



Higher Level Training (ST5-7)

CCT in Anaesthetics

2010 Curriculum

Guidebook

Contents

1. Message from the Training Programme Director
2. Contacts
3. Guidance
4. Units of Training
5. Essential Units of Training
6. Optional Units of Training

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
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Birmingham School of Anaesthesia Website: www.thebsa.info

Guidance

This workbook covers Higher Level Training, years ST5 – ST6. Higher level training is divided into Essential and Optional Units of Training. All units of training have formal workplace based assessments (WPBA) identified for them by the RCoA.

This guidebook sets out the requirements for satisfactory 'Completion of Unit of Training' (CUT) and the core clinical learning outcomes which are expected to be achieved.

Completion of Units of Training

In order to complete a unit of training and sign off a CUT form, the trainee must demonstrate:

- Achievement of all the learning outcomes
- Completion of WPBA's necessary set out in this workbook
- Logbook review
- MSF (if appropriate)
- Consultant Feedback

Each unit will have a named lead in each Trust you are working. It is that designated module lead who is required to sign the CUT form. All assessments should be completed using the Lifelong Learning Platform (LLP).

A Multi Source Feedback form should be completed during the year on LLP.

Certificates to be gained at this stage of training

- CCT: Certificate of Completion of Training in combination with Advanced Level Training

Educational Supervision Meetings

You will be allocated an educational supervisor each time you start in a Trust. It is your responsibility to meet with them within the first few weeks of your placement. The initial meeting is documented as a PDP and recorded under 'personal activities'. You are then required to have a formal meeting every three months and these should be recorded under 'personal activities'. For the meeting at the end of your hospital placement, a mini ESSR should be produced. For your ARCP you will need to complete a final ESSR form that spans the whole year from your previous ARCP.

LLP requirements

Yearly

- Form R
- Personal Development Plan (PDP)
- Final ESSR form (complete prior to ARCP)

- MSF

Initial meeting with your supervisor

- Discuss and set PDP, record initial meeting under 'personal activities' on LLP

Three monthly until the end of your placement

- Review & sign off PDPs as appropriate
- Evidence documented of a meeting in 'personal activities'

End of placement

- Discuss/set future PDPs
- Evidence documented as an appropriately labelled ESSR if not the last Trust you will work in before your next ARCP

Additional Points

This guidebook details the minimum requirements for each unit of training and suggests some suitable work based assessments mapped to the RCoA 2010 Curriculum Annex D 'Higher Training.' This document is available on the RCoA website and lists in full acceptable assessment topics, should you wish to complete alternative ones to those listed in this guide.

Advanced level training modules are detailed in a separate guide. The 2010 curriculum requires trainees to complete at least one advanced module.

Essential Units of Training

1. Anaesthesia For Neurosurgery, Neuroradiology and Neurocritical Care
2. Cardiothoracic Anaesthesia and Cardiothoracic Critical Care
3. General duties (*** Essential for all trainees**)

3 Mandatory units and at least 6 other units

- **Airway management***
 - *Day surgery*
 - *ENT, Maxillo-facial and dental*
 - *General, urological and gynaecological surgery*
 - **Management of respiratory and cardiac arrest***
 - *Non-theatre*
 - *Obstetrics*
 - *Orthopaedic*
 - **Perioperative Medicine***
 - *Regional*
 - *Sedation*
 - *Transfer medicine*
 - *Trauma and stabilisation*
 - *Vascular surgery*
4. Paediatrics
 5. Intensive care medicine

Optional Units of Training

1. Pain medicine
2. Paediatric Intensive Care Medicine
3. Ophthalmic
4. Plastics/burns
5. Anaesthesia in developing countries
6. Conscious sedation in dentistry
7. Military anaesthesia
8. Remote and rural anaesthesia

Anaesthesia for Neurosurgery, Neuroradiology & Neurocritical Care

Core Clinical Learning Outcomes

1. Deliver safe perioperative anaesthetic care to complicated ASA 1-3 adult patients requiring complex elective intra-cranial and spinal surgery and neuroradiological investigations under direct supervision.
2. Deliver perioperative anaesthetic care to complicated ASA 1-3 adult patients for emergency non-complex intracranial and spinal surgery with indirect supervision [i.e. craniotomy for acute sub-dural / acute decompressive lumbar laminectomy]
3. Lead the resuscitation, stabilisation and transfer of adult patients with brain injury [Cross reference Transfer section]

Unit Requirements

- Minimum of 20 clinical sessions
- WPBA's as indicated
- Consultant feedback (sought by the module lead from other neuro consultants)
- CUT form on LLP.

