

THE COLLEGE OF EMERGENCY MEDICINE

Curriculum and Assessment Systems For Higher Specialty Training ST4-6 [Training Programmes](#)

**June 2010
(Revised 30 May 2012)**

Contents

Glossary of terms.....	3
1. Introduction	7
2. Rationale.....	8
2.1 The purposes of this curriculum.....	8
2.2 Development	8
2.3 Training pathway	9
3. Content of learning.....	11
3.3.8 HST Major and Acute Presentations (HAPs) ST4-6.....	12
3.3.9 Procedural Competences CT1&2, CT3-ST6.....	52
4 ARCP decision tools.....	58
Penultimate year assessment.....	60

Glossary of terms

Clinical terms

AAA	Abdominal aortic aneurysm
ASD	Atrial septal defect
ALS	Advanced Life Support
APLS	Advanced Paediatric Life Support
ATLS	Advanced Trauma Life Support
BBN	Breaking Bad News
BE	Base excess
BIS	Bispectral index
BLS	Basic Life Support
BMI	Body Mass index
BNF	British National Formulary
BP	Blood pressure
CFAM	Cerebral function analysis monitor
CFM	Cerebral function monitor
CO ₂	Carbon dioxide
COPD	Chronic obstructive pulmonary disease
CPEX	Cardiopulmonary exercise testing
CSF	Cerebrospinal fluid
CSM	Committee on Safety of Medicines
CT	Computed Tomography
CVP	Central venous pressure
DNAR	Do Not Attempt Resuscitation
DVT	Deep vein thrombosis
ECG	Electrocardiogram
ED	Emergency Department
EMG	Electromyogram
EMUS	Emergency Medicine Ultrasound
ENT	Ear, Nose and Throat
ENP	Emergency Nurse Practitioner
EP	Emergency Physician
FAST	Focussed Assessment with Sonography in Trauma
GCS	Glasgow Coma Score
GHB	Gamma hydroxy butyrate
GU	Genitourinary
Hb	Haemoglobin
IPPV	Intermittent positive pressure ventilation
IRMER	Ionising Radiation (Medical Exposure) Regulations
LiDCO™	Lithium indicator dilution cardiac output
MAC	Minimum alveolar concentration
MH	Malignant hyperpyrexia
MINAP	Myocardial Ischaemia National Audit Project
MRI	Magnetic resonance imaging
NAI	Non-accidental injury
Ng	Nasogastric
NO	Nitric oxide
NSAID	Non-steroidal anti-inflammatory drug

OT	Occupational Therapy
PALS	Patient Advice and Liaison Service
PAMS	Professions Allied to Medicine
PE	Pulmonary embolus
PGD	Patient Group Directions
PFO	Patent foramen ovale
PPCI	Primary Percutaneous Coronary Intervention
PONV	Post-operative nausea and vomiting
PSI	Pounds per square inch
PT	Physiotherapy
ROSC	Return of spontaneous circulation
RS	Respiratory system
RSI	Rapid sequence induction
SpO ₂	Saturation of haemoglobin with oxygen
SSRI	Selective serotonin receptor inhibitor
STEMI	ST elevation myocardial infarction
SVP	Saturated vapour pressure
TSC	Training Standards Committee
VSD	Ventricular septal defect
WCC	White cell count

Educational and organisational terms

ACCS	Acute Care Common Stem
ACF	Academic Clinical Fellow
ACL	Academic Clinical Lecturer
AIM	Acute Internal Medicine
AM	Acute Medicine - in context of a setting
AMU	Acute medical unit
ASA	American Society of Anesthesiologists
ATLS	Advanced Trauma Life Support
BTS	British Thoracic Society
CCT	Certificate of Completion of Training
CDU	Clinical Decision Unit
CEM	College of Emergency Medicine
CESR CP	Certificate of Eligibility for Specialist Registration through the Combined Programme
CICA	Criminal Injuries Compensation Authority
CRM	Crew resource management
CST	Core Specialty Training
CTR	Clinical Topic Review
E&E	Education and Examinations Committee
EM	Emergency Medicine
FCEM	Fellowship Examination of the College of Emergency Medicine
GIM	General Internal Medicine
GIM(Acute)	That part of GIM associated with the Acute Medical take
GMC	General Medical Council
GMP	Good Medical Practice
HST	Higher Specialty Training
IAC	Initial assessment of competence
IT	Information technology
JRCPTB	Joint Royal Colleges of Physicians Training Board
LEP	Local education provider
MCEM	Membership Examination of the College of Emergency Medicine
NCEPOD	National Confidential Enquiry into Patient Outcome and Death
NICE	National Institute for Health and Clinical Excellence
NPSA	National Patient Safety Agency
PEM	Paediatric Emergency Medicine
Ref	Reference
SASM	Scottish Audit of Surgical Mortality
TARN	Trauma Audit and Research Network
WBA or WPBA	Workplace based Assessment

Assessment Method Glossary

AA	Audit Assessment
ACAT	Acute Care Assessment Tool
C	Case Based Discussion (CBD)
D	Direct observation of procedural skills (DOPS)
E	Examination
L	Life support course
Mi or A	Mini-clinical evaluation exercise or anaesthesia clinical evaluation exercise (Mini-CEX or Anaes-CEX)
M	Multi-source feedback (MSF)
PS	Patient Survey
S	Simulation
TO	Teaching Observation
W	Web based, ENLIGHTENme Hub and Knowledge Bank http://www.enlightenme.org/

GMP domain headings

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

1. Introduction

Emergency Medicine (EM) is a rapidly expanding and exciting specialty concerned with the initial diagnosis and management of the acute and urgent aspects of illness and injury affecting patients of all age groups with the full spectrum of undifferentiated physical and behavioural disorders. It is the specialty in which time is critical.

Emergency Physicians are able to look after patients with a wide range of pathologies from the life-threatening to the self-limiting.

- They are experts in identifying the critically ill and injured, providing safe and effective immediate care.
- They are expert in resuscitation and skilled in the practical procedures needed.
- They establish the diagnosis and differential diagnosis rapidly, and initiate or plan for definitive care.
- They work with all the in-patient specialties as well as primary care and pre-hospital services.
- They are able to correctly identify who needs admission and who can be safely sent home.

EM is practiced in the challenging environment of the Emergency Department. The Emergency Physician is an excellent communicator and team player as well as a leader who is able to get the best out of the people he or she works with.

The Emergency Department (ED) is at the heart of Emergency Medicine and care is delivered in a number of different areas: the resuscitation room, assessment area, 'majors' area and ambulatory care sections. Departments have dedicated facilities and staff for children. EDs also have observation wards/clinical decision units where further care and testing take place under the guidance of the Emergency Physician, in order to determine which patients may be safely discharged and those that need further in-patient care. Emergency Physicians must be able to effectively supervise these areas and ensure safe and timely care.

It is intended that all future Emergency Physicians join the Emergency Medicine training programme at year one of the Acute Care Common Stem programme, thus ensuring that all future specialists have a standard level of training in critical care, acute internal medicine and anaesthesia as well as EM.

This curriculum sets out the intended aims and objectives, content, experiences, outcomes and processes of the educational programme intended to provide Emergency Physicians with the knowledge and expertise to be safe, expert and independent practitioners functioning at consultant level within the UK NHS and in the Republic of Ireland.

The changing nature of the practice of Emergency Medicine has also been reflected in the curriculum with increasing emphasis on the critical care aspects of EM, airway care, and diagnostic testing.

