

CCT in Anaesthetics Assessment Guidance

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THE ROYAL
COLLEGE OF
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Introduction

This document describes the various assessment methods used in the anaesthetic training programme. Trainees are required to complete units of training at Basic, Intermediate, Higher and Advanced level and the requirements for completing a unit of training are explained below. More detailed information is contained within the [Curriculum for a CCT in Anaesthesia \(2010\), Section 8](#).

The assessment process

The assessment process contains both formative and summative elements, which are listed below. All assessments are reviewed at the Annual Review of Competence Progression (ARCP).

Formative assessment

Formative assessment is assessment for learning. The goal of formative assessment is to monitor progress in order to offer ongoing constructive feedback with the aim of improving performance. In formative assessment there is no grade or mark, no pass or fail. Formative assessment must provide good quality feedback; without this the process loses its purpose. The main formative assessments in the training programme are the workplace-based assessments.

Workplace-based assessments (WPBA) provide only one source of evidence that a trainee has achieved the outcomes of a unit of training. Their purpose is to demonstrate engagement of trainers and trainees in professional educational conversations alongside the logbook, consultant feedback, teaching and course attendance.

The anaesthetic training programme uses a competency-based Curriculum. Competences (knowledge or skills) relating to each unit of training in the Curriculum are listed in Annexes B-E. Competences may be assessed by WPBA, and this evidence may be used to demonstrate achievement of the learning outcomes for each unit of training.

How many WPBA?

In order to complete a unit of training, trainees should undertake WPBA that contribute to evidence showing the Core Clinical Learning Outcomes (listed in [Appendix 1](#)) have been achieved (Figure 1, blue box). There may be several learning outcomes in a unit of training and a single assessment may provide evidence to satisfy more than one learning outcome.

The WPBA blueprints are found in [Appendix 2](#) of this document, and at the end of Annexes B-E of the curriculum. These show the minimum RCoA WPBA requirements for each unit of training. These minimum requirements (or the minimum mandated by the School of Anaesthesia which must not be less than those identified by the RCoA) must be met in order to complete a unit of training.

Trainees are generally expected to complete more than the minimum numbers of WPBA and those trainees who are not progressing as expected will be required to complete a greater number of assessments. It is unnecessary and unrealistic to undertake an assessment for each individual competence (Figure 1, white boxes). *However, the assessments in the IAC and the IACOA are mandatory and must be completed in their entirety.*

This screenshot of the Higher airway management unit of training highlights the difference between competences and core clinical learning outcomes:

Figure 1

Airway management*

This higher unit is one of the two mandatory units of higher training which all trainees are expected to complete satisfactorily during their general duties training block. It shares a number of important competencies with ENT, maxillo-facial and dental surgery and it is expected that it can be delivered in many of the non-specialist hospitals that form part of many, if not all, Schools of Anaesthesia.

Learning outcomes:

- Become skilled at managing the more complex airways by building upon intermediate knowledge, skills and experience

Core clinical learning outcomes:

- 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
- Able to manage patients with complex airway disorders, safely and proficiently, in all situations, under local supervision

Essential

Essential

Knowledge			
Competence	Description	Assessment Methods	GMP
AM_HK_01	Discusses the use of novel airway techniques, including the use of retrograde catheters and airway exchange devices	A,C	1,2

Possible areas for WPBAs, not essential to achieve every competence

Skills			
Competence	Description	Assessment Methods	GMP
AM_HS_01	Demonstrates ability to perform awake elective fiberoptic intubation, including obtaining consent	A,D	1,2
AM_HS_02	Demonstrates ability to perform fiberoptic intubation for elective cases including for those with airway pathology under distant supervision	A,D	1,2,3,4
AM_HS_03	Demonstrates ability to perform fiberoptic intubation for emergency cases including for those with airway pathology under direct supervision	A,D	1,2,3,4
AM_HS_04	Demonstrates management of an operating list involving multiple patients for airway related surgery, including patients with predicted difficult airway, with appropriate airway management decision making	A	1,2,3,4

The Faculty of Intensive Care Medicine has set the number of assessments for Intensive Care Medicine, which are listed in Annex F, and some assessments achieved in the anaesthesia curriculum may be cross-counted to satisfy ICM competences.