LLP WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Acute decompressive craniectomy	1	NA_HS_01
	Complex intra-cranial or spinal surgery		NA_HS_01
	Acoustic neuroma surgery with facial nerve monitoring		NA_HS_01
	Interventional neuroradiological procedures		NA_HS_01
	Demonstrating team leadership in the management of major neurosurgical emergencies		NA_HS_04
	Conduct a ward round in neuro-critical care		NA_HS_06
DOPS	Management of ICP & cerebral perfusion in neuroanaesthesia and/or neurocritical care	1	NA_HK_04
CbD	Interventional neurological procedures including coiling	1	NA_HK_01
	Complex spinal surgery including patients with unstable cervical spine		NA_HK_01
	Stroke, including SAH, ICH and ischaemic stroke		NA_HK_02
	Pre-operative assessment of patients requiring routine or emergency neurosurgery.		NA_HS_01
ALMAT	Be an effective member of the MDT, managing elective and emergency cases effectively.	1	NA_HS_01

Cardiothoracic Anaesthesia and Cardiothoracic Critical Care

Core Clinical Learning Outcomes

1. Deliver perioperative anaesthetic care to complicated ASA 1-3 adult patients requiring elective aortic or mitral valve surgery under direct supervision
2. Deliver perioperative anaesthetic care to complicated ASA 1-3 adult patients requiring open resection of lung tissue under local supervision

Unit Requirements

- Minimum of 20 clinical sessions including a logbook with ten pump cases during higher training,
- WPBA's as indicated
- Consultant feedback (sought by the module lead from other cardiac consultants)
- CUT form on LLP.

LLP WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Mitral or aortic valve surgery on cardio-pulmonary bypass	1	CT_HK_02
	Evaluation of patient with borderline respiratory function for lung resection		CT_HK_12
	Anaesthetise a patient for thoracotomy and resection of lung tissue with local supervision.		CT_HS_12
DOPS	Demonstrate the use of an appropriate cardiac output monitor – including its set up	1	CT_HS_06
	Manages a patient for cardiopulmonary bypass, including appropriate myocardial protection, coagulation management, transfer to, and the weaning of patients from bypass with local supervision.		CT_HS_05
	Demonstrate correct management of chest drainage systems		CT_HS_15
	Fibreoptic assessment of DLT placement		CT_HS_14
CbD	Explains the relevance of pre-operative assessment and optimisation of patients with cardiac or thoracic disease.	1	CT_HK_01
	Management of post infarct VSD		CT_HK_02
	Anaesthetic technique for complex thoracic aortic repair		CT_HK_02
	Anaesthetic technique for interventional cardiological procedures such as transvenous device placement for ASD/Aortic valve.		CT_HK_02
	The indications for spinal drainage		CT_HK_07
ALMAT	Be an effective member of the MDT, managing elective and emergency cases effectively.	1	CT_HS_01

General Duties

The vast majority of anaesthetic trainees will do at least twelve months of 'general duties'; as a minimum all trainees must do six months, those doing less than twelve must receive prospective approval from the RCoA Training Department.

- 1. Airway management***
2. Day surgery
3. ENT, maxillo-facial and dental surgery
4. General, urology and gynaecology
- 5. Management of respiratory and cardiac arrest***
6. Non-theatre
7. Obstetrics
8. Orthopaedic surgery
- 9. Perioperative Medicine***
10. Regional
11. Sedation
12. Transfer medicine
13. Trauma and stabilisation
14. Vascular surgery

*** Essential for all trainees**

Airway Management

Core Clinical Learning Outcomes

1. Able to perform elective fiberoptic intubation in patients without serious intra-oral/laryngeal pathology, safely and proficiently, in awake or anaesthetised patients under distant supervision
2. Able to manage patients with complex airway disorders, safely and proficiently, in all situations, under local supervision

Unit Requirements

- WPBA's as indicated.
- Consultant feedback (sought by the supervisor during general duties within the last six months)
- CUT form on LLP.