The four domains of Good Medical Practice have been mapped to the curriculum, indicating those skills and behaviours that Emergency Physicians need to be effective and to communicate with patients, carers and their families, and how these will be assessed.

2. Rationale

2.1 The purposes of this curriculum

The purposes of this curriculum are to define the process of training and the competences needed for:

1. Successful completion of Core Training in Emergency Medicine (i.e. ACCS generic years one and two, (CT1&2), and a third year of ACCS, EM CT3)
2. The successful completion of Higher Specialty Training in Emergency Medicine (ST4-ST6) and the award of a CCT in Emergency Medicine.

The length of time for completion of this programme is covered in more detail in section 2.5, Duration of training.

Opportunities for increased expertise in areas directly relevant to Emergency Medicine are covered in section 2.7:

- Paediatrics
- Intensive Care
- Pre-hospital Care

2.2 Development

This curriculum was developed by the Curriculum Development groups of the Intercollegiate Training Committee for Acute Care Common Stem (CT1&2) and the College of Emergency Medicine (CT3-ST6). Both groups had broad UK representation and included trainees and lay persons as well as consultants (including heads of school and programme directors) who are actively involved in teaching and training.

Feedback has been continuously sought from trainers, trainees, lay persons, postgraduate deans and regional committees by the use of interviews and direct communication with the College of Emergency Medicine. In light of this feedback the document was redrafted.

This curriculum replaces the College of Emergency Medicine curriculum dated February 2007, with changes to ensure that the curriculum meets the GMC's 17 Standards for curricula and assessment. It incorporates revisions to the content and delivery of the training programme. The major changes are around the presentation of content by presenting complaint rather than by system, greater clarity over assessment (what and when) and the introduction of the leadership and ultrasound curriculum and associated competences.

As the curriculum is followed, a spiral approach to learning is implicit; the trainee will revisit topics and themes seen previously, each time expanding the sophistication of the knowledge, attitudes and decision making. This aids reinforcement of principles,

the integration of topics, and the achievement of higher levels of competency, moving from competent to expert.

2.3 Training pathway

Entry into training for Emergency Medicine is possible following successful completion of a Foundation Programme.

The training in Emergency Medicine (with notional durations) is divided as follows:

ACCS

ACCS is a three year core training programme that normally follows Foundation year two. It is the only core training programme for trainees wishing to enter higher specialty training in Emergency Medicine.

- Those trainees considering an academic career should read section 4.4 'ACCS and the academic trainee' contained in this document.
- Application by trainees will be for ACCS training but some deaneries will have specialty-specific recruitment whereby trainees will have to state their specialty choice at application or interview; this is so the appropriate posts can be made available in CT3.

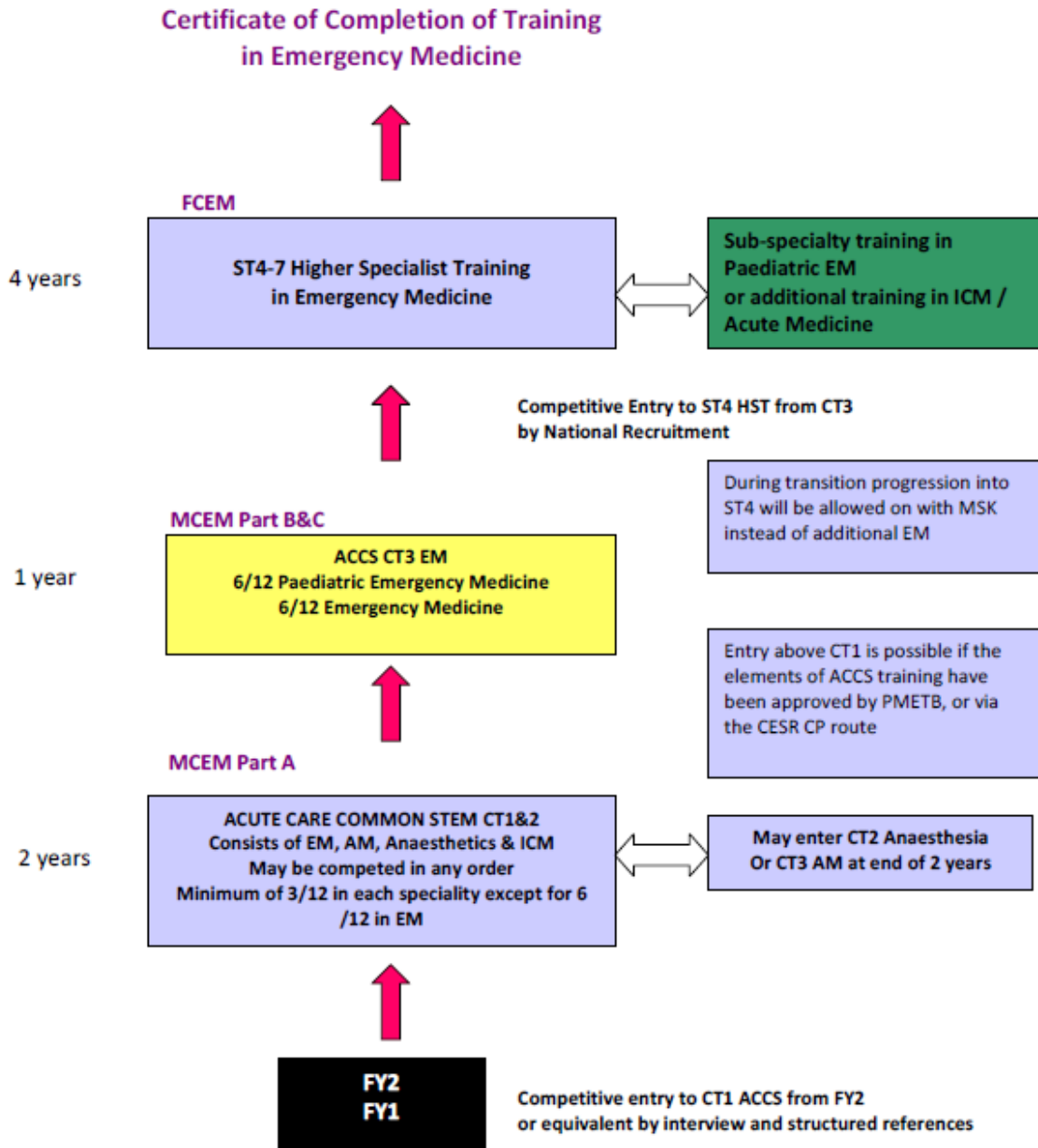
Higher Specialty training

Higher Specialty training (HST) in Emergency Medicine, currently ST4-ST6. Selection is by national competition. HST is designed to deliver an expert Emergency Physician who is able to supervise and run efficiently a typical ED.

The College of Emergency Medicine would recommend that the training in ACCS is extended from two to three years (CT1-3), reflecting the complexity of the curriculum and assessment system for core training. HST currently has an approved curriculum for 3 years (ST4-6), but the CEM recognises that some trainees may benefit from a fourth year of HST and that the present time the ARCP process is the mechanism to provide additional training time.

A diagram of the EM training programme is shown on the next page.