The workplace-based assessment process (WPBA tools are described in [Appendix 3](#))

- Feedback is the most important element of a WPBA.
- Trainees should aim to undertake WPBA relevant to their current unit of training.
- Areas for assessment should be identified prior to starting a list, and the trainee should ask the trainer in advance to perform an assessment.
- Requesting assessments retrospectively is considered bad practice and is not acceptable, except in Case-Based Discussions.
- The trainer should observe the performance of the trainee, and give immediate verbal feedback as well as suggestions for future development, further reading etc.
- Trainers should comment on clinical and non-clinical aspects of performance, such as professionalism and team-working.
- If facilities exist and it is safe to do so, the assessment can be documented on the e-Portfolio at this time; this is the ideal situation.
- If the e-Portfolio form cannot be completed at this time, the trainee will send a request for assessment to the trainer electronically.
- Verbal feedback should always take place at the time of the assessment.
- The trainer should complete the e-Portfolio form as soon as possible.

- The trainee should link the form to the relevant units of training so that the assessment can be used as evidence for the Completion of Unit of Training.
- Linking the assessment to more than one unit of training may be appropriate, if it demonstrates relevant progress.

For assistance with the e-Portfolio, see the [e-Portfolio pages in the Careers and Training](#) section of the RCoA website, or contact e-portfolio@rcoa.ac.uk.

Local education providers/hospitals and LETBs/Deaneries often provide training in workplace-based assessment. The College provides training in the [Anaesthetists as Educators courses](#), and online materials are available on the RCoA website.

Who can assess?

Consultants, specialty anaesthetists and trainees can perform WPBA. In accordance with GMC standards, assessors must possess expertise in the area to be assessed and be familiar with the assessment process. Senior trainees and non-medical staff may undertake WPBA if they have completed appropriate training, and if the educational supervisor considers it appropriate. The ES may need to enter the assessment in the e-Portfolio. Trainees cannot perform assessments for the IAC and the IACOA.

Summative assessment

Summative assessment is assessment of learning and results in a mark or grade, pass or fail. The goal of summative assessment is to test knowledge or performance against set criteria. The summative assessment in the anaesthetic training programme takes the following forms:

1 Initial Assessment of Competence and Initial Assessment of Competence in Obstetric Anaesthesia

Both of these must be completed in their entirety, exactly as written, in order to complete Basic Training.

2 Completion of Unit of Training (CUT)

The CUT form provides evidence that a trainee has achieved the learning outcomes for a Unit of Training. Supervisors should draw upon a range of evidence including the logbook of cases completed, workplace-based assessments and consultant feedback to inform their decision as to whether the learning outcomes have been achieved. The logbook review should consider the mix of cases, level of supervision and balance of elective and emergency cases, if relevant, for the unit. Any other evidence provided by the trainee, such as course attendance certificates can be reviewed at this time. Trainees need to complete one MSF per year; this is not required for each Unit of Training.

All hospitals must identify appropriate designated trainers to sign the CUT form for each unit of training. Each trainer should be familiar with the Core Clinical Learning Outcomes for the unit of training and be able to provide guidance for trainees who have not yet achieved the learning outcomes. It is possible for a trainee to have all WPBAs signed off but not successfully complete the unit because of, for example, professional attitudes or inappropriate non-technical skills i.e. characteristics which will be captured by consultant feedback.

The professional judgement of the supervisor will ultimately determine whether it is appropriate to sign the Completion of Unit of Training form for a trainee.

Consultant feedback

Consultant feedback, and feedback from other approved anaesthetist trainers, is an important source of evidence when assessing trainees' performance. This means of assessment is valuable in identifying trainees who are performing above and below the standard expected for their level. It is now a mandatory part of completing a unit of training, and should assure whoever signs the CUT form that the trainee is considered competent to provide anaesthesia and peri-operative care to the required level in this unit of training.

Many departments or schools of anaesthesia run successful consultant feedback schemes and these should continue, providing they are in a similar format to the suggested form in [Appendix 4](#) of this document. For those departments that do not already provide consultant feedback this suggested form may be adjusted for local needs.

Consultant feedback differs from MSF as it concerns a trainee's progress in a specific unit of training only. MSF seeks feedback from the multidisciplinary team, including consultants, on overall professional behaviour.

The completion of each specialist unit of training (neuroanaesthesia/paediatric anaesthesia/cardiac anaesthesia) must involve consultant feedback. For general duties units, it may be more appropriate to complete the feedback across the whole department; some Schools already suggest this at six-month intervals.

However, completing general duties units need not be delayed until 'end of posting' feedback is complete; in this case the trainer signing the CUT form must satisfy themselves (by verbal consultation if necessary) that those involved in training in the unit in question agree that the trainee has completed the unit satisfactorily.

