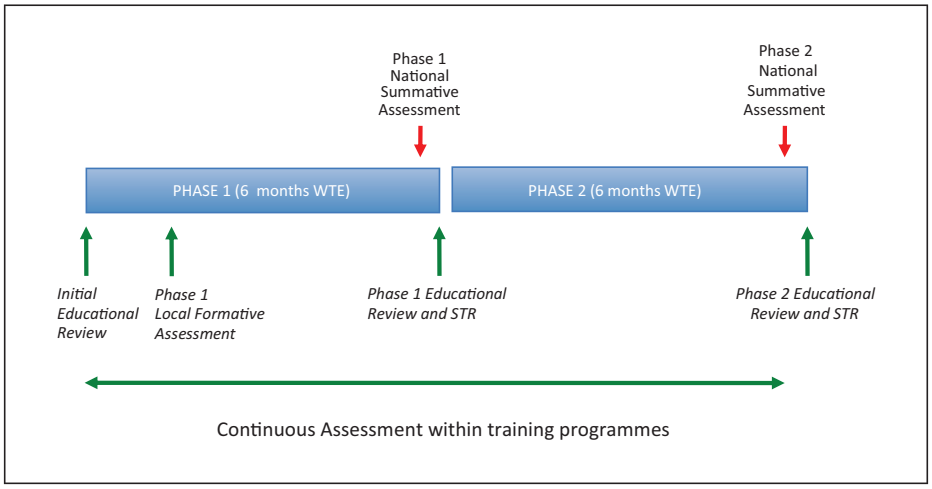


Figure 4.1. The 2 phases of sub-specialist training in PHEM with assessment types and timings.

4.2.2 Within PHEM sub-specialty training, the majority of assessment is formative and conducted within training programmes. There are however key stages in training where there is formal assessment of the knowledge, technical skills and non-technical skills assimilated at that point in training. Evidence of completion of formative and summative assessments is summarised in the trainee's STR and will be required at ARCP. An overview of the formal assessment elements is provided in table 4.1.

Phase of Training	Phase 1(a) - Initial Training	Phase 1(b) – Developmental Training	Phase 2 – Consolidation Training
Duration	1 month WTE	5 months WTE	6 months WTE
Content of training	Phase1(a) clinical knowledge and skills. LEP induction and teaching of LEP specific knowledge and skills – with a specific focus on operational practice and patient and team safety.	Development of phase 1(a) and 1(b) elements. Trainees are expected to progressively become more autonomous in their practice during this phase, whilst retaining a high level of supervision.	Consolidation of phase 1 elements and development of phase 2 elements. The trainee in phase 2 is expected to develop a greater depth of knowledge and improved clinical performance whilst retaining, at a more remote level, supervision.
Supervision	100% direct supervision	Minimum 20% direct supervision	Minimum 20% direct supervision
Purpose of assessment	Ensure safe practice and support progression to phase 1(b) of training.	Assure proficiency across all phase 1(a) and phase 1(b) elements (performing at a level equivalent to medical practice expected in later specialty training years (ST5/6)) Enable transition to phase 2 (with a different LEP) at a nationally recognised and defined level of knowledge and skill.	Assures that all elements of the PHEM sub-specialty curriculum framework have been assimilated and demonstrated at the level of the newly qualified independent consultant practitioner.
Formal Assessment	Phase 1(a) structured assessment (local formative assessment)	Phase 1 structured assessment (NSA) Multi-source Feedback Educational review (appraisal) and STR	Phase 2 structured assessment (NSA) Multi-source Feedback Educational review (appraisal), STR and core specialty ARCP

Table 4.1. Overview of formal assessment elements of the assessment system.

4.3 FORMATIVE ASSESSMENTS

4.3.1 Formative assessments take place throughout PHEM training. Formative assessment is a supported, reflective process that aims to promote trainee learning and development. It is used to develop and support trainees as their understanding and experience increases. Trainers, peers, and other healthcare professionals can conduct formative assessments. They are, in a sense, a learning method and they relate closely to the Experiential Learning and Reflective Practice methods described in table 2.1.

4.3.2 The following assessment tools will be used throughout the entire PHEM training to support this process:

- Mini-Clinical Evaluation Exercise (CEX)
- Case-Based Discussions (CbD)
- Direct Observation of Procedural Skills (DOPS)
- Acute Care Assessment Tool (ACAT)
- Audit Assessment (AA)
- Teaching Observation (TO)
- Multi-Source Feedback (MSF)
- Full case Simulation (SIM)

4.3.3 Defining minimum numbers for formative assessments is challenging given that a number of tools can be used to assess the same elements and many elements can be assessed with one tool. The minimum number must also reflect the clinical exposure and number of duty periods working under direct supervision – some assessment tools are most effectively applied during, or soon after, provision of clinical care whilst others can be utilised at a later stage. Nonetheless, the IBTPHEM recognise the need to set a minimum number of assessments to guide trainees, trainers and Deaneries.

4.3.4 Table 4.2 shows the minimum recommended number of each assessment tool to be used over 12 month WTE PHEM training period. The IBTPHEM believes that these minimum numbers of assessments are achievable, will adequately sample from the curriculum and will reflect the importance of direct consultant supervision and training in this discipline:

Minimum recommended number of assessment tools used over 12 month PHEM training	Assessment tools						
	CEX	CbD	SIM	DOPS	MSF	ACAT	TO
	15	30	10	30	2	25	5

Table 4.2 Count of formative assessments.

4.3.5 As shown in the Assessment Blueprint in Part 2, the bulk of formative assessment takes place in phase 1(b). This assessment burden is achievable because this is a phase of close supervision and the assessment tools can sample across many elements of the curriculum framework.

4.3.6 In addition to workplace based formative assessments throughout training, trainees will undergo a locally organised structured formative assessment at the end of phase 1(a). This assessment, typically 4 to 6 weeks after commencing training, is analogous to the Anaesthetic Initial Assessment of Competence at 3 months. It is intended to support the trainee in progressing to phase 1(b) and satisfy the needs of the LEP in relation to evidence of assimilation of:

(a) phase 1(a) elements of the curriculum framework

(b) LEP safety policies and procedures

(c) LEP clinical policies and procedures

4.4. SUMMATIVE ASSESSMENTS

4.4.1 Summative assessment refers to the assessment of learning at a particular time. It is used to assess progression through training, support transition through training phases and confirm achievement of competences. Summative assessments are made against clear descriptors and only conducted by formally trained assessors.

4.4.2 There are two components to summative assessment within the overall assessment system:

- Two National Summative Assessments (NSA): the phase 1 NSA at the end of phase 1 and the phase 2 NSA at the end of phase 2 (1 month before the end of each phase at the earliest).
- Two Structured Training Reports which draw on the results of both formative and summative processes and are used to inform the ARCP process and determine progression through, or completion of, training.

4.4.3 The phase 1 and 2 NSAs are conducted on behalf of the IBTPHEM by the Royal College of Surgeons of Edinburgh (RCSEd). The pre-existing Diploma and Fellowship in Immediate Medical Care examinations have been re-designed to allow them to fulfil the function of the phase 1 and phase 2 NSA respectively. The NSAs are conducted twice a year in January and July. Detailed regulations and guidance pertaining to the NSA 1(the Diploma in Immediate Medical Care) and NSA 2 (the Fellowship in Immediate Medical Care), including the dates, application processes and fees are available on the Royal College of Surgeons of Edinburgh website (www.rcsed.ac.uk).

4.4.4 The phase 1 NSA is a test of underpinning knowledge. It assures that sub-specialty trainees have assimilated (and can demonstrate) the relevant underpinning knowledge expected at that level of specialist training. For the phase 1 NSA, the candidate is expected to be able to apply the underpinning knowledge across all phase 1(a) and phase 1(b) elements in the Curriculum. This is equivalent to medical practice expected in later specialty training years (ST5/6). A person is eligible for the phase 1 NSA after completion of a minimum of 5 months WTE training in PHEM.

4.4.5 The phase 2 NSA assures that all elements of the PHEM sub-specialty curriculum framework have been assimilated and demonstrated at the level of the newly qualified independent (level 8) consultant practitioner. The candidate is therefore expected to perform to the standard expected of a newly qualified sub-specialist consultant (level 8) practitioner in PHEM. This is equivalent to independent clinical practice with high levels of underpinning knowledge, technical expertise and clinical experience across all elements of the Curriculum. A person is eligible for the phase 2 NSA after completion of a minimum of 11 months WTE training in PHEM and successful completion of the phase 1 NSA.

4.4.6 NSA 1 is blueprinted against the phase 1 elements of the Curriculum whereas NSA 2 is blueprinted against the whole curriculum (with an emphasis on phase 2 elements). The assessments have an identical format with two parts (A and B).

4.4.7 Part A comprises a written paper comprising:

(a) a multiple choice question paper (MCQ) of 150 minutes duration consisting of both Single Best Answer (SBA) questions and extended matching item (EMI) questions;

(b) a written paper of 30 minutes duration containing projected material and related multiple choice format questions.

4.4.8 Part B comprises an Objective Structured Practical Examination (OSPE). The OSPE will normally consist of 14 OSPE testing stations. Twelve of the OSPE stations will each be of 8 minutes duration and two will either be of 16 minutes duration for NSA 1 or 24 minutes duration for NSA 2. Each 24 minute OSPE will involve high-fidelity simulation of a pre-hospital clinical scenario. The OSPE is intended to cover the technical skills in the Curriculum pertinent to the NSA. Note that approximately 25% of the stations will relate to neonates, infants or children (three or four stations in each diet).

4.4.9 For Part A, candidate's scores for the two papers are added together (giving equal weight to all questions across the two papers). Candidates pass or fail Part A as a whole based on how their total score compares to the combined pass mark for these two papers. The pass mark in each assessment is determined in advance following a standard-setting exercise conducted by the panel of examiners. Examiners are formally appointed and trained by the RCSEd according to defined criteria agreed with the IBTPHEM Assessment Committee. The panel utilise the Angoff method of standard setting.

4.4.10 For Part B, each station is marked using a predetermined item checklist reflecting the complexity and length of the station. The contribution to the pass mark from each station is determined using an appropriate Standard Setting method (Borderline regression or modified Angoff method based on the number of candidates in each diet). The contributions to the pass mark from each of the 14 stations are summed to obtain the pass mark for the whole assessment. Up to two additional stations may be included in an examination to test new questions. Neither the candidates nor the examiners will know which stations these are and the marks from these two stations will not contribute to the final result.

4.4.11 The two full immersion high fidelity human simulations in Part B of NSA 2 involve a critically injured or ill adult or child in a simulated pre-hospital setting. The clinical equipment available for these simulations will be identical to that used across the NSA OSPEs and will be standardised across examination diets and made available in advance. The expected clinical course will be determined prior to the assessment and be related to specified elements of the Curriculum. Each simulation will be marked independently by two assessors using a marking sheet with specific components for underpinning knowledge, technical skills and non-technical skills relevant to the simulation and the expected clinical course. The marking sheets will indicate whether the relevant elements were demonstrated in a manner which reflected pre-determined criteria for acceptable practice.

4.5 ASSESSMENT BLUEPRINT

4.5.1 The Curriculum and Assessment Blueprint is detailed in Part 2. It is presented in the form of ten theme tables:

- Cross-cutting theme. Good medical practice
- Theme 1. Working in Emergency Medical Systems
- Theme 2. Providing pre-hospital emergency medical care
- Theme 3. Using pre-hospital equipment
- Theme 4. Supporting rescue and extrication
- Theme 5. Supporting safe patient transfer
- Theme 6. Supporting emergency preparadness and response
- Cross-cutting theme A. Operational practice
- Cross-cutting theme B. Team resource management
- Cross-cutting theme C. Clinical governance

4.5.2 The first curriculum theme table relates to the central role of Good Medical Practice (GMP). In contrast to the other tables, no specific learning or assessment methods are listed. This is because GMP has been incorporated into, and directly mapped against, all aspects of the curriculum.

4.5.3 The subsequent curriculum theme tables describe the theme, unit and element type in terms of underpinning knowledge (UK), technical skill (TS) and non-technical skill (NTS). The A column indicates the earliest formal assessment in which an individual element can be assessed. Note that phase 1 is sub-divided into phase 1 (a) and phase 1 (b) to reflect the initial and developmental phases of training. The tables then provide recommended learning and assessment methods as defined in tables 2.1 and 4.4. The assessment methods with an asterisk in table 4.4 may be used for summative assessment. All may be used to inform the Structured Training Report (STR) and, in turn, the relevant ARCP. Only one method need be used for an individual element.

4.5.4 The final GMP column in the curriculum theme tables indicates the relationship between the individual elements and the GMP domains. The domain indicated is the dominant domain for that element.

4.5.5 Throughout the theme tables, consistent language has been used to ensure common understanding of each element of underpinning knowledge, technical skill or non-technical skill. The definition used for each descriptor is shown in table 4.3

Table 4.3 Curriculum element descriptors (from Concise Oxford English Dictionary)

Element descriptor	Definition
Describe	Give a detailed account of (someone or something) in words
List	Make a list of
Explain	Make something clear by providing more detail
Define	State or describe exactly the nature, or meaning of
Demonstrate	Give a practical exhibition and explanation of
Critique	Evaluate in a detailed and analytical way
Contrast	Compare so as to emphasize differences
Select	Carefully choose as being the best or most suitable
Categorise	Place in a particular category; classify
Differentiate	Recognize or identify as different; distinguish
Display	Give a clear demonstration of (a quality, emotion, or a skill)
Analyse	Examine methodically and in detail for the purposes of explanation or interpretation

4.6 ASSESSMENT TOOLS

4.6.1 The Assessment Blueprint in Part 2 details the range of assessment tools recommended for each element within each theme. Appropriate assessment tools have been selected from the range already in use by the core CCT specialties (Table 4.3).

4.6.2 A Knowledge test (KT) is a summative written assessment of underpinning knowledge using a combination of extended matched and single best answer questions (EMQ and SBA). Knowledge tests combined with selected DOPS, simulation and case based discussion, are used to support transition between phases. They are only used for summative assessment.

4.6.3 The Mini-Clinical Evaluation Exercise (CEX) evaluates a clinical encounter with a patient to provide an indication of competence in skills essential for good clinical care such as history taking, examination and clinical reasoning. The trainee receives immediate feedback to aid learning. The CEX can be used at any time and in any setting when there is a trainee and patient interaction and an assessor is available. Trainees should aim to complete a minimum of 15 CEXs during their training.

4.6.4 The Case-Based Discussion (CbD) assesses the performance of a trainee in their management of a patient or situation to provide an indication of competence in areas such as clinical reasoning, decision-making and application of knowledge in relation to patient care. It also serves as a method to document conversations about, and presentations of, cases by trainees. The CbD should focus on a written record such as written case notes. CbD is also used for assessing the more generic, and less clinical, knowledge and skills needed for effective practice. e.g. evidence based practice, maintaining safety, teamwork, clinical research methodologies etc. Trainees should aim to complete a minimum of 30 formative CbDs during their training.

Assessment method	Role
Knowledge Test (KT)*	Summative assessment of underpinning knowledge using multiple choice type questions.
Mini-Clinical Evaluation Exercise (CEX)*	Evaluates a clinical encounter. May be used for formative and summative assessments
Case based discussion (CbD)	Assesses performance in clinical reasoning, decision-making and application of knowledge.
Simulation (SIM)*	Assessment of technical skills and non-technical skills such as task management, team working, situational awareness and decision-making.
Direct Observation of Procedural Skills (DOPS)*	Evaluates performance in undertaking a practical procedure. May be used for formative and summative assessments.
Multisource feedback (MSF)	Assesses generic skills such as communication, leadership, team working, reliability etc.
Acute care assessment tool (ACAT)	Facilitates feedback on performance across a number of domains during a pre-hospital emergency medicine duty period.
Logbook (LOG)	Supports the STR/ARCP in relation to clinical case mix, operational experience and achievement of competences.
Patient Survey (PS)	Assesses performance in areas such as interpersonal and communication skills by concentrating on performance during patient consultations.
Teaching observation (TO)	A form of formative assessment for complex knowledge and skills given the need for the teacher to demonstrate competence (and often mastery).

Table 4.4 Recommended assessment methods

4.6.5 A Direct Observation of Procedural Skills (DOPS) is an assessment tool designed to evaluate the performance of a trainee in undertaking a practical procedure, against a structured checklist. The trainee receives immediate feedback to identify strengths and areas for development. DOPS may be used for formative assessments and is used for the phase 1 workplace based summative assessments. Trainees are required to complete 10 summative DOPS in phase 1 and should aim to complete a minimum of 30 formative DOPs during their training.

4.6.6 The PHEM curriculum requires that trainees develop skills and behaviours that allow them to manage rare and critically important events. Simulated situations allow trainees skills to be tested before practicing in live situations and also for trainees to be exposed to a range of situations that would not be met in one year of training. They can be repeated as guided by the learner's needs and performance.

4.6.7 As well as technical skills, full case simulation (SIM) is appropriate for assessment of non-technical skills such as task management, team working, situational awareness and decision-making. Simulation does not require complex technology; high fidelity situations can be achieved with low or intermediate fidelity technology. Models or manikins can be used for invasive procedures; actors can be used to assess communication and teamwork in simulated situations. PHEM simulations should be carefully structured with key learning points derived from audit and review of real life cases ('lessons identified'). PHEM simulations should be delivered, wherever possible, within appropriate contexts, e.g. in an ambulance, in a car wreck or in the 'hostile' conditions frequently encountered in pre-hospital work. By using simulators for formative assessments regularly during PHEM training, trainees will become familiar with the modality and allow its successful use in summative assessments. Trainees should aim to complete 10 formative simulation assessments during their training.

4.6.8 The Acute Care Assessment Tool (ACAT) is designed to assess and facilitate feedback on a doctor's performance across a number of domains. The ACAT is designed for use during their practice on a pre-hospital emergency medicine duty period. Any doctor who has been responsible for the supervision of the duty period

can be the assessor for an ACAT. This tool should only be used formatively. It should cover as many domains as possible. For each case, the case notes and management plan should be reviewed by the clinical supervisor/ assessor before it is signed off on the ACAT form. If the assessor raises concern about the performance of a particular case, this case should be further assessed using a CEX or CbD. ACAT may only be used as a means of formative assessment. Trainees should aim to complete 25 ACAT formative assessments during their training.

4.6.9 The Teaching Observation (TO) tool is designed to provide structured, formative feedback to trainees on their competence at teaching. The Teaching Observation can be based on any instance of formalised teaching by the trainee, which has been observed by the assessor. The process should be trainee-led (identifying appropriate teaching sessions and assessors). Teaching Observation is an acceptable form of formative assessment for complex knowledge and skills given the need for the teacher to demonstrate competence (and often mastery). Trainees should aim to complete 5 formative teaching observations during their training.

4.6.10 The Multi-Source Feedback (MSF) is a method of assessing generic skills such as communication, leadership, team working, reliability etc, across the domains of Good Medical Practice. This provides objective systematic collection and feedback of performance data on a trainee, derived from a number of colleagues. 'Raters' are individuals with whom the trainee works, and includes doctors, administration staff, and other allied professionals. The trainee will not see the individual responses by raters and formative feedback is given to the trainee by the Educational Supervisor. A MSF is required in each phase of PHEM training. Trainees should aim for a minimum of 10 respondents for each MSF.

4.6.11 The Portfolio or Logbook (LOG) provides information to support the ARCP in relation to clinical case mix, operational experience and achievement of competences across the spectrum of the curriculum framework. The logbook informs the STR process and should record all educational activity, including formative and summative assessments.

4.6.12 The Patient survey (PS) addresses issues, including behaviour of the doctor and effectiveness of the consultation, which are important to patients. It is intended to assess the trainee's performance in areas such as interpersonal skills, communication skills and professionalism by concentrating solely on their performance during one consultation. Patient surveys may be conducted by LEPs and used to inform the STR and ARCP process.

4.6.13 The Audit Assessment (AA) Tool is designed to assess a trainee's competence in completing an audit. The Audit Assessment can be based on review of audit documentation or on a presentation of the audit at a meeting. If possible the trainee should be assessed on the same audit by more than one assessor. Audit assessments are used to inform the STR and ARCP process.

4.7 USE OF ASSESSMENT TOOLS

4.7.1 The assessment tools mirror those in place for core CCT specialties. Templates for each tool are available on the IBTPHEM website (www.ibtphem.org.uk) along with guidance notes for rating satisfactory or unsatisfactory performance.

4.7.2 The following examples illustrate how assessment tools for a CEX and a DOPS can be used across several elements of the curriculum.

Case Scenario

Guy, a year 5 emergency medicine trainee, is spending a year in pre-hospital emergency medicine sub-specialty training. He has successfully completed his phase 1 training and summative assessment and is now managing patients with supervision during his phase 2 training.

It is 21:00 on a wet winter's night and the pre-hospital team are tasked to a road traffic incident involving a car that has driven head on into a tree at 60 mph. Guy, his supervising consultant and their paramedic colleague attend the scene, treat the patient and transfer the patient to hospital.

On arriving back from the incident, Guy and his supervising consultant take the opportunity to discuss the incident and their management, and complete a CEX and a DOPS form.

INTER-COLLEGIATE BOARD FOR TRAINING IN PRE-HOSPITAL EMERGENCY MEDICINE MINI-CLINICAL EVALUATION EXERCISE (CEX)

Trainee name:	**Guy Secratan**	**Training Phase:**	**2**
Assessor name:	Alan Stathan	Registration no:	123456
Grade of assessor:	Consultant	Date	12 / 01 / 2012
Clinical scenario observed	**Curriculum elements covered**		
24 year old male, unrestrained driver of car, high speed head on collision with tree. Police, fire and ambulance services on scene. Massive deformation to vehicle, patient physically trapped due to dashboard intrusion. Severe head and facial injuries with airway compromise, shocked due to blood loss from scalp and bilateral femoral fractures. Reduced conscious level, became combatative.	1.3.5 Demonstrate respect for individuals within the multi-professional workforce		
	1.4.3 Formulate response decisions on the basis of ambulance service emergency call information		
	2.1.9 Demonstrate ability to perform an organised, structured, relevant and focused assessment across the range of pre-hospital situations in infants, children and adults		
	2.1.10 Demonstrate ability to accurately interpret clinical history and physical signs in the pre-hospital environment in infants, children and adults		
	2.1.11 Demonstrate appropriate use and interpretation of pre-hospital monitoring in infants, children and adults		
	2.1.13 Demonstrate ability to balance risk and benefits of actions prior to full patient assessment		
	2.1.16 Demonstrates effective communication with patients and their family during clinical assessment		
	2.2.7 Demonstrate the immediate clinical interventions for managing and supporting:		
	2.2.9 Demonstrate ability to provide safe and effective immediate clinical care in the pre-hospital environment		
	2.2.10 Display a calm and methodical approach to providing immediate clinical care		
The patient required basic airway manoeuvres, oxygen and in line manual immobilisation of C-spine whilst in the vehicle. He is fully monitored and, to enable extrication, he receives procedural sedation and analgesia intravenously. Once extricated has a pre-hospital emergency anaesthetic, intubation and continuation of anaesthetic. His limbs are splinted. He is transferred directly to a specialist neurosurgical centre by the team, who provide neuro-protection en route	2.5.8 Describe the immediate pre-hospital management of the following: (a) Injuries to the head, (b) Injuries to the face, (c) Injuries to the neck, (h) Injuries to the limbs		
	2.6.13 Demonstrate appropriate risk/benefit analysis for pre-hospital: (a) Analgesia, (c) procedural sedation, (d) emergency anaesthesia,		
	2.6.14 Demonstrate safe pre-hospital: (a) Analgesia, (c) procedural sedation, (d) emergency anaesthesia		
	3.1.4 Apply equipment governance procedures (b) during deployment and clinical care, (c) on completion of deployment		
	3.2.5 Demonstrate the correct use of PPE		
	3.2.6 Demonstrate the ability to operate whilst using PPE		
	3.2.7 Demonstrate a professional approach to use of PPE		
	3.3.3 Demonstrate confident and technically correct operation of: (a) Airway management devices, (b) Ventilatory support devices, (d) Devices for accessing the circulation, (f) Devices for administering medicine and blood products, (h) Devices for immobilizing joints, limbs and patients, (i) Devices for near patient testing, (j) Devices for temperature management, (k) Devices for non-invasive patient monitoring, (n) Devices for moving and handling patients		
	3.5.10 Demonstrate preparation of medicines for parenteral use		
	3.5.11 Demonstrate safe and effective administration of medicines by all routes		

Clinical scenario observed	Curriculum elements covered
See above	3.5.12 Demonstrate compliance with legislation related to Controlled Drugs
	3.5.16 Demonstrate a professional approach to management and administration of medicines
	4.1.10 Demonstrate a dynamic risk assessment in practice at a rescue operation
	4.3.6 Demonstrate ability to make a rapid assessment of the extrication needs of a trapped patient
	4.3.7 Demonstrate ability to manage clinical equipment during the extrication process
	4.3.8 Demonstrate ability to facilitate extrication through medical intervention
	4.3.11 Display medical leadership in co-ordinating medical and rescue interventions
	4.4.10 Demonstrate ability to make a rapid assessment of the clinical needs of a trapped patient
	4.4.11 Demonstrate effective management of the trapped patient
	4.4.13 Display leadership in co-ordinating multi-professional medical care of trapped patients
	4.4.14 Demonstrate a compassionate patient-focussed approach throughout rescue and extrication
	5.4.4 Demonstrate correct preparation of patients for safe pre-hospital transfer
	5.6.5 Determine appropriate choices of sedation, muscle relaxation and analgesia to maintain the patient's clinical status during transfer
	5.6.6 Demonstrate the safe pre-hospital transfer of ventilated patients
	5.6.9 Demonstrate the ability to maintain monitoring of vital signs throughout transfer
	B 1.6 Demonstrate a professional attitude to patient safety
	B 2.4 Demonstrate, in the context of PHEM practice, the ability to: (a) gather information, (b) interpret information, (c) anticipate likely events
	B 4.5 Demonstrate the ability to communicate in an accurate, brief and clear manner
	B 4.8 Demonstrate the ability to communicate effectively with different groups encountered in the pre-hospital environment
	B 4.9 Recognises the importance of effective communication to safe and efficient delivery of patient care in the pre-hospital environment
	B 5.5 Demonstrate the ability to work in multi-disciplinary and unfamiliar teams

Formative? – Yes	Summative? – No

Please TICK to indicate the standard of the trainee's performance in each area	*Not observed*	*Unsatisfactory for current level of training*		*Satisfactory for current level of training*	*Achievement above current level of training*
		Must address	*Should address*		
Initial operational approach				✓	
Initial clinical approach					✓
History and information gathering					✓
Examination					✓
Clinical decision making and judgment				✓	

Please TICK to indicate the standard of the trainee's performance in each area	Not observed	*Unsatisfactory for current level of training*		*Satisfactory for current level of training*		*Achievement above current level of training*
		Must address	*Should address*			
Communication with patient, relatives, staff						✓
Overall plan					✓	
Adherence to Good Medical Practice					✓	

Areas of strength

Initial clinical approach - Obtained information from the pre-hospital personnel already on scene and utilised their skills to continue care.

