



**Intensive Care Medicine**

**Intermediate & Higher Level  
Training  
(ST3 – ST7)**

**CCT in Anaesthetics**

**2010 Curriculum**

**Guidebook**



## **Contents**

1. Message from the Training Programme Director
2. Contacts
3. Guidance
4. Intensive Care Medicine

## **Message from the Training Programme Director**

Hello,

Welcome to the Birmingham School of Anaesthesia. You have embarked on a 5 year Specialist Training Programme and hopefully a successful career in Anaesthesia. I hope very much that you will enjoy the experience and challenges ahead.

This document has been developed (by trainees, for trainees) to try and make your journey through to CCT a little bit easier. I hope you find it a useful guide to your training.

If you have any questions regarding any part of your training then please feel free to contact me at any time.

Enjoy your training.

Catherine Brennan  
[catherinebrennan@nhs.net](mailto:catherinebrennan@nhs.net)

## Contacts

Training Programme Director: Catherine Brennan  
Russells Hall Hospital  
[catherinebrennan@nhs.net](mailto:catherinebrennan@nhs.net)

Hospital	College Tutor	Admin
Birmingham Children's Hospital (BCH)	Elin Jones <a href="mailto:elin.jones1@nhs.net">elin.jones1@nhs.net</a>	Lorraine Darby <a href="mailto:lorraine.darby1@nhs.net">lorraine.darby1@nhs.net</a>
City & Sandwell Hospitals (City)	James Burns <a href="mailto:j.burns4@nhs.net">j.burns4@nhs.net</a>	Admin <a href="mailto:swbh.anaesthetic-admin-team@nhs.net">swbh.anaesthetic-admin-team@nhs.net</a>
Hereford County Hospital (HCH)	Tim Day-Thompson <a href="mailto:Tim.day-thompson@wvt.nhs.uk">Tim.day-thompson@wvt.nhs.uk</a>	Admin <a href="mailto:anaesthesia@wvt.nhs.uk">anaesthesia@wvt.nhs.uk</a>
Queen Elizabeth Hospital (QEHB)	Emma Plunkett <a href="mailto:Emma.plunkett@nhs.net">Emma.plunkett@nhs.net</a> Sathyanarayanan Jagannathan <a href="mailto:Sathyanarayanan.Jagannathan@uhb.nhs.uk">Sathyanarayanan.Jagannathan@uhb.nhs.uk</a>	Jackie Bladon <a href="mailto:jackie.bladon@uhb.nhs.uk">jackie.bladon@uhb.nhs.uk</a>
Royal Orthopaedic Hospital (ROH)	James Brunning <a href="mailto:j.brunning@nhs.net">j.brunning@nhs.net</a>	Joanna Mccaffery <a href="mailto:j.mccaffery@nhs.net">j.mccaffery@nhs.net</a>
Russells Hall Hospital (RHH)	Mark Tindall <a href="mailto:mark.tindall@nhs.net">mark.tindall@nhs.net</a>	Rebecca Hooper <a href="mailto:dgft.anaesthetics-dept@nhs.net">dgft.anaesthetics-dept@nhs.net</a>
Worcestershire Royal Hospital (WRH)	Michael Clarke <a href="mailto:michael.clarke14@nhs.net">michael.clarke14@nhs.net</a>	Sharon Lake <a href="mailto:sharon.lake@nhs.net">sharon.lake@nhs.net</a>

The Birmingham School of Anaesthesia Website: [www.thebsa.info](http://www.thebsa.info)

## **Guidance**

The Intensive Care Medicine section of this guidebook contains guidance required to achieve satisfactory completion of both Intermediate and Higher ICM training.

## Intermediate and Higher Level Training

Training and assessment requirements for Intensive Care Medicine as part of an Anaesthesia CCT are set out in Annex F – Intensive Care Medicine published by the Royal College of Anaesthetists.

Training and competence progression is assessed against the 12 Domains of:

1. Resuscitation and management of the acutely ill patient
2. Diagnosis, assessment, investigation, monitoring and data interpretation
3. Disease management
4. Therapeutic interventions/ organ support in single or multiple organ failure
5. Practical procedures
6. Perioperative care
7. Comfort and recovery
8. End of life care
9. Paediatric care
10. Transport
11. Patient safety and health systems management
12. Professionalism

At each level of training (basic, intermediate and higher) a certain target competence level needs to be reached. In the main a competence level of 1 should be achieved for basic training, level 2 for intermediate and level 3 for higher training. A description of these competence levels is set out below.

In order to assess levels of competence workplace based assessments in the form of DOPS, CEX, CBD and MSF need to be completed.

Annex F sets out those competences that must be mandatorily assessed as well as additional competences that are not mandatory for assessment. This training pack gives guidance for the assessments that need to be completed in order to achieve the intermediate and higher level mandatory competences as well as proportion of the additional competences.

The mandatory competences must be signed off by the ICM Education Supervisor or FICM Tutor on the forms contained in this training pack. These forms must then be uploaded onto the LLP to be used as evidence for the Completion of Unit of Training (CUT) form. Completion of unit of ICM training paperwork may only be completed by an FICM Tutor who will be the named module lead in that trust.

The mandatory assessment forms **must** be completed by all trainees. Trainees are also encouraged to record the additional competences using the appropriate forms in the Annex F document. Any trainee wishing to get Dual Accreditation **must** record the additional competences.

## Competence Level Descriptors

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 Level Training

### ICM Assessments:

#### A-CEX

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

LLP 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 Post-op cardiac or neuro surgery
Management Cases	Discharge of patients from ICU
	Discussion with relatives
	Leading daily ward round one in Higher Training) (Minimum one in Intermediate Training and
	Management of treatment withdrawal
Transfer Case	Transport of a ventilated, critically ill patient outside ICU



## Transfers

Date of Transfer	Description of Case

## DOPS

LLP 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

## **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.

LLP CbD	Index Cases
Intermediate Training	Case description of trainee/trainer choice
Higher Training	Case description of trainee/trainer choice

## Intermediate Level Mandatory Competences

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			



<b>Domain 8: End of life care</b>							
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			
<b>Domain 9: Paediatric care</b>							
<i>Domain 9 competencies can be covered elsewhere in Anaesthesia or entered below if achieved within ICM module</i>							
<b>Domain 10: Transport</b>							
10.1 Undertakes transport of the mechanically ventilated critically ill patient outside the ICU	1	2		D, I, C, M, S			
<b>Domain 11: Patient safety and health systems management</b>							
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			
<b>Domain 12: Professionalism</b>							
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)

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Trainee Signature: \_\_\_\_\_ Trainee Name (Print): \_\_\_\_\_ Date (DD/MM/YYYY) \_\_\_\_\_

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Comments:

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## Higher Level Mandatory Competences

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 fiberoptic 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			

<b>Domain 8: End of life care</b>							
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			
<b>Domain 9: Paediatric care</b>							
<i>Domain 9 competencies can be covered elsewhere in Anaesthesia or entered below if achieved within ICM module</i>							
<b>Domain 10: Transport</b>							
10.1 Undertakes transport of the mechanically ventilated critically ill patient outside the ICU	2	3		D, I, C, M, S			
<b>Domain 11: Patient safety and health systems management</b>							
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			
<b>Domain 12: Professionalism</b>							
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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