Emergency Medicine Training Programme Flow Chart



Note that progression to the next level of training is dependant on achieving defined learning outcomes as assessed at ARCP

3. Content of learning

This curriculum lists the specific knowledge, skills and behaviours to be attained at each stage of training. These are presented in four parts:

1. **Common competences.** This describes the generic competences that should be achieved within the programme. As the trainee progresses the later sections have greater emphasis on leadership skills, and managerial expertise, becoming more contextualised and specialty specific, preparing the EP to lead a United Kingdom NHS or Republic of Ireland ED. These can be seen in the main EM curriculum or in the separate common competences framework

2. **Symptom competences.** These define the knowledge, skills and behaviours required for each of the major presentations and acute presentations that will be encountered by Emergency Physicians, by year of training and by adult/paediatric.

These presentations have been based on Emergency Department audits of activity. The investigation competences are listed alongside these presentations, gaining in complexity as the training progresses. Ultrasound is a skill that starts to be acquired in ST4.

3. **Procedural competences are listed.** The procedural competences which should be acquired by the end of CT2, CT3, and HST are described.

4. **The basic sciences that underpin EM are described;** anatomy, physiology, pharmacology, microbiology and pathology. These have been derived using the Delphi methodology and a large panel of Emergency Physicians, including many recent trainees have been consulted. This has recently been approved by GMC and is available in appendix 6 – Basic Science Curriculum.

3.3.8 HST Major and Acute Presentations (HAPs) ST4-6

Trainees in ST4-6 will revisit the knowledge skills and behaviours of all those conditions already described for CT1-3 and become more expert in their diagnosis and management. Trainees will have:

1. Increasing realisation of the range of presentations, the impact of co-morbidities and age.
2. Increasing appreciation of atypical presentations especially in the elderly and immuno-compromised.
3. Recognition of apparent benign presentations that indicate possible serious pathology e.g. syncope, falls.

Trainees will be able to look after sicker patients with increasing confidence, using investigations more selectively and with more accurate interpretation. Trainees will develop more detailed differential diagnoses focusing on the life-threatening as well as the most probable diagnosis. Trainees will supervise others, being supportive but also able to detect when greater input is needed by them to ensure the safe care of the patient.

There is additional curricular content for the major presentations 1-4 plus additional and new content acute presentations.

HST Major Presentation (HMP)

HMP1 Anaphylaxis

The trainee will be able to identify patients with anaphylactic shock, assess their clinical state, produce a list of appropriate differential diagnoses, initiate immediate resuscitation and manage and organise further investigations		
Knowledge	Assessment Methods	GMP Domains
Recognises the common causes of anaphylaxis from drugs and fluids prescribed in the ED - e.g. n acetyl cysteine, gelofusin.	E, Mi, C, ACAT	1
Recognises the modifying effect of medication on the presentation and response to therapies	E, Mi, C, ACAT	1
Skills		
Recognises that patients should be monitored and looks for the rebound phenomenon	Mi, C	1
Behaviour		
Ensures patient instructed in the use of the epipen and follow-up by allergy specialist	Mi, C	2

HMP2 Cardio-respiratory arrest

The trainee will have competence in the assessment and resuscitation of the patient who has suffered a cardio-respiratory arrest		
Knowledge	Assessment Methods	GMP Domains
Demonstrates increasing knowledge of the causes and management of cardiac arrest Become increasingly familiar with rarer causes of cardiac arrest e.g. hypothermia, drug-induced, drowning, asthma	E, Mi, C, ACAT	1
Specifically knows the management of the pregnant patient- positioning and role of peri-mortem c-section	E, Mi, C, ACAT	1
Skills		
Can lead and manage a cardiac arrest team Is able to make sensible end-of-life decisions	Mi, C, D, L	1
Works effectively with others (both pre-hospital and in hospital) to ensure the ongoing care of survivors - with critical care	Mi, C, D	1
Can manage the airway, ventilation, sedation and paralysis of patients with return of spontaneous circulation	Mi, C, D	1
Can approach the issue of organ donation sensitively	Mi, C, D	1
Behaviour		
Can break bad news effectively, handling the spectrum of possible responses	Mi, C	1,2,3,42

HMP3 Major Trauma

The trainee will be able to lead a trauma team in the assessment of the trauma victim using a systematic prioritised approach, identify and treat life-threatening conditions and arrange appropriate investigations for further management		
Knowledge	Assessment Methods	GMP Domains
Understand and be able to apply the principles of hypotensive resuscitation	E, Mi, C, ACAT	1
Be expert in the interpretation of plain radiology as it relates to trauma	E, Mi, C, ACAT	1
Know the role of angiography	E, Mi, C, ACAT	1
Be familiar with more problematic trauma presentations e.g. compartment syndrome in the unconscious patient, coagulopathy	E, Mi, C, ACAT	1
Be proficient in the use of FAST	E, Mi, C, ACAT	1
Understand trauma in pregnancy - how trauma and pregnancy impact on one another	E, Mi, C, ACAT	1
Resuscitative thoracotomy - know the indications and contraindications	E, Mi, C, ACAT	1
Skills		
Resuscitative thoracotomy - should be able to describe how it should be undertaken. A CCT holder who will be working in a centre without cardiothoracic expertise should acquire this skill e.g. simulation course	Mi, C, D, S	1
Behaviour		
Be able to lead trauma teams (with varied membership) and provide clear focus and prioritisation for the resuscitation	Mi, C	1,2,3,4

HMP4 Shocked patient

The trainee will be able to identify a shocked patient, assess their clinical state, produce a list of appropriate differential diagnoses and initiate immediate management		
Knowledge	Assessment Methods	GMP Domains
Know the causes, initial investigation and treatment of the rarer causes of shock e.g. neurogenic, adrenal failure, tamponade	E, Mi, C, ACAT	1
Be able to identify and initially manage the patient presenting in cardiogenic shock secondary to myocardial infarction, massive PE, aortic dissection or valve rupture.	E, Mi, C, ACAT	1
Know the role of imaging including echo and CT	E, Mi, C, ACAT	1
Know the indications and contraindications for thrombolysis, angioplasty and surgery	E, Mi, C, ACAT	1
Knows the role of ultrasound in the evaluation of the shocked patient	E, Mi, C, ACAT	1
Skills		
Increasing expertise in therapies beyond initial resuscitation e.g. vasoactive support for the patient in septic shock.	Mi, C, D	1
Able to gain venous access in the sickest of patients including the use of intraosseous access in adults	D, S	1
Behaviour		
Able to gain venous access in the sickest of patients	Mi, C	2

HMP5 Unconscious patient

The trainee will be able to promptly assess the unconscious patient to produce a differential diagnosis, establish safe monitoring, investigate appropriately and formulate an initial management plan including recognising situations in which emergency specialist investigation or referral is required		
Knowledge	Assessment Methods	GMP Domains
Knows how to identify the patient with raised ICP and the initial management within the Emergency Department	E, Mi, C, ACAT	1
Knows how to manage the patient who presents with a blocked shunt	E, Mi, C, ACAT	1
Skills		
Is able to identify and manage those patients with more than one cause for reduced level of consciousness e.g. alcohol plus head injury	Mi, C	1
Be able to maintain the airway of the unconscious patient and be part of the team that undertakes intubation	Mi, C, D	1
Behaviour		
Knows when to ask for help and able to refer patient to critical care	Mi, C	1,2, 3, 4

HST Acute Presentations (HAP)