History and information gathering - Performed an organised, structured, relevant and focused assessment of a trapped adult patient in cold, dark and wet conditions.

Examination - Demonstrated accurate interpretation of clinical history and physical signs in cold, wet and dark condition in a trapped critically injured adult patient.

Communication with patient, relatives, staff - Utilised the multi-disciplinary team well and allowed appropriate involvement of all members.

Adherence to Good Medical Practice - Demonstrated work with an unfamiliar team

Areas for improvement

Initial operational approach - A slower walk into the scene, obtaining an overview of the scene risks and current scene activity would benefit your ability to maintain situational awareness.

Clinical decision making and judgment - Risk to the patient from their injuries and situation have to be balanced against risks of medical interventions. Chaotic situations with unstable patients require imposed control in order to ensure safety of patient and the team. Control of the patient's agitation could have been gained more quickly.

Overall plan - Incidents are dynamic environments and require decisions to be revised in the face of new information. The tempo of patient management should be consistent with the severity of injury. The flow of the extrication was affected by the patients change in agitation level.

Action plan

1. Concentrate on obtaining a scene overview before involving yourself in patient detail

2. Compare the various methods of achieving sedation to allow extrication in a head injured patient

If summative:	~~Fail~~ N/A	~~Pass~~ N/A	~~Good pass~~ N/A
Assessor Signature: *Alan Statham*		Trainee Signature: *Guy Secretan*	

INTER-COLLEGIATE BOARD FOR TRAINING IN PRE-HOSPITAL EMERGENCY MEDICINE
DIRECT OBSERVATION OF PROCEDURAL SKILLS (DOPS)

Trainee name:	Guy Secratan	Training Phase:	2
Assessor name:	Alan Stathan	Registration no:	123456
Grade of assessor:	Consultant	Date	12 / 01 / 2012
Procedure assessed		**Curriculum elements covered**	
Pre-hospital emergency anaesthesia		2.6.13 Demonstrate appropriate risk/benefit analysis for pre-hospital: (a) Analgesia, (c) procedural sedation, (d) emergency anaesthesia,	
		2.6.14 Demonstrate safe pre-hospital: (a) Analgesia, (c) procedural sedation, (d) emergency anaesthesia	
		3.3.3 Demonstrate confident and technically correct operation of: (a) Airway management devices, (b) Ventilatory support devices, (d) Devices for accessing the circulation, (f) Devices for administering medicine and blood products, (k) Devices for non-invasive patient monitoring,	
		3.5.10 Demonstrate preparation of medicines for parenteral use	
		3.5.11 Demonstrate safe and effective administration of medicines by all routes	
		3.5.12 Demonstrate compliance with legislation related to Controlled Drugs	
		3.5.16 Demonstrate a professional approach to management and administration of medicines	
		B 1.6 Demonstrate a professional attitude to patient safety	
Formative? – Yes		**Summative? – No**	

Please TICK to indicate the standard of the trainee's performance in each area	Not observed	*Unsatisfactory for current level of training*		*Satisfactory for current level of training*	*Achievement above current level of training*
		Must address	*Should address*		
Clinical indication				✓	
Appropriately deals with issues related to consent	✓				✓
Appropriate preparation				✓	
Technical skills				✓	
Situational awareness and clinical judgement				✓	

Please TICK to indicate the standard of the trainee's performance in each area	Not observed	*Unsatisfactory for current level of training*		*Satisfactory for current level of training*	*Achievement above current level of training*
		Must address	*Should address*		
Safety, including prevention and management of complications					✓
Post procedure management				✓	
Professionalism, communication and consideration for patient, relatives and colleagues					✓
Documentation	✓				
Adherence to Good Medical Practice					✓

Areas of strength

Clinical reasoning for appropriateness of intervention.

Preparation of personnel, equipment and patient for procedure.

Clear communication with multi-disciplinary team

Areas for improvement

Intubation technique should use a lifting action, not a rotatory action. Sliding down the tongue prevents the blade entering the oesophagus.

Delivery of the long acting muscle relaxant required prompting.

Action plan

1. Concentrate on obtaining a scene overview before involving yourself in patient detail

2. Compare the various methods of achieving sedation to allow extrication in a head injured patient

If summative:	~~Fail~~ N/A	~~Pass~~ N/A	~~Good pass~~ N/A
Assessor Signature: Alan Statham		Trainee Signature: Guy Secretan	

4.8 DECISIONS ON PROGRESS (ARCP)

4.8.1 Educational Supervisors and Training Programme Directors will determine progression through phases of training according to the assessment framework described in the Guide and Curriculum. Trainees are responsible for collating evidence of progression in their Portfolio or logbook.

4.8.2 Parent specialty Annual Review of Competence Progression (ARCP) panels may continue to monitor the progress of trainees within their specialty but should be informed by PHEM Structured Training Reports (STRs) for each phase of training - it is not necessary for Deaneries and Schools to conduct separate PHEM ARCP panels. The ARCP panel will also need to take into account the trainee's phase of PHEM training and the type of PHEM training scheme when making any judgments related to progression within the parent CCT specialty. ARCP panels are encouraged to liaise closely with TPDs and Educational Supervisors during PHEM sub-specialty training to ensure that a trainee is not being subjected to unfair assessment of core specialty progress.

4.8.3 All PHEM trainees will be invited to a National Training Review Panel towards the end of phase 2. The panel will review all PHEM training evidence and will be responsible for providing trainees with an outcome certificate on behalf of the IBTPHEM. This outcome certificate will then be presented by trainees at their next appropriate parent specialty ARCP and will enable the ARCP panel to make a recommendation for sub-specialty registration.

4.9 TRAINEES IN DIFFICULTY

4.9.1 When a trainee's performance gives cause for concern, more assessments will be needed. It is the responsibility of the trainee to provide at their Educational Review meetings what they consider to be evidence of satisfactory performance and satisfactory progress. They will need evidence of performance in each unit of training or section of the curriculum they have undertaken. This may increase the number of assessments they need. It is the educational supervisor's responsibility to help the trainee to understand what that evidence will be appropriate in their specific circumstances. The educational supervisor will then write a summary of the learner's performance for the STR. The Trainee will work with their educational supervisor to develop evidence of satisfactory progression through their agreed learning. The educational supervisor will then present a summary of this evidence to the ARCP via the STR.

4.9.2 It is recognised that trainees learn at different paces, and will improve as they progress through the training programme. The formative assessments may be undertaken many times and are expected to improve whilst the summative phase assessments give trainees the opportunity to demonstrate their learning at that point in time. Where either progression or summative assessment falls below the expected standard, the trainee and supervisors must rapidly evaluate and form plans for future learning supported by the educational team.

4.9.3 Persistent failure to progress indicates a trainee in difficulty and this should be managed through local Deanery systems to support the trainee. The Training Programme Director should be involved at the earliest opportunity.

4.9.4 Where the trainee is unsuccessful in a summative assessment, discussions with the Training Programme Director, Educational Supervisor and LEP will need to take place to identify the trainee's learning needs. This may require examining possible opportunities for the extension of PHEM training or abandonment of PHEM training to focus on core specialty training.

4.10 COMPLAINTS AND APPEALS

4.10.1 All workplace based assessment methods incorporate direct feedback from the assessor to the trainee and the opportunity to discuss the outcome. If a trainee has a complaint about the outcome from a specific assessment this is their first opportunity to raise it. Further disagreement should follow local grievance procedures.

4.10.2 Appeals concerning any aspect of PHEM sub-specialty training should follow Deanery and Training Programme procedures. Training Programme Directors must maintain an overview of any complaints or appeals within their programme.

4.10.3 Appeals related to the National Summative Assessments should, in the first instance, follow the relevant examination regulations of the Royal College of Surgeons of Edinburgh.

4.10.4 Unresolved disputes regarding summative phase assessments will be handled at IBTPHEM level and the IBTPHEM is responsible for setting up and reviewing suitable processes.

SECTION 5.
GUIDANCE FOR TRAINERS, EDUCATION PROVIDERS AND EMPLOYERS

5.1 INTRODUCTION

5.1.1 This section of the guide provides guidance for trainers, education providers and employers in their role in managing and delivering sub-specialty PHEM training.

5.2 TRAINERS

5.2.1 In the context of PHEM sub-specialty training, the IBTPHEM differentiate between Local Trainers (LTs) and Medical Trainers (Clinical Supervisors and Educational Supervisors).

5.2.2 Local Trainers (LT), a term introduced by the IBTPHEM, are experienced members of the pre-hospital team who provide training and educational support for trainees on a day-to-day basis. LTs are allocated by Local Education Providers (LEPs) and may undertake a wide range of planned and ad-hoc educational activities to support trainees. They do not however have a formal supervisory role for named trainees and cannot fulfil the mandatory elements of direct supervision. Provided that they have undertaken the appropriate training however, they may conduct formative assessments and deliver educational material. They do not need to be medically qualified and are not required to meet the GMC or Deanery eligibility requirements for a Medical Trainer.

5.2.3 The regulatory environment for Medical Trainers is changing.[22] A Medical Trainer is an appropriately trained and experienced doctor who is responsible for the education and training of PHEM trainees. The roles undertaken by Medical Trainers are Clinical Supervisor (CS) and Educational Supervisor (ES). New arrangements for the recognition of Medical Trainers, including the requirement for Deanery registration and GMC approval, are currently being implemented. All Medical Trainers must be registered and approved by 31 July 2016.

5.2.4 Specific criteria for recognition as an ES or CS will be developed by Deaneries in partnership with LEPs. In addition to existing standards for postgraduate training and the GMC's professional guidance for doctors (trainers must be positive role models demonstrating good medical practice), the criteria for recognition will be mapped to evidence related to seven areas originally set out by the Academy of Medical Educators.[23] It is the responsibility of LEPs and Deaneries to ensure that PHEM trainers are compliant with these requirements.

5.2.5 A PHEM Clinical Supervisor (CS) is a Medical Trainer who is responsible for overseeing a specified trainee's clinical work throughout a PHEM placement in a clinical environment. The CS will provide constructive feedback during that placement and will lead on providing a review of the PHEM trainee's clinical practice throughout the placement to inform the Educational Supervisor's structured training report on whether the trainee should progress to the next stage of PHEM training.

5.2.6 Clinical supervisors will be expected to undertake direct clinical supervision of their allocated trainees while they undertake operational duties. While no specific number of clinical shifts is specified, trainees will be expected to have work place based assessments from clinical supervisors.

5.2.7 An Educational Supervisor (ES) is a Medical Trainer who is responsible for the overall supervision and management of a PHEM trainee's trajectory of learning and educational progress throughout their PHEM training programme. Every trainee must have a named Educational Supervisor. The ES helps the trainee to plan their training and achieve agreed learning outcomes. The ES is responsible for the educational agreement and for bringing together all relevant evidence to form a summative judgement at the end of PHEM sub-specialty training.

5.2.8 The ES would ordinarily remain a trainee's ES throughout their programme. This may involve the ES supervising a trainee across multiple organisations within the programme. Educational supervisors should be identified and allocated to trainees as they start their PHEM training programmes. The responsibility for ensuring trainees have the required educational supervision lies with the Training Programme Director (TPD). The allocation of educational supervisors should be made in consultation between employers, PHEM TPD's and LEPs.

[22] General Medical Council. Recognising and approving trainers: the implementation plan August 2012.

[23] www.medicaleducators.org

5.2.9 The roles of Clinical and Educational Supervisor may be merged for some placements or programmes. It is expected that organisations hosting PHEM trainees will have individuals able to undertake both Clinical and Educational Supervisor roles working within them to support training.

5.2.10 Within Local Education Providers (LEPs), all Medical Trainers must:

(a) have a detailed understanding of the PHEM curriculum and assessment blueprint;

(b) understand and demonstrate ability in the use of the recommended PHEM assessment tools and be clear as to what is deemed acceptable progress;

(c) ensure that all involved in training and assessment of their designated trainee understand the requirements of the programme;

(d) regularly review trainee progress and understand the process for dealing with a trainee whose progress gives cause for concern;

(e) liaise as necessary with other trainers and the TPD to ensure a consistent approach to education and training and the sharing of good practice across specialties and professions;

(f) have adequate time for training identified in their job plans;

(g) have knowledge of, and comply with, the GMC's regulatory framework for medical training.

5.2.11 In addition to compliance with generic GMC and Deanery requirements regarding training, the IBTPHEM requires Medical Trainers in PHEM to:

(a) be clinically active in PHEM at the level of consultant practice, ideally with Faculty Accreditation of Sub-specialist PHEM practice and/or PHEM sub-specialty registration;

(b) have at least five years clinical and operational experience in PHEM;

(c) be employed as a consultant, by either substantive or honorary contract, to an NHS employing institution (NHS Trust or Ambulance Service Trust);

(d) satisfactorily complete a IBTPHEM Trainer Workshop (and undertake refreshers as stipulated by the IBTPHEM). Details of workshops are available from the IBTPHEM.

(e) be able to demonstrate generic competencies and specific skills for simulation-based training (described by the Association for Simulated Practice in Healthcare [previously the National Association of Medical Simulators).[24]

5.2.12 While PHEM trainees are on operational/clinical duties, especially at the beginning of their training, they will require close direct clinical supervision. The requirement is for 100% direct supervision for phase 1(a) of PHEM training and a minimum of 20% direct supervision throughout the remainder of their PHEM training programme. Direct supervision must be carried out by consultants recognised and approved as Medical Trainers. Direct supervision is distinct from indirect or remote supervision. For direct supervision, the trainer must be physically present.

[24] www.namsonline.com

5.3 LOCAL EDUCATION PROVIDERS

5.3.1 Local Education Providers (LEPs) are approved by a Deanery to support and provide sub-specialty training in PHEM following assessment that they meet the standards for LEPs and are able to maintain the provision of high quality training in PHEM.

5.3.2 Due to the nature of the current pre-hospital medical service provision, the LEP may be an NHS Trust (Acute or Ambulance), an independent healthcare provider, the Defence Medical Services or a third sector (charitable) organisation operating in partnership with the NHS.

5.3.3 Organisations seeking to become LEPs within a Deanery PHEM sub-specialty training programme must:

(a) either have a Learning Development Agreement (or equivalent) with the relevant Deanery or with the organisation that holds that agreement

(b) be compliant with the Care Quality Commission essential standards for quality and safety [25]

(c) be compliant with the GMC standards for training [26]

(d) have PHEM training locations approved by the GMC for core specialty training (GMC Form B)

5.3.4 The LEP is subject to inspection, both initially and subsequently, within the local Deanery Quality Management framework. Results of inspections will be reported to regional and national bodies as per GMC guidelines.

5.3.5 Sufficient practical experience must be available within the clinical services and LEPs associated with a Deanery programme to support acquisition of the knowledge and skills set out in the Curriculum. The Deanery programme, and associated LEPs (either individually or in collaboration) must therefore:

(a) have an adequate case volume. It seems reasonable to suggest that the pre-hospital emergency anaesthetic rate is a useful surrogate marker of overall exposure. A programme should therefore demonstrate that it could achieve at least 8 pre-hospital emergency anaesthetics per trainee per 6 months.

(b) offer exposure to the full range of undifferentiated adult and paediatric PHEM case presentations as described in the *Curriculum*.

(c) include exposure to both primary and secondary transfer cases.

5.3.6 Compliance with 5.3.3 and 5.3.5 above will be a significant challenge for many current PHEM services. It is likely that regionalised services, perhaps mirroring the regionalisation of trauma care and development of trauma networks, will be required to support sub-specialty training.

5.3.7 A key challenge for LEPs relates to the essential role of simulation. Simulation is used widely throughout postgraduate medical training for both learning and assessment. Within existing core specialty curricula, it is recognised that some skills may only be acquired by simulation and simulator based training courses are strongly recommended. Effective use of simulation will support:

- Acquisition and application of knowledge.
- Training and ingraining new skills: learning routines and steps that together comprise a complex skill.
- Reinforcement of drills: teaching and testing learners responses to specific critical incidents
- Developing professional behaviour and the set of non-technical skills which support delivery of expert anaesthetic practice, especially in the context of working within multi-professional teams and a variety of clinical environments.

5.3.8 - Within the PHEM curriculum, 'Simulation Learning' is a specified learning method. It is defined as the simulation (at any level of fidelity and reality) of a situation in order to attain predetermined learning objectives and it includes simulated patients, simulated incident scenes, use of models and tabletop exercises. Simulation is also recommended as an assessment tool for both formative and summative assessment.

[25] www.cqc.org.uk

[26] Generic standards for specialty including GP training. General Medical Council, April 2010.

5.3.9 Simulation is an essential and central part of training and assessment in PHEM clinical practice. There has historically been debate regarding high vs. medium vs. low fidelity simulators and the merits of each. There is a tendency to feel it necessary to use the highest fidelity simulators available with these often being extremely expensive to purchase. Experience of simulation in PHEM so far has demonstrated that the overall fidelity of the scenario is more important than the fidelity of the simulator mannequin itself. Many PHEM simulations can be effectively achieved with low to medium fidelity human simulators and the correct environmental set.

5.3.10 The general principles of simulation teaching and training can be summarised using the Best Evidence Medical Education (BEME) guidelines (table 5.1).[27] The IBTPHEM will produce further detailed guidance on the use of simulation for formative and summative assessment.

Attribute	Rationale
Provide feedback during the learning experience with the simulator	Slows decay in skills over time; Formative feedback and self-assessment allows individual to monitor progress; Feedback can be "built-in" to simulator training session or provided by trainer immediately or later via video debriefing
Learners engage in repetitive practice (and deliberate practice)	Found to be a primary factor in studies showing skills transferring to real patients; Shortens learning curves and leads to faster automaticity; simulator must be made available to achieve this – convenient location, accommodates learner schedule
Simulation is integrated into overall curriculum	Simulation fully integrated into overall curriculum – e.g. resuscitation, team resource management, use of equipment, patient transfer etc.
Learners practice with increasing levels of difficulty	Increasing the degree of difficulty increases mastery of the situation and technical skills
Adapt the simulator to complement multiple learning strategies	Large and small group tutorial settings; independent small-group and individual trainee practice settings
Ensure the simulator provides for clinical variation	Increases the number and variety of patients a learner encounters; Provides equity to smaller training programs; Provides exposure to rare encounters
Learning on the simulator should occur in a controlled environment	Learners make and detect mistakes without consequences; Instructors can focus on learners through "teachable moments"; Reflects educational "culture" focused on ethical training
Provide individualized (in addition to team) learning on the simulator	Provides reproducible, standardised experience for all learners; Learner is active participant, responsible for his/her own learning
Clearly define outcomes and benchmarks for the learners to achieve using the simulator	Learners more likely to master situation and skill if outcomes are clearly defined and appropriate for learner level of training
Ensure the simulator is a valid learning tool	Face validity – realism provides context for understanding complex principles/tasks, increases visio-spatial perceptual skills, learners prefer realism; Concurrent validity – ability on simulator transfers to real patient

Table 5.1 Attributes of simulation that lead to effective learning

[27] BEME Guide no 4: Features and uses of high-fidelity medical simulations that lead to effective learning. 2004, Dundee, UK: Association for Medical Education in Europe

5.3.11 Additional support for learning and training is being developed by the IBTPHEM in the form of a virtual learning environment (VLE), access to a portfolio and access to resources for training the trainers.

5.3.12 The VLE is intended to be a web accessible collection of tools to support self-directed learning, physical learning (face to face teaching) and curriculum management. The VLE will provide, through a single, consistent, and intuitive interface, all the components required for a course of education or training such as:

- The syllabus and curriculum – a road map for education and training
- Administrative information such as the location of teaching sessions
- An e-notice board for up-to-date information
- Participant tracking facilities
- Basic teaching materials (which may include the content of courses and e-learning resources)
- Self-assessment quizzes and formal assessment procedures
- A mechanism for remote support with electronic communication including e-mail and threaded discussions
- Differential access rights for trainers, trainees and other participants
- Production of documentation and statistics in the format required for administration and quality control
- A digital library / repository for additional resources, including reading materials, and links to other resources
- A mechanism for remote assessment
- A mechanism for sustaining Continuous Professional Development and stimulating self-learning

5.3.13 The PHEM Portfolio has been developed to support the PHEM training programme. This portfolio is currently paper based but it is likely these resources will transfer to an e-portfolio and logbook in the future.

5.3.14 The Portfolio is intended to provide trainees, trainers and LEPs with an easy to use, accessible and effective tool to record work-place based assessments, clinical activity and educational experiences against the *Curriculum.*

5.4 EMPLOYERS

5.4.1 All PHEM sub-specialty trainees, regardless of their LEP or funding arrangements, should normally be employed by a UK NHS body that holds a Deanery Learning and Development Agreement that defines the duties and responsibilities of employers and trainees. If the employer is not the LEP, the employers must also have clear and binding agreements with the LEP. Employers must also ensure compliance with employment and occupational health requirements.

5.4.2 All employers of trainees and trainers must ensure that their third party liability, indemnity and personal injury insurance arrangements specifically include clinical practise outside of a hospital setting, the full range of pre-hospital operational environments and the use of helicopters as transport platforms.

5.4.3 Employers must inform trainees and trainers of the value of insurance arrangements so that they can make personal informed decisions regarding whether to obtain additional personal injury insurance.

5.4.4 Employers must inform trainees and trainers of any limitations in third party liability, indemnity or personal injury insurance arrangements that may restrict their pre-hospital emergency medicine practise.

5.4.5 Regardless of the employer, the NHS Employment Check Standards [28] should be applied to all trainees and trainers. These cover all the pre-employment checks required by law, those that are mandated by the UK Departments of Health, and those that are required for access to NHS records. LEPs who are also employers will be required to show evidence of their compliance with these standards.

5.4.6 PHEM practice involves working in a range of environments which are physically challenging and demanding and may place the trainee and trainer at some risk. Whilst there are no standards for physical fitness and functional capability required to undertake core CCT specialty duties within hospital, NHS Ambulance Services undertake an assessment of functional capability and physical fitness as part of the selection process for pre-hospital work. The IBTPHEM recommend that the standard applied to Ambulance service recruitment is applied to PHEM trainee selection. The nationally co-ordinated recruitment process requires applicants to have passed the physical assessments used for recruitment to the paramedic higher education institutions.

