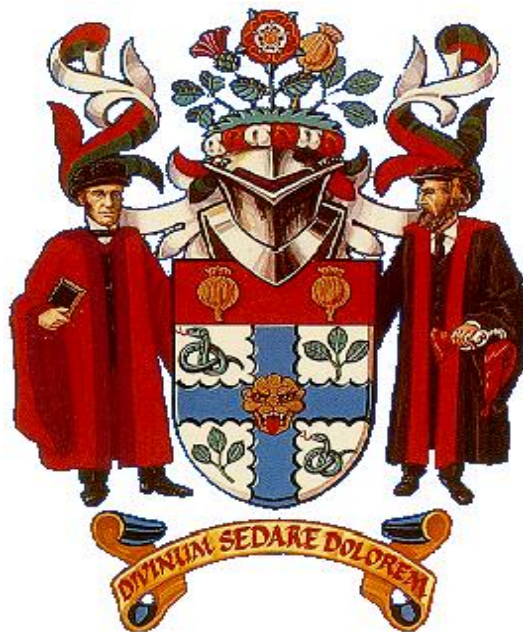# CCT in Anaesthetics

Core Level Training

Certificate

Health Education West Midlands

Training Workbook

ICM appendix

Intensive Care Medicine

The competencies in ICM required of an anaesthetist are the same as those required of a CCT intensivist albeit, to a different level of achievement. The full competence schedule in ICM for Anaesthetic trainees is included in *Annex F* of *The CCT in Anaesthetics*, along with a competence progression grid for each Domain of the ICM Syllabus.

Certification that a trainee has reached the required level must be by a Faculty of Intensive Care Medicine (FICM) Tutor. FICM Tutors must ensure they are able to certify that trainees have achieved appropriate levels for each competency as it relates to their stage of ICM training, within the requisite stage of anaesthesia training i.e. basic, intermediate or higher.

There are 99 competencies within the ICM curriculum. The ICM CCT has an assessment system which differs from that used in anaesthetic training. The ICM CCT requires trainees to demonstrate increasing competency in all domains of the curriculum. Sub-domain competence progression is judged on a descriptive scale of 1 to 4 (novice to independent practitioner); competencies are revisited throughout each of the three ICM Stages of training with increasing target levels of achievement. (see page 3)

Several competencies will be assessed by Multi-Source Feedback. An MSF is to be completed for each block of ICM training at each level of training.

Some competencies must be **mandatorily** assessed within the ICM block of training – these are the competencies pertaining to initial recognition, diagnosis, investigation and management of critically ill patients. Such competencies **must** be signed-off by a FICM trainer.

Many ICM –related competencies are common to the anaesthesia curriculum and for these trainees can show supervisors, through their portfolio, that they have already demonstrated their abilities. These competences are **not** mandatorily assessed in the ICM block of training and can be signed-off by an **anaesthetic trainer**.

'Completion of Unit of ICM Training' paperwork may only be completed by a FICM Tutor, or designated ICM Educational Supervisor.

Trainees undertaking, or contemplating undertaking, Dual CCTs in Anaesthesia and ICM are strongly advised to consult the FICM Curriculum and Assessment guidance provided by the FICM (see http://www.ficm.ac.uk/).

Basic Anaesthetic Training Competencies – 3/6 months to 2 years

The minimum number of Workplace Based assessments required by the Royal College of Anaesthetists is as follows:

- DOPs   1
- ICM-CEX   1
- CBD   1
- ACAT   1

Each piece of evidence can potentially be used to support multiple competencies. A single patient encounter involving a history, examination, differential diagnosis and construction and implementation of a management plan could assess many of the competencies together.

Using this approach it is estimated that a trainee will need to produce **a minimum of 4 separate WBPAs per 3 month ICM module** to fulfil training requirements during each attachment. This is an indicative number only; the final tally will be guided by the trainees mapping of assessments against the curriculum competencies.