HAP1 Abdominal pain

The trainee will be able to assess a patient presenting with abdominal pain to produce a valid differential diagnosis, investigate appropriately, and formulate and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
Know the atypical presentations of abdominal pain modified by age, disease or drugs	E, Mi, C, ACAT	1
Know the medical causes of abdominal pain	E, Mi, C, ACAT	1
Know the limitations of the physical exam and tests in determining the presence of serious causes of abdominal pain	E, Mi, C, ACAT	1
Skills		
Be able to perform detailed assessment of the abdomen in a wide variety of patients and recognise the seriously ill or potentially seriously ill patient	Mi, C, D	1
Be able to correctly identify the patient with a medical cause of abdominal pain	Mi, C	1
Be able to undertake U/S for the detection of AAA	Mi, C, D	1
Behaviour		
Ensures prompt pain relief, and effective liaison with in-patient teams	Mi, C	2

HAP2 Acute back pain

The trainee will be able to assess a patient with a new presentation of back pain and produce a valid differential diagnosis investigate appropriately formulate and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
Know the life-threatening causes of back pain- AAA, aortic dissection	E, Mi, C, ACAT	1
Know the symptoms and signs of early cauda equina syndrome	E, Mi, C, ACAT	1
Know the indications for surgical referral and MRI scan	E, Mi, C, ACAT	1
Know how to screen for osteoporosis and therapies for collapsed vertebrae	E, Mi, C, ACAT	1
Skills		
Becomes more expert at the 'grey' cases	Mi, C	1
Manages those that need multi-specialty input e.g. back pain due to spinal secondaries	Mi, C	1
Be able to relieve back pain effectively	Mi, C	1
Behaviour		
To act as the patient's advocate – seeking appropriate investigations, and effective pain relief with the help of in-patient teams	Mi, C	1,2,3,4

HAP3 Alcohol and substance abuse

The trainee will be able to assess the patient with alcohol/substance abuse to produce a valid differential diagnosis, investigate appropriately, and formulate and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
Know the presentations of alcoholism and substance abuse as they present to the ED, how this impacts on assessment and appropriate investigations	E, Mi, C, ACAT	1
Know interventions that can reduce alcohol consumption that can be used in the ED	E, Mi, C, ACAT	1
Know how to manage alcohol withdrawal, prescription of vitamins	E, Mi, C, ACAT	1
Recognise, treat and prevent Wernicke Korsakoff syndrome	E, Mi, C, ACAT	1
Skills		
Care beyond the ED	Mi, C	1
Recognise co-existence of psychiatric disease	Mi, C	1
Behaviour		
Sympathetic and non-judgemental	Mi, C	2
Knows when to refer and how to follow-up	Mi, C	2

HAP4 Anal pain and rectal bleeding

The trainee will be able to evaluate the patient who presents with anal pain and or rectal bleeding and produce a valid differential diagnosis, appropriate investigation and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
Know the causes of anal pain – thrombosed haemorrhoids (internal and external), anal fissure, ano-rectal abscess, pilonidal abscess and rectal prolapse	E, Mi, C, ACAT	1
Know the causes of lower GI and rectal bleeding e.g. haemorrhoids/ fistulae, tumour, colitis	E, Mi, C, ACAT	1
Skills		
Undertake thorough physical examination including rectal	Mi, C, D	1
Identify those patients who need admission and those that can be managed with outpatient follow-up	Mi, C	1
Behaviour		
Sensitive and ensures chaperone	Mi, C	2

HAP5 Blackouts

The trainee will be able to assess a patient presenting with collapse to produce a valid differential diagnosis, investigate and formulate a management plan		
Knowledge	Assessment Methods	GMP Domains
Knows how to risk stratify the syncopal patient and the role of investigations	E, Mi, C, ACAT	1
Know which patients to refer for further testing (beyond the ED)	E, Mi, C, ACAT	1
Know the DVLA recommendations	E, Mi, C, ACAT	1
Understand pacemakers and their failure	E, Mi, C, ACAT	1
Skills		
Identify the cause of syncope focusing on the life-threatening causes	Mi, C	1
Behaviour		
Recognise the special needs of the elderly and the need for liaison with other specialists - cardiology, neurology, care of the older patient	Mi, C	2

HAP6 Breathlessness

The trainee will be able to assess a patient presenting with breathlessness to produce a valid differential diagnosis, investigate and formulate a management plan		
Knowledge	Assessment Methods	GMP Domains
Know the rarer causes of breathlessness, including aspiration and tracheostomy occlusion, pleural effusion, inhalational injury from chemical and physical irritants, foreign body inhalation	E, Mi, C, ACAT	1
Know the indications and contraindications for invasive and non-invasive ventilation (and its different types)	E, Mi, C, ACAT	1
Know how to diagnose and manage massive PE with the aid of echo and CT	E, Mi, C, ACAT	1
Skills		
Be able to look after seriously unwell asthmatic and COPD patients, and escalate care	Mi, C	1
Be able to formulate an accurate prognosis to determine the level of care needed	Mi, C	1
Be able to initiate appropriate palliative management when appropriate	Mi, C	1
Behaviour		
Recognise and relate prognosis to patient and carers	Mi, C	1,2,3,4
Involve other specialty teams as appropriate- ICM, cardiology, respiratory	Mi, C	2

HAP7 Bruising and spontaneous bleeding

The trainee will be able to evaluate the patient who presents with bruising or spontaneous bleeding and produce a valid differential diagnosis, appropriate investigation and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
Know the causes and initial investigation of those patients presenting with bruising and spontaneous bleeding. Specifically: over-anticoagulation and its reversal (in life-threatening situations)	E, Mi, C, ACAT	1
DIC – its presentation and causes (trauma, sepsis) and initial management	E, Mi, C, ACAT	1
Leukaemia and marrow failure and ITP	E, Mi, C, ACAT	1
Management of haemophiliacs	E, Mi, C, ACAT	1
Skills		
Identify these patients quickly, liaise with haematology and ensure timely initiation of therapy	Mi, C	1
Recognise the expertise of the patient for their condition	Mi, C	1
Behaviour		
Is able to seek advice for specialty doctor when needed	Mi, C	1,2

HAP8 Chest pain

The trainee will be able to assess the patient with chest pain to produce a valid differential diagnosis, investigate appropriately formulate and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
Be able to risk stratify chest pain patients accurately	E, Mi, C, ACAT	1
Understand the role of echocardiography in the patient with chest pain e.g. aortic dissection, PE, tamponade	E, Mi, C, ACAT	1
Skills		
Be able to investigate and care for low risk patients in a clinical decision unit/observation ward	Mi, C	1
Be able to plan further investigation as an out-patient	Mi, C	1
Behaviour		
Is able to safely discharge with appropriate follow-up	Mi, C	2

HAP9 Dental emergencies

The trainee will be able to evaluate the patient who presents with dental pain including dental trauma, produce a valid differential diagnosis, appropriate investigation and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
Know the presentation of dental abscess, dental fractures, including teeth avulsion and post-extraction complications and TMJ dislocation	E, Mi, C, ACAT	1
Skills		
Be able to replace and temporarily splint avulsed permanent teeth	Mi, C, D	1
Identify those who require immediate referral for drainage of dental abscess	Mi, C	1
Be able to relieve pain by the use of local anaesthetic dental block	C, D	1
Behaviour		
Ensure appropriate follow-up	Mi, C	2

HAP10 Dialysis

The trainee will be able to evaluate the patient who presents on dialysis who is unwell and produce a valid differential diagnosis, appropriate investigation and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
Know the different types of dialysis and their complications	E, Mi, C, ACAT	1
Recognition of sepsis in these patients	E, Mi, C, ACAT	1
Indications for urgent dialysis - hyperkalaemia, pulmonary oedema, fluid overload	E, Mi, C, ACAT	1
Know the consequences of missed dialysis	E, Mi, C, ACAT	
Skills		
Recognise and treat life-threatening hyperkalaemia and pulmonary oedema	Mi, C, D	1
Recognise the need to preserve fistulae and risks of catheter-related sepsis	Mi, C	1
Behaviour		
Liaise closely with renal physicians/critical care to establish if emergency dialysis needed	Mi, C	2