5.5 DEANERIES

5.5.1 Deaneries who seek to provide PHEM training programmes should discuss their proposals with the IBTPHEM. The role of the IBTPHEM is to assist the Deanery in developing a robust training programme.

5.5.2 In addition to compliance with the GMC standards for Deaneries,[29] a regional PHEM training committee should be formed which may operate under the auspices of an appropriate Deanery school. The training committee will appoint a training programme director of suitable qualifications to oversee the training programme. It is suggested that the committee takes its membership from:

- PHEM Consultants
- Emergency Medicine Consultants
- Anaesthetic Consultants
- Acute Medicine Consultants
- Adult or Paediatric Intensive Care Consultants
- Ambulance Service personnel
- Local Education Providers
- PHEM Trainees
- Lay persons
- Deanery management personnel

[28] www.nhsemployers.org

[29] Standards for Deaneries. General Medical Council, April 2010

5.5.3 Given the number of trainees in PHEM, and the requirements for LEPs, Deaneries may decide to create arrangements for supra-regional management of training programmes. Any such arrangements must be made with full support of the participating Deaneries and LEPs.

5.5.4 The IBTPHEM has a role in supporting GMC review processes and quality managing training (see figure 3.1). In order for the IBTPHEM to assist the Deanery in setting up a programme that fulfils the requirements for training in PHEM as defined by the Board, Deaneries are asked to consult with the IBTPHEM and provide:

- A detailed description of the infrastructure underpinning and supporting the training programme.
- A detailed description of how the curriculum will be delivered within the programme (including details of the anticipated trainee case volume and exposure).

A template statement of training programme assurance and compliance to assist this process is available from the IBTPHEM.

5.5.5 PHEM Training Programme Directors are supported by a number of Educational Supervisors. Educational Supervisors guide a number of trainees through the training programme and need to be suitably qualified to do so. A sample person specification for an Educational Supervisor is given in table 5.1 as a guide.

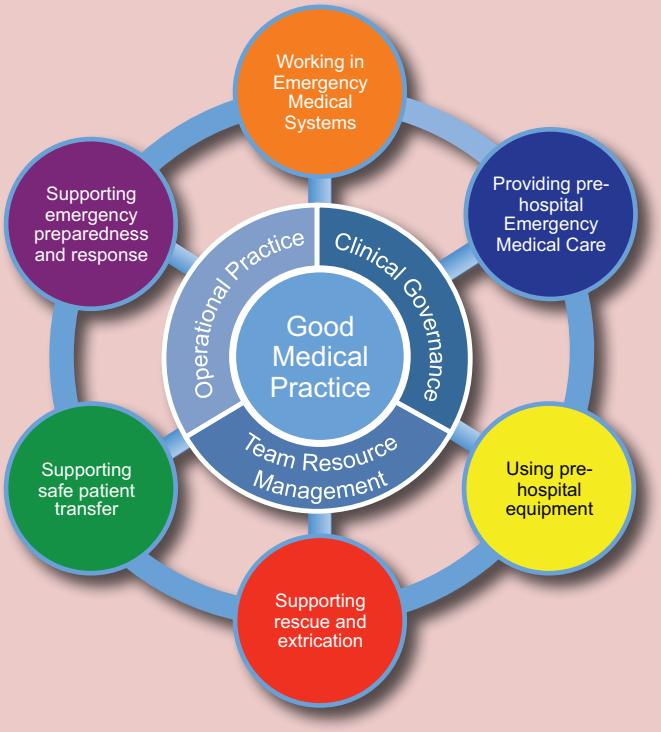
5.5.6 The IBTPHEM will review training programme applications and liaise with the GMC and Deaneries. In some circumstances, and in the context of the Quality Management framework illustrated in figure 3.1, a team from the IBTPHEM will conduct a review visit, the structure and function of which will mirror existing processes for Emergency Medicine, Anaesthetic, Acute Medicine or Intensive Care Medicine programme approval by the College of Emergency Medicine, Royal College of Anaesthetists or Royal College of Physicians respectively.

5.5.7 PHEM Training Programme Directors are supported by a number of Educational Supervisors usually based with local education providers. Educational Supervisors guide a number of trainees through the training programme and need to be suitably qualified to do so. A sample person specification for an Educational Supervisor is given in table 5.1 as a guide.

Factor	Essential Criteria	Desirable Criteria	How assessed
Attainments	• GMC full registration • Hold Specialist registration in Anaesthetics or Emergency Medicine	• PG qualification in education	Application Form
Knowledge and Interests	• Knowledge of management and governance structures in medical education and training and awareness of recent changes in the delivery of medical education and training nationally and locally. • Interest and enthusiasm for improving delivery of medical education and training and continuing professional development. • Knowledge of assessment methods. • Extensive experience in PHEM service provision	• Evidence of relevant research and/or publications. • Evidence of experience at strategic level of national or international education organisations.	Interview
Special Aptitudes	• Effective leadership and communications skills, motivating and developing others, approachability, good interpersonal skills. • Evidence of delivering well evaluated teaching sessions/tutorials. • Evidence of personal development in medical education.	• Evidence of supporting trainees . • Evidence of audit/research in medical education.	Interview

Table 5.1 A sample person specification for an Educational Supervisor.

Part Two
Curriculum Framework and Assessment Blueprint



CONTENTS

Part Two - Curriculum Framework and Assessment Blueprint

Please note a detailed description of the Assessment Blueprint can be found in section 4.5.

CROSS-CUTTING THEME - GOOD MEDICAL PRACTICE

Good Medical Practice (GMP) is the term given to the core ethical guidance provided to doctors by the General Medical Council (GMC). This was published by the GMC in a guidance document called 'Good Medical Practice' in March 2013. GMP sets out the principles and values on which good practice is founded; these principles together describe medical professionalism in action. The four domains and 14 principles within GMP are all relevant to the clinical practice of PHEM and have been reproduced to create the table describing cross cutting theme 1.

DOMAINS AND PRINCIPLES

1. Knowledge skills and performance
    - 1.1 Develope and maintain your professional performance
    - 1.2 Apply knowledge and experience to practice
    - 1.3 Record your work clearly, accurateely and legibly
2. Safety and quality
    - 2.1 Contribute to and comply with systems to protect patients
    - 2.2 Respond to risks to safety
    - 2.3 Protect patients and colleagues from any risk posed by your health
3. Communication, partnership and teamwork
    - 3.1 Communicate effectively
    - 3.2 Work collaboratively with colleagues to maintain or improve patient care
    - 3.3 Teaching, training, supporting and assessing
    - 3.4 Continuity and coordination of care
    - 3.5 Establish and maintain partnerships with patients
4. Maintaining Trust
    - 4.1 Show respect for patients
    - 4.2 Treat patients and colleagues fairly and without discrimination
    - 4.3 Act with honesty and integrity

CROSS-CUTTING THEME GOOD MEDICAL PRACTICE

Throughout the remainder of the PHEM Curriculum Framework, each element within all themes has been assigned a relevant GMP domain. This assignment ensures that the assessment tools used for those particular groups of elements incorporate the relevant aspect of GMP.

Domain	Principle		Standard (element)	GMC Guidance
				Reference paragraph
"Domain 1 Knowledge, skills and performance"	1.1	Develop and maintain your professional performance	You must be competent in all aspects of your work, including management, research and teaching	7
			You must keep your professional knowledge and skills up to date	8
			You must regularly take part in activities that maintain and develop your competence and performance	9
			You should be willing to take part in structured support opportunities offererf by your employer or contracting body. You should do this when you join an organisation and whenever your role change significantly thoughout your career.	10
			You must be familiar with guidelines and developments that affect your work	11
			You must keep up to date with, and follow, the law, our guidance and other regulations relevant to your work	12
			You must take steps to monitor and improve the quality of your work	13
	1.2	Apply knowledge and experience to practice	You must recognise and work within the limits of your competence	14
			You must provide a good standard of practice and care. If you assess, diagnose or treat patients, you must adequatley assess the patients conditions, taking account of their history, their views and values; where necessary examine the patient.	15a
			You must promptly provide or arrange suitable advice, investigations or treatments where necessary.	15b
			You must refer a patient to another practitioner when this serves the patient's needs.	15c
			In providing clinical care you must prescribe drugs or treatment, including repeat prescriptions, only when you have adequate knowledge of the patient's health and are satisfied that the drugs or treatmnet serve the patient's needs	16a
			You must provide effective treatments based on the best available evidence	16b
			You must take all possible steps to alleviate pain and distress whether or not a cure may be possible	16c
			You must consult colleagues where appropriate	16d
			You must respect the patient's right to seek a second opinion	16e
			You must check that the care or treatment you provide for each patient is compatible with any other treatments the patient is receiving including (where possible) self prescribed over the counter medications.	16f
			You must wherever possible, avoid providing medical care to yourself or anyone with whom you have a close personal relationship.	16g
			You must be satisfied that you have consent or other valid authority before you carry out any examination or investigation, provide treatment or involve patients or volunteers in teaching or research.	17
			You must make good use of the resources available to you	18

Domain	Principle		Standard (element)	GMC Guidance
				Reference paragraph
"Domain 1 Knowledge, skills and performance" (cont)	1.3	Record your work clearly, accurately and legibly	Documents you make (including clinical records) to formally record your work must be clear, accurate and legible. You should make records at the same time as the events you are recording or as soon as possible afterwards.	19
			You must keep records that contain personal information about patients, colleagues or others securely, and in line with any data protection requirements.	20
			Clinical records should include relevant clinical findings	21a
			Clinical records should inlcude the decisions made and actions agreed, and who is making the decisions and agreeing the actions.	21b
			Clinical records should include the information given to patients	21c
			Clinical records should include any drugs prescribed or other investigation or treatment	21d
			Clinical records should include who is making the record and when	21e
"Domain 2 Safety and Quality"	2.1	Contribute to and comply with systems to protect patients	You must take part in systems of quality assurance and quality improvement to promote patient safety. This includes taking part in regular reviews and audits of your work and that of your team, responding constructively to the outcomes, taking steps to address any problems and carrying out further training where necessary.	22a
			You must take part in systems of quality assurance and quality improvement to promote patient safety. This includes regularly reflecting on your standards of practice and the care you provide.	22b
			You must take part in systems of quality assurance and quality improvement to promote patient safety. This includes reviewing patient feedback where it is available.	22c
			To help keep patients safe you must contribute to confidential inquiries	23a
			To help keep patients safe you must contribute to adverse event recognition	23b
			To help keep patients safe you must report adverse incidents involving medical devices that put or have the potential to put the safety of a patient, or another person, at risk	23c
			To help keep patients safe you must report suspected adverse drug reactions	23d
			To help keep patients safe you must respond to requests from organisations monitoring public health.	23e
	2.2	Respond to risks to safety	You must promote and encourage a culture that allows all staff to raise concerns openly and safely	24
			You must take prompt action if you think that patient safety, dignity or comfort is or may be seriously compromised. If a patient is not receiving basic care to meet their needs, you must immediately tell someone who is in a position to act straight away.	25a

Domain	Principle		Standard (element)	GMC Guidance
				Reference paragraph
"Domain 2 Safety and Quality" (cont)	2.2	Respond to risks to safety	"If patients are at risk because of inadequate premises, equipment* or other resources, policies or systems, you should put the matter right if that is possible. You must raise your concern in line with our guidance 11 and your workplace policy. You should also make a record of the steps you have taken."	25b
			If you have concerns that a colleague may not be fit to practise and may be putting patients at risk, you must ask for advice from a colleague, your defence body or us. If you are still concerned you must report this, in line with our guidance and your workplace policy, and make a record of the steps you have taken.1	25c
			You must offer help if emergencies arise in clinical settings or in the community, taking account of your own safety, your competence and the availability of other options for care.	26
			Whether or not you have vulnerable adults or children and young people as patients, you should consider their needs and welfare and offer them help if you think their rights have been abused or denied.	27
	2.3	Protect patients and colleagues from any risk posed by your health	If you know or suspect that you have a serious condition that you could pass on to patients, or if your judgement or performance could be affected by a condition or its treatment, you must consult a suitably qualified colleague. You must follow their advice about any changes to your practice they consider necessary. You must not rely on your own assessment of the risk to patients.	28
			You should be immunised against common serious communicable diseases (unless otherwise contraindicated).	29
			You should be registered with a general practitioner outside your family.	30
"Domain 3 Communication, partnership and teamwork"	3.1	"Communicate Effectively"	You must listen to patients, take account of their views, and respond honestly to their questions.	31
			You must give patients* the information they want or need to know in a way they can understand. You should make sure that arrangements are made, wherever possible, to meet patients' language and communication needs.	32
			You must be considerate to those close to the patient and be sensitive and responsive in giving them information and support.	33
			When you are on duty you must be readily accessible to patients and colleagues seeking information, advice or support.	34
	3.2	Work collaboratively with colleagues to maintain or improve patient care	You must work collaboratively with colleagues, respecting their skills and contributions.	35
			You must treat colleagues fairly and with respect.	36
			"You must be aware of how your behaviour may influence others within and outside the team."	37
			Patient safety may be affected if there is not enough medical cover. So you must take up any post you have formally accepted, and work your contractual notice period before leaving a job, unless the employer has reasonable time to make other arrangements.	38

Domain	Principle		Standard (element)	GMC Guidance Reference paragraph
"Domain 3 Communication, partnership and teamwork"	3.3	Teaching, training, supporting and assessing	You should be prepared to contribute to teaching and training doctors and students.	39
			You must make sure that all staff you manage have appropriate supervision.	40
			You must be honest and objective when writing references, and when appraising or assessing the performance of colleagues, including locums and students. References must include all information relevant to your colleagues' competence, performance and conduct.	41
			You should be willing to take on a mentoring role for more junior doctors and other healthcare professionals.	42
			You must support colleagues who have problems with their performance or health. But you must put patient safety first at all times.	43
	3.4	Continuity and coordination of care	You must contribute to the safe transfer of patients between healthcare providers and between health and social care providers. This means you must share all relevant information with colleagues involved in your patients' care within and outside the team, including when you hand over care as you go off duty, and when you delegate care or refer patients to other health or social care providers	44a
			You must contribute to the safe transfer of patients between healthcare providers and between health and social care providers. This means you must check, where practical, that a named clinician or team has taken over responsibility when your role in providing a patient's care has ended. This may be particularly important for patients with impaired capacity or who are vulnerable for other reasons.	44b
			When you do not provide your patients' care yourself, for example when you are off duty, or you delegate the care of a patient to a colleague, you must be satisfied that the person providing care has the appropriate qualifications, skills and experience to provide safe care for the patient.	45
	3.5	Establish and maintain partnerships with patients	You must be polite and considerate.	46
			You must treat patients as individuals and respect their dignity and privacy.	47
			You must treat patients fairly and with respect whatever their life choices and beliefs.	48
			You must work in partnership with patients, sharing with them the information they will need to make decisions about their care,15 including their condition, its likely progression and the options for treatment, including associated risks and uncertainties	49a
			You must work in partnership with patients, sharing with them the information they will need to make decisions about their care,15 including the progress of their care, and your role and responsibilities in the team	49b
			You must work in partnership with patients, sharing with them the information they will need to make decisions about their care,15 including who is responsible for each aspect of patient care, and how information is shared within teams and among those who will be providing their care	49c

Domain	Principle		Standard (element)	GMC Guidance Reference paragraph
"Domain 3 Communication, partnership and teamwork"	3.5	Establish and maintain partnerships with patients	You must work in partnership with patients, sharing with them the information they will need to make decisions about their care,15 including any other information patients need if they are asked to agree to be involved in teaching or research.	49d
			You must treat information about patients as confidential. This includes after a patient has died.	50
			You must support patients in caring for themselves to empower them to improve and maintain their health. This may, for example, include advising patients on the effects of their life choices and lifestyle on their health and well-being	51a
			You must support patients in caring for themselves to empower them to improve and maintain their health. This may, for example, include supporting patients to make lifestyle changes where appropriate.	51b
			You must explain to patients if you have a conscientious objection to a particular procedure. You must tell them about their right to see another doctor and make sure they have enough information to exercise that right. In providing this information you must not imply or express disapproval of the patient's lifestyle, choices or beliefs. If it is not practical for a patient to arrange to see another doctor, you must make sure that arrangements are made for another suitably qualified colleague to take over your role.	52
Domain 4 Maintaining trust	4.1	Show respect for patients	You must not use your professional position to pursue a sexual or improper emotional relationship with a patient or someone close to them.	53
			You must not express your personal beliefs (including political, religious and moral beliefs) to patients in ways that exploit their vulnerability or are likely to cause them distress.	54
			You must be open and honest with patients if things go wrong. If a patient under your care has suffered harm or distress, you should put matters right (if that is possible)	55a
			You must be open and honest with patients if things go wrong. If a patient under your care has suffered harm or distress, you should offer an apology	55b
			You must be open and honest with patients if things go wrong. If a patient under your care has suffered harm or distress, you should explain fully and promptly what has happened and the likely short-term and long-term effects.	55c
	4.2	Treat Patients and Colleagues Fairly and Without Discrimination	You must give priority to patients on the basis of their clinical need if these decisions are within your power. If inadequate resources, policies or systems prevent you from doing this, and patient safety, dignity or comfort may be seriously compromised, you must follow the guidance in paragraph 25b.	56
			The investigations or treatment you provide or arrange must be based on the assessment you and your patient make of their needs and priorities, and on your clinical judgement about the likely effectiveness of the treatment options. You must not refuse or delay treatment because you believe that a patient's actions or lifestyle have contributed to their condition.	57

Domain	Principle		Standard (element)	GMC Guidance
				Reference paragraph
Domain 4 Maintaining trust (cont)	4.2	Treat Patients and Colleagues Fairly and Without Discrimination	You must not deny treatment to patients because their medical condition may put you at risk. If a patient poses a risk to your health or safety, you should take all available steps to minimise the risk before providing treatment or making other suitable alternative arrangements for providing treatment.	58
			You must not unfairly discriminate against patients or colleagues by allowing your personal views* to affect your professional relationships or the treatment you provide or arrange. You should challenge colleagues if their behaviour does not comply with this guidance, and follow the guidance in paragraph 25c (see page 11) if the behaviour amounts to abuse or denial of a patient's or colleague's rights.	59
			You must consider and respond to the needs of disabled patients and should make reasonable adjustments† to your practice so they can receive care to meet their needs.	60
			You must respond promptly, fully and honestly to complaints and apologise when appropriate. You must not allow a patient's complaint to adversely affect the care or treatment you provide or arrange.	61
			You should end a professional relationship with a patient only when the breakdown of trust between you and the patient means you cannot provide good clinical care to the patient.	62
			You must make sure you have adequate insurance or indemnity cover so that your patients will not be disadvantaged if they make a claim about the clinical care you have provided in the UK.	63
			If someone you have contact with in your professional role asks for your registered name and/or GMC reference number, you must give this information to them.	64
	4.3	Act with Honesty and Integrity	You must make sure that your conduct justifies your patients' trust in you and the public's trust in the profession	65
			You must always be honest about your experience, qualifications and current role.	66
			You must act with honesty and integrity when designing, organising or carrying out research, and follow national research governance guidelines and our guidance.	67
			You must be honest and trustworthy in all your communication with patients and colleagues. This means you must make clear the limits of your knowledge and make reasonable checks to make sure any information you give is accurate.	68
			When communicating publicly, including speaking to or writing in the media, you must maintain patient confidentiality. You should remember when using social media that communications intended for friends or family may become more widely available.	69
			When advertising your services, you must make sure the information you publish is factual and can be checked, and does not exploit patients' vulnerability or lack of medical knowledge.	70
			You must be honest and trustworthy when writing reports, and when completing or signing forms, reports and other documents.16 You must make sure that any documents you write or sign are not false or misleading. You must take reasonable steps to check the information is correct.	71a

Domain	Principle		Standard (element)	GMC Guidance
				Reference paragraph
Domain 4 Maintaining trust (cont)	4.3	Act with Honesty and Integrity	You must be honest and trustworthy when writing reports, and when completing or signing forms, reports and other documents.16 You must make sure that any documents you write or sign are not false or misleading. You must not deliberately leave out relevant information.	71b
			You must be honest and trustworthy when giving evidence to courts or tribunals.20 You must make sure that any evidence you give or documents you write or sign are not false or misleading.You must take reasonable steps to check the information.	72a
			You must be honest and trustworthy when giving evidence to courts or tribunals.20 You must make sure that any evidence you give or documents you write or sign are not false or misleading. You must not deliberately leave out relevant information.	7b
			You must cooperate with formal inquiries and complaints procedures and must offer all relevant information while following the guidance in Confidentiality.	73
			You must make clear the limits of your competence and knowledge when giving evidence or acting as a witness.	74
			"You must tell us without delay if, anywhere in the world you have accepted a caution from the police or been criticised by an official inquiry"	75a
			You must tell us without delay if, anywhere in the world you have been charged with or found guilty of a criminal offence	75b
			You must tell us without delay if, anywhere in the world another professional body has made a finding against your registration as a result of fitness to practise procedures.	75c
			If you are suspended by an organisation from a medical post, or have restrictions placed on your practice, you must, without delay, inform any other organisations you carry out medical work for and any patients you see independently.	76
			"You must be honest in financial and commercial dealings with patients, employers, insurers and other organisations or individuals."	77
			You must not allow any interests you have to affect the way you prescribe for, treat, refer or commission services for patients.	78
			If you are faced with a conflict of interest, you must be open about the conflict, declaring your interest formally, and you should be prepared to exclude yourself from decision making.	79
			You must not ask for or accept – from patients, colleagues or others – any inducement, gift or hospitality that may affect or be seen to affect the way you prescribe for, treat or refer patients or commission services for patients. You must not offer these inducements.	80

THEME 1. WORKING IN EMERGENCY MEDICAL SYSTEMS

Specialist practitioners in PHEM operate within wider Emergency Medical Services (EMS) Systems. These systems have a number of inter-dependent components. Having an understanding of these components, the way in which they interact and the wider regulatory framework surrounding them is essential for effective professional medical practice in this field.