Consultant feedback should be collated, linked to the Unit of Training and presented in the Educational Supervisor's Structured Report at ARCP. It should be discussed with the trainee during or at the end of a Unit of Training.

3 Educational Supervisor Reports

a Educational supervisor's structured report (ESSR)

The Educational supervisor's structured report is completed once per year prior to the Annual Review of Competence Progression (ARCP) and summarises the trainee's progress throughout the year. Guidance on completing the ESSR can be found in the e-Portfolio pages in the Careers and Training section on the RCoA website.

b Interim Progress Report (IPR)

This contains similar information to an ESSR and summarises the progress of a trainee in a placement. It is used when trainees undertake multiple short rotations during a year, or throughout the year as required by Schools of Anaesthesia, and is available on the e-Portfolio.

4 Primary and Final FRCA examinations

The Primary and Final FRCA examinations form a major summative element of the Anaesthetics training programme. The Primary examination is divided into two parts: the MCQ and the OSCE/SOE. This must be completed successfully in order to progress to ST3.

The Final FRCA also consists of two parts: the written and the SOE. The Final examination must be successfully completed in order to progress from ST4 to ST5.

Further details on the examinations are available on the [examinations pages on the RCoA website](#).

5 Annual Review of Competence Progression (ARCP)

The ARCP is the formal process where the trainee's progress is reviewed, usually on an annual basis. The ESSR forms the basis of the evidence that is reviewed at the ARCP and other evidence such as the logbook, audit, research, teaching, management and exam results are considered when awarding an ARCP outcome. A satisfactory outcome at the ARCP is required in order to progress through the training programme. Details of the ARCP process can be found in Section 7 of the Curriculum document and in the Gold Guide.[†]

[†] [The Gold Guide. A reference guide for postgraduate specialty training in the UK. COPMed, 2014.](#)

Appendix 1: Core clinical learning outcomes

Basis of Anaesthetic Practice

Preoperative assessment

Core clinical learning outcomes:

- Is able to perform a structured preoperative anaesthetic assessment of a patient prior to surgery and recognise when further assessment/optimisation is required prior to commencing anaesthesia/surgery.
- To be able to explain options and risks of routine anaesthesia to patients, in a way they understand, and obtain their consent for anaesthesia.

Premedication

Core clinical learning outcome:

- Is able to prescribe premedication as and when indicated, especially for the high risk population.

Induction of general anaesthesia

Core clinical learning outcomes:

- Demonstrates correct pre-anaesthetic check of all equipment required ensuring its safe functioning (including the anaesthetic machine/ventilator in both the anaesthetic room and theatre if necessary).
- Demonstrates safe induction of anaesthesia, using preoperative knowledge of individual patients co-morbidity to influence appropriate induction technique; shows awareness of the potential complications of process and how to identify and manage them.

Intraoperative

Core clinical learning outcome:

- Demonstrates safe maintenance of anaesthesia and shows awareness of the potential complications and how to identify and manage them.

Postoperative and recovery room care

Core clinical learning outcomes:

- Safely manage emergence from anaesthesia and extubation.
- Shows awareness of common immediate postoperative complications and how to manage them.
- Prescribes appropriate postoperative fluid and analgesic regimes and assessment and treatment of PONV.

Introduction to anaesthesia for emergency surgery

Core clinical learning outcome:

- Delivers safe perioperative anaesthetic care to adult ASA 1E and/or 2E patients requiring uncomplicated emergency surgery (e.g. uncomplicated appendicetomy or manipulation of forearm fracture/uncomplicated open reduction and internal fixation) with local supervision.

Management of respiratory and cardiac arrest in adults and children

Core clinical learning outcome:

- Be able to resuscitate a patient in accordance with the latest Resuscitation Council (UK) guidelines. (Any trainee who has successfully completed a RC(UK) ALS course in the previous year, or who is an ALS Instructor/Instructor candidate, may be assumed to have achieved this outcome).

Control of infection

Core clinical learning outcome:

- The acquisition of good working practices in the use of aseptic techniques .

Basic Anaesthesia

Airway management

Core clinical learning outcomes:

- Able to predict difficulty with an airway at preoperative assessment and obtain appropriate help.
- Able to maintain an airway and provide definitive airway management as part of emergency resuscitation.
- Demonstrates the safe management of the can't intubate can't ventilate scenario.
- Maintains anaesthesia in a spontaneously breathing patient via a facemask for a short surgical procedure (less than 30 mins).