HAP11 Environmental emergencies

The trainee will be able to evaluate the patient who presents with medical problems that are caused by an environmental emergency, produce a valid differential diagnosis, appropriate investigation and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
<p>Know how to recognise, investigate and provide emergency treatment for:</p> <ul style="list-style-type: none"> ▪ Heat stroke and heat exhaustion ▪ Drug-related hyperthermias ▪ Hypothermia and frost bite ▪ Electrical burns, electrocution ▪ Decompression sickness ▪ Near-drowning ▪ Radiation exposure and safety ▪ Industrial chemical incidents ▪ Bites and envenomations typical for the UK ▪ High altitude emergencies - cerebral and pulmonary oedema 	E, Mi, C, ACAT	1
Skills		
Anticipates related complications	Mi, C	1
Behaviours		
Able to work with a number of teams to achieve best patient care	Mi, C	1,2

HAP12 Epistaxis

The trainee will be able to evaluate the patient who presents with severe epistaxis and be able to control bleeding and establish likely cause		
Knowledge	Assessment Methods	GMP Domains
Know the causes of epistaxis including trauma and medication	E, Mi, C, ACAT	1
Skills		
Be able to undertake anterior nasal packing /use nasal tampon	Mi, C, D	1
Be able to use a foley catheter to stop posterior nasal bleeding	Mi, C, D	1
Behaviour		
Liaise with appropriate specialists	Mi, C	2

HAP13 Falls

The trainee will be able to assess a patient with a fall and produce a valid differential diagnosis, investigate appropriately, and formulate and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
Know the causes of falls, and what interventions can help to reduce falls	E, Mi, C, ACAT	1
Be able to act upon the pharmacological causes of falls	E, Mi, C, ACAT	1
Identify those patients with potential life-threatening causes - hypovolemia, and those that will need admission	E, Mi, C, ACAT	1
Be aware of the indications for referral to a falls clinic	E, Mi, C, ACAT	1
Skills		
Be able to communicate on falls risk and prevention to patient and their carers	Mi, C	1
Behaviour		
Work closely with the multi-disciplinary teams within CDUs to ensure safe discharge and follow-up.	Mi, C	2

HAP14 Fever

The trainee will be able to assess the patient with fever to produce a valid differential diagnosis, investigate appropriately, and formulate and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
To know the common causes of fever presenting to the ED	E, Mi, C, ACAT	1
Be able to investigate the traveller with fever	E, Mi, C, ACAT	1
Be able to distinguish the common non-travel related causes of fever from infectious causes. Be able to recognise the septic patient ensuring effective management within the ED, including timely antibiotics, fluids and the use of vasoactive drugs	E, Mi, C, ACAT	1
Be able to recognise the presentation of common infectious diseases	E, Mi, C, ACAT	1
Skills		
Seek specialist advice especially when risk of transmission of serious disease	Mi, C	1
Behaviours		
Follow local and national guidance on notification of communicable diseases	Mi, C, AA	2

HAP15 Fits /Seizure

The trainee will be able to assess the patient with a seizure to produce a valid differential diagnosis, investigate appropriately, and formulate and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
Know which patients who have recovered from their seizure need admission and which patients to refer to first seizure clinic	E, Mi, C, ACAT	1
Rapidly identify the patient in status epilepticus and institute prompt further treatment and consider the need for rapid sequence induction and intubation	E, Mi, C, ACAT	
Know and recognise the complications of seizures	E, Mi, C, ACAT	1
Skills		
Be able to prescribe anticonvulsants safely	Mi, C	1
Escalate care when anaesthesia needed	Mi, C, ACAT	1
Behaviour		
Provide advice of the impact of seizures on pregnancy, employment and driving	Mi, C	2

HAP16 Haematemesis and melaena

The trainee will be able to assess the patient with haematemesis and melaena to produce a valid differential diagnosis, investigate appropriately, and formulate and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
Know the indications for urgent endoscopy	E, Mi, C, ACAT	1
Know strategies to manage uncontrollable variceal bleeding in the resuscitation room - including securing of the airway and the use of Sengstaken tube	E, Mi, C, ACAT	1
Skills		
Safely insert central line when indicated	D	1
Recognise those patients who are critically ill and not responding to therapy and who may need immediate endoscopy /surgery	Mi, C	1
Behaviour		
Ensure prompt referral of those patients not responding to fluids	Mi, C	2

HAP17 Headache

The trainee will be able to assess the patient with headache to produce a valid differential diagnosis, investigate appropriately, and formulate and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
Know and be able to identify patients with the less common causes of headache e.g. cluster headaches, glaucoma, headaches in patients with shunts	E, Mi, C, ACAT	1
Identify those patients presenting with headaches secondary to malignancy, HIV	E, Mi, C, ACAT	1
Skills		
Initiate measures to reduce ICP	Mi, C	1
Be able to perform a diagnostic lumbar puncture	Mi, C, D	1
Behaviour		
Provide explanations and plan future care for those with non-serious headaches	Mi, C	2

HAP18 Joint swelling - atraumatic

The trainee will be able to assess the patient with atraumatic joint swelling to produce a valid differential diagnosis, investigate appropriately, and formulate and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
Know the causes of mono and polyarthropathies and their disease associations	E, Mi, C, ACAT	1
Initiate investigations (including joint aspiration - recognising that local practice may vary as to where this occurs), serological tests and imaging	E, Mi, C, ACAT	1
Skills		
Be able to identify those patients with potential septic arthritis, initiate investigations and prompt referral	Mi, C	1
Be knowledgeable of the risks of rheumatological disease-modifying drugs	Mi, C	1
Behaviour		
Knows own limitations and when to ask for help	Mi, C	2

HAP19 Limb pain and swelling - traumatic and atraumatic

The trainee will be able to assess the patient with limb pain and swelling to produce a valid differential diagnosis, investigate appropriately, and formulate and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
Be able to differentiate the atraumatic causes of limb pain and swelling including ilio-femoral thrombosis, superficial thrombophlebitis, subclavian thrombosis	E, Mi, C, ACAT	1
Be able to recognise critical limb ischaemia and ensure prompt referral and investigation	E, Mi, C, ACAT	1
Recognise referred causes of limb pain and sinister causes e.g. bone secondaries, sickle cell	E, Mi, C, ACAT	1
Bursitis and tendonitis in the upper and lower limb including ruptured biceps, Achilles tendonitis, plantar fasciitis, metatarsalgia, carpal tunnel and other entrapment neuropathies	E, Mi, C, ACAT	1
Traumatic causes Fractures - scapular, tarsal bones and stress fractures	E, Mi, C, ACAT	1
Dislocations - SC joint, elbow, knee, subtalar, talar, mid-tarsal, tarsometatarsal	E, Mi, C, ACAT	1
Skills		
Ability to maintain appropriate differential diagnosis, and use of investigations	Mi, C	1
Behaviour		
Knows own limitations and when to ask for help	Mi, C	2