UNITS

1.1 Understand Emergency Medical Services (EMS) Systems models and components

1.2 Understand pre-hospital operational environments

1.3 Understand the training and regulation of pre-hospital healthcare personnel

1.4 Understand the process of ambulance emergency call handling, prioritisation, dispatch categorisation and resource management

1.5 Understand the role of pre-hospital emergency medical services within EMS

1.6 Understand the law relevant to Pre-hospital Emergency Medicine practice

1.7 Work effectively with emergency services

1.8 Work effectively with acute hospital services

1.9 Provide EMS clinical advice, support and co-ordination

1.10 Understand the pre-hospital and acute sector management structures within the wider healthcare system

Related GMP domains are assigned to each group of elements within units as follows:

1. Knowledge skills and performance
2. Safety and quality
3. Communication, partnership and teamwork
4. Maintaining trust

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 1. Working in Emergency Medical Systems																
1.1 Understand Emergency Medical Services (EMS) Systems models and components	1.1.1	Define an Emergency Medical Service (EMS) system	UK	DR, LT, CL, EL	1 (a)	•		•								1
	1.1.2	Categorise the components of an EMS system	UK		1 (a)	•		•								1
	1.1.3	Contrast differing regional, national and international models of EMS systems	UK		1 (b)	•		•								1
	1.1.4	Contrast EMS systems in developed and developing nations	UK		2	•		•								1
1.2 Understand pre-hospital operational environments	1.2.1	Categorise the different environments in which PHEM is practiced	UK	DR, LT, CL, EL	1 (b)	•		•								1
	1.2.2	Contrast EMS systems in urban, rural and remote settings	UK		1 (b)	•		•								1
	1.2.3	**Critique the impact of different operational environments on:**														
		(a) Risk to personnel	UK	DR, LT, CL, EL	1 (b)	•		•								2
		(b) Patient safety	UK		1 (b)	•		•								2
		(c) Clinical care	UK		1 (b)	•		•								1
		(d) Patient transport	UK		1 (b)	•		•								1
	1.2.4	Demonstrate resilience in adverse pre-hospital conditions	NTS	RM, RP EL, SL	1 (b)				•	•	•					2
	1.2.5	Demonstrate judicious use of resources	NTS		2				•	•	•					2

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 1. Working in Emergency Medical Systems																
1.3 Understand the training and regulation of pre-hospital healthcare professionals	1.3.1	List the range of pre-hospital healthcare personnel	UK	DR, LT, CL, EL	1 (a)	•		•								3
	1.3.2	Contrast the differences in training of pre-hospital healthcare personnel	UK		1 (a)	•		•								3
	1.3.3	Describe the medical capabilities of pre-hospital healthcare personnel within the EMS system	UK		1 (b)	•		•								3
	1.3.4	Describe the role of the relevant regulatory bodies for healthcare professionals	UK		2	•		•								2
	1.3.5	Demonstrate respect for individuals within the multi-professional workforce	NTS	RM, EL SL, RP	1 (b)		•		•		•	•	•			4
1.4 Understand the process of ambulance emergency call handling, prioritisation, dispatch categorisation and resource management	1.4.1	**Describe the process of ambulance service emergency:**														
		(a) Call handling	UK	DR, LT, SL, CL, EL	1 (a)	•		•								1
		(b) Call prioritisation	UK		1 (a)	•		•								1
		(c) Dispatch	UK		1 (a)	•		•								1
		(d) Resource activation	UK		1 (a)	•		•								1
		(e) Resource management	UK		1 (a)	•		•								1
	1.4.2	**Explain the concepts underpinning ambulance service emergency:**														
		(a) Call prioritisation	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
		(b) Resource management	UK		1 (b)	•		•								1
	1.4.3	Demonstrate response decisions on the basis of ambulance service emergency call information	TS		1 (b)	•	•		•			•				3

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
RP	Reflective Practice	RM	Role Modeling	CL	Collaborative Learning	EL	Experiential Learning

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 1. Working in Emergency Medical Systems																
1.5 Understand the role of pre-hospital emergency medical services within EMS	1.5.1	Define the role of pre-hospital emergency medical services	UK	DR, LT, SL, CL, EL	1 (a)	•		•								1
	1.5.2	Categorise the activities of pre-hospital emergency medical services	UK		1 (a)	•		•								1
	1.5.3	Critique the role of physicians operating within pre-hospital emergency medical services	UK		1 (b)	•		•								1
1.6 Understand the law relevant to Pre-hospital Emergency Medicine practice	1.6.1	Differentiate lawful consent to treatment between adults and children	UK	DR, LT, SL, CL, EL	1 (a)	•		•								3
	1.6.2	Differentiate lawful refusal of treatment between adults and children	UK		1 (a)	•		•								3
	1.6.3	Explain the legal basis for the emergency treatment of the incapacitated patient	UK		1 (a)	•		•								3
	1.6.4	**Describe the emergency provisions in legislation for:**														
		(a) protecting and safeguarding patients with mental illness	UK	DR, LT, SL, CL, EL	1 (a)	•		•								2
		(b) protecting and safeguarding children	UK		1 (a)	•		•								2
		(c) protecting and safeguarding vulnerable adults	UK		1 (a)	•		•								2
	1.6.5	**Describe the emergency provisions in legislation for:**														
		(a) Emergency driving procedure	UK	DR, LT, SL, CL, EL	1 (a)	•		•								1
		(b) Helicopter emergency medical services	UK		1 (a)	•		•								1
		(c) Air ambulance services	UK		1 (a)	•		•								1
	1.6.6	Analyse situations where confidentiality may lawfully be breached in pre-hospital emergency medical practice	UK		1 (a)	•		•								4
	1.6.7	Describe the legal requirements related to deaths outside of hospital	UK		1 (a)	•		•								1

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 1. Working in Emergency Medical Systems																
1.7 Work effectively with emergency services	1.7.1	**Describe the roles and responsibilities of:**														
		(a) Ambulance authorities and services	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
		(b) Police authorities and services	UK		1 (b)	•		•								1
		(c) Fire authorities and services	UK		1 (b)	•		•								1
		(d) Rescue authorities and services	UK		1 (b)	•		•								1
		(e) Specialist rescue services	UK		1 (b)	•		•								1
		(e) Voluntary emergency services	UK		1 (b)	•		•								1
	1.7.2	**Contrast the incident command structures of:**														
		(a) Medical services	UK	DR, LT, SL, CL, EL	1 (a)	•		•								1
		(b) Ambulance services	UK		1 (a)	•		•								1
		(c) Police services	UK		1 (a)	•		•								1
		(d) Fire services	UK		1 (a)	•		•								
		(e) Rescue services	UK		1 (a)	•		•								1
	1.7.3	**Explain the medical capabilities of:**														
		(a) Police personnel	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
		(b) Fire personnel	UK		1 (b)	•		•								1
		(c) Rescue personnel	UK		1 (b)	•		•								1

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
RP	Reflective Practice	RM	Role Modeling	CL	Collaborative Learning	EL	Experiential Learning

Unit	Elements			Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 1. Working in Emergency Medical Systems																
	1.7.3 cont.	(d) Specialist rescue personnel	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
		(e) Voluntary emergency services personnel	UK		1 (b)	•		•								1
	1.7.4	Demonstrate engagement with local, regional and national emergency services improvement processes	NTS	RP, RM, EL	1 (b)			•			•	•	•			2
1.8 Work effectively with acute hospital services	1.8.1	Categorise acute hospital services	UK	DR, LT, CL, EL	1 (a)	•		•								1
	1.8.2	**Differentiate, within an EMS System, the process for accessing:**														
		(a) Emergency departments	UK	DR, LT, CL, EL	1 (a)	•		•								1
		(b) Major trauma services	UK		1 (a)	•		•								1
		(c) Burns services	UK		1 (a)	•		•								1
		(d) Spinal injury services	UK		1 (a)	•		•								1
		(e) Perinatal services	UK		1 (a)	•		•								1
		(f) Children's services	UK		1 (a)	•		•								1
		(g) Mental health services	UK		1 (a)	•		•								1
		(h) Specialist Medical services	UK		1 (a)	•		•								1
	1.8.3	Demonstrate engagement with acute hospital emergency access improvement processes	NTS	RM, EL, CL	1 (b)			•			•	•	•			2
1.9 Provide EMS clinical advice, support and co-ordination	1.9.1	Describe the procedures, protocols and guidelines for providing EMS clinical advice, support and co-ordination	UK	LT, SL	1 (b)	•		•								3
	1.9.2	Describe the equipment available to provide EMS clinical advice, support and co-ordination	UK		1 (b)	•		•								3

Unit	Elements			Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 1. Working in Emergency Medical Systems																
1.9 Provide EMS clinical advice, support and co-ordination (cont.)	1.9.3	Contrast 'on-line' (remote telephone/radio support) and 'off-line' (documents that guide practice) medical direction	UK	LT, SL	1 (b)	•		•							•	3
	1.9.4	**Display effective on-line clinical support by:**														
		(a) Communicating in an appropriate and professional manner	TS	SL, EL, RM	1 (b)		•		•		•	•	•			3
		(b) Obtains relevant information in a timely manner	TS		1 (b)		•		•		•	•	•			3
		(c) Drawing appropriate conclusions	TS		1 (b)		•		•		•	•	•			3
		(d) Relaying the decision to the clinician at scene, ensuring their understanding.	TS		1 (b)		•		•		•	•	•			3
	1.9.5	Demonstrate a willingness to review and learn from any EMS clinical advice, support and co-ordination activity	NTS		1 (b)		•	•			•	•	•			1
1.10 Understand the pre-hospital and acute sector management structures within the wider healthcare system	1.10.1	**Describe the clinical and operational management structures relevant to emergency care within:**														
		(a) The ambulance services	UK	DR, LT, EL	1 (b)	•		•								1
		(b) The pre-hospital emergency medical service	UK		1 (b)	•		•								1
		(c) The acute hospital emergency services	UK		1 (b)	•		•								1
		(d) The health service, authority or board	UK		1 (b)	•		•								1
	1.10.2	Describe the inter-agency and inter-service liaison and management structures for emergency care within the wider healthcare system	UK		2	•		•								1
	1.10.3	Contrast the commissioning and funding of EMS systems nationally and internationally	UK		2	•		•								1

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
RP	Reflective Practice	RM	Role Modeling	CL	Collaborative Learning	EL	Experiential Learning

THEME 2. PROVIDING PRE-HOSPITAL EMERGENCY MEDICAL CARE

Sub-specialist training in PHEM commences after completion of ST4 in Emergency Medicine or Anaesthesia, Intensive Care Medicine or Acute Internal Medicine. Trainees therefore have experience of emergency clinical care in the hospital environment. The established principles and techniques used in those settings often need to be modified for effective pre-hospital emergency use. In addition, the provision of emergency medical care in a relatively unsupported environment requires a greater in-depth knowledge of resuscitation in all age groups. The units within this theme reinforce resuscitation concepts learned during higher specialist training and relate them to the pre-hospital operational environment.

UNITS

2.1 Assess patients in the pre-hospital phase
2.2 Provide immediate pre-hospital clinical care
2.3 Provide cardiopulmonary resuscitation in the pre-hospital environment
2.4 Manage acute medical emergencies in the pre-hospital environment
2.5 Manage injury in the pre-hospital environment
2.6 Provide analgesia, procedural sedation and anaesthesia in the pre-hospital environment
2.7 Manage obstetric emergencies in the pre-hospital environment
2.8 Manage the newborn in the pre-hospital environment
2.9 Manage injured or ill children in the pre-hospital environment
2.10 Manage the bariatric patient in the pre-hospital environment
2.11 Manage elderly patients in the pre-hospital environment
2.12 Manage acute behavioural disturbance in the pre-hospital environment
2.13 Provide end-of-life care and immediate management of bereavement

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 2. Providing pre-hospital emergency medical care																
2.1 Assess patients in the pre-hospital phase	2.1.1	Describe how interpretation of an incident scene may influence a patient assessment	UK	DR, LT, SL CL, EL	1 (a)	•		•	•							3
	2.1.2	**Categorise the factors which impact on clinical assessment of patients in the following situations:**														
		(a) private domestic	UK	DR, LT, SL CL, EL	1 (b)	•		•								2
		(b) crowded public	UK		1 (b)	•		•								2
		(c) geographically isolated	UK		1 (b)	•		•								2
		(d) environmentally exposed	UK		1 (b)	•		•								2
		(e) multiple patients	UK		1 (b)	•		•								2
		(f) patient is newborn, infant or child	UK		1 (b)	•		•								2
		(g) hazardous, unsafe or unstable	UK		1 (b)	•		•								2
		(h) high expressed emotion	UK		1 (b)	•		•								2
		(i) personally emotive	UK		1 (b)	•		•								4
	2.1.3	**Describe strategies to optimise clinical assessment in:**														4
		(a) private domestic situation	UK	DR, LT, SL CL, EL	2	•		•								2
		(b) crowded public situation	UK		2	•		•								2
		(c) geographically isolated situation	UK		2	•		•								2
		(d) environmentally exposed situation	UK		2	•		•								2
		(e) multiple patient situation	UK		2	•		•								2
		(f) hazardous, unsafe or unstable situation	UK		2	•		•								2

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 2. Providing pre-hospital emergency medical care																
2.1 Assess patients in the pre-hospital phase (cont.)		(g) high expressed emotion situation	UK	DR, LT, SL CL, EL	2	•		•								2
		(h) personally emotive situation	UK		2	•		•								4
	2.1.4	Describe the factors which impact on the tempo of clinical assessment in a dynamic situation	UK		1 (b)	•		•	•							1
	2.1.5	Describe the risks of lone working for healthcare professionals	UK		2	•		•								2
	2.1.6	Describe ways in which the acute illness itself, and the anxiety caused by it, can influence patient assessment	UK		2	•		•								1
	2.1.7	Critique the role of pre-hospital monitoring in assessing patients of all ages	UK		2			•							•	1
	2.1.8	Critique the role of pre-hospital investigations in assessing patients of all ages	UK		2			•							•	1
	2.1.9	Demonstrate ability to perform an organised, structured, relevant and focused assessment across the range of pre-hospital situations in infants, children and adults	TS	LT, DP, SL, CL, EL	1 (b)	•	•		•							1
	2.1.10	Demonstrate ability to accurately interpret clinical history and physical signs in the pre-hospital environment in infants, children and adults	TS		1 (b)	•	•		•							1
	2.1.11	Demonstrate appropriate use and interpretation of pre-hospital monitoring in infants, children and adults	TS		1 (b)	•	•		•							1
	2.1.12	Demonstrate appropriate use and interpretation of pre-hospital investigations in infants, children and adults	TS		2		•		•							1
	2.1.13	Demonstrate ability to balance risk and benefits of actions prior to full patient assessment	TS		1 (b)		•		•							1
	2.1.14	Demonstrate respect for patients privacy and dignity during patient assessment	NTS	RM, RP, SL, CL, EL	1 (b)		•		•		•	•				4
	2.1.15	Demonstrate appropriate perseverance in undertaking patient assessment	NTS		1 (b)		•		•		•	•				4
	2.1.16	Demonstrate effective communication with patients and their family during clinical assessment	NTS		1 (b)		•		•		•	•				3

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
RP	Reflective Practice	RM	Role Modeling	CL	Collaborative Learning	EL	Experiential Learning

Unit	Elements			Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 2. Providing pre-hospital emergency medical care																
2.2 Provide immediate pre-hospital clinical care	2.2.1	Critique the sequence and objectives of immediate clinical actions in managing critically unwell patients	UK	DR, LT, SL CL, EL	2	•		•								1
	2.2.2	**Critique the immediate pre-hospital clinical actions in all age groups for managing and supporting:**														
		(a) the airway	UK	DR, LT, SL CL, EL	2	•		•							•	1
		(b) ventilation	UK		2	•		•							•	1
		(c) circulation	UK		2	•		•							•	1
	2.2.3	Critique the current best practice in managing acute pain and distress in the pre-hospital environment	UK		2	•		•							•	1
	2.2.4	Contrast the delivery of clinical care between the acute hospital and pre-hospital environments	UK		2	•		•								1
	2.2.5	Describe strategies to optimise the delivery of immediate clinical care in the resource limited pre-hospital environment	UK		1 (b)			•	•	•						1
	2.2.6	Describe the applied pharmacology of commonly used medicines given in the pre-hospital environment to all age groups	UK		2	•		•								
	2.2.7	Demonstrate a structured primary assessment	TS	LT, DP, SL, CL, EL	2	•	•		•						•	1
	2.2.8	**Demonstrate the immediate clinical interventions in all age groups for managing and supporting:**														
		(a) the airway	TS	LT, DP, SL, CL, EL	1 (b)		•		•	•						1
		(b) ventilation	TS		1 (b)		•		•	•						1
		(c) circulation	TS		1 (b)		•		•	•						1
	2.2.9	Demonstrate the management of acute pain and distress in all age groups in the pre-hospital environment	TS		1 (b)		•		•	•						1
	2.2.10	Demonstrate ability to provide safe and effective immediate clinical care in all age groups in the pre-hospital environment	TS		1 (b)		•		•			•				1
	2.2.11	Display a calm and methodical approach to providing immediate clinical care	NTS	RM, RP, SL, EL	1 (b)		•		•		•	•				3

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 2. Providing pre-hospital emergency medical care																
2.3 Provide cardiopulmonary resuscitation in the pre-hospital environment	2.3.1	Describe the clinical features of impending cardiac arrest	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
	2.3.2	Critique the role of CPR in pre-hospital care	UK		2	•		•							•	1
	2.3.3	Describe the epidemiology of pre-hospital cardiac arrest within the EMS system	UK		2	•									•	1
	2.3.4	Contrast the delivery of CPR between the hospital and pre-hospital environments	UK		2	•									•	1
	2.3.5	Describe the current United Kingdom Resuscitation Council guidance on CPR and emergency cardiovascular care for all age groups	UK		1 (b)	•									•	1
	2.3.6	Critique the evidence supporting decision making related to outcomes of CPR	UK		2	•		•								1
	2.3.7	Describe the mechanisms for inducing therapeutic hypothermia in the pre-hospital phase after return of circulation	UK		2	•		•								1
	2.3.8	**Describe indications for pre-hospital:**														
		(a) Open chest cardiac compressions	UK	DR, LT, SL, CL, EL	2	•		•								1
		(b) Resuscitative thoracotomy	UK		2	•		•								1
		(c) Peri-mortem caesarean section	UK		2	•		•								1
	2.3.9	Describe policies and procedures for organ and tissue donation within the EMS system	TS		2	•		•								2
	2.3.10	Demonstrate ability to recognise risk of impending cardiac arrest	TS	LT, DP, SL, CL, EL	1 (b)		•		•			•				1
	2.3.11	Demonstrate application of strategies to prevent cardiac arrest	TS		1 (b)		•		•							1
	2.3.12	Demonstrate effective management of pre-hospital cardiac arrest	TS		1 (b)		•		•							1
	2.3.13	Demonstrate the ability to initiate and manage therapeutic hypothermia when indicated	TS		2		•		•	•						1
	2.3.14	Demonstrate appropriate application of the current United Kingdom Resuscitation Council guidelines in pre-hospital environment	TS		1 (b)		•		•							1

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
RP	Reflective Practice	RM	Role Modeling	CL	Collaborative Learning	EL	Experiential Learning

Unit	Elements			Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 2. Providing pre-hospital emergency medical care																
	2.3.15	Demonstrate ability to lead a cardiac arrest team in the pre-hospital environment	NTS	RM, RP SL, CL, EL	1 (b)		•		•							1
	2.3.16	Demonstrate ability to inspire confidence in a multi-disciplinary pre-hospital cardiac arrest team	NTS		1 (b)		•				•	•				3
	2.3.17	Demonstrates ability to make rational end of life decisions	NTS		1 (b)		•				•	•				3
2.4 Manage acute medical emergencies in the pre-hospital environment	2.4.1	Describe the epidemiology of acute medical emergencies within the EMS system	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
	2.4.2	**Describe the immediate pre-hospital emergency management of the following acute medical presentations:**														
		(a) Airway obstruction/choking/stridor	UK	DR, LT, SL, CL, EL	1 (b)	•	•	•								1
		(b) Acute breathlessness	UK		1 (b)	•	•	•								1
		(c) Acute chest pain	UK		1 (b)	•	•	•								1
		(d) Hypotension and shock	UK		1 (b)	•	•	•								1
		(e) Palpitations and cardiac arrhythmia	UK		1 (b)	•	•	•								1
		(f) Acute headache	UK		1 (b)	•	•	•								1
		(g) Acute vomiting	UK		1 (b)	•	•	•								1
		(h) Acute abdominal/loin/scrotal pain	UK		1 (b)	•	•	•								1
		(i) Acute confusional state	UK		1 (b)	•	•	•								1
		(j) Collapse/Transient loss of consciousness	UK		1 (b)	•	•	•								1
		(k) The unconscious patient	UK		1 (b)	•	•	•								1

Unit	Elements			Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 2. Providing pre-hospital emergency medical care																
2.4 Manage acute medical emergencies in the pre-hospital environment (cont.)	2.4.2 cont.	(l) Intoxication and poisoning	UK	DR, LT, SL, CL, EL	1 (b)	•	•	•								1
		(m) The fitting patient	UK		1 (b)	•	•	•								1
		(n) Acute allergic reaction	UK		1 (b)	•	•	•								1
		(o) Acute non-traumatic neck/back pain	UK		1 (b)	•	•	•								1
		(p) Sudden weakness/paralysis/abnormal sensation	UK		1 (b)	•	•	•								1
		(q) Acute visual disturbance/red eye	UK		1 (b)	•	•	•								1
		(r) Acute febrile illness	UK		1 (b)	•	•	•								1
		(s) Acute gastrointestinal haemorrhage	UK		1 (b)	•	•	•								1
		(t) Acute limb pain and/or swelling	UK		1 (b)	•	•	•								1
		(u) Acute rash	UK		1 (b)	•	•	•								1
		(v) Acute haemoptysis	UK		1 (b)	•	•	•								1
		(w) Acute epistaxis	UK		1 (b)	•	•	•								1
		(x) Acute pain	UK		1 (b)	•	•	•								1
		(y) Acute thermal illness	UK		1 (b)	•	•	•								1
		(z) Bites, stings and envenomation	UK		1 (b)	•	•	•								1
	2.4.3	**Describe the applied pharmacology of medicines commonly used in the immediate management of:**														
		(a) Airway obstruction/choking/stridor	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
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Unit	Elements			Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 2. Providing pre-hospital emergency medical care																
2.4 Manage acute medical emergencies in the pre-hospital environment (cont.)	2.4.3 cont.	(b) Acute breathlessness	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
		(c) Acute chest pain	UK		1 (b)	•		•								1
		(d) Hypotension and shock	UK		1 (b)	•		•								1
		(e) Palpitations and cardiac arrhythmia	UK		1 (b)	•		•								1
		(f) Acute headache	UK		1 (b)	•		•								1
		(g) Acute vomiting	UK		1 (b)	•		•								1
		(h) Acute abdominal/loin/scrotal pain	UK		1 (b)	•		•								1
		(i) Acute confusional state	UK		1 (b)	•		•								1
		(j) Collapse/Transient loss of consciousness	UK		1 (b)	•		•								1
		(k) The unconscious patient	UK		1 (b)	•		•								1
		(l) Intoxication and poisoning	UK		1 (b)	•		•								1
		(m) The fitting patient	UK		1 (b)	•		•								1
		(n) Acute allergic reaction	UK		1 (b)	•		•								1
		(o) Acute non-traumatic neck/back pain	UK		1 (b)	•		•								1
		(p) Sudden weakness/paralysis/abnormal sensation	UK		1 (b)	•		•								1
		(q) Acute visual disturbance/red eye	UK		1 (b)	•		•								
		(r) Acute febrile illness	UK		1 (b)	•		•								1

Unit	Elements			Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 2. Providing pre-hospital emergency medical care																
2.4 Manage acute medical emergencies in the pre-hospital environment (cont.)		(s) Acute gastrointestinal haemorrhage	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
		(t) Acute limb pain and/or swelling	UK		1 (b)	•		•								1
		(u) Acute rash	UK		1 (b)	•		•								1
		(v) Acute haemoptysis	UK		1 (b)	•		•								1
		(w) Acute epistaxis	UK		1 (b)	•		•								1
		(x) Acute pain	UK		1 (b)	•		•								1
		(y) Acute thermal illness	UK		1 (b)	•		•								1
		(z) Bites, stings and envenomation	UK		1 (b)	•		•								1
	2.4.4	Critique the diagnostic technologies that can be used to assist in differentiating the causes of acute medical presentations in the pre-hospital phase	UK		2			•							•	1
	2.4.5	**Critique the current best practice in the pre-hospital management of:**														
		(a) Anaphylaxis	UK	DR, LT, SL, CL, EL	2	•		•							•	1
		(b) Asthma	UK		2	•		•							•	1
		(c) Coronary heart disease	UK		2	•		•							•	1
		(d) Sepsis	UK		2	•		•							•	1
		(e) Meningoencephalitis	UK		2	•		•							•	1
		(f) Stroke	UK		2	•		•							•	1
		(g) Diabetic ketoacidosis	UK		2	•		•							•	1

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
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Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 2. Providing pre-hospital emergency medical care																
2.4 Manage acute medical emergencies in the pre-hospital environment (cont.)	2.4.6	Describe alternative pathways to accessing urgent and unscheduled care within the EMS system ('treat and refer')	UK	DR, LT, SL, CL, EL	2	•		•							•	3
	2.4.7	Describe guidelines for safely leaving patients at home or scene within the EMS system ('treat and leave')	UK		2			•							•	3
	2.4.8	Demonstrate ability to formulate a differential diagnoses for an acute emergency presentation	TS	LT, DP, SL, CL, EL	1 (b)		•	•	•			•				3
	2.4.9	**Demonstrate the immediate pre-hospital emergency management of the following acute medical presentations:**														
		(a) Airway obstruction/choking/stridor	TS	LT, DP, SL, CL, EL	1 (b)		•		•							1
		(b) Acute breathlessness	TS		1 (b)		•		•							1
		(c) Acute chest pain	TS		1 (b)		•		•							1
		(d) Hypotension and shock	TS		1 (b)		•		•							1
		(e) Palpitations and cardiac arrhythmia	TS		1 (b)		•		•							1
		(f) Acute headache	TS		1 (b)		•		•							1
		(g) Acute vomiting	TS		1 (b)		•		•							1
		(h) Acute abdominal/loin/scrotal pain	TS		1 (b)		•		•							1
		(i) Acute confusional state	TS		1 (b)		•		•							1
		(j) Collapse/Transient loss of consciousness	TS		1 (b)		•		•							1
		(k) The unconscious patient	TS		1 (b)		•		•							1
		(l) Intoxication and poisoning	TS		1 (b)		•		•							1