Critical incidents

Core clinical Learning Outcomes:

- To gain knowledge of the principle causes, detection and management of critical incidents that can occur in theatre.
- To be able to recognise critical incidents early and manage them with appropriate supervision.
- To learn how to follow through a critical incident with reporting, presentation at audit meetings, and discussions with patients.
- To recognise the importance of personal non-technical skills and the use of simulation in reducing the potential harm caused by critical incidents.

Day surgery

Core clinical learning outcome:

- Knows the criteria for patient selection and the anaesthetic requirements for day surgical patients.

General, urological and gynaecological surgery (incorporating perioperative care of the elderly)

Core clinical learning outcomes:

- Deliver safe perioperative anaesthetic care to uncomplicated ASA 1-3 adult patients requiring elective and emergency surgery such as body surface surgery, appendicectomy and non-complex gynaecological surgery under distant supervision.
- Manage a list with uncomplicated ASA 1–3 adults for similar elective surgery under distant supervision.

Head, neck, maxillo-facial and dental surgery

Core clinical learning outcome:

- Deliver perioperative anaesthetic care to ASA 1–3 adults, and ASA 1 and 2 children over 5, for non-complex ear, adenotonsillar and nasal surgery under direct supervision.

Non-theatre

Core clinical learning outcome:

- Can maintain anaesthesia for stable critically ill adult patients requiring diagnostic imaging under distant supervision (in conjunction with their transfer as identified in Transfer Medicine).

Obstetrics

Core clinical learning outcomes:

- To pass the formal practical initial assessment of competence in obstetric anaesthesia and, having achieved this, be able to provide analgesia and anaesthesia as required for the majority of the women in the delivery suite.
- To understand the management of common obstetric emergencies and be capable of performing immediate resuscitation and care of acute obstetric emergencies (e.g. eclampsia; pre-eclampsia; haemorrhage), under distant supervision but recognising when additional help is required.

Orthopaedic surgery (incorporating perioperative care of the elderly)

Core clinical learning outcome:

- Deliver perioperative anaesthetic care to uncomplicated ASA 1-3 adult patients for straightforward elective and emergency orthopaedic/trauma surgery to both upper and lower limbs, including Open Reduction Internal Fixation (ORIF) surgery (which includes fractured neck of femur), under distant supervision.

Paediatrics

Core clinical learning outcomes:

- Demonstrates correct management of the paediatric airway in the following ways (if case mix allows, down to one year of age, but at least down to five years of age):
 - Is able to size airway devices correctly (i.e. oral airways and tracheal tubes).
 - Is able to insert airway devices correctly.
 - Is able to ventilate an apnoeic child using a bag and mask +/- an oral airway.
 - Is able to intubate a child correctly, using the most appropriate size tracheal tube, placed at the correct length .
- Maintains anaesthesia in a spontaneously breathing patient via a facemask for a short surgical procedure (less than 15 minutes).

Child protection

Minimum acceptable learning outcomes:

- Knows that Non-Accidental Injury (NAI) of children is not uncommon and is encountered by anaesthetists.
- Demonstrates knowledge of local procedures for safeguarding children.

Pain medicine

Core clinical learning outcomes:

- Competence in the assessment of acute surgical and non-surgical pain and demonstrate the ability to treat effectively.
- To have an understanding of chronic pain in adults.

Regional

Core clinical learning outcome:

- Demonstrates safely at all times during performance of blocks including: marking side of surgery and site of regional technique; meticulous attention to sterility; selecting, checking, drawing up, diluting, and the adding of adjuvants, labelling and administration of local anaesthetic agents.
- Establish safe and effective spinal and lumbar epidural blockade and manage immediate complications in ASA 1-2 patients under distant supervision.
- Ability to establish a simple nerve block safely and effectively.

Sedation

Core clinical learning outcome:

- Provision of safe and effective sedation to ASA 1 and 2 adult patients, aged less than 80 years of age using a maximum of two short acting agents.

Transfer medicine

Core clinical learning outcome:

- Safely manages the intra-hospital transfer of the critically ill but stable adult patient for the purposes of investigations or further treatment (breathing spontaneously or with artificial ventilation) with distant supervision.

Trauma and stabilisation

Core clinical learning outcome:

- Understands the principles of prioritizing the care of patients with multi-trauma including airway management.