HAP20 Major Incident management

The trainee will understand the role of the Emergency Department and its staff in major incidents, to understand the planning and to be prepared for a major incident.		
Knowledge	Assessment Methods	GMP Domains
Be able to define a major incident and understand a typical major incident plan	E, Mi, C, ACAT	1
Understand the importance of triage, communication, equipment and documentation for a major incident		
Understand potential CBRN agents and their treatment	E, Mi, C, ACAT	1
Understand the principles of decontamination, how it is performed and by whom	E, Mi, C, ACAT	
Skills		
Be familiar with personal protective equipment and how to use it	Mi, C	1
Participate in more than one major incident exercise	Mi, C, L	1
Be able to accurately triage multiple casualties	Mi, C, L	1
Behaviour		
Be a good communicator, demonstrating leadership, flexibility and ability to work with other teams	Mi, C	2

HAP21 Oncology emergencies

The trainee will be able to evaluate the patient who presents with medical problems caused by cancer, produce a valid differential diagnosis, appropriate investigation and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
Be able to recognise the complications related to local tumour progression e.g. acute cord compression, upper airway obstruction, pericardial and pleural effusions, SVC compression syndrome, raised intracranial pressure	E, Mi, C, ACAT	1
Be able to identify the biochemical complications of malignancy- hypercalcaemia, SIADH, adrenocortical insufficiency	E, Mi, C, ACAT	1
Recognise the complications relating to myelosuppression - specifically neutropenic sepsis, anaemia and thrombocytopenia	E, Mi, C, ACAT	1
Skills		
Recognise and commence emergency treatment	Mi, C	1
Involve specialists promptly - identify patients who may benefit from further oncological treatment	Mi, C	1
Provide pain relief	Mi, C	1
Establish if living will, treatment plan exists	Mi, C	1
Behaviours		
Sympathy, understanding and manage carers/family	Mi, C	1,2,3,4

HAP22 Observational Medicine

An Emergency Physician should be expert in the care of certain patient groups beyond the first four hours, who are cared for in the Observation Ward/Clinical Decision Unit.		
Knowledge	Assessment Methods	GMP Domains
<p>Know which patients will benefit from being cared for in an observational setting:</p> <ul style="list-style-type: none"> ▪ Those who are clinically well but without a clear diagnosis – e.g. headache, abdominal pain, elderly patient who has fallen ▪ Those that have been risk stratified as low risk but require further observation and limited investigation e.g. chest pain, syncope ▪ Those patients who are recovering but not sufficiently well to be discharged e.g. post-procedure, post-ictal, post-overdose 	E, C, Mi, ACAT	1
Requires knowledge of the typical clinical courses over the first 24 hours for a range of clinical conditions and their risk stratification	E, C, Mi, ACAT	1
Knowledge and ability to anticipate, recognise and manage possible adverse outcomes	E, C, Mi, ACAT	1
Knowledge of the diagnostic pathways and the range of diagnostic tests to be used and their interpretation	E, C, Mi, ACAT	1
Skills		
Work closely with diagnostic services to achieve a timely diagnosis	Mi, C, D	1
Work closely with multi-disciplinary teams to ensure best care e.g. the elderly and those with mental health problems	Mi, C	1
Be able to formulate an appropriate individual management plan, based on best evidence (e.g. Nice head injury guidelines) for clinical conditions	Mi, C, D	1
Behaviour		
Undertake ward rounds in a timely and efficient manner	ACAT, C, Mi	3
Carefully review patients provide a diagnosis and appropriate follow-up	ACAT, C, Mi	3, 4

HAP23 Palpitations

The trainee will be able to assess the patient with palpitations to produce a valid differential diagnosis, investigate appropriately, and formulate and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
Know alternative therapies when first-line drugs fail for arrhythmias	E, Mi, C, ACAT	1
Have knowledge of which drugs should be used long term	E, Mi, C, ACAT	1
Be able to identify which patients need referral for further investigation including 24 hour tape	E, Mi, C, ACAT	1
Know the rarer arrhythmias- WPW with AF, Torsades de Pointes, prolonged QT	E, Mi, C, ACAT	1
Skills		
Is able to take an ECG and rhythm strip	Mi, C, D	1
Behaviour		
Be able to escalate care in the deteriorating patient	Mi, C	1,2,3,4

HAP24 Penile conditions

The trainee will be able to evaluate the patient who presents with a painful penis and produce a valid differential diagnosis, appropriate investigation and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
Know the causes of penile pain specifically – phimosis and paraphimosis, priapism (and its associated conditions) and fracture	E, Mi, C, ACAT	1
Know the presentation and causes of genital ulceration	E, Mi, C, ACAT	1
Skills		
Identify those patients who need admission and those that can be managed with outpatient follow-up	Mi, C	1
Know how to reduce paraphimosis	C, D	1
Behaviour		
Recognise the need for urgent referral for priapism and fracture of the penis	Mi, C	2

HAP25 Poisoning

The trainee will be able to assess the patient with poisoning to produce a valid differential diagnosis, investigate appropriately, and formulate and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
Know wider range of poisoning including cyanide and organophosphate poisoning and mixed overdoses	E, Mi, C, ACAT	1
Know the role of antidotes (see CEM list)	E, Mi, C, ACAT	1
Indications for liver transplantation in paracetamol poisoning	E, Mi, C, ACAT	1
Know the principles of the relevant health legislation and common law relevant to treatment against the patient's will	E, Mi, C, ACAT	1
Skills		
Recognise complications – poly-pharmacy, aspiration	Mi, C	1
Be able to risk stratify patients and liaise with psychiatric services	Mi, C	1
Behaviour		
To be able to escalate care in the deteriorating patient	Mi, C	1,2,3,4

HAP26 Pre-hospital care

The trainee will be sufficiently familiar with pre-hospital care systems to ensure optimal patient care across the pre-hospital – emergency department interface		
Knowledge	Assessment Methods	GMP Domains
Know how the pre-hospital services are organised, understand the principles of scene safety and the role of protective clothing	E, Mi, C, ACAT	1
Understand the delivery of patient care out of hospital, including methods of splintage and spinal immobilisation, resuscitation out of hospital (including fluid resuscitation and the indications for rapid sequence induction)	E, Mi, C, ACAT	1
Be able to recognise the potential limitations to care delivered in the pre-hospital environment	E, Mi, C, ACAT	1
Be familiar with the advantages and disadvantages of land and air transport	E, Mi, C, ACAT	1
Understand how to communicate with the pre-hospital services effectively	E, Mi, C, ACAT	1
Know how to triage multiple casualties	E, Mi, C, ACAT	1
Skills		
Be able to work closely with pre-hospital staff providing clear and concise on-line advice	Mi, C	1
Be able to take a handover from pre-hospital carers	Mi, C	1
Behaviour		
Be supportive and understanding, ensuring that pre-hospital staff are treated as valued members of the Emergency Department team	Mi, C, M	2

HAP27 Pregnancy

The trainee will be able to evaluate the patient who presents with medical problems of pregnancy and produce a valid differential diagnosis, appropriate investigation and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
Know the presentations and initial management of these medical problems in pregnancy: pre eclampsia, HELLP, DIC, suspected PE	E, Mi, C, ACAT	1
Skills		
Recognition of these presentations	Mi, C	1
Safe prescribing in pregnancy	Mi, C, AA	1
Behaviour		
Close liaison with obstetricians	Mi, C	2
Sensitive, supportive and uses chaperone appropriately	Mi, C	2