LLP WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Management of the airway in a patient with complex head/neck pathology	1	AM_HS_02
DOPS	Fibreoptic intubation in the awake patient, including consent	1	AM_HS_02
	Use of an alternative airway device		AM_HS_06
	Correct use of high frequency jet ventilation		AM_HS_05
CbD	Discuss the use of novel airway techniques, including the use of retrograde catheters and airway exchange devices	1	AM_HK_01
ALMAT	Management of an operating list involving multiple patients for airway related surgery, including patients with predicted difficult airway, with appropriate airway management decision making.	1	AM_HS_04

Anaesthesia for Day Case Surgery

Core Clinical Learning Outcome

1. Deliver safe perioperative anaesthetic care to ASA 1-3 patients having more extensive or specialised day surgery procedures with distant supervision

Unit Requirements

- WPBA's as indicated.
- Consultant feedback (sought by the supervisor during general duties within the last six months)
- CUT form on LLP.

LLP WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Anaesthetic management of day case surgical procedures for patients with significant co-morbidity	1	DS_HS_02
DOPS	Ability to critically evaluate the pre-operative condition and suitability of patients with significant co-morbidity for day case surgical procedures	1	DS_HS_02
CbD	The evidence base for the anaesthetic management of day case procedures for patients with significant co-morbidity and issues presented by the elderly	1	DS_HK_01
ALMAT	Management of an operating list involving multiple patients for day case surgical procedures including some with co-morbidity	1	DS_HS_03

ENT, Maxillofacial and Dental Anaesthesia

Core Clinical Learning Outcomes

1. Provides comprehensive safe perioperative anaesthetic care to ASA 1-4 adult patients requiring ENT, maxillo-facial and dental surgery of greater complexity with distant supervision
2. Manage ENT, maxillo-facial and dental surgery lists with distant supervision

Unit Requirements

- WPBA's as indicated.
- Consultant feedback (sought by the supervisor during general duties within the last six months)
- CUT form on LLP.

LLP WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Undertake anaesthesia for major ENT or maxillo-facial surgery such as laryngectomy, thyroidectomy or major resection for cancer	1	EN_HS_02
	Supervise a more junior trainee undertaking uncomplicated ENT or maxillo-facial surgery		EN_HS_11
DOPS	Conduct inhalational induction in a child or adult	1	EN_HS_03
	Provide safe perioperative anaesthetic care for patients where preservation of the facial nerve is required e.g. parotid surgery		EN_HS_05
	Surgical airway techniques		EN_HS_06
	Correct use of high frequency jet ventilation		EN_HS_07
CbD	Pre-operative assessment and optimisation of patients with significant ENT pathology	1	EN_HK_01
	Anaesthetic technique for laryngectomy		EN_HK_02
	Anaesthetic technique for major head and neck surgery		EN_HK_02
	Emergency ENT surgery including bleeding tonsil		EN_HS_08
ALMAT	Be an effective member of the MDT, managing elective and emergency cases effectively.	1	EN_HS_09

General surgery/gynaecology/urology

Core Clinical Learning Outcomes

1. Demonstrates the ability to provide safe and effective perioperative anaesthetic care to high risk emergency surgical cases, including those with potential for massive haemorrhage [e.g. the ruptured aortic aneurysm]
2. Demonstrates the ability to provide safe and effective perioperative anaesthetic care for patients requiring complex lower abdominal and/or bariatric surgery
3. Working within a multi-disciplinary team, demonstrates the necessary communication, teamwork, leadership, professional and practical [anaesthetic] skills needed to manage patients on elective and emergency general surgery, urology and gynaecology lists, safely and effectively

Unit Requirements

- WPBA's as indicated.
- Consultant feedback (sought by the supervisor during general duties within the last six months)
- CUT form on LLP.