Unit	Elements			Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 2. Providing pre-hospital emergency medical care																
2.4 Manage acute medical emergencies in the pre-hospital environment (cont.)	2.4.9 cont.	(m) The fitting patient	TS	LT, DP, SL, CL, EL	1 (b)		•		•							1
		(n) Acute allergic reaction	TS		1 (b)		•		•							1
		(o) Acute non-traumatic neck/back pain	TS		1 (b)		•		•							1
		(p) Sudden weakness/paralysis/abnormal sensation	TS		1 (b)		•		•							1
		(q) Acute visual disturbance/red eye	TS		1 (b)		•		•							1
		(r) Acute febrile illness	TS		1 (b)		•		•							1
		(s) Acute gastrointestinal haemorrhage	TS		1 (b)		•		•							1
		(t) Acute limb pain and/or swelling	TS		1 (b)		•		•							1
		(u) Acute rash	TS		1 (b)		•		•							1
		(v) Acute haemoptysis	TS		1 (b)		•		•							1
		(w) Acute epistaxis	TS		1 (b)		•		•							1
		(x) Acute pain	TS		1 (b)		•		•							1
		(y) Acute thermal illness	TS		1 (b)		•		•							1
		(z) Bites, stings and envenomation	TS		1 (b)		•		•							1
	2.4.10	Demonstrate appropriate use of alternative pathways to accessing urgent and unscheduled care ('treat and refer') for acute medical conditions	TS		2		•		•			•				3
	2.4.11	Demonstrate use of guidelines for safely leaving patients at home or scene within the EMS system ('treat and leave')	TS		2		•		•			•				3
	2.4.12	Demonstrate appropriately confident approach to management and decision making for acute medical emergencies	NTS	RM, RP, SL, CL, EL	2		•		•		•	•				3

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
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Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 2. Providing pre-hospital emergency medical care																
	2.4.13	Display a calm and methodical approach to acute medical emergencies	NTS	RM, RP, SL, CL, EL	2		•		•		•	•				3
	2.4.14	Display respect for the contribution and expertise of other clinicians operating outside hospital	NTS		2		•		•		•	•				3
2.5 Manage injury in the pre-hospital environment	2.5.1	Define injury	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
	2.5.2	Contrast the terms 'injury' and 'trauma'	UK		1 (b)	•		•								1
	2.5.3	Describe the epidemiology of severe injury and major trauma within the EMS system	UK		1 (b)	•		•								1
	2.5.4	Describe the function and procedures of the local trauma system	UK		1 (a)	•		•								1
	2.5.5	Contrast the pathophysiology of different types of injury in all age groups	UK		1 (b)	•		•	•						•	1
	2.5.6	Describe the influence of injury mechanisms on anatomical injury patterns	UK		1 (b)	•		•								
	2.5.7	Describe the principles of the pre-hospital management of patients across the spectrum of injury severity	UK		1 (b)	•		•	•							1
	2.5.8	Contrast the management of the trauma patient in pre-hospital and acute hospital environments	UK		1 (b)	•		•							•	1
	2.5.9	**Describe the immediate pre-hospital management in all age groups of the following:**														
		(a) Injuries to the head	UK	DR, LT, SL, CL, EL	1 (a)	•	•	•	•							1
		(b) Injuries to the face	UK		1 (a)	•	•	•	•							1
		(c) Injuries to the neck	UK		1 (a)	•	•	•	•							1
		(d) Injuries to the thorax	UK		1 (a)	•	•	•	•							1
		(e) Injuries to the abdomen	UK		1 (a)	•	•	•	•							1
		(f) Injuries to the spine	UK		1 (a)	•	•	•	•							1

Unit	Elements			Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 2. Providing pre-hospital emergency medical care																
2.5 Manage injury in the pre-hospital environment (cont.)		(g) Injuries to the pelvis	UK	DR, LT, SL, CL, EL	1 (a)	•	•	•	•							1
		(h) Injuries to the limbs	UK		1 (a)	•	•	•	•							1
		(i) Injuries involving multiple body regions	UK		1 (a)	•	•	•	•							1
		(j) Thermal injury	UK		1 (a)	•	•	•	•							1
		(k) Electrocution	UK		1 (a)	•	•	•	•							1
		(l) Ballistic and blast injury	UK		1 (a)	•	•	•	•							1
		(m) Traumatic asphyxia	UK		1 (a)	•	•	•	•							1
		(n) Dysbarism	UK		1 (a)	•	•	•	•							1
		(o) Crush injury	UK		1 (b)	•	•	•	•							1
	2.5.10	**Critique the current best practice for all ages in pre-hospital:**														
		(a) Airway management	UK	DR, LT, SL, CL, EL	2	•		•							•	1
		(b) Ventilatory support	UK		2	•		•							•	1
		(c) Haemorrhage control	UK		2	•		•							•	1
		(d) Fluid resuscitation	UK		2	•		•							•	1
		(e) Spinal immobilization	UK		2	•		•							•	1
		(f) Neuroprotection	UK		2	•		•							•	1
	2.5.11	Describe approaches to injury prevention and control in all age groups	UK		1 (b)	•		•							•	1
	2.5.12	Demonstrate ability to formulate a differential diagnoses for the injured patient	TS	LT, DP SL, CL, EL	1 (b)		•		•			•				1

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
RP	Reflective Practice	RM	Role Modeling	CL	Collaborative Learning	EL	Experiential Learning

Unit	Elements		Learning Methods	A	Assessment Methods										GMP
					KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 2. Providing pre-hospital emergency medical care															
2.5 Manage injury in the pre-hospital environment (cont.)	2.5.13	**Demonstrate the immediate pre-hospital management of the following (in patients of all age groups):**													
		(a) Injuries to the head	TS	LT, DP SL, CL, EL	1 (b)		•		•						1
		(b) Injuries to the face	TS		1 (b)		•		•						1
		(c) Injuries to the neck	TS		1 (b)		•		•						1
		(d) Injuries to the thorax	TS		1 (b)		•		•						1
		(e) Injuries to the abdomen	TS		1 (b)		•		•						1
		(f) Injuries to the spine	TS		1 (b)		•		•						1
		(g) Injuries to the pelvis	TS		1 (b)		•		•						1
		(h) Injuries to the limbs	TS		1 (b)		•		•						1
		(i) Injuries involving multiple body regions	TS		1 (b)		•		•						1
		(j) Thermal injury	TS		1 (b)		•		•						1
		(k) Electrocution	TS		1 (b)		•		•						1
		(l) Ballistic and blast injury	TS		1 (b)		•		•						1
		(m) Traumatic asphyxia	TS		1 (b)		•		•						1
		(n) Dysbarism	TS		1 (b)		•		•						1
		(o) Crush injury	TS		1 (b)		•		•						
	2.5.14	Demonstrate appropriate use of alternative pathways to accessing urgent and unscheduled care (‘treat and refer’) for injury	TS		2		•		•			•			3
	2.5.15	Demonstrate use of guidelines for safely leaving patients with injuries at home or scene within the EMS system (‘treat and leave’)	TS		2		•		•			•			3

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 2. Providing pre-hospital emergency medical care																
2.5 Manage injury in the pre-hospital environment (cont.)	2.5.16	Demonstrate participation in injury prevention programmes	TS	LT, DP SL, CL, EL	2		•		•			•				2
	2.5.17	Demonstrate appropriately confident and methodical approach to management and decision making for injuries	NTS	RM, RP, SL, CL, EL	2		•		•		•	•				3
	2.5.18	Demonstrate ability to lead a trauma team in the pre-hospital environment	NTS		2		•		•		•	•				3
	2.5.19	Demonstrate ability to inspire confidence within a multi-disciplinary pre-hospital trauma team	NTS		2		•		•		•	•				3
2.6 Provide analgesia, procedural sedation and anaesthesia in the pre-hospital environment	2.6.1	Describe the policies and procedures related to analgesia, procedural sedation and pre-hospital emergency anaesthesia within the EMS system	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
	2.6.2	**Describe the applied pharmacology of medicines commonly used in all age groups for:**														
		(a) Analgesia	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
		(b) Procedural sedation	UK		1 (b)	•		•								1
		(c) Emergency anaesthesia	UK		1 (b)	•		•								1
	2.6.3	**Critique the current best practice in all age groups for the provision of pre-hospital:**														
		(a) Analgesia	UK	DR, LT, SL, CL, EL	2	•		•							•	1
		(b) Procedural sedation	UK		2	•		•							•	1
		(c) Emergency anaesthesia	UK		2	•		•							•	1
	2.6.4	Critique the role of regional anaesthetic techniques relevant to pre-hospital practice	UK		2			•							•	1
	2.6.5	Critique the technique of rapid sequence induction of anaesthesia in the pre-hospital environment	UK		2			•							•	1
	2.6.6	**Describe the applied physiology of analgesia, procedural sedation and pre-hospital emergency anaesthesia in all age groups relating to:**														
		(a) Airway instrumentation	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
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Unit	Elements			Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 2. Providing pre-hospital emergency medical care																
2.6 Provide analgesia, procedural sedation and anaesthesia in the pre-hospital environment (cont.)		(b) Ventilation	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
		(c) Cardiovascular status	UK		1 (b)	•		•								1
		(d) Neuroprotection	UK		1 (b)	•		•								1
	2.6.7	**Contrast the provision of pre-hospital emergency anaesthesia between:**														
		(a) Infants and children	UK	DR, LT, SL, CL, EL	2	•		•	•						•	1
		(b) Bariatric patients	UK		2	•		•	•						•	1
		(c) Pregnant patients	UK		2	•		•	•						•	1
		(d) Elderly patients	UK		2	•		•	•						•	1
	2.6.8	Describe the management of the difficult airway in the pre-hospital environment	UK		1 (a)	•		•								1
	2.6.9	**Analyse the impact of the pre-hospital environment on decision making in all age groups related to:**														
		(a) Analgesia	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
		(b) Procedural sedation	UK		1 (b)	•		•								1
		(c) Pre-anaesthetic assessment	UK		1 (b)	•		•								1
		(d) The predicted difficult airway	UK		1 (b)	•		•								1
		(e) The failed airway	UK		1 (b)	•		•								1
		(f) Maintenance of anaesthesia	UK		1 (b)	•		•								1
	2.6.10	**Describe the pre-hospital management of anaesthetic-related complications:**														

Unit	Elements			Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 2. Providing pre-hospital emergency medical care																
2.6 Provide analgesia, procedural sedation and anaesthesia in the pre-hospital environment (cont.)	2.6.10	(a) Hyper/hypotension	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
		(b) Hypoxia	UK		1 (b)	•		•								1
		(c) Hyper/Hypocarbia	UK		1 (b)	•		•								1
		(d) High inflation pressures	UK		1 (b)	•		•								1
		(e) Low inflation pressures	UK		1 (b)	•		•								1
		(f) Tracheal tube displacement	UK		1 (b)	•		•								1
		(g) Gastric insufflation	UK		1 (b)	•		•								1
		(h) Regurgitation / vomiting	UK		1 (b)	•		•								1
		(i) Unplanned extubation	UK		1 (b)	•		•								1
	2.6.11	Describe the regulatory framework underpinning pre-hospital emergency anaesthesia.	UK		1 (b)	•		•								1
	2.6.12	Critique published guidelines related to the clinical practice of pre-hospital procedural sedation and emergency anaesthesia	UK		2			•							•	1
	2.6.13	**Demonstrate appropriate risk/benefit analysis for all age groups for pre-hospital:**														
		(a) Analgesia	TS	LT, DP, SL, CL, EL	1 (b)		•	•	•			•				1
		(b) regional anaesthesia	TS		1 (b)		•	•	•			•				1
		(c) procedural sedation	TS		1 (b)		•	•	•			•				1
		(d) emergency anaesthesia	TS		1 (b)		•	•	•			•				1

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
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Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 2. Providing pre-hospital emergency medical care																
2.6 Provide analgesia, procedural sedation and anaesthesia in the pre-hospital environment (cont.)	2.6.14	**Demonstrate, in patients of all age groups, safe pre-hospital:**														
		(a) analgesia	TS	LT, DP, SL, CL, EL	1 (b)		•		•	•						1
		(b) regional anaesthesia	TS		1 (b)		•		•	•						1
		(c) procedural sedation	TS		1 (b)		•		•	•						1
		(d) emergency anaesthesia	TS		1 (b)		•		•	•						1
	2.6.15	Demonstrate techniques for managing failed direct laryngoscopy	TS		1 (b)		•		•	•						1
	2.6.16	Demonstrate techniques for managing a difficult airway	TS		1 (b)		•		•	•						1
	2.6.17	**Demonstrate the pre-hospital management of common anaesthetic-related complications:**														
		(a) Hyper/hypotension	TS	LT, DP, SL, CL, EL	1 (b)		•		•	•						1
		(b) Hypoxia	TS		1 (b)		•		•	•						1
		(c) Hyper/Hypocarbia	TS		1 (b)		•		•	•						1
		(d) High inflation pressures	TS		1 (b)		•		•	•						1
		(e) Low inflation pressures	TS		1 (b)		•		•	•						1
		(f) Tracheal tube displacement	TS		1 (b)		•		•	•						1
		(g) Gastric insufflation	TS		1 (b)		•		•							1
		(h) Regurgitation / vomiting	TS		1 (b)		•		•							1
		(i) Unplanned extubation	TS		1 (b)		•		•							1

Unit	Elements			Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 2. Providing pre-hospital emergency medical care																
2.6 Provide analgesia, procedural sedation and anaesthesia in the pre-hospital environment (cont.)	2.6.18	**Demonstrate, in patients of all age groups, an appropriately confident and methodical approach to:**														
		(a) analgesia	NTS	RM, RP, SL, EL	1 (b)		•		•		•	•				3
		(b) regional anaesthesia	NTS		1 (b)		•		•		•	•				3
		(c) procedural sedation	NTS		1 (b)		•		•		•	•				3
		(d) emergency anaesthesia.	NTS		1 (b)		•		•		•	•				3
2.7 Manage obstetric emergencies in the pre-hospital environment	2.7.1	Describe the anatomic and physiologic changes of pregnancy	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
	2.7.2	Describe the stages of labour, the process of delivery and the common complications	UK		1 (b)	•		•								1
	2.7.3	**Differentiate acute pre-hospital presentations related:**														
		(a) directly to pregnancy	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
		(b) to labour and childbirth	UK		1 (b)	•		•								1
		(c) to acute medical emergencies in a pregnant patient	UK		1 (b)	•		•								1
		(d) to injury in a pregnant patient	UK		1 (b)	•		•								1
	2.7.4	**Critique pre-hospital management strategies for:**														
		(a) ante-partum haemorrhage	UK	DR, LT, SL, CL, EL	1 (b)			•							•	1
		(b) post-partum haemorrhage	UK		1 (b)			•							•	1
		(c) obstructed labour	UK		1 (b)			•							•	1

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
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Unit	Elements			Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 2. Providing pre-hospital emergency medical care																
2.7 Manage obstetric emergencies in the pre-hospital environment (cont.)		(d) cardiac arrest	UK	DR, LT, SL, CL, EL	1 (b)			•							•	1
	2.7.5	Describe the applied pharmacology of emergency care of the pregnant patient	UK		1 (b)	•		•								1
	2.7.6	Contrast the options for emergency pre-hospital delivery	UK		1 (b)			•							•	1
	2.7.7	Demonstrate the assessment of the pregnant patient in the pre-hospital environment	TS	LT, DP, SL, CL, EL	2		•		•							1
	2.7.8	**Demonstrate pre-hospital management of:**														
		(a) a patient with a pregnancy related emergency	TS	LT, DP, SL,CL, EL	2		•		•							1
		(b) emergency childbirth	TS		2		•		•	•						1
		(c) an acute medical emergency in a pregnant patient	TS		2		•		•							1
		(d) major trauma in a pregnant patient	TS		2		•		•							1
	2.7.9	Demonstrate effective physical manoeuvres in abnormal labour and post-partum haemorrhage	TS		2		•		•	•						1
	2.7.10	Demonstrate the technique for resuscitative hysterotomy	TS		2		•		•	•						1
	2.7.11	Demonstrate the technique for emergency episiotomy	TS		2		•		•	•						1
2.8 Manage the newborn in the pre-hospital environment	2.8.1	Describe the applied physiology and anatomy of the newborn baby	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
	2.8.2	Describe the initial care of the newborn	UK		1 (b)	•		•								1
	2.8.3	Describe conditions of the newborn commonly encountered in the pre-hospital setting	UK		1 (b)	•		•								1

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 2. Providing pre-hospital emergency medical care																
2.8 Manage the newborn in the pre-hospital environment (cont.)	2.8.4	Contrast the differences in general care between term and pre-term newborns	UK	DR, LT, SL, CL, EL	1 (b)	•		•							•	1
	2.8.5	Critique the role of newborn life support in the pre-hospital environment	UK		1 (b)			•							•	1
	2.8.6	Demonstrate provision of care to the new born in the pre-hospital environment	TS	LT, DP, SL, CL, EL	1 (b)		•		•							1
	2.8.7	Demonstrate resuscitation of the newborn	TS		1 (b)		•		•	•						1
	2.8.8	Demonstrate the ability to recognise the emotional needs of the mother and family	NTS	RM, RP, SL CL, EL	1 (b)		•		•							4
2.9 Manage injured or ill children in the pre-hospital environment	2.9.1	Describe the epidemiology of severe illness in the paediatric pre-hospital population	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
	2.9.2	Describe the applied anatomy and physiology of the infant and child	UK		1 (b)	•		•								1
	2.9.3	**Describe the immediate pre-hospital emergency management of the following acute medical presentations in infants and children:**														
		(a) Airway obstruction/choking/stridor	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
		(b) Acute respiratory distress	UK		1 (b)	•		•								1
		(c) Central cyanosis	UK		1 (b)	•		•								1
		(d) Shock	UK		1 (b)	•		•								1
		(e) Abnormal pulse rate or rhythm	UK		1 (b)	•		•								1
		(f) Decreased conscious level	UK		1 (b)	•		•								1
		(g) Seizures	UK		1 (b)	•		•								1
		(h) Sudden weakness/paralysis/abnormal sensation	UK		1 (b)	•		•								1

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
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Unit	Elements			Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 2. Providing pre-hospital emergency medical care																
2.9 Manage injured or ill children in the pre-hospital environment (cont.)	2.9.3 cont.	(i) Intoxication and poisoning	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
		(j) Hypoglycaemia	UK		1 (b)	•		•								1
		(k) Acute vomiting	UK		1 (b)	•		•								1
		(l) Acute abdominal/loin/scrotal pain	UK		1 (b)	•		•								1
		(m) Acute febrile illness	UK		1 (b)	•		•								1
		(n) Acute rash	UK		1 (b)	•		•								1
		(o) Acute pain	UK		1 (b)	•		•								1
		(p) Bites, stings and envenomation	UK		1 (b)	•		•								1
		(q) Acute allergic reaction	UK		1 (b)	•		•								1
		(r) Non-accidental injury	UK		1 (b)	•		•								4
	2.9.4	**Critique the current best practice in the pre-hospital management of:**														
		(a) Infectious upper airway compromise	UK	DR, LT, SL, CL, EL	2	•		•							•	1
		(b) Asthma	UK		2	•		•							•	1
		(c) Anaphylaxis	UK		1 (b)	•		•							•	1
		(d) Sepsis	UK		1 (b)	•		•							•	1
		(e) Meningoencephalitis	UK		1 (b)	•		•							•	1
		(f) Status epilepticus	UK		1 (b)	•		•							•	1
		(g) Diabetic ketoacidosis	UK		2	•		•							•	1

Unit	Elements			Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 2. Providing pre-hospital emergency medical care																
	2.9.5	Describe the applied pharmacology of commonly used medicines given in the pre-hospital environment to newborns, infants and children	UK	DR, LT, SL, CL, EL	2	•		•							•	1
	2.9.6	Explain why drug prescribing in children should be based on a paediatric specific formulary	UK		1 (b)	•		•								2
	2.9.7	Describe fluid management in critical illness or injury in all age groups	UK		1 (b)	•		•								1
	2.9.8	Describe the policies and procedures for safeguarding children within the EMS system	UK		1 (b)	•		•								2
	2.9.9	Differentiate the types of child abuse (neglect, emotional, physical and sexual abuse)	UK		1 (a)	•		•								2
	2.9.10	Critique signs of physical abuse suggestive of non-accidental injury	UK		1 (a)	•	•	•	•							1
	2.9.11	Analyse the organisation of paediatric critical care and how this may influence pre-hospital destination triage decisions	UK		1 (b)	•		•	•			•				1
	2.9.12	Demonstrate the ability to formulate a differential diagnoses for an acute, undifferentiated emergency presentation in all age groups	TS	LT, DP, SL, CL, EL	1 (b)	•		•	•							1
	2.9.13	**Demonstrate the immediate pre-hospital emergency management of the following acute medical presentations in children:**														
		(a) Airway obstruction/choking/stridor	TS	LT, DP, SL, CL, EL	1 (b)		•		•							1
		(b) Acute respiratory distress	TS		1 (b)		•		•							1
		(c) Central cyanosis	TS		1 (b)		•		•							1
		(d) Shock	TS		1 (b)		•		•							1
		(e) Abnormal pulse rate or rhythm	TS		1 (b)		•		•							1
		(f) Decreased conscious level	TS		1 (b)		•		•							1
		(g) Seizures	TS		1 (b)		•		•							1

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Theme 2. Providing pre-hospital emergency medical care																
2.9 Manage injured or ill children in the pre-hospital environment (cont.)	2.9.13 cont.	(h) Sudden weakness/paralysis/abnormal sensation	TS	LT, DP, SL, CL, EL	1 (b)		•		•							1
		(i) Intoxication and poisoning	TS		1 (b)		•		•							1
		(j) Hypoglycaemia	TS		1 (b)		•		•							1
		(k) Acute vomiting	TS		1 (b)		•		•							1
		(l) Acute abdominal/loin/scrotal pain	TS		1 (b)		•		•							1
		(m) Acute febrile illness	TS		1 (b)		•		•							1
		(n) Acute rash	TS		1 (b)		•		•							1
		(o) Acute pain	TS		1 (b)		•		•							1
		(p) Bites stings and envenomation	TS		1 (b)		•		•							1
		(q) Acute allergic reaction	TS		1 (b)		•		•							1
		(r) Non-accidental injury	TS		1 (b)		•		•							1
	2.9.14	**Demonstrate the pre-hospital management of:**														
		(a) Infectious upper airway compromise	TS	LT, DP, SL, CL, EL	1 (b)		•		•							1
		(b) Asthma	TS		1 (b)		•		•							1
		(c) Anaphylaxis	TS		1 (b)		•		•							1
		(d) Sepsis	TS		1 (b)		•		•							1
		(e) Meningoencephalitis	TS		1 (b)		•		•							1
		(f) Status epilepticus	TS		1 (b)		•		•							1
		(g) Diabetic ketoacidosis	TS		1 (b)		•		•							1

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 2. Providing pre-hospital emergency medical care																
2.9 Manage injured or ill children in the pre-hospital environment (cont.)	2.9.15	Demonstrate adaptations to clinical practice necessary for performing effective clinical examination and interventions in all age groups	TS	LT, DP, SL, CL, EL	1 (b)		•		•			•				1
	2.9.16	Demonstrate the ability to manage a child refusing treatment for a possible life threatening condition	NTS		1 (b)		•		•			•				4
	2.9.17	Demonstrate appropriately confident and methodical approach to management and decision making for paediatric medical emergencies	NTS	RM, RP, SL, CL, EL	1 (b)		•		•			•				3
	2.9.18	Demonstrates ability to treat children with patience, dignity and respect	NTS		1 (b)		•		•		•	•				4
2.10 Manage the bariatric patient in the pre-hospital environment	2.10.1	Describe the applied anatomy and physiology of the bariatric patient	UK	DR, LT, SL, CL, EL	2	•		•								1
	2.10.2	Critique the limitations of standard clinical equipment and monitoring in the bariatric patient	UK		2			•							•	2
	2.10.3	Describe the applied pharmacology of commonly used pre-hospital drugs in bariatric patients	UK		2	•		•								1
	2.10.4	Critique ventilation strategies in bariatric patients	UK		2	•		•								1
	2.10.5	Critique the limitations of rescue equipment and vehicles for bariatric patients	UK		2	•		•								2
	2.10.6	Describe the policies and procedures for the transport of bariatric patients within the EMS system	UK		2	•	•	•								1
	2.10.7	Describe strategies to facilitate rescue and extrication of the bariatric patient	UK		2	•	•	•								1
	2.10.8	Demonstrate a calculation of ideal body weight in bariatric patients	TS	LT, DP, SL, CL, EL	2	•		•	•							1
	2.10.9	Select appropriate manual handling adjuncts for moving bariatric patients	TS		2		•		•	•					•	2

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
RP	Reflective Practice	RM	Role Modeling	CL	Collaborative Learning	EL	Experiential Learning

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 2. Providing pre-hospital emergency medical care																
2.11 Manage elderly patients in the pre-hospital environment	2.11.1	Describe the applied anatomy and physiology of ageing	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
	2.11.2	Describe the epidemiology of injury and illness in the elderly population	UK		1 (b)	•		•								1
	2.11.3	Critique the effect of polypharmacy in the elderly	UK		1 (b)	•		•	•							1
	2.11.4	Describe the applied pharmacology of commonly used drugs used in the pre-hospital environment in elderly patients	UK		1 (b)	•		•								1
	2.11.5	Describe the policies and procedures for protecting vulnerable adults within the EMS system	UK		1 (b)	•		•								2
	2.11.6	Analyse wider psychosocial issues in pre-hospital triage and decision making for elderly patients	UK		1 (b)	•	•		•			•				4
2.12 Manage acute behavioural disturbance in the pre-hospital environment	2.12.1	Categorise the range of mental health disorders presenting as pre-hospital emergencies	UK		2	•		•							•	1
	2.12.2	Describe acute mental health service provision within the EMS system	UK		2	•		•								1
	2.12.3	Explain the multi-disciplinary nature of child and adolescent mental health services	UK		2	•		•								1
	2.12.4	Differentiate organic brain syndromes from acute psychiatric illness	UK		2	•	•	•								1
	2.12.5	Explain why acute behavioural disturbance can be a cause or consequence of injury	UK		2	•	•	•				•				1
	2.12.6	**Describe strategies for undertaking a pre-hospital:**														
		(a) mental state examination	UK	DR, LT, SL, CL, EL	2	•		•								1
		(b) self harm risk assessment	UK		2	•		•								2
		(c) suicide risk assessment	UK		2	•		•								2
		(d) violence risk assessment	UK		2	•		•								2
	2.12.7	**Describe strategies for:**														
		(a) control and restraint	UK	DR, LT, SL, CL, EL	2	•		•								2
		(b) rapid tranquilisation	UK		2	•		•								2

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 2. Providing pre-hospital emergency medical care																
2.12 Manage acute behavioural disturbance in the pre-hospital environment (cont.)	2.12.8	**Describe strategies for undertaking a pre-hospital:**														
		(a) mental state examination	NTS	LT, DP, SL, CL, EL	2		•		•			•				1
		(b) self harm risk assessment	NTS		2		•		•			•				2
		(c) suicide risk assessment	NTS		2		•		•			•				2
		(d) violence risk assessment	NTS		2		•		•			•				2
	2.12.9	**Demonstrate strategies for:**														
		(a) control and restraint	TS	LT, DP, SL, CL, EL	2		•		•			•				2
		(b) rapid tranquilisation	TS		2		•		•			•				2
2.13 Provide end-of-life care and immediate management of bereavement	2.13.1	**Describe the management of a pre-hospital death involving:**														
		(a) An adult	UK	DR, LT, SL, CL, EL	2	•		•								4
		(b) An infant or child	UK		2	•		•								4
		(c) Multiple casualties	UK		2	•		•								4
	2.13.2	Describe the variations in approach to death among different cultural and religious groups	UK		2	•		•								4
	2.13.3	Demonstrate the ability to complete the administrative requirements pertaining to a death in the pre-hospital environment.	TS	LT, SL, DP, CL, EL	2		•		•			•				1
	2.13.4	Demonstrate the ability to manage end of life decisions in the pre-hospital environment	NTS	RM, RP, SL, EL	2		•		•			•				3
	2.13.5	Display a professional and sensitive approach to relatives and colleagues following a death outside of hospital.	NTS		2		•		•			•				3

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
RP	Reflective Practice	RM	Role Modeling	CL	Collaborative Learning	EL	Experiential Learning

THEME 3. USING PRE-HOSPITAL EQUIPMENT

Pre-hospital and in-transit emergency care requires use of a wide range of medicines, devices and portable equipment. Practitioners must be competent in both the application and operation of specific equipment items and the principles underlying their function and design.