Workplace-Based Assessment Tools Key	
C	Case-Based Discussion [CBD]
D	Direct Observation of Procedural Skills [DOPS]
I	ICM Mini-Clinical Evaluation Exercise [I-CEX]
M	Multi-source Feedback [MSF]
S	Simulation
T	Acute Care Assessment Tool [ACAT]
Additional Assessment Tools Key	
EE	Educational Event
G	Logbook page … [*include page ref, i.e. G22*]
L	Anaesthetic List Management Tool [ALMAT]

Basic Anaesthetic Training Competencies – 3/6 months to 2 years

Competency Level Descriptors

Both trainees and trainers need to ensure that training is comprehensive and progressing at a satisfactory rate. The level of attainment descriptors are as follows:

Level	Task orientated competence	Knowledge orientated competence	Patient management competence
1	Performs task under direct supervision	Very limited knowledge; requires considerable guidance to solve a problem within the area.	Can take history, examine and arrange investigations for straight forward case [limited differential diagnosis]. Can initiate emergency management and continue a management plan, recognising acute divergences from the plan. Will need help to deal with these.
2	Performs task in straightforward circumstances, requires help for more difficult situations. Understands indications and complications of task.	Sound basic knowledge; requires some guidance to solve a problem within the area. Will have knowledge of appropriate guidelines and protocols.	Can take history, examine and arrange investigations in a more complicated case. Can initiate emergency management. In a straightforward case, can plan management and manage any divergences in short term. Will need help with more complicated cases.
3.	Performs task in most circumstances, will need some guidance in complex situations. Can manage most complications, has a good understanding of contraindications and alternatives.	Advanced knowledge and understanding; only requires occasional advice and assistance to solve a problem. Will be able to assess evidence critically.	Can take history, examine and arrange investigations in a more complex case in a focused manner. Can initiate emergency management. In most cases, can plan management and manage divergences. May need specialist help for some cases.
4.	Independent [consultant] practice	Expert level of knowledge.	Specialist

Basic Anaesthetic Training Competencies – 3/6 months to 2 years

Training Progression Grid for Anaesthetic ICM training – Basic Level

An ICM Training Progression Grid should be used for each stage of training. The Grids are divided into two sections:

- **Section 1: Mandatory Competencies**
  Those competencies which **must** be achieved in the 3/12 Basic ICM block.

- **Section 2: Additional Competencies**
  Those competences, where an anaesthetic trainee will be able to accumulate evidence of ICM competency during their wider anaesthetic practice. These competences have been cross-mapped to the Anaesthetic CCT Curriculum to indicate where they may be acquired.
  Trainees are **not** expected to record evidence against every competency listed in the second section, but are strongly encouraged to map their cross-specialty competency achievement as and when they are acquired. This will enable easy demonstration of competency acquisition should a trainee later wish to dual accredit in ICM.

At least one piece of suitable evidence is required for each of the relevant competencies. The 'Assessment Tools' column describes what type of workplace-based assessment are suitable for each competency. One assessment can be used to cover multiple curriculum competencies, and other types of evidence may be used to demonstrate competence, as described in 'Additional Assessment Tools Key' (see page 2). Please ensure that the numbering of evidence items in this table matches that in your portfolio.

'CAT Target Level' indicates the final competency level for Basic Level Training. Trainees should **not *normally*** be marked higher than these levels at the end of CAT unless in exceptional circumstances with accompanying evidence. **Please see the full ICM Syllabus for details of the knowledge, skills and behaviours which make up each competency.**

The following grid demonstrates the level of achievement expected of anaesthetic trainees during Basic Level Training. These are adapted from the Training Progression Grid which appears in *Part II* of *The CCT in Intensive Care Medicine* (2011).

How to use the Grid
- Complete your WPA's on the e-Portfolio as usual.
    - Number each assessment (e.g. for DOPS: D1, D2 etc).
- Use the grid to record your competency acquisition.
    - Indicate the assessment code(D1, D2 etc) in the **'Trainee Evidence'** column
- Once you have completed all the Mandatory Competencies show the evidence to your FICM Tutor
    - FICM Tutor to sign the Grid Paperwork
    - FICM Tutor to create Unit of Training sign-off on the e-Portfolio
- Uploaded the grid to your personal library in the e-Portfolio as evidence for module sign-off

Basic Anaesthetic Training Competencies – 3/6 months to 2 years

Mandatory Basic level Intensive Care Medicine Competencies
These competencies **must** be assessed during the 3/12 block of Basic ICM during Basic Level Anaesthetic Training:

ICM Domain and Competencies	CAT Target Level	Level Achieved	Assessment Tools	Trainee Evidence	ICM Educational Supervisor	
					Sign-off	**Date**
Domain 1: Resuscitation and management of the acutely ill patient						
1.1 Adopts a structured and timely approach to the recognition, assessment and stabilisation of the acutely ill patient with disordered physiology	1		I, C, M, T, S			
1.4 Triages and prioritises patients appropriately, including timely admission to ICU	1		C, M, T			
Domain 2: Diagnosis, Assessment, Investigation, Monitoring and Data Interpretation						
2.1 Obtains a history and performs an accurate clinical examination	1		I, M			
2.2 Undertakes timely and appropriate investigations	1		I, C, M			
2.4 Obtains appropriate microbiological samples and interprets results	1		D, C			
2.8 Integrates clinical findings with laboratory investigations to form a differential diagnosis	1		I, C, T, S			
Domain 3: Disease Management						
3.1 Manages the care of the critically ill patient with specific acute medical conditions	1		D, I, C, M, T, S			
3.2 Identifies the implications of chronic and co-morbid disease in the acutely ill patient	1		C			
3.3 Recognises and manages the patient with circulatory failure	1		I, C, T, S			
3.4 Manages the patient with, or at risk of, acute renal failure	1		I, C, T			
3.6 Recognises and manages the patient with neurological impairment	1		I, C, T, S			
3.9 Recognises and manages the septic patient	1		I, C, T			
Domain 4: Therapeutic interventions / Organ support in single or multiple organ failure						
4.2 Manages antimicrobial drug therapy	2		I, C, M			
4.6 Initiates, manages, and weans patients from invasive and non-invasive ventilatory support	1		D, C, T			
4.8 Recognises and manages electrolyte, glucose and acid-base disturbances	1		I, C, T, S			
Domain 5: Practical procedures						
Domain 5 competencies can be covered elsewhere in CAT or not assessed at this level						
Domain 6: Perioperative care						
6.1 Manages the pre- and post-operative care of the high risk surgical patient	1		C, M, T			
Domain 7: Comfort and recovery						
7.1 Identifies and attempts to minimise the physical and psychosocial consequences of critical illness for patients and families	1		M, C			
7.2 Manages the assessment, prevention and treatment of pain and delirium	2		D, I, C, M, T			
7.4 Communicates the continuing care requirements, including rehabilitation, of patients at ICU discharge to health care professionals, patients and relatives	1		M, T, S			
7.5 Manages the safe and timely discharge of patients from the ICU	1		M, T			
Domain 8: End of life care						
8.1 Manages the process of withholding or withdrawing treatment with the multi-disciplinary team	1		C, M			
Domain 9: Paediatric care						

Basic Anaesthetic Training Competencies – 3/6 months to 2 years

9.2 Describes national legislation and guidelines relating to child protection and their relevance to critical care	1	C	
Domain 10: Transport			
10.1 Undertakes transport of the mechanically ventilated critically ill patient outside the ICU	1	D, I, C, M	
Domain 11: Patient safety and health systems management			
11.2 Complies with local infection control measures	3	C, M	
Domain 12: Professionalism			
12.8 Ensures continuity of care through effective hand-over of clinical information	2	C, M, T, S	

Basic ICM module sign-off: *To be completed following 3/12 CAT Basic ICM module and acquisition of mandatory competencies*

Trainer Signature: _____   Trainer Name (Print): _____   Date (DD/MM/YYYY) [ ] [ ] [ ]
(*ICM Educational Supervisor or FICM Tutor*)

Trainee Signature: _____   Trainee Name (Print): _____   Date (DD/MM/YYYY) [ ] [ ] [ ]

Comments:

Basic Anaesthetic Training Competencies – 3/6 months to 2 years

Additional Basic level Intensive Care Medicine Competencies

These competencies are **not mandatory** for assessment within the 3/12 ICM block in Basic Level Anaesthesia. However, trainees **may** acquire them during their Basic ICM module or via the cross-mapped Anaesthetic CCT competencies detailed below – this table provides the opportunity to demonstrate this competency acquisition. Due to the competency-sampling nature of *The CCT in Anaesthetics*, trainees may not be exposed to all of the areas of practice detailed below; therefore trainees are **not** expected to record evidence against every competency listed below, only those competencies which they have acquired.

