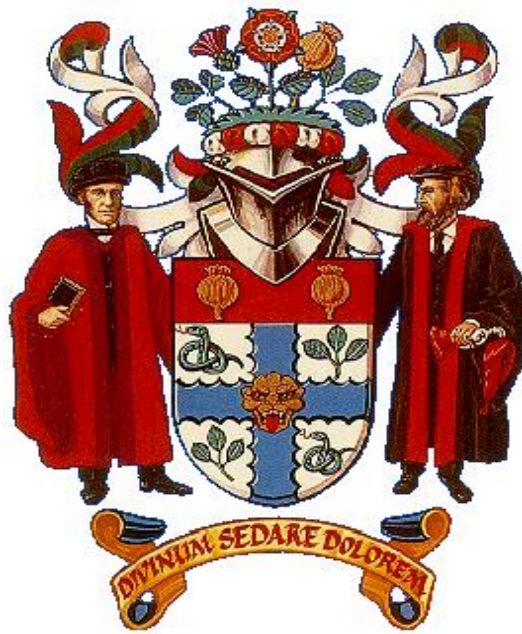


CCT in Anaesthetics

Intermediate & Higher Level Training



Health Education England (West Midlands)

Training Guidebook

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/>).

Intermediate and Higher ICM Training Competencies

Workplace Based Assessments

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 WPBAs 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.

It is recommended that you complete the WPBAs outlined towards the end of this Guidebook and use them to map to the ICM Training Progression Grids that follow.

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 ... <i>[include page ref, i.e. G22]</i>
L	Anaesthetic List Management Tool [ALMAT]

Intermediate and Higher ICM Training Competencies

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

Intermediate and Higher ICM Training Competencies

Training Progression grid for Anaesthetic ICM training

An ICM Training Progression Grid should be used for each stage of training. The Grids are divided into two sections. Only Section 1 is included in this guidebook.

- **Section 1: Mandatory Competencies**

Those competencies which **must** be achieved in each 3/12 ICM block. These are outlined in this guidebook

- **Section 2: Additional Competencies (Not included in this guidebook)**

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 Intermediate and Higher 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 grids demonstrate the level of achievement expected of anaesthetic trainees during Intermediate and Higher 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

Intermediate and Higher ICM Training Competencies

ICM Work Place Based Assessments

Below is a guide to the Cases required to accumulate the Grid Competencies

A-CEX

All mandatory cases plus at least two additional cases to be completed during intermediate and higher ICM training.

e-Portfolio A-CEX	Index Cases
Mandatory Cases	Acute kidney injury
	Acutely ill surgical patient
	Head injury – resuscitation, stabilisation and transfer (This is essential for Neuro sign off in Intermediate Training).
	Severe acute respiratory failure (ARDS/ALI)
	Severe sepsis
Additional Cases	Acute liver failure
	Intoxication with drugs
	Obstetric ICU admission
	Paediatric emergency
	Post-op cardiac or neuro surgery
Management Cases	Discharge of patients from ICU
	Discussion with relatives
	Leading daily ward round (Minimum one in Intermediate Training and one in Higher Training)
	Management of treatment withdrawal
Transfer Case	Transport of a ventilated, critically ill patient outside ICU

Intermediate and Higher ICM Training Competencies

Transfers

Date of Transfer	Description of Case

DOPS

e-Portfolio DOPS	Index Skills
	Appropriate use of inotropes with appropriate cardiac output monitoring
	Brain stem death testing
	Fibreoptic bronchoscopy and BAL
	Management of renal replacement therapy
	Safe establishment of mechanical ventilation

Intermediate and Higher ICM Training Competencies

Practical Procedures Undertaken

Procedure	Intermediate Training Total Number	Higher Training Total Number
Abdominal paracentesis		
Arterial line		
Bronchoscopy		
Chest drain		
CVP line		
CVVH line		
Endotracheal suction		
NG tube		
Percutaneous tracheostomy		
Transthoracic pacing		
Use of ultrasound for venous location		

CbD

CbDs must include the discussion of:

- Management of antimicrobial therapy.
- Management of pain, agitation and delirium.
- Use of scoring systems for severity of illness.

e-Portfolio CbD	Index Cases
Intermediate Training	Case description of trainee/trainer choice
Higher Training	Case description of trainee/trainer choice

Intermediate ICM Training Progression Grid

Mandatory Intermediate Level Intensive Care Medicine Competencies

These competencies must be assessed during the 3/12 block of Intermediate ICM during Intermediate Level Anaesthetic Training:

Domain and Competencies	Entry Level	INT Target Level	Level Achieved	Assessment Tools	Trainee Evidence	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	2		I, C, M, T, S			
1.4 Triage and prioritises patients appropriately, including timely admission to ICU	1	2		C, M, T			
1.5 Assesses and provides initial management of the trauma patient	1	2		D, I, M, T, C, S			
Domain 2: Diagnosis, Assessment, Investigation, Monitoring and Data Interpretation							
2.1 Obtains a history and performs an accurate clinical examination	1	2		I, M			
2.2 Undertakes timely and appropriate investigations	1	2		I, C, M			
2.4 Obtains appropriate microbiological samples and interprets results	1	2		D, C			
2.6 Interprets imaging studies	1	2		I, C			
2.8 Integrates clinical findings with laboratory investigations to form a differential diagnosis	1	2		I, C, T, S			
Domain 3: Disease Management							
3.1 Manages the care of the critically ill patient with specific acute medical conditions	1	2		D, I, C, M, T, S			
3.2 Identifies the implications of chronic and co-morbid disease in the acutely ill patient	1	2		C			
3.3 Recognises and manages the patient with circulatory failure	1	2		I, C, T, S			
3.4 Recognises and manages the patient with, or at risk of, acute renal failure	1	2		I, C, T			
3.6 Recognises and manages the patient with neurological impairment	1	2		I, C, T, S			
3.8 Recognises and manages the patient with severe acute respiratory failure / acute lung injury syndromes (ALI / ARDS)	1	2		I, C, T			
3.9 Recognises and manages the septic patient	1	2		I, C, T			
Domain 4: Therapeutic interventions / Organ support in single or multiple organ failure							
4.2 Manages antimicrobial drug therapy	2	2		I, C, M			
4.6 Initiates, manages, and weans patients from invasive and non-invasive ventilatory support	1	2		D, C, T			
4.7 Initiates, manages and weans patients from renal replacement therapy	0	1		D, I, C, T			
Domain 5: Practical procedures							
5.5 Performs fiberoptic bronchoscopy and BAL in the intubated patient	0	2		D, M			
Domain 6: Perioperative care							
6.1 Manages the pre- and post-operative care of the high risk surgical patient	1	3		C, M, T			
6.5 Manages the pre- and post-operative care of the trauma patient	1	2		C, 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	2		M, C			
7.2 Manages the assessment, prevention and treatment of pain and delirium	2	2		D, I, C, M, T			
7.3 Manages sedation and neuromuscular blockade	2	3		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	2		M, T, S			
7.5 Manages the safe and timely discharge of patients from the ICU	1	2		M, T			
Domain 8: End of life care							

Intermediate ICM Training Progression Grid

8.1 Manages the process of withholding or withdrawing treatment with the multi-disciplinary team	1	1	C, M		
8.2 Discusses end of life care with patients and their families / surrogates	1	2	C, M, D		
8.3 Manages palliative care of the critically ill patient	0	1	C, M, T		
8.4 Performs brain-stem death testing	0	1	D, S		
8.5 Manages the physiological support of the organ donor	0	1	I, C		
8.6 Manages donation following cardiac death	0	1	C, T, S		
Domain 9: Paediatric care					
<i>Domain 9 competencies can be covered elsewhere in Anaesthesia or entered below if achieved within ICM module</i>					
Domain 10: Transport					
10.1 Undertakes transport of the mechanically ventilated critically ill patient outside the ICU	1	2	D, I, C, M, S		
Domain 11: Patient safety and health systems management					
11.1 Leads a daily multidisciplinary ward round	0	1	M, T		
11.2 Complies with local infection control measures	3	3	C, M		
11.7 Describes commonly used scoring systems for assessment of severity of illness, case mix and workload	1	2	C		
11.8 Demonstrates an understanding of the managerial and administrative responsibilities of the ICM specialist	0	1	C, M		
Domain 12: Professionalism					
12.8 Ensures continuity of care through effective hand- over of clinical information	2	3	C, M, T, S		

Intermediate ICM module sign-off: *To be completed following 3/12 Anaesthetic Intermediate 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:

Higher ICM Training Progression Grid

Mandatory Higher Level Intensive Care Medicine Competencies

These competencies must be assessed during the 3/12 block of Higher ICM during Higher Level Anaesthetic Training:

ICM Domain and Competencies	Entry Level	HIGHER Target Level	Level Achieved	Assessment Tools	Trainee Evidence	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	2	3		I, C, M, T, S			
1.4 Triages and prioritises patients appropriately, including timely admission to ICU	2	3		C, M, T			
1.5 Assesses and provides initial management of the trauma patient	2	3		D, I, M, T, C, S			
Domain 2: Diagnosis, Assessment, Investigation, Monitoring and Data Interpretation							
2.1 Obtains a history and performs an accurate clinical examination	2	3		I, M			
2.2 Undertakes timely and appropriate investigations	2	3		I, C, M			
2.4 Obtains appropriate microbiological samples and interprets results	2	3		D, C			
2.6 Interprets imaging studies	2	3		I, C			
2.8 Integrates clinical findings with laboratory investigations to form a differential diagnosis	2	2		I, C, T, S			
Domain 3: Disease Management							
3.1 Manages the care of the critically ill patient with specific acute medical conditions	2	2		D, I, C, M, T, S			
3.2 Identifies the implications of chronic and co-morbid disease in the acutely ill patient	2	2		C			
3.3 Recognises and manages the patient with circulatory failure	2	3		I, C, T, S			
3.4 Recognises and manages the patient with, or at risk of, acute renal failure	2	3		I, C, T			
3.6 Recognises and manages the patient with neurological impairment	2	3		I, C, T, S			
3.8 Recognises and manages the patient with severe acute respiratory failure / acute lung injury syndromes (ALI / ARDS)	2	3		I, C, T			
3.9 Recognises and manages the septic patient	2	3		I, C, T			
Domain 4: Therapeutic interventions / Organ support in single or multiple organ failure							
4.2 Manages antimicrobial drug therapy	2	3		I, C, M			
4.5 Describes the use of mechanical assist devices to support the circulation	0	1		C			
4.6 Initiates, manages, and weans patients from invasive and non-invasive ventilatory support	2	3		D, C, T			
4.7 Initiates, manages and weans patients from renal replacement therapy	1	2		D, I, C, T			
Domain 5: Practical procedures							
5.5 Performs fibrooptic bronchoscopy and BAL in the intubated patient	2	3		D, M			
Domain 6: Perioperative care							
6.1 Manages the pre- and post-operative care of the high risk surgical patient	3	4		C, M, T			
6.5 Manages the pre- and post-operative care of the trauma patient	2	3		C, 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	2	3		M, C			
7.2 Manages the assessment, prevention and treatment of pain and delirium	2	3		D, I, C, M, T			
7.3 Manages sedation and neuromuscular blockade	3	3		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	2	3		M, T, S			
7.5 Manages the safe and timely discharge of patients from the ICU	2	2		M, T			
Domain 8: End of life care							

Higher ICM Training Progression Grid

8.1 Manages the process of withholding or withdrawing treatment with the multi-disciplinary team	1	2		C, M		
8.2 Discusses end of life care with patients and their families / surrogates	2	3		C, M, D		
8.3 Manages palliative care of the critically ill patient	1	2		C, M, T		
8.4 Performs brain-stem death testing	1	2		D, S		
8.5 Manages the physiological support of the organ donor	1	2		I, C		
8.6 Manages donation following cardiac death	1	2		C, T, S		
Domain 9: Paediatric care						
<i>Domain 9 competencies can be covered elsewhere in Anaesthesia or entered below if achieved within ICM module</i>						
Domain 10: Transport						
10.1 Undertakes transport of the mechanically ventilated critically ill patient outside the ICU	2	3		D, I, C, M, S		
Domain 11: Patient safety and health systems management						
11.1 Leads a daily multidisciplinary ward round	1	2		M		
11.2 Complies with local infection control measures	3	4		C, M		
11.7 Describes commonly used scoring systems for assessment of severity of illness, case mix and workload	2	3		C		
11.8 Demonstrates an understanding of the managerial and administrative responsibilities of the ICM specialist	1	2		C, M		
Domain 12: Professionalism						
12.8 Ensures continuity of care through effective hand- over of clinical information	3	4		C, M, T, S		

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

Trainer Signature: _____
(ICM Educational Supervisor or FICM Tutor)

Trainer Name (Print): _____

Trainer GMC Number: _____

Date (DD/MM/YYYY)

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Trainee Signature: _____

Trainee Name (Print): _____

Trainee GMC Number: _____

Date (DD/MM/YYYY)

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Comments:

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