UNITS

3.1 Apply equipment governance principles and practice
3.2 Understand and use personal protective equipment
3.3 Operate all types of commonly used pre-hospital emergency medical device
3.4 Operate common non-medical pre-hospital equipment
3.5 Manage and administer medicines

Related GMP domains are assigned to each group of elements within units as follows:

1. Knowledge skills and performance
2. Safety and quality
3. Communication, partnership and teamwork
4. Maintaining trust

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 3. Using pre-hospital equipment																
3.1 Apply equipment governance principles and practice	3.1.1	Categorise pre-hospital equipment	UK	DR, LT, SL, EL, CL	1 (a)	•		•								1
	3.1.2	Describe the principles of equipment governance	UK		1 (b)	•		•								2
	3.1.3	Describe the relevance of the regulatory framework for medical devices	UK		1 (b)	•		•								1
	3.1.4	**Demonstrate equipment governance procedures:**														
		(a) in the pre-deployment phase	TS	DR, LT, SL, EL, DP	1 (b)	•				•		•				2
		(b) during deployment and clinical care	TS		1 (b)	•	•			•		•				2
		(c) on completion of deployment	TS		1 (b)	•	•			•		•				2
	3.1.5	Demonstrate a professional approach to equipment governance	NTS	RM, EL, SL	1 (b)		•				•	•				2
3.2 Understand and use personal protective equipment	3.2.1	Categorise personal protective equipment (PPE)	UK	DR, LT, SL, EL, CL	1 (a)	•		•		•						1
	3.2.2	Describe the principles underlying PPE function and design	UK		1 (a)	•		•								1
	3.2.3	Describe when PPE must be used	UK		1 (a)	•		•								2
	3.2.4	Describe procedures for checking and maintaining PPE	UK		1 (a)	•		•								2
	3.2.5	Demonstrate the correct use of PPE	TS	DR, LT, SL, EL, DP	1 (a)		•		•	•						2
	3.2.6	Demonstrate the ability to operate whilst using PPE	TS		1 (a)		•		•	•						2
	3.2.7	Demonstrate a professional approach to use of PPE	NTS	RM, EL, SL	1 (b)		•				•	•				2
		Describe the principles underlying the function and design of pre-hospital:														
		(a) Airway management devices	UK	DR, LT, SL, EL, CL	1 (a)	•		•		•			•			1

Unit	Elements			Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 3. Using pre-hospital equipment																
3.3 Operate all types of commonly used pre-hospital emergency medical devices	3.3.1	(b) Ventilatory support devices	UK	DR, LT, SL, EL, CL	1 (a)	•		•		•			•			1
		(c) Devices for controlling haemorrhage	UK		1 (a)	•		•		•			•			1
		(d) Devices for accessing the circulation	UK		1 (a)	•		•		•			•			1
		(e) Devices for supporting the circulation	UK		1 (a)	•		•		•			•			1
		(f) Devices for administering medicines and blood products	UK		1 (a)	•		•		•			•			1
		(g) Devices for managing soft tissue injuries, wounds and burns	UK		1 (a)	•		•		•			•			1
		(h) Devices for immobilizing joints, limbs and patients	UK		1 (a)	•		•		•			•			1
		(i) Devices for near patient testing	UK		1 (b)	•		•		•			•			1
		(j) Devices for temperature management	UK		1 (b)	•		•		•			•			1
		(k) Devices for non-invasive patient monitoring	UK		1 (a)	•		•		•			•			1
		(l) Devices for invasive patient monitoring	UK		1 (b)	•		•		•			•			1
		(m) Devices for imaging and diagnosis	UK		2	•		•		•			•			1
		(n) Devices for moving and handling patients	UK		1 (b)	•		•		•			•			1
	3.3.2	**Contrast the effectiveness of different devices within each of:**														
		(a) Airway management devices	UK	DR, LT, SL, EL, CL	1 (b)	•	•	•		•						1
		(b) Ventilatory support devices	UK		1 (b)	•	•	•		•						1
		(c) Devices for controlling haemorrhage	UK		1 (b)	•	•	•		•						1
		(d) Devices for accessing the circulation	UK		1 (b)	•	•	•		•						1
		(e) Devices for supporting the circulation	UK		1 (b)	•	•	•		•						1
		(f) Devices for administering medicine and blood products	UK		1 (b)	•	•	•		•						1
		(g) Devices for managing soft tissue injuries, wounds and burns	UK		1 (b)	•	•	•		•						1

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
RP	Reflective Practice	RM	Role Modeling	CL	Collaborative Learning	EL	Experiential Learning

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 3. Using pre-hospital equipment																
3.3 Operate all types of commonly used pre-hospital emergency medical devices (cont)	3.3.2	(h) Devices for immobilizing joints, limbs and patients	UK	DR, LT, SL, EL, CL	1 (b)	•	•	•		•						1
		(i) Devices for near patient testing	UK		2	•	•	•		•						1
		(j) Devices for temperature management	UK		2	•	•	•		•						1
		(k) Devices for non-invasive patient monitoring	UK		1 (a)	•	•	•		•						1
		(l) Devices for invasive patient monitoring	UK		1 (b)	•	•	•		•						1
		(m) Devices for imaging and diagnosis	UK		2	•	•	•		•						1
		(n) Devices for moving and handling patients	UK		1 (a)	•	•	•		•						1
	3.3.3	**Demonstrate confident and technically correct operation of:**														
		(a) Airway management devices	TS	DR, LT, SL, EL, CL	1 (a)	•	•		•	•		•				1
		(b) Ventilatory support devices	TS		1 (a)	•	•		•	•		•				1
		(c) Devices for controlling haemorrhage	TS		1 (a)	•	•		•	•		•				1
		(d) Devices for accessing the circulation	TS		1 (a)	•	•		•	•		•				1
		(e) Devices for supporting the circulation	TS		1 (a)	•	•		•	•		•				1
		(f) Devices for administering medicine and blood products	TS		1 (a)	•	•		•	•		•				1
		(g) Devices for managing soft tissue injuries, wounds and burns	TS		1 (b)	•	•		•	•		•				1
		(h) Devices for immobilizing joints, limbs and patients	TS		1 (a)	•	•		•	•		•				1
		(i) Devices for near patient testing	TS		1 (b)	•	•		•	•		•				1
		(j) Devices for temperature management	TS		1 (b)	•	•		•	•		•				1
		(k) Devices for non-invasive patient monitoring	TS		1 (a)	•	•		•	•		•				1
		(l) Devices for invasive patient monitoring	TS		1 (b)	•	•		•	•		•				1
		(m) Devices for imaging and diagnosis	TS		2	•	•		•	•		•				1
		(n) Devices for moving and handling patients	TS		1 (a)	•	•		•	•		•				1

Unit	Elements			Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 3. Using pre-hospital equipment																
3.3 Operate all types of commonly used pre-hospital emergency medical devices (cont)		**Demonstrate correct management of critical device failures and, where relevant, alarms within each of:**														
	3.3.4	(a) Airway management devices	TS	DR, LT, SL, EL, CL	1 (a)	•	•		•	•		•				1
		(b) Ventilatory support devices	TS		1 (a)	•	•		•	•		•				1
		(c) Devices for controlling haemorrhage	TS		1 (a)	•	•		•	•		•				1
		(d) Devices for accessing the circulation	TS		1 (a)	•	•		•	•		•				1
		(e) Devices for supporting the circulation	TS		1 (a)	•	•		•	•		•				1
		(f) Devices for administering medicine and blood products	TS		1 (a)	•	•		•	•		•				1
		(g) Devices for managing soft tissue injuries, wounds and burns	TS		1 (b)	•	•		•	•		•				1
		(h) Devices for immobilizing joints, limbs and patients	TS		1 (a)	•	•		•	•		•				1
		(i) Devices for near patient testing	TS		1 (b)	•	•		•	•		•				1
		(j) Devices for temperature management	TS		2	•	•		•	•		•				1
		(k) Devices for non-invasive patient monitoring	TS		1 (a)	•	•		•	•		•				1
		(l) Devices for invasive patient monitoring	TS		1 (b)	•	•		•	•		•				1
		(m) Devices for imaging and diagnosis	TS		2	•	•		•	•		•				1
		(n) Devices for moving and handling patients	TS		1 (a)	•	•		•	•		•				1
	3.3.5	Demonstrate a professional approach to maintaining knowledge and skills in the operation of medical equipment	NTS	RM, CL, EL, SL	1 (b)		•				•	•				1

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
RP	Reflective Practice	RM	Role Modeling	CL	Collaborative Learning	EL	Experiential Learning

Unit	Elements		Learning Methods	A	Assessment Methods										GMP
					KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 3. Using pre-hospital equipment															
3.4 Operate common non-medical pre-hospital equipment	3.4.1	**Describe the operation of common pre-hospital:**													
		(a) Communications equipment	UK	DR, LT, SL, Cl, EL	1 (a)	•		•	•	•						1
		(b) Audiovisual recording equipment	UK		1 (b)	•		•	•	•						1
		(c) Incident management equipment	UK		1 (b)	•		•	•	•						1
		(d) Navigation equipment	UK		1 (a)	•		•	•	•						1
		(e) Information management equipment	UK		1 (b)	•		•	•	•						1
	3.4.2	**Demonstrate confident and technically correct operation of :**													
		(a) Communications equipment	TS	LT, SL, CL, EL, RP	1 (a)				•	•		•				1
		(b) Audiovisual recording equipment	TS		1 (b)				•	•		•				1
		(c) Incident management equipment	TS		1 (b)				•	•		•				1
		(d) Navigation equipment	TS		1 (a)				•	•		•				1
		(e) Information management equipment	TS		1 (b)				•	•		•				1
	3.4.3	Demonstrate a professional approach to maintaining skills and knowledge in the operation of non-medical equipment	NTS	RM, SL, EL	1 (b)			•	•		•	•				1

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 3. Using pre-hospital equipment																
3.5 Manage and administer medicines	3.5.1	Describe the principles of good pre-hospital medicines management	UK	DR, LT, SL, CL, EL	1 (a)	•		•	•							1
	3.5.2	Describe the principles of safe pre-hospital prescribing	UK		1 (b)	•		•								1
	3.5.3	Categorise medicines used in Pre-hospital Emergency Medicine	UK		1 (a)	•		•								1
	3.5.4	Describe the relevance of the regulatory framework for medicines in pre-hospital practice	UK		1 (b)	•		•								2
	3.5.5	Describe the application of controlled drugs legislation and procedures to pre-hospital practice	UK		1 (b)	•		•				•				1
	3.5.6	List medical gases in common pre-hospital use	UK		1 (a)	•		•	•							1
	3.5.7	Describe the dangers of medical gases used in pre-hospital care and the precautions that ensure safety during administration	UK		1 (a)	•		•	•							2
	3.5.8	List blood products in pre-hospital use	UK		1 (b)	•		•	•							1
	3.5.9	Demonstrate safe prescription and dispensing of medicines	TS	LT, SL, CL, EL	1 (b)		•		•	•		•				1
	3.5.10	Demonstrate preparation of medicines for parenteral use	TS		1 (a)		•		•	•		•				1
	3.5.11	Demonstrate safe and effective administration of medicines by all routes	TS		1 (a)		•		•	•		•				1
	3.5.12	Demonstrate compliance with legislation related to Controlled Drugs	TS		1 (a)		•		•	•		•				2
	3.5.13	Demonstrate safe use of a medical gas cylinder	TS		1 (a)		•		•	•		•				1
	3.5.14	Demonstrate safe handling, transport and storage of medical gas cylinders in the pre-hospital environment	TS		1 (b)		•		•	•		•				1
	3.5.15	Demonstrate safe and effective administration of blood products	TS		1 (b)		•		•	•		•				1
	3.5.16	Demonstrate a professional approach to management and administration of medicines	NTS	RM, SL, CL, EL	1 (b)		•		•		•	•				1

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
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THEME 4. SUPPORTING RESCUE AND EXTRICATION

Pre-hospital emergency medical services are frequently targeted at patients who, because of physical entrapment, physical geography or functional geographic constraints, cannot just be taken to the nearest appropriate hospital. This competence theme focuses on the underpinning knowledge, technical skills and non-technical skills required to manage a trapped patient and effectively interact with professional rescue service personnel at common pre-hospital rescue situations.

UNITS

4.1 Work within the rescue environment

4.2 Understand entrapment

4.3 Support Extrication

4.4 Clinically manage the trapped patient

Related GMP domains are assigned to each group of elements within units as follows:

1. Knowledge skills and performance
2. Safety and quality
3. Communication, partnership and teamwork
4. Maintaining trust

Unit	Elements		Learning Methods	A	Assessment Methods										GMP
					KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 4. Supporting rescue and extrication															
4.1 Work within the rescue environment	4.1.1	**Describe the specific hazards to rescue in the following situations:**													
		(a) Road traffic collisions	UK	DR, LT, SL, CL, EL	1 (b)	•		•							1
		(b) Industrial site incidents	UK		1 (b)	•		•							1
		(c) Aircraft related incidents	UK		1 (b)	•		•							1
		(d) Agricultural site incidents	UK		1 (b)	•		•							1
		(e) Remote area incidents	UK		2	•		•							1
		(f) Confined space incidents	UK		2	•		•							1
		(g) Collapsed structures	UK		2	•		•							1
		(h) Explosive device incidents	UK		1 (b)	•		•							1
		(i) Firearms incidents	UK		1 (b)	•		•							1
		(j) Scenes of violent assault	UK		1 (b)	•		•							1
		(k) Hazardous materials incidents	UK		2	•		•							1
		(l) Incidents at height	UK		1 (b)	•		•							1
		(m) Incidents on steep slopes	UK		2	•		•							1
		(n) Water related incidents	UK		2	•		•							1
		(o) Fires	UK		1 (b)	•		•							1
	4.1.2	**Explain the rescue capabilities of:**													
		(a) Police personnel	UK	DR, LT, SL, CL, EL	1 (b)	•		•							1
		(b) Fire personnel	UK		1 (b)	•		•							1

Unit	Elements			Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 4. Supporting rescue and extrication																
4.1 Work within the rescue environment	4.1.2 (cont)	(c) Medical personnel	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
		(d) Specialist rescue personnel	UK		2	•		•								1
		(e) Voluntary emergency services personnel	UK		2	•		•								1
	4.1.3	Critique the role of pre-hospital emergency medicine specialists in rescue	UK		2	•		•								1
	4.1.4	Explain the concept of generic risk assessments for rescue operations	UK		1 (b)	•		•								2
	4.1.5	Describe the relationship between generic risk assessment and dynamic risk assessment for rescue operations	UK		1 (b)	•		•								2
	4.1.6	Describe the physiological, psychological and physical effects on patients of rescue operations in different settings	UK		2	•		•								1
	4.1.7	Describe the physiological, psychological and physical effects of rescue operations on rescue and healthcare personnel	UK		2	•		•								1
	4.1.8	Describe strategies to optimise the rescue environment for clinical assessment and care	UK		1 (b)	•		•								2
	4.1.9	Demonstrate a generic risk assessment for medical personnel supporting a typical rescue operation within the EMS system	TS	LT, SL, CL, EL, DP	1 (b)				•	•						2
	4.1.10	Demonstrate a dynamic risk assessment in practice at a rescue operation	TS		2		•		•	•						2
	4.1.11	Demonstrate resilience across the spectrum of rescue environments	NTS	RM, SL, CL, EL	1 (b)		•				•	•	•			1
4.2 Understand entrapment	4.2.1	Categorise entrapment ‘mechanisms’	UK	DR, LT, SL, CL, EL	1 (b)	•		•				•				1

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
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Unit	Elements		Learning Methods	A	Assessment Methods										GMP
					KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 4. Supporting rescue and extrication															
4.2 Understand entrapment	4.2.2	**Describe the typical 'mechanisms' of entrapment in the following situations:**													
		(a) Road traffic collisions	UK	DR, LT, SL, CL, EL	1 (b)	•		•							1
		(b) Industrial site incidents	UK		1 (b)	•		•							1
		(c) Aircraft related incidents	UK		1 (b)	•		•							1
		(d) Agricultural site incidents	UK		1 (b)	•		•							1
		(e) Remote area incidents	UK		2	•		•							1
		(f) Confined space incidents	UK		2	•		•							1
		(g) Collapsed structures	UK		2	•		•							1
		(h) Explosive device incidents	UK		1 (b)	•		•							1
		(i) Firearms incidents	UK		1 (b)	•		•							1
		(j) Scenes of violent assault	UK		1 (b)	•		•							1
		(k) Hazardous materials incidents	UK		2	•		•							1
		(l) Incidents at height	UK		1 (b)	•		•							1
		(m) Incidents on steep slopes	UK		2	•		•							1
		(n) Water related incidents	UK		2	•		•							1
		(o) Fires	UK		1 (b)	•		•							1

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 4. Supporting rescue and extrication																
4.3 Support Extrication	4.3.1	Describe the principles of extrication	UK	DR, LT, DP, SL, RP, CL, EL	1 (b)	•		•								1
	4.3.2	Critique the role of medical interventions in facilitating extrication	UK		2	•		•								1
	4.3.3	Describe technical extrication processes for road traffic related entrapment	UK		1 (b)	•		•								1
	4.3.4	Critique the capabilities and limitations of commonly used rescue and extrication equipment	UK		2	•		•								1
	4.3.5	Describe strategies for expediting extrication	UK		2	•		•								1
	4.3.6	Demonstrate ability to make a rapid assessment of the extrication needs of a trapped patient	TS	DR, LT, DP, SL, RP,	1 (b)		•		•			•	•			1
	4.3.7	Demonstrate ability to manage clinical equipment during the extrication process	TS		1 (b)		•		•			•	•			1
	4.3.8	Demonstrate ability to facilitate extrication through medical intervention	TS		1 (b)		•		•			•	•			1
	4.3.9	Demonstrate how clinical judgement influences the tempo of rescue operations	TS		2		•		•			•	•			1
	4.3.10	Display confidence in supporting extrication	NTS	RM, EL, SL, RP, DP	1 (b)		•		•		•					1
	4.3.11	Display medical leadership in co-ordinating medical and rescue interventions	NTS		2		•		•		•					3
4.4 Clinically manage the trapped patient	4.4.1	Describe the adverse physiological effects specifically associated with entrapment	UK	DR, LT, SL, RP, CL, EL	1 (b)	•		•								1
	4.4.2	Describe pain management strategies for the trapped patient	UK		1 (b)	•		•								1
	4.4.3	Critique the role of patient monitoring during entrapment and extrication	UK		2	•		•								1
	4.4.4	Critique clinical strategies for injury management in the trapped patient compared to the non-trapped patient	UK		2	•		•								1
	4.4.5	Critique clinical strategies for organ and/or system support in the trapped patient compared to the non-trapped patient	UK		2	•		•								1

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
RP	Reflective Practice	RM	Role Modeling	CL	Collaborative Learning	EL	Experiential Learning

Unit	Elements			Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 4. Supporting rescue and extrication																
4.4 Clinically manage the trapped patient (cont.)	4.4.6	**Describe clinical strategies for the management of trapped patients with:**														
		(a) impalement	UK	DR, LT, SL, RP, CL, EL	2	•		•				•				1
		(b) crush injury	UK		2	•		•				•				1
		(c) hypothermia	UK		2	•		•				•				1
		(d) prolonged entrapment	UK		2	•		•				•				1
		(e) severe limb entrapment	UK		2	•		•				•				1
	4.4.7	Describe the impact of medical intervention on rescue timescales and techniques	UK		2	•		•				•				1
	4.4.8	Differentiate the level and nature of clinical interventions at different stages of extrication	UK		2	•		•								1
	4.4.9	Describe strategies for managing entrapment of more than one patient at an incident	UK		2	•		•								1
	4.4.10	Demonstrate ability to make a rapid assessment of the clinical needs of a trapped patient	TS	LT, DP, SL, RP, RM, CL, EL	2		•		•			•				1
	4.4.11	Demonstrate effective management of the trapped patient	TS		2		•		•			•				1
	4.4.12	Display confidence in managing the trapped patient	NTS	RM, EL, SL, RP, DP	2		•		•		•	•	•			3
	4.4.13	Display leadership in co-ordinating multi-professional medical care of trapped patients	NTS		2		•		•		•	•	•			3
	4.4.14	Demonstrate a compassionate patient-focussed approach throughout rescue and extrication	NTS		2		•		•		•	•	•			4

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
RP	Reflective Practice	RM	Role Modeling	CL	Collaborative Learning	EL	Experiential Learning

THEME 5. SUPPORTING SAFE PATIENT TRANSFER

This theme covers the competences required to make destination hospital triage decisions, select the most appropriate transport platform, provide safe, effective and focused in-transit critical care and ensure that the patients' condition and immediate needs are communicated to receiving hospital clinical staff. As with other competence themes, many of the elements are common across all clinical services. The constituent Units within this theme are:

UNITS

5.1 Understand the concepts underpinning transfer medicine
5.2 Understand the applied physiology of patient transfer
5.3 Co-ordinate and plan patient transfer
5.4 Prepare patients for transport
5.5 Utilise a range of patient transport modalities
5.6 Clinically manage patients during transport

Related GMP domains are assigned to each group of elements within units as follows:

1. Knowledge skills and performance
2. Safety and quality
3. Communication, partnership and teamwork
4. Maintaining trust

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 5. Supporting safe patient transfer																
5.1 Understand the concepts underpinning transfer medicine (cont.)	5.1.1	Describe the policies and procedures for pre-hospital and emergent inter-facility (inter-hospital) transfer within the EMS system	UK	DR, LT, SL, CL, EL	1 (b)	•		•								2
	5.1.2	Critique the need for pre-hospital and emergent inter-facility transfer within the EMS system	UK		1 (b)	•		•								1
	5.1.3	Contrast the risks and benefits associated with extended pre-hospital and emergent inter-facility transfer	UK		1 (b)	•		•								1
	5.1.4	Analyse the evidence related to the risks and benefits of extended pre-hospital transfer (facility by-pass) and emergency inter-facility transfer	UK		2	•		•								1
	5.1.5	Describe lines of accountability and responsibility in relation to pre-hospital transfer and emergent inter-facility transfer	UK		1 (b)	•		•								1
	5.1.6	Describe the roles and responsibilities of all staff accompanying the patient during transfer	UK		1 (b)	•		•								1
	5.1.7	Analyse the ethical and legal issues related to patient transfer	UK		2	•		•							•	1
	5.1.8	Demonstrate a professional approach to transfer medicine	NTS	RM, SL, RP	1 (b)			•	•	•	•	•	•			4
5.2 Understand the applied physiology of patient transfer	5.2.1	Describe the physiological and physical effects of movement of patients	UK	DR, LT, SL, CL, EL	1 (b)	•		•		•						1
	5.2.2	Describe the physiological and physical effects of transfer on attendants	UK		1 (b)	•		•								1
	5.2.3	Describe the physiological effects of altitude on patients during transfer	UK		1 (b)	•		•								1
	5.2.4	Demonstrate ability to integrate patient diagnosis with the physiological effects of transport	TS	DR, LT, SL CL, EL	1 (b)	•	•		•			•				1
	5.2.5	Demonstrate resilience when undertaking patient transfer	NTS	RM, EL, SL	2						•					4
5.3 Co-ordinate and plan patient transfer	5.3.1	Describe the principles of planning and co-ordinating patient transfer	UK	DR, LT, SL, DP, CL, EL	1 (b)	•				•						1
	5.3.2	Describe the principles determining destination hospital selection	UK		1 (a)	•		•								1

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 5. Supporting safe patient transfer																
5.3 Co-ordinate and plan patient transfer (cont.)	5.3.3	List the equipment required for pre-hospital and inter-facility transfer	UK	DR, LT, SL, DP, CL, EL	1 (a)	•		•								1
	5.3.4	Demonstrate the ability to reconcile the risks and benefits of transfer	TS	LT, SL, DP, CL, EL	1 (b)	•			•	•		•				1
	5.3.5	Demonstrate the ability to determine consumable resource requirements for transfer	TS		1 (b)	•			•	•		•				1
	5.3.6	Demonstrate co-ordination of extended pre-hospital transfer	TS		2				•	•		•	•			1
	5.3.7	Demonstrate co-ordination of emergency inter-facility transfer	TS		2				•	•		•	•			1
	5.3.8	Demonstrate a professional approach to the planning and co-ordination of patient transfer	NTS	RM, EL, SL, RP	1 (b)				•	•	•	•				4
	5.3.9	Demonstrate the ability to acknowledge futility and avoid inappropriate inter-facility transfer	NTS		1 (b)				•	•	•	•				4
5.4 Prepare patients for transport	5.4.1	List strategies for optimising a patient's physiology prior to transfer	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
	5.4.2	Describe pre-transfer measures to minimise risks to patients during transfer	UK		1 (b)	•		•								2
	5.4.3	Demonstrate ability to determine when patients are in their optimum clinical condition for transfer	TS	LT, SL, CL, DP, EL	1 (b)		•		•			•				1
	5.4.4	Demonstrate correct preparation of patients for safe pre-hospital transfer	TS		2		•		•			•				1
	5.4.5	Demonstrate correct preparation of patients for safe inter-facility transfer	TS		2		•		•			•				1
	5.4.6	Demonstrate a professional approach to preparation of patients for transfer	NTS	RM, SL, EL, RP	1 (b)		•		•	•	•					4

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
RP	Reflective Practice	RM	Role Modeling	CL	Collaborative Learning	EL	Experiential Learning

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 5. Supporting safe patient transfer																
5.5 Utilise a range of patient transport modalities	5.5.1	Categorise patient transport modalities	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
	5.5.2	Differentiate the risks and benefits of road, helicopter, fixed wing and other transport modalities	UK		2	•		•								1
5.5 Utilise a range of patient transport modalities (cont.)	5.5.3	Describe the training requirements for personnel escorting patients according to transport modality	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
	5.5.4	Describe the risks, benefits and legal constraints pertaining to transporting relatives	UK		2	•		•								1
	5.5.5	Demonstrate the ability to transfer patients using a range of transport modalities	TS	LT, SL, EL, DP	2			•		•		•				1
	5.5.6	Demonstrate a professional approach to the use of different transport modalities	NTS	RM, SL, EL, CL, RP	2			•			•	•				4
5.6 Clinically manage patients during transport	5.6.1	Critique the minimum standards for monitoring during transfer	UK	DR, LT, SL, CL, EL	1 (b)	•	•	•				•				1
	5.6.2	Describe the interventions which can be undertaken during transfer	UK		1 (b)	•		•								1
	5.6.3	Describe the common problems experienced during patient transfer	UK		1 (b)	•		•								1
	5.6.4	**Describe the specific clinical management of the following patient groups before and during pre-hospital or emergency inter-facility transfer:**														
		(a) Patients with major head injuries	UK	DR, LT, SL, CL, EL	1 (b)	•		•				•	•			1
		(b) Patients with contagious diseases	UK		2	•		•				•	•			1
		(c) Patients with unstable spinal or pelvic fractures	UK		1 (b)	•		•				•	•			1
		(d) Patients with major burns	UK		1 (b)	•		•				•	•			1
		(e) Patients with single organ/system failure	UK		1 (b)	•		•				•	•			1
		(f) Patients with multiple organ/system failure	UK		2	•		•				•	•			1
		(g) Patients who are pregnant	UK		2	•		•				•	•			1
		(h) Patients who are children	UK		2	•		•				•	•			1

Unit	Elements			Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 5. Supporting safe patient transfer																
5.6 Clinically manage patients during transport (cont.)	5.6.4 cont.	(i) Patients who are infants	UK	DR, LT, SL, CL, EL	2	•		•				•	•			1
		(j) Patients who are newborn	UK		2	•		•				•	•			1
		(k) Patients with acute behavioural disturbance	UK		2	•		•				•	•			1
	5.6.5	Demonstrate appropriate choices of sedation, muscle relaxation and analgesia to maintain the patient's clinical status during transfer (for all age groups)	TS	LT, SL, EL, DP	2	•	•	•	•			•				1
	5.6.6	Demonstrate the safe pre-hospital transfer of all age groups of ventilated patients	TS		1 (b)		•		•			•	•			1
	5.6.7	Demonstrate the safe inter-facility transfer of all age groups of ventilated patients	TS		2		•		•			•	•			1
	5.6.8	Demonstrate accurate clinical records before, during and after transfer	TS		1 (b)		•		•			•	•			1
	5.6.9	Demonstrate the ability to maintain monitoring of vital signs throughout transfer	TS		1 (b)		•		•			•	•			1
	5.6.10	**Demonstrate the ability to manage sudden in-transit loss of:**														
		(a) airway control	TS	LT, SL, EL, DP	1 (b)		•		•			•	•			1
		(b) oxygen	TS		1 (b)		•		•			•	•			1
		(c) vascular access	TS		1 (b)		•		•			•	•			1
		(d) monitoring	TS		1 (b)		•		•			•	•			1
		(e) infusions	TS		1 (b)		•		•			•	•			1
		(f) power	TS		1 (b)		•		•			•	•			1
	5.6.11	Demonstrate a professional approach to the clinical management of patients undergoing pre-hospital or emergent inter-facility transfer	NTS	RM, EL, SL, RP	1 (b)		•		•		•	•	•			4

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
RP	Reflective Practice	RM	Role Modeling	CL	Collaborative Learning	EL	Experiential Learning

THEME 6. SUPPORTING EMERGENCY PREPAREDNESS AND RESPONSE

This theme encompasses the competences required to ensure that practitioners are appropriately prepared and equipped for larger scale emergency incidents in terms of their understanding of emergency planning and the principles of major incident management.

UNITS

6.1 Understand principles of emergency preparedness, response and recovery
6.2 Respond to emergencies at operational (bronze) level
6.3 Respond to emergencies at tactical (silver) level
6.4 Manage chemical, biological and radiological emergencies
6.5 Understand the psychosocial and mental health aspects of multiple casualty incidents

Related GMP domains are assigned to each group of elements within units as follows:

1. Knowledge skills and performance
2. Safety and quality
3. Communication, partnership and teamwork
4. Maintaining trust

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 6. Supporting emergency preparedness and response																
6.1 Understand principles of emergency preparedness, response and recovery	6.1.1	**Define, in the context of emergency planning:**														
		(a) preparedness,	UK	DR, LT, SL, CL, EL	1 (b)	•		•								2
		(b) response	UK		1 (b)	•		•								2
		(c) recovery	UK		1 (b)	•		•								2
	6.1.2	Describe current national guidance and legislation in relation to emergency preparedness and response	UK		1 (b)	•		•								1
	6.1.3	Categorise classes of major incident	UK		1 (b)	•		•	•							1
	6.1.4	List the capabilities of services and agencies involved in emergency preparedness, response and recovery	UK		1 (b)	•		•								1
	6.1.5	**Critique the possible roles of the Sub-Specialist in PHEM at the:**														
		(a) operational (bronze) level	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
		(b) tactical (silver) level	UK		1 (b)	•		•								1
		(c) strategic (gold) level	UK		1 (b)	•		•								1
	6.1.6	Critique lessons identified from historical major incidents	UK		2	•		•							•	1
	6.1.7	Critique the role of the health services in the multi-agency major incident	UK		2			•	•						•	1
	6.1.8	Critique the ethical issues surrounding decision-making during a health major incident	UK		2			•	•						•	4
	6.1.9	Demonstrate the ability to prepare a generic major incident plan	TS	LT, SL, CL, EL, DP	2	•			•	•						2
	6.1.10	Demonstrate the application of the principles of emergency preparedness and response	TS		2	•			•							2

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 6. Supporting emergency preparedness and response																
6.2 Respond to emergencies at operational (bronze) level	6.2.1	Critique the range of skills required by health service personnel for an effective major incident response	UK	DR, LT, SL, CL, EL	2			•							•	3
	6.2.2	**List the duties of the operational level:**														
		(a) Medical Commander	UK	DR, LT, SL, CL, EL	1 (b)	•		•								1
		(b) Ambulance Commander	UK		1 (b)	•		•								1
		(c) Fire Commander	UK		1 (b)	•		•								1
		(d) Police Commander	UK		1 (b)	•		•								1
	6.2.3	Describe the policies and procedures relating to operational level medical staff within the EMS system	UK		1 (b)	•		•								1
	6.2.4	Describe the principles of triage	UK		1 (b)	•		•								1
	6.2.5	Critique commonly used triage tools	UK		1 (b)	•		•							•	1
	6.2.6	Describe the components of incident debriefing	UK		1 (b)	•		•								1
	6.2.7	Demonstrate familiarity with policies and procedures for operational level medical command	TS	DR, LT, DP, SL, EL	1 (b)	•		•	•			•				1
	6.2.8	Demonstrate the ability to maintain a comprehensive decision log	TS		1 (b)		•		•			•				1
	6.2.9	Demonstrate the ability to appropriately use triage tools	TS		1 (b)		•		•			•				1
	6.2.10	Demonstrate the ability to competently perform the role of an operational level medical commander	TS		1 (b)		•		•		•	•				3
	6.2.11	Demonstrate participation in incident debriefing	TS		1 (b)		•		•		•	•				3
	6.2.12	Demonstrate the ethical application of triage	NTS	RM, EL, SL, RP	1 (b)		•		•		•	•				1
	6.2.13	Demonstrate confidence in undertaking triage	NTS		1 (b)		•		•		•	•				1
	6.2.14	Demonstrate confidence in the performance of the role of the operational level medical commander	NTS		1 (b)		•		•		•	•				3

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
RP	Reflective Practice	RM	Role Modeling	CL	Collaborative Learning	EL	Experiential Learning

Unit	Elements		Learning Methods	A	Assessment Methods										GMP
					KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 6. Supporting emergency preparedness and response															
6.3 Respond to emergencies at tactical (silver) level	6.3.1	**List the duties of the tactical level:**													
		(a) Medical Commander	UK	DR, LT, SL, RP, CL, EL	2	•		•							1
		(b) Ambulance Commander	UK		2	•		•							1
		(c) Fire Commander	UK		2	•		•							1
		(d) Police Commander	UK		2	•		•							1
	6.3.2	Describe the policies and procedures relating to tactical level medical staff within the EMS system	UK		2	•		•							1
	6.3.3	Critique the role played by the media at major incidents	UK		2	•		•							1
	6.3.4	Critique lessons identified relating to tactical command of historical major incidents	UK		2	•		•						•	2
	6.3.5	**Critique strategies for managing:**													
		(a) A multi-sector incident	UK	DR, LT, SL, RP, CL, EL	2	•		•						•	3
		(b) A casualty clearing station	UK		2	•		•						•	1
		(c) A survivor reception centre	UK		2	•		•						•	3
		(d) The deceased	UK		2	•		•							4
		(e) Communication	UK		2	•		•							3
		(f) Multi-disciplinary briefings	UK		2	•		•							3
		(g) Sustainability	UK		2	•		•							3

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 6. Supporting emergency preparedness and response																
6.3 Respond to emergencies at tactical (silver) level (cont)	6.3.6	Demonstrate familiarity with policies and procedures for tactical level medical command	TS	LT, SL, DP, RP, CL, EL	2	•	•	•	•			•				1
	6.3.7	Demonstrate the ability to maintain a comprehensive decision log	TS		2		•		•			•				1
	6.3.8	Demonstrate the ability to competently perform the role of a tactical level medical commander	TS		2		•		•			•				1
	6.3.9	**Demonstrate the ability to manage:**														
		(a) A multi-sector incident	TS	LT, SL, DP, RP, CL, EL	2		•		•			•				3
		(b) A casualty clearing station	TS		2		•		•			•				1
		(c) A survivor reception centre	TS		2		•		•			•				3
		(d) The deceased	TS		2		•		•			•				4
		(e) Communication	TS		2		•		•			•				3
		(f) Multi-disciplinary briefings	TS		2		•		•			•				3
		(g) Sustainability	TS		2		•		•			•				3
	6.3.10	Demonstrate ability to conduct an incident debriefing	TS		2		•		•			•				3
6.4 Manage chemical, biological and radiological (CBR) emergencies	6.4.1	Critique lessons identified from previous CBR incidents within the EMS system	UK	DR, LT, SL, CL,EL	2	•		•							•	1
	6.4.2	List sources of CBR agent advice	UK		2	•		•							•	1
	6.4.3	Describe the initial approach to a suspected CBR incident	UK		2	•		•							•	1
	6.4.4	Contrast the principles of detection and identification of CBR agents	UK		2	•		•							•	1
	6.4.5	Describe the levels of Personal Protective Equipment used for pre-hospital CBR incidents	UK		2	•		•							•	1
	6.4.6	Describe the pre-hospital triage processes for patients involved in CBR incidents	UK		2	•		•							•	1

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 6. Supporting emergency preparedness and response																
6.4 Manage chemical, biological and radiological (CBR) emergencies (cont)	6.4.7	Describe the differences in triage for CBR incidents	UK	DR, LT, SL, CL, EL	2	•		•							•	1
	6.4.8	Describe the capabilities of pre-hospital:														
		(a) Chemical detection	UK	DR, LT, SL, CL, EL	2	•		•							•	1
		(b) Biological detection	UK		2	•		•							•	1
		(c) Radiation detection	UK		2	•		•							•	1
	6.4.9	**Describe the clinical features of:**														
		(a) Chemical agent exposure syndromes	UK	DR, LT, SL, CL, EL	2	•		•							•	1
		(b) Biological agent exposure syndromes	UK		2	•		•							•	1
		(c) Radiation agent exposure syndromes	UK		2	•		•							•	1
	6.4.10	**Describe the pre-hospital management of:**														
		(a) Chemical agent exposure syndromes	UK	DR, LT, SL, CL, EL	2	•		•							•	1
		(b) Biological agent exposure syndromes	UK		2	•		•							•	1
		(c) Radiation agent exposure syndromes	UK		2	•		•							•	1
	6.4.11	Describe strategies for pre-hospital decontamination	UK		2	•		•							•	2
	6.4.12	Demonstrate safe approach to a suspected CBR agent incident	TS	LT, DP, SL, CL, EL	2		•		•			•				2
	6.4.13	Demonstrate correct selection and use of PPE for initial management of a suspected CBR agent incident	TS		2		•		•			•				2
	6.4.14	**Demonstrate the pre-hospital clinical management of:**														
		(a) Chemical agent exposure syndromes	TS	LT, DP, SL, CL, EL	2		•		•			•				1
		(b) Biological agent exposure syndromes	TS		2		•		•			•				1
		(c) Radiation agent exposure syndromes	TS		2		•		•			•				1
	6.4.15	Demonstrate resilience working within a CBR context	NTS	RM, RP, SL, EL	2				•		•	•				3

Unit	Elements			Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 6. Supporting emergency preparedness and response																
6.5 Understand the psychosocial and mental health aspects of multiple casualty incidents	6.5.1	Demonstrate understanding of key terms used in psychosocial and mental health care of emergencies and major incidents	UK	DR, LT, SL, CL, EL	2	•		•								1
	6.5.2	Describe the defining nature of events and circumstances that are psychosocially traumatic	UK		2	•		•								3
	6.5.3	Describe the common psychosocial responses of people affected by, or involved in, emergencies and major incidents	UK		2	•		•							•	1
	6.5.4	Describe the common coping mechanisms that people of all ages use when faced with events that cause severe stress	UK		2	•		•							•	1
	6.5.5	Define psychosocial resilience in the context of traumatic events and circumstances and its personal and collective dimensions	UK		2	•		•							•	1
	6.5.6	Demonstrate an understanding of the nature of distress and its differentiation from mental disorders	UK		2	•		•							•	1
	6.5.7	Describe in outline the evidence-based principles for psychosocial and mental health care for people who are affected by emergencies and major incidents	UK		2	•		•							•	1
	6.5.8	Critique local, national and international guidelines on mental health and psychosocial support in emergency settings	UK		2	•		•							•	1
	6.5.9	Demonstrate the ability to conduct initial psychosocial assessments in a range of pre-hospital environments	TS	LT, SL, RP, RM, CL, EL	2	•		•	•							3
	6.5.10	Demonstrate the ability to identify patients who may require urgent specialist mental health care	TS		2	•		•	•							3

Unit	Elements		Learning Methods	A	Assessment Methods										GMP
					KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Theme 6. Supporting emergency preparedness and response															
6.5 Understand the psychosocial and mental health aspects of multiple casualty incidents (cont)	6.5.11	**Demonstrate, in the context of interacting with persons involved in emergencies and major incidents:**													
		(a) Active listening	TS	LT, SL, RP, RM, CL, EL	2		•		•	•					3
		(b) Ability to differentiate distress from disorder	TS		2		•		•	•					1
		(c) Actions to avoid adverse psychological reactions (including panic)	TS		2		•		•	•					4
	6.5.12	Demonstrate ability to gain access to appropriate immediate psychosocial support	TS		2	•	•		•						2
	6.5.13	Display awareness of personal psychosocial coping strategies and needs	NTS	RM	2			•		•	•				3
	6.5.14	Display a professional approach to consideration of psychosocial and mental health aspects of multiple casualty incidents	NTS		2			•		•	•				3

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
RP	Reflective Practice	RM	Role Modeling	CL	Collaborative Learning	EL	Experiential Learning

CROSS-CUTTING THEME A. OPERATIONAL PRACTICE

Maintaining safe and effective operational practice is a generic or cross-cutting theme of professional practice within PHEM. This theme concerns the knowledge, skills and non-technical skills required to maintain safe and effective operational practice within a pre-hospital emergency medicine service provider.

UNITS

A.1 Apply the curriculum framework to local operations
A.2 Respond to incidents by road
A.3 Respond to incidents by air
A.4 Utilise telecommunications and voice procedure
A.5 Apply principles of dynamic risk assessment at incident scenes
A.6 Provide scene management
A.7 Maintain records
A.8 Apply infection prevention and control principles and procedures
A.9 Apply moving and handling principles and procedures
A.10 Apply principles of Equality and Diversity

Related GMP domains are assigned to each group of elements within units as follows:

1. Knowledge skills and performance
2. Safety and quality
3. Communication, partnership and teamwork
4. Maintaining trust

Unit	Elements		Learning Methods	A	Assessment Methods										GMP
					KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Cross-cutting Theme A. Operational practice															
A.1 Apply the curriculum framework to local operations	A.1.1	**Critique how your local PHEM operation:**													
		(a) Works within the EMS system	UK	DR, LT, CL	1 (b)	•		•				•				3
		(b) Provides Pre-hospital Emergency Medical Care	UK		1 (b)	•		•				•				1
		(c) Uses Pre-hospital Equipment	UK		1 (b)	•		•				•				1
		(d) Supports Rescue and Extrication	UK		1 (b)	•		•				•				1
		(e) Supports safe patient transfer	UK		1 (b)	•		•				•				1
		(f) Supports emergency preparedness and response	UK		1 (b)	•		•				•				2
	A.1.2	**Describe the provisions within your local PHEM operation for:**													
		(a) Team resource management	UK	DR, LT, CL	1 (b)	•		•				•				3
		(b) Clinical governance	UK		1 (b)	•		•				•				2
	A.1.3	**Describe the distinguishing features of your local PHEM operation with respect to:**													
		(a) Epidemiology	UK	DR, LT, CL	1 (b)	•		•				•				1
		(b) The EMS system	UK		1 (b)	•		•				•				1
		(c) Concept of operations	UK		1 (b)	•		•				•				1
		(d) Operational environment	UK		1 (b)	•		•				•				1
		(e) Staffing and skill mix	UK		1 (b)	•		•				•				3
		(f) Transport platforms	UK		1 (b)	•		•				•				1

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Cross-cutting Theme A. Operational practice																
A.2 Respond to incidents by road	A.2.1	Critique the risks and benefits of responding by road	UK	DR, LT, SL	1 (b)	•		•	•			•				2
	A.2.2	Critique the role of the co-driver when using emergency driving procedure	UK		1 (b)	•		•	•			•				2
	A.2.3	Critique the benefits and limitations of differing road transport platforms within the EMS system	UK		1 (b)	•		•	•			•				1
	A.2.4	Demonstrate the ability to act as an effective co-driver when responding by road	TS		1 (b)		•		•			•				2
	A.2.5	Demonstrate the ability to undertake a risk assessment related to responding by road	TS		1 (b)		•		•			•				2
A.3 Respond to incidents by air	A.3.1	Critique the risks and benefits of responding by air	UK	DR, LT, SL	1 (b)	•		•	•			•				2
	A.3.2	**Critique the role and responsibilities of:**														
		(a) Aircrew	UK	DR, LT, SL	1 (b)	•		•				•				1
		(b) HEMS Crew Member	UK		1 (b)	•		•				•				1
		(c) Medical Passenger	UK		1 (b)	•		•				•				1
	A.3.3	Define common terms used in aviation in context of acting as a medical passenger	UK		1 (b)	•		•				•				1
	A.3.4	Describe the criteria for a helicopter landing site	UK		1 (b)	•		•				•				2
	A.3.5	Differentiate the terms 'Air Ambulance' and 'HEMS'	UK		1 (b)	•		•								1
	A.3.6	Describe the regulations pertaining to HEMS and air ambulance deployment	UK		1 (b)	•		•								2
	A.3.7	Critique the evidence regarding the role of helicopters within EMS systems	UK		2	•		•							•	1
	A.3.8	Analyse the benefits and limitations of differing air transport platforms within the EMS system	UK		1 (b)	•		•	•			•				1

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
RP	Reflective Practice	RM	Role Modeling	CL	Collaborative Learning	EL	Experiential Learning