All Core level trainees are encouraged to record their cross-specialty competencies to remain pluri-potential for Dual CCTs ICM recruitment at ST3 level. Trainees who do not record cross-competency acquisition during CAT are **fully eligible** for entry to ST3 ICM, but the portfolio-mapping exercise may be useful when first entering ICM CCT and working with TPDs and trainers to determine the rest of their Stage 1 requirements.

ICM Domain and Competencies	CAT Target Level	Level Achieved	Assessment Tools	Anaesthesia CCT Competency	Trainee Evidence	ICM Educational Supervisor	
						Sign-off	Date
Domain 1: Resuscitation and management of the acutely ill patient							
1.2 Manages cardiopulmonary resuscitation – ALS recommended	3		I, M, T, S	RC_BS_01			
1.3 Manages the patient post resuscitation	1		I, M, T, S	RC_BK_21			
1.5 Assesses and provides initial management of the trauma patient	1		D, I, M, T, C, S	MT_BS_01 MT_BS_02 MT_BS_06			
Domain 2: Diagnosis, Assessment, Investigation, Monitoring and Data Interpretation							
2.3 Performs electrocardiography (ECG / EKG) and interprets the results	2		D, I, C	OA_BS_03			
2.5 Obtains and interprets the results from blood gas samples	2		D, C	OA_BS_04			
2.6 Interprets imaging studies	1		I, C	OA_BS_05			
2.7 Monitors and responds to trends in physiological variables	2		I, T, S	CI_BS_02 CI_BS_03 IG_BK_03 GU_BK_03 MT_BK_03			
Domain 3: Disease Management							
3.5 Recognises and manages the patient with, or at risk of, acute liver failure	1		I, C, T	IO_BS_10 PB_BK_78 PB_BK_79			
3.7 Recognises and manages the patient with acute gastrointestinal failure	1		I, C, T	PR_BK_55 GU_BK_05			
3.10 Recognises and manages the patient following intoxication with drugs or environmental toxins	1		I, C, S	RC_BK_01 RC_BK_02 RC_BK_16 RC_BK_18			
3.11 Recognises life-threatening maternal peripartum complications and manages care	1		I, C, S	OB_BK_06 OB_BS_11 OB_BS_12			
Domain 4: Therapeutic interventions / Organ support in single or multiple organ failure							

Basic Anaesthetic Training Competencies – 3/6 months to 2 years

4. 1 Prescribes drugs and therapies safely	2		D, C, M	Annex A Domain 2: CC_D2_02 PM_BS_02 OA_BK_08 IG_BK_01 PO_BS_07 PD_BS_01		
4.3 Administers blood and blood products safely	2		D, C, M	GU_BK_06 GU_BK_07 CI_BK_24 OB_BK_06 IO_BS_09		
4.4 Uses fluids and vasoactive / inotropic drugs to support the circulation	2		I, C	ES_BK_02 MT_BK_06 PR_BK_41 PR_BK_42 PR_BK_43		
4.9 Co-ordinates and provides nutritional assessment and support	2		I, C, T	PB_BK_82 PB_BK_84 PB_BK_85 GU_BK_08 OA_BS_02		
Domain 5: Practical procedures						
5.1 Administers oxygen using a variety of administration devices	2		D, S	PO_BK_05 AM_BK_08 IAC_C06		
5.2 Performs emergency airway management	2		D, S			
5.3 Performs difficult and failed airway management according to local protocols	2		D, S	Airway Management IAC_D06 IG_BS_12		
5.4 Performs endotracheal suction	2		D	AM_BS_11 IG_BS_11		
5.7 Performs chest drain insertion	1		D	MT_BS_04		
5.8 Performs arterial catheterisation	1		D, C	MT_BK_07		
5.9 Performs ultrasound techniques for vascular localisation	1		C	AN_BK_39		
5.10 Performs central venous catheterisation	1		D, C	MT_BK_07		
5.11 Performs defibrillation and cardioversion	2		D, C, S	RC_BS_08		
5.13 Describes how to perform pericardiocentesis	1		C	RC_BK_16		
5.14 Demonstrates a method for measuring cardiac output and derived haemodynamic variables	1		D, C			
5.15 Performs lumbar puncture (intradural / 'spinal') under supervision	2		D, S	OB_BS_05		
5.16 Manages the administration of analgesia via an epidural catheter	1		I	OB_BS_04 PM_BS_03		
5.18 Describes Sengstaken tube (or equivalent) placement	1		C			