HAP28 Rash – Life-threatening rashes

The trainee will be able to assess the patient with a rash to produce a valid differential diagnosis, investigate appropriately, and formulate and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
Know how to recognise and initiate management of the erythrodermas - e.g. maintenance of temp, fluid balance, prophylactic antibiotics	E, Mi, C, ACAT	1
Know the dermatological manifestations of other emergency presentations - meningococcaemia, drugs, anaphylaxis, transfusion reactions	E, Mi, C, ACAT	1
Skills		
Be able to recognise these rare presentations	Mi, C	1
Behaviour		
Liaise with specialist to ensure optimal care	Mi, C	1,2

HAP29 Research

<p>The trainee will be able to search and critically appraise the literature, understand relevant statistical methods and understand research designs. Trainees will be able to formulate a researchable question and be able to undertake a clinical topic review and related personal work</p>		
Knowledge	Assessment Methods	GMP Domains
<p>CT3 onwards</p> <p>Know how to critically appraise the primary literature (especially therapy, diagnostic and meta-analysis papers)</p> <p>Be able to search the common databases (Medline, EMBase, CINAHL and Cochrane Library)</p> <p>Understand hypothesis testing including type I and II errors</p> <p>Understand the common parametric & non-parametric tests and confidence intervals</p> <p>Understand RR, AR, NNT and diagnostic test descriptions (sensitivity, specificity, likelihood ratios, PPV, NPV)</p> <p>Sample size estimation and power calculation</p>	<p>Paeds CTR</p> <p>Critical Appraisal SAQ FCEM (from ST4 onwards)</p>	<p>1</p>
<p>Understand the common research designs: RCTs, cohort studies, case studies and diagnostic studies</p>	<p>E, CTR</p>	<p>1</p>
<p>Understand the difference between statistical significance and clinical significance</p>	<p>E, CTR</p>	<p>1</p>
<p>Be able to select the right design for the right question</p>	<p>E, CTR</p>	<p>1</p>
<p>ST4 onwards</p> <p>Understand the key characteristics of a good research question suitable for a Clinical Topic Review. Know the CEM guidance for such a review</p> <p>Understand the principles of guideline development</p>	<p>Review of CTR work- part of ARCP yr 4&5</p>	<p>1</p>

<p>NB Those trainees with a desire to undertake research will need to:</p> <ul style="list-style-type: none"> ▪ Liaise with experienced researchers and develop their knowledge relating to hypothesis formulation, research design, ethical approval, grant application processes and the standard research paper layout ▪ Develop writing skills working with experienced authors ▪ Know the common funding sources, e.g. College/BAEM, NHS R&D, MRC, and Wellcome Foundation ▪ Should seek guidance on an academic career from their local School of Emergency Medicine 		1
Skills		
Become expert at literature appraisal by practice	E, CTR	1
Able to develop suitable topic for Clinical Topic Review by use of literature searches and refinement of original question	E, CTR	1
Timetabling of CTR work to ensure comprehensive literature review and sufficient time to complete personal work	E, CTR	1
Behaviour		
<p>Appreciate the importance of literature appraisal at an early stage of training and actively seeks those skills.</p> <p>Develop a researchable topic suitable for CTR at the beginning of HST</p>	E, CTR	2

HAP30 Sexual assault

The trainee will be able to evaluate the patient who presents with a history of sexual assault and produce a valid differential diagnosis, appropriate investigation and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
Know the need for preservation of forensic evidence from assault patients, involvement of specialists, screening for STD, provision of post-coital contraception	E, Mi, C, ACAT	1
Skills		
Be able to recognise potential cases, previous patterns of domestic violence	Mi, C	1
Liaise with the police appropriately	Mi, C	1
Behaviour		
Sensitive, supportive and use of chaperone	Mi, C	2

HAP31 Sexually transmitted disease

The trainee will be able to evaluate the patient who presents with symptoms of sexually transmitted disease - specifically genital discharge and produce a valid differential diagnosis, appropriate investigation and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
Know the common presentations, systemic manifestations, pathogens and appropriate initial investigation of the common STDs	E, ACAT, AA, C, Mi	1
Skills		
Ensure appropriate investigation and referral	Mi, C	1
Behaviour		
Sensitive handling	Mi, C, PS	2

HAP32 Visual loss

The trainee will be able to evaluate the patient who presents with sudden visual loss and produce a valid differential diagnosis, appropriate investigation and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
Know the ocular causes of sudden visual loss - retinal haemorrhage, retinal artery and venous occlusion, vitreous haemorrhage, retinal detachment and optic neuritis	E, Mi, C, ACAT	1
Knowledge of the central causes of visual loss	E, Mi, C, ACAT	1
Skills		
Identify correctly underlying pathology and ensure prompt ophthalmic referral for those patients who need admission and those that can be managed with outpatient follow-up	Mi, C	1
Behaviour		
Knows when to ask for a specialty opinion	Mi, C	2

HAP33 Weakness not due to stroke

The trainee will be able to evaluate the patient who presents with weakness and produce a valid differential diagnosis, appropriate investigation and implement a management plan		
Knowledge	Assessment Methods	GMP Domains
Know the presentations and initial management of myasthenia gravis, Guillain-Barré syndrome, tetanus, botulism and MS	E, Mi, C, ACAT	1
Skills		
Recognition of rarer presentations	Mi, C	1
Behaviour		
Liaise with appropriate specialist	Mi, C	2

HAP34 Wound management

The trainee will be able to assess the patient with increasing complex wounds, providing analgesia, wound exploration, identification of damaged underlying structures, repair where appropriate and closure		
Knowledge	Assessment Methods	GMP Domains
Able to assess and repair more complex wounds in different locations - scalp, face, lips, ears, nail bed	E, Mi, C, ACAT	1
Able to identify those cases needing specialist care e.g. eyelid lacerations involving the margin, tendon injuries	E, Mi, C, ACAT	1
Skills		
Provides good anaesthesia of wounds by use of local and regional nerve blocks	Mi, C, D, S	1
Ensures thorough skin and wound cleaning to reduce risk of infection and skin tattooing	Mi, C, D	1
Behaviour		
Ensures follow-up, providing antibiotics appropriately	Mi, C	2

3.3.9 Procedural Competences CT1&2, CT3-ST6

Below are listed the practical procedures in adults that the trainee would be expected to undertake during the ACCS programme (CT1-3). Those that must be assessed during the first two years by a particular specialty (and are mandatory) are indicated in the filled boxes in the table below. Those boxes that are unfilled are also important: these assessments can be undertaken in a number of different ACCS settings, using any of the WPBA tools available and that can be recorded in the e-portfolio.

All 45 procedures and related competences are to be covered by the trainee over a three year period.