Unit	Elements			Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Cross-cutting Theme A. Operational practice																
A.3 Respond to incidents by air (cont.)	A.3.9	Describe the content of a pre-deployment brief to a medical passenger	UK	DR, LT, SL	1 (b)	•		•	•							2
	A.3.10	Demonstrate the safe embarkation and disembarkation of an aircraft	TS	SL, RM	1 (b)		•		•			•				2
	A.3.11	Demonstrate the ability to act as an effective and safe medical passenger when responding by air	TS		1 (b)		•		•		•	•				2
A.4 Utilise telecommunications and voice procedure	A.4.1	Describe the phonetic alphabet	UK	DR, LT, DP, SL	1 (b)	•	•		•	•						1
	A.4.2	Critique the utility of formal voice procedure within effective telecommunications	UK		2			•							•	3
	A.4.3	Critique the challenges to effective telecommunications in the pre-hospital environment	UK		2			•							•	3
	A.4.4	Critique the infrastructure for telecommunications within the EMS system	UK		2			•							•	3
	A.4.5	Demonstrate the effective use of common standard telecommunication procedures within the EMS system	TS	DP, SL, RM, EL	1 (b)		•		•			•				3
	A.4.6	Demonstrate the ability to pass complex messages in a clear and efficient manner	TS		1 (b)		•		•			•				3
A.5 Apply principles of dynamic risk assessment at incident scenes	A.5.1	Explain the concept of generic risk assessment	UK	DR, LT	2	•		•				•				2
	A.5.2	Describe the principles of dynamic risk assessment	UK		2	•		•				•				2
	A.5.3	Describe the relationship between generic and dynamic risk assessment	UK		2	•		•				•				2
	A.5.4	Describe how dynamic risk assessment may influence decision making related to patient care	UK		2	•		•				•				1
	A.5.5	Demonstrate the application of dynamic risk assessment to a range of incidents	TS	DR, LT, SL, EL	2				•			•				2
	A.5.6	Demonstrate the mental agility to perform dynamic risk assessment	TS	DP, RP	2				•			•				2

Unit		Elements	Learning Methods	A	Assessment Methods										GMP
					KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Cross-cutting Theme A. Operational practice															
A.6 Provide scene management	A.6.1	Describe the stages of scene management	UK		1 (b)	•		•	•			•				2
	A.6.2	**Describe the roles and responsibilities of the following organisations in relation to scene management:**													
		(a) Ambulance authorities and services	UK	DR, LT, DP, SL, RP, RM, CL, EL	1 (b)	•		•				•				3
		(b) Police authorities and services	UK		1 (b)	•		•				•				3
		(c) Fire authorities and services	UK		1 (b)	•		•				•				3
		(d) Rescue authorities and services	UK		1 (b)	•		•				•				3
		(e) Specialist rescue services	UK		1 (b)	•		•				•				3
		(f) Voluntary emergency services	UK		1 (b)	•		•				•				3
		(g) Other statutory organisations	UK		1 (b)	•		•				•				3
	A.6.3	Critique strategies for effective scene management	UK		1 (b)				•	•		•				1
	A.6.4	Critique historically identified lessons related to scene management	UK		1 (b)			•		•					•	2
	A.6.5	Demonstrate the ability to effectively manage an incident scene	TS	DP, SL, RP, RM, CL, EL	1 (b)		•	•	•		•					1
A.7 Maintain records	A.7.1	Describe the duties and responsibilities of the clinician pertaining to pre-hospital medical records	UK	DR, LT, RM	1 (b)	•		•								1
	A.7.2	Critique different methods of medical record keeping	UK		1 (b)			•							•	1
	A.7.3	Describe minimum standards for good medical records	UK		1 (b)	•		•								1
	A.7.4	Describe the policies and procedures for medical records management within the EMS system	UK		1 (b)	•		•								1
	A.7.5	Demonstrate the ability to maintain clear and appropriately detailed medical records	TS	SL, EL	1 (b)			•	•		•	•	•			1
	A.7.6	Demonstrate a professional attitude to critiquing medical records created by self and others	NTS	RM	1 (b)				•		•	•				4

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
RP	Reflective Practice	RM	Role Modeling	CL	Collaborative Learning	EL	Experiential Learning

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Cross-cutting Theme A. Operational practice																
A.8 Apply infection prevention and control principles and procedures	A.8.1	Critique the interplay between the requirements for infection prevention and control and the use of personal protective equipment	UK	DR, LT	2	•	•	•				•			•	2
	A.8.2	Critique infection prevention and control measures in the pre-hospital environment	UK		2	•	•	•				•			•	2
	A.8.3	Contrast in-hospital and pre-hospital infection prevention and control measures	UK		2	•		•							•	2
	A.8.4	Describe the policies and procedures for infection prevention and control within the EMS system	UK		2	•		•							•	2
	A.8.5	Demonstrate best practice in infection prevention and control in the pre-hospital environment	TS	DP, SL RM, EL	2			•		•	•		•			2
	A.8.6	Demonstrate a professional approach to infection prevention and control	NTS	RM	2					•		•	•			2
A.9 Apply moving and handling principles and procedures	A.9.1	Describe challenges related to safe patient moving and handling in the pre-hospital environment	UK	LT, SL, EL	1 (b)	•	•	•				•				2
	A.9.2	Critique methods to overcome challenges to patient moving and handling in the pre-hospital environment	UK		1 (b)		•	•	•			•				2
	A.9.3	Describe equipment used for moving and handling in the pre-hospital environment	UK		1 (b)	•		•								1
	A.9.4	Describe the policies and procedures for moving and handling within the EMS system	UK		1 (b)	•		•				•				2
	A.9.5	Demonstrate safe moving and handling in the pre-hospital environment	TS	LT, DP, SL, EL	1 (b)		•		•	•		•				2
	A.9.6	Demonstrate safe moving and handling of equipment in the pre-hospital environment	TS		1 (b)		•		•	•		•				2
	A.9.7	Demonstrate safe use of moving and handling equipment	TS		1 (b)		•		•	•		•				2
	A.9.8	Demonstrate the ability to safely load and unload patients onto transport platforms	TS		1 (b)		•		•	•		•				2
	A.9.9	Demonstrate a professional attitude to safe moving and handling	NTS	RM	1 (b)				•		•	•				4

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Cross-cutting Theme A. Operational practice																
A.10 Apply principles of equality and diversity	A.10.1	Define Equality	UK	DR, LT, RMRK	2	•		•				•			•	4
	A.10.2	Describe considerations for avoiding discrimination in pre-hospital practice	UK		2	•		•				•			•	4
	A.10.3	Define Diversity	UK		2	•		•				•			•	4
	A.10.4	Describe considerations relating to valuing diversity in pre-hospital practice	UK		2	•		•				•			•	4
	A.10.5	Describe the policies and procedures for Equality and Diversity within the EMS system	UK		2	•		•				•			•	4
	A.10.6	Demonstrate a professional attitude to equality and diversity in the pre-hospital environment	NTS	RM	2				•		•	•				4

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
RP	Reflective Practice	RM	Role Modeling	CL	Collaborative Learning	EL	Experiential Learning

CROSS-CUTTING THEME B. TEAM RESOURCE MANAGEMENT

Contributing to effective Team Resource Management is a generic or cross-cutting area of professional practice within PHEM. This theme concerns the knowledge, skills and non-technical skills required to work as part of a multi-disciplinary team in the high hazard, resource limited, environmentally challenging and time pressured pre-hospital environment.

UNITS

- B.1 Understand human factors and their role in patient and team safety
- B.2 Maintain situational awareness
- B.3 Understand and apply principles of decision making
- B.4 Communicate effectively
- B.5 Employ effective team working
- B.6 Demonstrate leadership and followership
- B.7 Manage stress and fatigue
- B.8 Understand and apply principles of error investigation and management

Related GMP domains are assigned to each group of elements within units as follows:

1. Knowledge skills and performance
2. Safety and quality
3. Communication, partnership and teamwork
4. Maintaining trust

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Cross-cutting Theme B. Team resource management																
B.1 Understand human factors and their role in patient and team safety	B.1.1	Define the concept of human factors	UK	DR, LT, SL, CL, EL	1 (b)	•		•								3
	B.1.2	Describe the principles of human error theory	UK		1 (b)	•		•								3
	B.1.3	Critique the place of human factors within the context of human error theory	UK		1 (b)	•		•								3
	B.1.4	**Describe the potential impact on patient and team safety of:**														
		(a) human factors	UK	DR, LT, SL, CL, EL	1 (b)	•		•								3
		(b) system factors	UK		1 (b)	•		•								2
		(c) organisational factors	UK		1 (b)	•		•								2
		(d) cultural factors	UK		1 (b)	•		•								2
	B.1.5	Demonstrate the practical application of human error theory to pre-hospital emergency medical practice	TS	LT, SL, RP, RM, CL, EL	1 (b)		•	•	•	•	•	•				3
	B.1.6	Demonstrate a professional attitude to patient safety	NTS	RM, SL, EL, RP	1 (a)		•	•	•	•	•	•				4
B.2 Maintain situational awareness	B.2.1	Define situational awareness	UK	DR, LT, SL, CL, EL	1 (b)	•		•								3
	B.2.2	Critique models of situational awareness	UK		2			•							•	3
	B.2.3	Critique strategies to maintain situational awareness in the pre-hospital environment	UK		2			•							•	3
	B.2.4	**Demonstrate, in the context of PHEM practice, the ability to:**														
		(a) gather information	TS	LT, SL, CL, EL	1 (b)		•		•			•				1
		(b) interpret information	TS		1 (b)		•		•			•				1
		(c) anticipate likely events	TS		1 (b)		•		•			•				1

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Cross-cutting Theme B. Team resource management																
	B.2.5	Display the concept of situational awareness	NTS	RM, RP, CL, EL	1 (b)				•			•				1
B.3 Understand and apply principles of decision making	B.3.1	Critique pre-hospital decision making and the often incomplete data set	UK	DR, LT, SL, CL, EL	1 (b)		•	•	•							1
	B.3.2	Critique different decision making models relevant to pre-hospital practice	UK		2			•							•	1
	B.3.3	**Demonstrate application of strategies to make correct decisions in the pre-hospital environment related to:**														
		(a) team and patient safety	TS	LT, SL, CL, EL, DP	1 (b)		•		•			•				2
		(b) clinical care	TS		1 (b)		•		•			•				1
		(c) operational aspects	TS		1 (b)		•		•			•				1
		(d) logistics	TS		1 (b)		•		•			•				3
	B.3.4	Demonstrate the ability to balance the desirability of obtaining all relevant information with the requirement to make decisions in an appropriate time frame	NTS	RM, RP, SL, CL, EL	2		•		•		•	•				1
	B.3.5	Demonstrate willingness to utilise all sources of information to aid decision making	NTS		1 (b)		•		•		•	•				3
B.4 Communicate effectively	B.4.1	Describe verbal and non-verbal techniques to communicate effectively in the operational environment	UK	DR, LT, SL, EL, CL	1 (b)	•		•								3
	B.4.2	Describe techniques to communicate effectively in the teaching and learning environment	UK		1 (b)	•		•								3
	B.4.3	**Describe communication techniques to:**														
		(a) resolve conflict	UK	DR, LT, SL, EL, CL	1 (b)	•		•								3
		(b) convey assertiveness	UK		1 (b)	•		•								3
		(c) handover clinical information	UK		1 (b)	•		•								3
		(d) critique performance	UK		1 (b)	•		•								3

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
RP	Reflective Practice	RM	Role Modeling	CL	Collaborative Learning	EL	Experiential Learning

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Cross-cutting Theme B. Team resource management																
B.4 Communicate effectively (cont.)	B.4.3	(e) debrief	UK	DR, LT, SL, EL, CL	1 (b)	•		•								3
	B.4.4	Critique barriers to effective communication in PHEM practice	UK		2			•							•	3
	B.4.5	Demonstrate the ability to communicate in an accurate, brief and clear manner	TS	LT, SL, EL, CL, RP	1 (b)		•		•		•	•				3
	B.4.6	**Demonstrate the use of communication techniques to:**														
		(a) resolve conflict	TS	LT, SL, EL, CL, RP	1 (b)		•		•			•				3
		(b) convey assertiveness	TS		1 (b)		•		•			•				3
		(c) handover clinical information	TS		1 (b)		•		•			•				3
		(d) critique performance	TS		1 (b)		•		•			•				3
		(e) debrief	TS		1 (b)		•		•			•				3
	B.4.7	Demonstrate the ability to adapt communication methods to the situation	TS		1 (b)		•		•			•				3
	B.4.8	Demonstrate the ability to communicate effectively with different groups encountered in the pre-hospital environment	TS		1 (b)		•		•		•	•				3
	B.4.9	Demonstrate the importance of effective communication to safe and efficient delivery of patient care in the pre-hospital environment	NTS	RM, RP, CL, EL	1 (b)		•		•		•	•				3
B.5 Employ effective team working	B.5.1	Describe the attributes of an effective team	UK	DR, SL, CL, EL	1 (b)	•		•								3
	B.5.2	Contrast models of teamwork	UK		2			•							•	3
	B.5.3	Describe strategies to support effective teamwork	UK		2	•		•								3
	B.5.4	Critique the factors that influence team working in the pre-hospital environment	UK		2			•							•	3

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Cross-cutting Theme B. Team resource management																
B.5 Employ effective team working (cont.)	B.5.5	Demonstrate the ability to work in multi-disciplinary and unfamiliar teams	TS	LT, SL, RP, RM, CL, EL	2		•		•		•	•				3
	B.5.6	Demonstrate a willingness to assume the most appropriate role in a team	NTS		1 (b)		•		•		•	•				3
	B.5.7	Demonstrate an appreciation for all team members and their contributions	NTS		1 (b)		•		•		•	•				3
B.6 Demonstrate leadership and followership	B.6.1	Differentiate clinical, medical and operational leadership	UK	DR, LT, SL, CL, EL	2	•		•							•	3
	B.6.2	Describe the attributes of an effective leader	UK		2	•		•								3
	B.6.3	Describe the attributes of an effective follower	UK		2	•		•								3
	B.6.4	Contrast different models of leadership	UK		2			•								3
	B.6.5	Critique the clinical and non-clinical leadership roles of the PHEM practitioner	UK		2			•							•	3
	B.6.6	Demonstrate the ability to be an effective leader	TS	SL, DP, RP, RM, EL	2		•		•			•				3
	B.6.7	Demonstrate the ability to be an effective follower	TS		1 (b)		•		•			•				3
	B.6.8	Demonstrate a willingness to assume and maintain a leadership role in adverse circumstances	NTS		2		•		•		•	•				3
B.7 Manage stress and fatigue	B.7.1	Describe the definition and cause of stress	UK	DR, LT, SL, CL, EL	1 (b)	•		•								3
	B.7.2	Describe the definition and causes of fatigue	UK		1 (b)	•		•								3
	B.7.3	Describe the effects of stress and fatigue on clinical and operational performance	UK		1 (b)	•		•								3
	B.7.4	Critique factors that reduce ability to manage stress and fatigue	UK		2			•							•	3

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
RP	Reflective Practice	RM	Role Modeling	CL	Collaborative Learning	EL	Experiential Learning

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Cross-cutting Theme B. Team resource management																
B.7 Manage stress and fatigue (cont.)	B.7.5	Critique ways in which fatique and stress may be minimised	UK	DR, LT, SL, EL, CL	2			•							•	3
	B.7.6	Demonstrate the ability to recognise the effects of stress and fatigue on self and others	TS	LT, SL, RP, CL, EL	1 (b)		•		•			•				3
	B.7.7	Demonstrate ability to institute strategies to minimise the effects of stress and fatigue on self and others	TS		1 (b)		•		•			•				3
	B.7.8	Demonstrate an open and honest approach to declaring when stress and/or fatigue may impact on own practice	NTS	RM, RP, EL, SL	1 (b)		•		•		•	•				4
	B.7.9	Demonstrate an open and honest approach to discussing with colleagues when stress and/or fatigue may impact on their practice	NTS		1 (b)		•		•		•	•				4
B.8 Understand and apply principles of error investigation and management	B.8.1	Describe the policies and procedures for error investigation and management within the EMS system	UK	DR, LT, EL, CL, SL	2	•			•							2
	B.8.2	Describe the attributes of a safety culture	UK		2	•			•							2
	B.8.3	Describe the attributes of a high reliability organisation	UK		2	•			•							2
	B.8.4	Describe the techniques for effective error reporting and investigation	UK		2	•			•							2
	B.8.5	Contrast lessons identified from safety critical industries other than healthcare	UK		2	•			•							2
	B.8.6	Demonstrate the ability to complete an investigation into a potential error	TS	LT, SL, CL, EL	2				•	•					•	2
	B.8.7	Demonstrate an open and honest approach to error investigation and management	NTS	RM, RP, SL, EL	2				•	•	•				•	2
	B.8.8	Demonstrate promotions of a safety culture	NTS		2					•	•	•				2

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
RP	Reflective Practice	RM	Role Modeling	CL	Collaborative Learning	EL	Experiential Learning

CROSS-CUTTING THEME C. CLINICAL GOVERNANCE

Application of clinical governance principles and techniques is a generic or cross-cutting area of professional practice within PHEM. This theme concerns the knowledge, skills and non-technical skills required to ensure that clinical governance principles and mechanisms are applied to clinical practice.

Units

- C.1 Understand and apply principles of clinical governance as applied to pre-hospital practice
- C.2 Manage and support continuous professional development
- C.3 Utilise clinical evidence to support clinical practice
- C.4 Utilise and prepare documents that guide practice
- C.5 Support and apply clinical audit
- C.6 Understand and apply organisational risk management processes
- C.7 Support training and development
- C.8 Understand and apply quality management processes

Related GMP domains are assigned to each group of elements within units as follows:

1. Knowledge skills and performance
2. Safety and quality
3. Communication, partnership and teamwork
4. Maintaining trust

Unit	Elements			Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Cross-cutting Theme C. Clinical governance																
C.1 Understand and apply principles of clinical governance as applied to pre-hospital practice	C.1.1	Describe how the mechanisms underpinning clinical governance are applied to pre-hospital practice.	UK	DR, LT, SL, CL, EL	1 (b)	•		•				•				2
	C.1.2.	**Critique the challenges to good clinical governance posed by:**														
		(a) Small team working	UK	DR, LT, SL, CL, EL	1 (b)	•		•								2
		(b) Lone-doctor working	UK		1 (b)	•		•								2
		(c) High-risk clinical interventions	UK		1 (b)	•		•								2
		(d) Remote and rural practice	UK		1 (b)	•		•								2
	C.1.3	Describe the policies and procedures for clinical governance within the EMS system	UK		1 (b)	•		•								2
	C.1.4	Contrast local, regional, national and international regulatory frameworks for ensuring quality and safety within the EMS system	UK		2			•							•	2
	C.1.5	Demonstrate a professional attitude to clinical governance	NTS	RM, RP, CL, EL	1 (b)		•	•			•	•				2
C.2 Manage and support continuous professional development	C.2.1	List methods to support continuous professional development (CPD) in PHEM	UK	DR, LT, SL, CL, EL	1 (b)	•										1
	C.2.2	Analyse strategies by which groups of small numbers of busy professionals are able to maintain effective CPD	UK		2	•										1
	C.2.3	Critique the challenges in delivering relevant multi-professional CPD	UK		2	•			•							1
	C.2.4	Demonstrate the ability to facilitate CPD for self and others	TS	LT, DP, SL, RP, RM, CL, EL	2		•		•						•	1
	C.2.5	Demonstrate a professional attitude to CPD	NTS	RM, RP, CL, EL	2						•				•	1

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Cross-cutting Theme C. Clinical governance																
C.3 Utilise clinical evidence to support clinical practice	C.3.1	List possible sources of clinical evidence in the pre-hospital environment	UK	DR, LT, SL, CL, EL	1 (b)	•	•	•								1
	C.3.2	Critique the range and depth of research evidence underpinning PHEM clinical practice	UK		1 (b)	•		•							•	1
	C.3.3	Describe the challenges of performing research in the pre-hospital environment	UK		2	•		•							•	1
	C.3.4	Demonstrate the ability to integrate the latest available evidence to provide high quality care to individual patients	TS	DP, SL, RP, CL, EL	2		•	•	•			•				1
	C.3.5	Demonstrate a willingness to change practice on the basis of appropriate research evidence	NTS	RM, RP, SL, CL, EL	2		•	•	•			•				1
C.4 Utilise and prepare documents that guide practice	C.4.1	**Describe the role, in the pre-hospital environment of:**														
		(a) Standard operating procedures	UK	DR, LT, SL, CL, EL	1 (b)	•	•	•								2
		(b) Routine checklists	UK		1 (b)	•	•	•								2
		(c) Emergency action checklists	UK		1 (b)	•	•	•								2
		(d) Procedural aide memoires	UK		1 (b)	•	•	•								2
		(e) Patient group directives	UK		1 (b)	•	•	•								2
		(f) Clinical guidelines	UK		1 (b)	•	•	•								2
		(g) Patient information leaflets	UK		1 (b)	•	•	•								2
	C.4.2	Critique the ways in which the documents (a) to (g) above contribute to good clinical governance	UK		1 (b)	•	•	•				•			•	2
	C.4.3	Demonstrate the ability to use appropriate documents that guide practice in clinical situations	TS	SL, RP, CL, EL, DP	1 (b)		•	•	•			•				1
	C.4.4	Demonstrate the ability construct documents that guide practice	TS		1 (b)	•									•	2
	C.4.5	Demonstrate a professional attitude to documents that aide best practice	NTS	RM, RP, SL, EL	1 (b)						•	•				1

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
RP	Reflective Practice	RM	Role Modeling	CL	Collaborative Learning	EL	Experiential Learning

Unit	Elements			Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Cross-cutting Theme C. Clinical governance																
C.5 Support and apply clinical audit	C.5.1	Describe the importance of and challenges to clinical information sharing across an EMS system	UK	DR, LT, SL, CL, EL	1 (b)	•		•								3
	C.5.2	Describe the policies and procedures related to clinical audit within the EMS system	UK		1 (b)	•									•	2
	C.5.3	Critique the requirement to prioritise limited audit resources to areas of greatest need	UK		2	•				•					•	2
	C.5.4	Demonstrate the ability to perform a clinical audit in PHEM	TS	SL, CL, EL	1 (b)					•			•	•	•	2
	C.5.5	Demonstrate a willingness to participate in and respond to clinical audit	NTS	RM, RP, SL, EL	1 (b)						•		•	•		2
C.6 Understand and apply organisational risk management processes	C.6.1	Differentiate hazard and risk	UK	DR, LT, SL, CL, EL	1 (b)	•		•								2
	C.6.2	Describe risk management and its components in the context of PHEM	UK		1 (b)	•	•	•	•							2
	C.6.3	Describe local, regional and international processes for managing risk within the EMS system	UK		2	•									•	2
	C.6.4	Demonstrate the application of risk management strategies	TS	LT, SL, CL, EL	2		•	•	•			•				2
	C.6.5	Demonstrate the ability to construct a risk assessment	TS		2				•			•				2
	C.6.6	Demonstrate the ability to lead an investigation into an incident	TS		2			•	•							2
	C.6.7	Demonstrate the ability to apply the lessons identified during an investigation	TS		1 (b)				•	•					•	2
	C.6.8	Demonstrate a professional attitude to risk management	NTS	RM, RP, CL, EL, SL	1 (b)				•		•					2

Unit		Elements		Learning Methods	A	Assessment Methods										GMP
						KT	CEX	CbD	SIM	DOPS	MSF	ACAT	LOG	PS	TO	
Cross-cutting Theme C. Clinical governance																
C.7 Support training and development	C.7.1	Describe the principles of adult learning	UK	DR, LT, SL, CL, EL	2	•									•	3
	C.7.2	Analyse teaching methods suitable for major learning styles	UK		2					•					•	3
	C.7.3	Demonstrate the ability to apply the principles of adult learning to the teaching and training of a multi-professional audience	TS	SL, CL, EL	2				•						•	3
	C.7.4	Demonstrate a sensitive and constructive manner when approaching a trainee with difficulties	NTS	RM, RP, SL, CL, EL	2				•	•	•					3
	C.7.5	Demonstrates a professional approach to supporting training and development	NTS		2				•		•					3
C.8 Understand and apply quality management processes	C.8.1	Describe the principles of quality management	UK	DR, LT, SL, CL, EL	2	•		•								1
	C.8.2	Critique the challenges to quality management presented by PHEM	UK		2	•		•							•	1
	C.8.3	Critiques strategies to implement quality management processes in pre-hospital practice	UK		2			•							•	1
	C.8.4	Demonstrate the ability to utilise quality management processes in pre-hospital practice	TS	SL, RP, CL, EL	2		•					•				1

DR	Directed Reading	LT	Lectures and Tutorials	DP	Deliberate Practice	SL	Simulation Learning
RP	Reflective Practice	RM	Role Modeling	CL	Collaborative Learning	EL	Experiential Learning