LLP WPBA	Index Case (s)	Minimum Number	Code
A-CEX	Anaesthesia for a major complex general surgery, urology or gynaecology case involving invasive monitoring	1	GU_HS_03
	Anaesthesia for a patient with a BMI > 40		GU_HS_03
	Emergency laparotomy		GU_HS_03
	Anaesthesia for complex laparoscopic procedure e.g. anti reflux surgery		GU_HK_03
DOPS	Preoperative evaluation of a high risk surgical patient using stratification methods such as scoring systems and measures of functional capacity (including basic interpretation of CPEX)	1	GU_HS_01
	Use of equipment to manage major blood loss during surgery including rapid infusion and cell saver devices		GU_HS_04
CbD	Discuss the perioperative management of patients with significant co-morbidity (e.g. the elderly, recent cardiac surgery, drug eluting stents and organ system failures (cirrhosis or dialysis dependence).	1	GU_HK_01
	Principles and interpretation of techniques for assessing coagulation such as thromboelastography.		GU_HK_02
ALMAT	Be an effective member of the MDT managing an elective/emergency general surgery, urology or gynaecology list safely and effectively.	1	GU_HS_06

Management of respiratory and cardiac arrest

Core Clinical Learning Outcomes

The management of patients requiring cardio-respiratory resuscitation [with distant supervision] by

1. Demonstrating the ability to lead a multidisciplinary resuscitation team in the initial assessment and management through to definitive care in the Intensive Care Unit if successful [including necessary transfer]
2. Leading the debrief sessions for both staff and relatives in a sensitive, compassionate and constructive manner

Unit Requirements

- WPBA's as indicated.
- Consultant feedback (sought by the supervisor during general duties within the last six months)
- CUT form on LLP.

LLP WPBA	Index Case(s)	Minimum Number	Code
Certificates Uploaded	ALS if in date or evidence of Trust resuscitation training	In date	RC_HS_02
	APLS/EPLS if in date or evidence of Trust resuscitation training		RC_HS_02
DOPS	Initiation and management of targeted temperature management	1	RC_HS_03
CbD	Legal principles of resuscitation, advanced directives and DNAR orders	1	RC_HK_01
	Factors affecting prognostication and the indications for withdrawal of support		RC_HK_02
A-CEX	Demonstrates the ability to provide comprehensive clinical care throughout the resuscitation attempt and during further care if indicated	1	RC_HS_02
	Demonstrates team leadership and the ability to make end of life decisions and when to cease active treatment in a compassionate and caring manner, including leading the discussion on the appropriateness, or otherwise, of withdrawing treatment with both staff and relatives		RC_HS_04

Non Theatre

Core Clinical Learning Outcome

1.To deliver safe peri-procedure anaesthesia/sedation to adult patients outside the operating theatre, including remote sites, under distant supervision

Unit Requirements

- WPBA's as indicated.
- Consultant feedback (sought by the supervisor during general duties within the last six months)
- CUT form on LLP.

LLP WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Anaesthesia for adult patient undergoing interventional imaging, ECT, cardioversion or radiotherapy	1	DI_HK_01
CbD	Discuss the anaesthetic/sedation needs for complex ASA I-IV patients for procedures that may take place outside the operating theatre, including remote sites	1	DI_HS_01

Obstetric Anaesthesia

Core Clinical Learning Outcomes

1. To be able to provide the appropriate anaesthetic management for any patient who requires emergency obstetric anaesthesia
2. To be able to provide elective anaesthetic services to the obstetric unit (excepting those patients with unusual problems who would normally be referred to a specialist centre).

Unit Requirements

- WPBA's as indicated.
- Consultant feedback (sought by the supervisor during general duties within the last six months)
- CUT form on LLP.