Practical procedures	GIM(A)	EM	ICM	Anaesthesia
1. Arterial cannulation			D	
2. Peripheral venous cannulation			D	
3. Central venous cannulation			D	
4. Arterial blood gas sampling			Mi, D	
5. Lumbar puncture				
6. Pleural tap and aspiration				
7. Intercostal drain - Seldinger				
8. Intercostal drain - Open				
9. Ascitic tap				
10. Abdominal paracentesis				
11. Airway protection		D		
12. Basic and advanced life support				D
13. DC cardioversion				
14. Knee aspiration				

15. Temporary pacing (external/wire)				
16. Reduction of dislocation/fracture		D		
17. Large joint examination				
18. Wound management		D		
19. Trauma primary survey		D		
20. Initial assessment of the acutely unwell				
21. Secondary assessment of the acutely unwell (ie after initial resuscitation and in the intensive care unit)				
22. Connection to a mechanical ventilator			D	
23. Safe use of drugs to facilitate mechanical ventilation			C	
24. Managing the patient fighting the ventilator			C	
25. Monitoring respiratory function			C	

Initial Assessment of Competence (IAC) - as listed below from Preoperative assessment to Emergency surgery				
26. Preoperative assessment				A
27. Management of spontaneously breathing patient				A
28. Administer anaesthesia for laparotomy				A
29. Demonstrate RSI				A
30. Recover patient from anaesthesia				A
31. Demonstrate function of anaesthetic machine				D
32. Transfer of patient to the operating table				D
33. Demonstrate CPR resuscitation on a manikin				D
34. Technique of scrubbing up and donning gown and gloves				D
35. Basic competences for pain management				D
36. Patient Identification				C
37. Post op N&V				C
38. Airway assessment				C
39. Choice of muscle relaxants and induction agents				C
40. Post-op analgesia				C
41. Post-op oxygen therapy				C
42. Emergency surgery				C

43. Safe use of vasoactive drugs and electrolytes			Mi, C	
44. Deliver a fluid challenge safely to an acutely unwell patient			C	
45. Describe actions required for accidental displacement of tracheal tube or tracheostomy			C	

Mini-CEX (Mi, A) DOPs (D), CBD (C), X = more than one tool can be used

Paediatric EM Practical Procedures for CT3 and ST4-6

Below are listed the practical procedural skills that should be acquired. The acquisition of these skills is case dependant and it may be that some skills may not be acquired by the end of CT3.

The 4 indicated with M are mandatory before the end of CT3. Those indicated with D must be assessed with DOPs using the generic DOPs tool. It is not expected that trainees will be assessed for all the listed procedures below but wherever the opportunity arises the trainees should seek to be observed by a trainer and as a minimum should maintain a record of these procedures in the reflective log of the e-portfolio.

Some skills may be acquired using simulation techniques and these are indicated by S.

CT3 PEM	ST4-6 PEM
<ul style="list-style-type: none"> • Be able to perform a paediatric primary survey M • Basic airway manoeuvres to include use of airway adjuncts, oxygen delivery techniques M • Choking child (S) • Orotracheal intubation - may have been acquired during ACCS anaesthetics (S) 	<ul style="list-style-type: none"> • Replacement of tracheostomy tube
<ul style="list-style-type: none"> • Needle thoracocentesis (S) • Tube thoracostomy (S) • Venous access M • Intraosseus line insertion (S) • Direct current electrical cardioversion defibrillation (S) 	<ul style="list-style-type: none"> • Cricothyrotomy and percutaneous trans-tracheal ventilation (S) • External cardiac pacing (S)

<ul style="list-style-type: none"> • Oro/nasogastric tube replacement 	Safe sedation in children (S)
<ul style="list-style-type: none"> • Infiltration of local anaesthetic • Incision and drainage of abscesses • Incision and drainage of paronychia • Evacuation of subungual haematoma • Wound exploration and irrigation • Wound repair with glue, adhesive strips and sutures 	<ul style="list-style-type: none"> • Incision and drainage of auricular haematoma
<p>Immobilisation techniques</p> <ul style="list-style-type: none"> • Application of broad arm sling • Application of collar and cuff • Application of Thomas splint or similar • Pelvic stabilisation techniques • Spinal immobilization/log rolling 	<p>Foreign body removal</p> <ul style="list-style-type: none"> • Nose • Ear • In soft tissue • Eye • Ring removal
<p>Fracture/dislocation reduction techniques</p> <ul style="list-style-type: none"> • Shoulder dislocation • Elbow dislocation • Phalangeal dislocation • Supracondylar fracture with limb-threatening vascular compromise • Patellar dislocation • Ankle reduction 	<ul style="list-style-type: none"> •
<p>Equipment and guidelines</p> <ul style="list-style-type: none"> • Must be familiar with the paediatric equipment and guidelines in the resuscitation room M 	
<p>Plaster techniques</p> <ul style="list-style-type: none"> • Backslabs/ splints • POP 	

Practical procedures for ST4-6 in adults

During HST trainees will be expected to become more expert in all the practical procedures previously undertaken and should keep records of such procedures and undertake a DOP assessment wherever possible.

HST is where the acquisition of ultrasound skills occurs and these are listed below.

It should be noted that there a number of life-saving skills, which may be used rarely and which are not covered in this curriculum, such as resuscitative thoracostomy and peri-mortem Caesarian section. If an Emergency Physician who has completed their training and is working in an ED without the in-patient services to provide these skills, they are strongly recommended to consider attending simulation courses and to liaise with their local specialist so as to agree how patients who may require such interventions will be cared for.

4 ARCP decision tools

At the ARCP assessments will contribute to a judgment about suitability to progress to the next stage of training. However, this depends on the professional judgment of the trainers involving many more sources of information than workplace episodes.

ARCP Decision Tool HST ST4-7*

	ST4	ST5	ST6
Common Competences CC 1-25	Assessed to Level 4 descriptors in 50%	Assessed to Level 4 descriptors in 100%	
HST Major presentations HMP1-5	Have completed 3 using Mini-CEX/CbD	Remaining 2 using Mini-CEX/CbD	
HST Acute Adult Presentations HAP 1-33	Assessed in 9/33 using CbD/Mini-CEX/ACAT 8/33 covered using ACAT EM, reflective entries, e-modules, teaching and audit	8 assessed by CbD/Mini-CEX 8 covered using ACAT EM, reflective entries, e-modules, teaching and audit	
HST Paediatric Acute Presentations PAP = 8	Assessed in 4/8 using CbD/Mini-CEX/ACAT	Remaining 4 covered using ACAT/Mini-CEX/CbD	

Procedures	<p>Practical procedures in more complex cases - all should be recorded</p> <p>Commences ultrasound scanning of patients – record/assessment</p> <p>Section A completed</p> <p>Commences triggered assessments</p>	<p>Practical procedures in more complex cases - all should be recorded</p> <p>Continues ultrasound scanning of patients – record/assessment - completion of triggered assessments and final sign off</p>	Competent in ultrasound examination to level 1
Clinical skills	<p>Able to look after several patients concurrently</p> <p>Supervises others</p>	Looking after complex cases that are greyer and sicker- covering all presentations and procedures	
Safeguarding Children			Level 3
Management and leadership	HST management portfolio	HST management portfolio	HST management portfolio
MSF	Annually	Annually	Annually
Patient Survey			X1 before final ARCP
Examination	<p>Commences work on Clinical Topic Review</p> <p>Critical appraisal skills developed</p>	<p>CTR advanced with personal work completed</p> <p>Submits to FCEM critical appraisal written examination</p>	CTR complete FCEM
E-learning modules	30 from eLfh platform	30 from eLfh platform	30 from eLfh platform

Life support	Holds valid ALS/ATLS/APLS provider	Holds valid ALS/ATLS/APLS provider Ideally Instructor in one	Holds valid ALS/ATLS/APLS provider Instructor in one
Experience * these are indicative numbers and a judgement on these numbers needs to be made at ARCP	See >2000 cases /year of which 10% are cases in the resuscitation room* Evidence should be provided - log books, reports from computerised systems	See >2000 cases /year of which 10% are cases in the resuscitation room* Evidence should be provided - log books, reports from computerised systems	See >2000 cases /year of which 10% are cases in the resuscitation room* Evidence should be provided - log books, reports from computerised systems

*Please note that the ARCP decision tools are for guidance only. It is the responsibility of the ARCP panel to decide if the evidence presented by the trainee is sufficient to allow progression to the next level of training.

Penultimate year assessment

The penultimate year ARCP – must be in person and requirement to be successful to take the FCEM.