Basic Anaesthetic Training Competencies – 3/6 months to 2 years

5.19 Performs nasogastric tube placement	3		D			
5.20 Performs urinary catheterisation	3		D	PO_BK_06		
Domain 6: Perioperative care						
6.5 Manages the pre- and post-operative care of the trauma patient	1		C. T	MT_BS_06 MT_BK_17		
Domain 7: Comfort and recovery						
7.3 Manages sedation and neuromuscular blockade	2		D, I, C, M, T	IO_BS_04, CS_BS_01/02		
Domain 8: End of life care						
8.2 Discusses end of life care with patients and their families / surrogates	1		C, M, D	Annex A Domain 1b: CC_D1_07 CC_D1_08 Domain 10: CC_D10_01		
Domain 9: Paediatric care						
9.2 Describes national legislation and guidelines relating to child protection and their relevance to critical care	1		C	Child Protection CP_BK_02 CP_BK_03 PA_BK_18		
Domain 10: Transport						
Domain 10 competencies are covered in 3/12 Basic ICM module or not assessed at this level						
Domain 11: Patient safety and health systems management						
11.3 Identifies environmental hazards and promotes safety for patients and staff	2		C, M	Annex A Domain 8: CC_D8_01 CC_D8_02 CC_D8_05 IF_BK_01 IF_BS_04 DI_BK_03		
11.4 Identifies and minimises risk of critical incidents and adverse events, including complications of critical illness	1		C, M	Annex A Domain 8: CC_D8_03 CC_D8_04 CC_D8_06 CI_BK_32 CI_BK		

Basic Anaesthetic Training Competencies – 3/6 months to 2 years

11.6 Critically appraises and applies guidelines, protocols and care bundles	2		C	Annex A Domain 8: CC_D8_03 CC_D8_06 AR_BS_02 AR_BS_03 AR_BS_04
11.7 Describes commonly used scoring systems for assessment of severity of illness, case mix and workload	1		C	-
Domain 12: Professionalism				
12.1 Communicates effectively with patients and relatives	2		D, M, T, S	Annex A Domain 10
12.2 Communicates effectively with members of the health care team	2		D, M, S	Annex A Domain 3: TF_BK_15
12.3 Maintains accurate and legible records / documentation	2		D, M, T	Annex A Domain 1a: CC_D1_03 IO_BS_06
12.4 Involves patients (or their surrogates if applicable) in decisions about care and treatment	1		C, M, T	Annex A Domain 10
12.5 Demonstrates respect of cultural and religious beliefs and an awareness of their impact on decision making	2		C, M, T	Annex A Domain 1e
12.6 Respects privacy, dignity, confidentiality and legal constraints on the use of patient data	2		C, M	Annex A Domain 9
12.7 Collaborates and consults; promotes team-working	2		M	Annex A Domain 3
12.9 Supports clinical staff outside the ICU to enable the delivery of effective care	2		C, M, T	Annex A Domain 4
12.10 Appropriately supervises, and delegates to others, the delivery of patient care	1		C, M, T	Annex A Domain 8: CC_D8_01
12.11 Takes responsibility for safe patient care	2		D, C, M, T	Annex A Domain 9 and 11
12.12 Formulates clinical decisions with respect for ethical and legal principles	1		C, M, T	Annex A Domains 2 and 8
12.13 Seeks learning opportunities and integrates new knowledge into clinical practice	2		M	Annex G
12.14 Participates in multidisciplinary teaching	3		M	Annex G
12.15 Participates in research or audit under supervision	2		M	Annex A Domain 3