LLP WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Undertake the management of caesarean section in a complex obstetric case such as twin delivery, pre-eclampsia, placenta praevia, obstetric haemorrhage	1	OB_HS_05
	Deliver safe and effective general anaesthesia to the obstetric patient in the elective or emergency setting		OB_HS_09
	Demonstrate effective communication with patients and relatives/partners and help alleviate anxiety		OB_HS_10
DOPS	Supervises a more junior trainee in obstetric anaesthetic duties such as instituting epidural analgesia and anaesthesia for a caesarean section	1	OB_HS_12
	Manages the patient with a failed or partly effective epidural		OB_HS_01
	Provide safe and effective regional anaesthesia in both normal and 'difficult' backs.		OB_HS_07
CbD	Limitations of a non-specialised maternity unit and appropriate referral to a tertiary unit	1	OB_HK_01
	Discuss current advances and controversies in obstetrics		OB_HK_02
	Construct a safe and effective plan for the management of women with factors complicating pregnancy		OB_HS_02
	Obstetric emergencies and their management		OB_HS_06
ALMAT	Manage an elective caesarean list effectively	1	OB_HS_03

Orthopaedic Anaesthesia

Core Clinical Learning Outcome

1. Provide comprehensive safe perioperative anaesthetic care to all ASA 1-4 adult patients for all types of elective and emergency orthopaedic/trauma surgery to the limbs, pelvis and spine [excluding scoliosis surgery] with distant supervision.

Unit Requirements

- WPBA's as indicated.
- Consultant feedback (sought by the supervisor during general duties within the last six months)
- CUT form on LLP.

LLP WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Undertake anaesthesia for major orthopaedic surgery (spinal/scoliosis-surgery, pelvic surgery, hip revision arthroplasty).	1	OR_HS_05
	Anaesthesia for a patient with significant co-morbidities for an orthopaedic procedure.		OR_HK_01
DOPS	Evaluation of pre-operative condition of adult patients requiring routine or emergency orthopaedic surgery.	1	OR_HS_01
	Supervise a more junior colleague undertaking routine or emergency orthopaedic surgery		OR_HS_03
CbD	Describes an evidence based approach to the management of complex ASA I-IV patients for elective and emergency major orthopaedic surgery.	1	OR_HK_01
ALMAT	Management of elective or emergency orthopaedic surgical session.	1	OR_HS_05

Perioperative Medicine

Core Clinical Learning Outcomes

This unit is intended to run in parallel with other units of training and is not designed to be undertaken as a standalone dedicated module.

- To deliver high quality preoperative assessment, investigation and management of all patients for elective and emergency surgery
- To deliver high quality individualised anaesthetic care to all patients, focusing on optimising patient experience and outcome
- To plan and implement high quality individualised post-operative care for all patients
- To take a leadership role in the multidisciplinary team in delivering perioperative care

Unit Requirements

- Mandatory to demonstrate the ability to lead a medical preoperative assessment clinic as evidenced by an ALMAT
- Attendance at 4 Pre-operative Assessment Clinics (record on LLP)
- Attendance at 1 CPET clinic (or other physiological assessment clinic)- record on LLP
- Attendance at a Vascular or other MDT meeting to see the decision making process behind complex surgical patients
- Minimum of 4 complex patients seen, reviewed, discussed and counselled
- WPBA's as indicated +/- consultant feedback (as part of general duties)
- CUT form on LLP.

LLP WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Makes complex clinical decisions in the face of uncertainty	1	POM_Hs-02
	Uses risk scoring systems to inform communication with patients and colleagues		POM_HS-03
	Interpret the evidence of the use of advanced haemodynamic monitoring.		POM_HK_09
	Demonstrates the ability to recognize when standard pathways should be adapted and tailored to individual need		POM_HS-19
DOPS	Demonstrates mastery of anaesthetic techniques for patients with complex comorbidities.	1	POM_HS_09
	Uses depth of anaesthesia monitoring effectively		POM_HS_10
CbD	Strategies for prehabilitation and patient optimisation including the limits of these strategies	1	POM_HK-01
	Describes the evidence base for and limitations of goal directed therapy		POM_HK_08
	Evaluates the benefits and limitations of perioperative patient pathways		POM_HK_13
ALMAT	Demonstrates the ability to lead a medical preoperative assessment clinic [MANDATORY]	1	POM_HS-07

Regional Anaesthesia

Core Clinical Learning Outcomes

1. Demonstrates ability to perform both lower and upper limb plexus/regional blocks with distant supervision.
2. Always considers the option of regional anaesthesia in appropriate clinical contexts.

Unit Requirements

- WPBA's as indicated.
- Consultant feedback (sought by the supervisor during general duties within the last six months)
- CUT form on LLP.

LLP WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Manage surgery with regional anaesthesia and sedation for a complex or lengthy procedure.	1	RA_HS_03
	Teach a junior colleague how to do a peripheral nerve block.		RA_HS_08
DOPS	Brachial Plexus Block (E)	All (E)	RA_HS_01
	Femoral nerve block (E)		RA_HS_01
	Thoracic epidural anaesthesia (E)		RA_HS_01
	Other regional blocks including deep cervical, supra and infra clavicular, intercostal, lumbar plexus, and sciatic.		RA_HS_01
	Placement of a catheter for continuous peripheral nerve blockade		RA_HK_01
CbD	Principles of the use of ultrasound for guiding nerve/plexus blocks	1	RA_HK_03
	Principles, practice and complications of catheter techniques for peripheral nerve blocks		RA_HK_02
ALMAT	Co-ordinate and manage a list with suitable patients for regional blockade.	1	RA_HS_07

(E) = essential and must be completed by end of year 7 for sign off

Sedation

Core Clinical Learning Outcome

1. Demonstrates the ability to provide safe and effective sedation to any patient using whatever drugs required, by whatever route

Unit Requirements

- WPBA's as indicated.
- Consultant feedback (sought by the supervisor during general duties within the last six months)
- CUT form on LLP.

LLP WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Use of sedation in an adult patient with significant co-morbidities	1	CS_HS_02
	Focused pre-operative evaluation of a patient at risk of perioperative mortality/morbidity.		CS_HS_01
CbD	How multiple drug use may enhance sedation techniques, whilst detailing how this increases risk	1	CS_HK_01
	Risks and benefits of specific procedures that require the use of conscious sedation to ensure they are completed successfully.		CS_HS_02
	How patient age affects choice of sedation technique		CS_HS_03
ALMAT	Demonstrates the ability to supervise and teach safe conscious sedation techniques to less experienced trainees	1	CS_HS_05

Transfer Medicine

Core Clinical Learning Outcomes

1. Demonstrates the ability to lead a multidisciplinary team undertaking the initial assessment and stabilisation of patients, prioritising their early treatment
2. Demonstrates the leadership and clinical management skills needed to lead teams delivering safe and effective intra-/inter hospital transfer of any patient, however complex, and for prolonged journeys within the UK if required, by either land or air.
3. Demonstrates an understanding of the roles and responsibilities of teaching and supervising those undergoing training in the transfer of patients

Unit Requirements

- WPBA's as indicated.
- Consultant feedback (sought by the supervisor during general duties within the last six months)
- CUT form on LLP.

NB: Any trainee who has successfully completed a Helicopter Crew Course or equivalent may be assumed to have achieved the competencies below.

LLP WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Inter or intra hospital transfer of adult patient	1	TF_HS_01
	Leadership of the MDT team undertaking a transfer		TF_HS_06
	Demonstrates the correct use of communication by radio		TF_HS_08
CbD	Principles of handover following a transfer	1	TF_HK_07
	Importance of team working and the roles and responsibilities of medical, ambulance and transfer crew		TF_HK_08
	Discuss the importance of audit/quality improvement projects of the transfer process, reporting of critical incidents during transfer and research.		TF_HK_11
ALMAT	Demonstrates the necessary organizational and communication skills required to effect the transfer of patients in a timely and efficient manner	1	TF_HK_04
Certificate	Attendance at a Transfer Training Course	Non-essential	All

Trauma and Stabilisation

Core Clinical Learning Outcomes

The safe management of patients with multiple injuries from arrival in hospital and onwards through definitive treatment with distant supervision by:

1. Demonstrating the ability to lead a multidisciplinary trauma team in the initial assessment and stabilisation of the multi-trauma patient and prioritise early further treatment
2. Delivering safe anaesthetic management for all multiply injured patients for ongoing assessment and early/definitive treatment

Unit Requirements

- WPBA's as indicated.
- Consultant feedback (sought by the supervisor during general duties within the last six months)
- CUT form on LLP.

LLP WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Anaesthesia for multiply injured patient	1	MT_HS_02
	Lead initial resuscitation in multi-trauma patient		MT_HS_01
	Ability to lead the multidisciplinary trauma team		MT_HS_01
DOPS	Airway management with facial/head & neck trauma	1	MT_HS05
	Identify common abnormalities on CT scans in patients with head injury		MT_HS-03
CbD	The role of pre-hospital care of a multiply injured patient including triage and modes of transport to hospital	1	MT_HK_01
	Importance of good communication networks with the out of hospital emergency services		MT_HK_02
	Importance of major incident planning and the responsibilities of the anaesthetic team		MT_HK_03
ALMAT	Demonstrates good communication skills with all members of the trauma team when leading the clinical care of the multiply injured patient and seek prompt and active advice from specialties not involved in the initial resuscitation when needed	1	MT_HS_05
Certificate	Attendance at ATLS/ETC or equivalent but NOT mandatory	Non-essential	All

Vascular Anaesthesia

Core Clinical Learning Outcome

1. To anaesthetise patients for carotid endarterectomy and aortic aneurysm surgery with indirect supervision

Unit Requirements

- WPBA's as indicated.
- Consultant feedback (sought by the supervisor during general duties within the last six months)
- CUT form on LLP.

LLP WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Anaesthesia for open repair of abdominal aortic aneurysm with indirect supervision	1	VS_HS_04
	Carotid endarterectomy under general or regional anaesthesia		VS_HS_05
DOPS	Thoracic epidural/CSE	1	VS_HS_06
	Management of effects of cross-clamping		VS_HS_03
	Set up and use cell saver		VS_HK_07
CbD	Pre-operative optimisation of vascular patients with co-existing disease	1	VS_HS_01
	Methods of risk stratification including scoring systems		VS_HK_04
	Methods of assessment of cardiovascular and respiratory disease and their use and limitations preoperatively		VS_HK_02
ALMAT	Be an effective member of the MDT managing elective/emergency vascular list safely and effectively	1	VS_HS_04

Paediatric Anaesthesia

Core Clinical Learning Outcomes

1. Be able to resuscitate and stabilise a sick baby or child prior to transfer to a specialist centre
2. Provide perioperative anaesthetic care for common surgical conditions, both elective and emergency, for children aged 3 years and older with distant supervision

Unit Requirements

- WPBA's as indicated.
- Consultant feedback (sought by the supervisor during general duties within the last six months)
- CUT form on LLP.

LLP WPBA	Index Case(s)	Minimum Number	Code
A-CEX	Emergency surgery for a child aged three years or older e.g. ORIF fracture, appendicectomy, bleeding tonsil	1	PA_HK_01
	Management of a child with difficult venous access		PA_HS_03
DOPS	Fluid management in the perioperative period	2	PA_HS_05
	Peripheral nerve/regional anaesthesia blocks		PA_HS_07
	Use of opioids (PCA/NCA), adjuvant NSAIDs & simple analgesics		PA_HS_06
	Intubation in infant		PA_HS_04
CbD	Management of septic child prior to transfer to PICU	1	PA_HS_11
	Problems and risks inherent in anaesthesia for former premature babies or children with significant co-morbidity		PA_HK_01
	Management of airway emergencies e.g. croup, epiglottitis, inhaled foreign body, laryngospasm		PA_HS_10
ALMAT	Be an effective member of the MDT managing an elective paediatric list safely and effectively with local supervision	1	PA_HS_04

Intensive Care Medicine

Please refer to the separate Intensive Care Medicine guidebook available on the BSA website.

Optional Units of Training

1. Pain medicine
2. Paediatric Intensive Care Medicine
3. Ophthalmic
4. Plastics/burns
5. Anaesthesia in developing countries
6. Conscious sedation in dentistry
7. Military anaesthesia
8. Remote and rural anaesthesia

If you wish to complete any of these units, please refer to the 2010 curriculum document and discuss with your clinical/educational supervisor the necessary assessments required. These then need to be uploaded to the LLP as well as a unit of training sign off.