Intermediate Anaesthesia

Essential Units

Anaesthesia for neurosurgery, neuroradiology and neuro critical care

Core clinical learning outcomes:

- Deliver safe perioperative anaesthetic care to uncomplicated ASA 1–3 adult patients undergoing non-complex elective intracranial and spinal surgery with direct supervision.
- Deliver safe perioperative anaesthetic care to uncomplicated ASA 1–3 adult patients undergoing non-complex emergency surgery with distant supervision (e.g. insertion of V-P shunt/EVD).
- Be an effective team member for resuscitation, stabilisation and transfer of adult patients with brain injury with distant supervision.

Cardiothoracic anaesthesia and cardiothoracic critical care

Core clinical learning outcome:

- Deliver safe and effective perioperative anaesthetic care to patients undergoing elective coronary artery surgery and minor thoracic investigative procedures under direct supervision.

General duties –airway management

Core clinical learning outcome:

- To be able to demonstrate the ability to perform elective fiberoptic intubation, either for an awake or an anaesthetised patient, with local supervision.

General duties – critical incidents

Core clinical learning outcomes:

- To demonstrate leadership in the management of critical incidents as and when they arrive.
- To provide assistance/leadership to more inexperienced colleagues if called to assist in the management of critical incidents.
- To demonstrate leadership in ensuring good team work and communication to help reduce the risks of harm from critical incident.

General duties – day surgery

Core clinical learning outcome:

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

General duties – general, urological and gynaecological surgery (incorporating perioperative care of the elderly)

Core clinical learning outcomes:

- Deliver safe perioperative anaesthetic care to complex ASA 1–3 adult patients requiring elective and emergency intra-abdominal surgery (both laparoscopic and open) with distant supervision.
- Manage a list with complex ASA 1–3 adult patients for elective and emergency surgery in all disciplines with distant supervision.

General duties – head, neck, maxillo-facial and dental surgery

Core clinical learning outcome:

- Deliver safe perioperative anaesthetic care to ASA 1–3 adult patients requiring routine and emergency non-complex minor/intermediate ENT and maxillo-facial surgery (including list management) under distant supervision.

General duties – management of respiratory and cardiac arrest in adults and children

Core clinical learning outcome:

- Is an effective member of the multi-disciplinary member of the resuscitation team and takes responsibility for the initial airway manage.

General duties – non-theatre

Core clinical learning outcome:

- To deliver safe peri-procedure anaesthesia/sedation to adult patients outside the operating theatre, but within a hospital setting, for painful or non-painful therapeutic procedures under distant supervision.

General duties – orthopaedic surgery (incorporating peri-operative care of the elderly)

Core clinical learning outcomes:

- Deliver safe perioperative anaesthetic care to complicated ASA 1–3 adult patients for all elective and emergency orthopaedic/trauma surgery identified at the Basic Level as well as those requiring lower limb primary joint replacement surgery.
- Manage elective and emergency operating sessions with such patients with distant supervision.

General duties – regional

Core clinical learning outcomes:

Perform one each of the following blocks satisfactorily under local supervision

- Thoracic epidural and/or combined spinal/epidural.
- An upper/lower limb plexus block with peripheral nerve stimulation or ultrasound guidance.

General duties – sedation

Core clinical learning outcome:

- To recognise the important principle of minimum intervention, where the simplest and safest technique which is likely to be effective is used to achieve the clinical goal.
- Provision of safe and effective sedation to any adult patient using multiple drugs if required.

General Duties – transfer medicine

Core clinical learning outcomes:

- To deliver safe and efficient transfer (with distant supervision) of:
 - Complex patients for intra-hospital including retrieving a newly referred ITU patient from A&E or the wards.
 - An uncomplicated ventilated patient for inter-hospital transfer by land (Less than four hours).

General duties – trauma and stabilisation

Core clinical learning outcomes:

- Be an effective member of the multi-disciplinary trauma team and takes responsibility for the initial airway management of the multiply injured patient with distant supervision.
- Be able to manage acute life-threatening airway problems safely and effectively with distant supervision.
- Provide safe perioperative anaesthetic care (from arrival in the Emergency Department through to post-operative discharge to the ward from recovery or intensive care) for ASA 1-3 patients with multiple injuries with distant supervision, whilst demonstrating understanding of knowing when to seek senior help.

Obstetrics

Core clinical learning outcomes:

- Able to provide emergency and non-emergency obstetric anaesthetic care in the majority of patients including those with co-morbidities and obstetric complications with distant supervision.
- Perform immediate resuscitation of acute obstetric emergencies.

Paediatrics

Core clinical learning outcome:

- Deliver safe perioperative anaesthetic care to ASA 1 and 2 children aged 5 years and over for minor elective and emergency surgery (e.g. inguinal hernia repair, orchidopexy, circumcision, superficial plastic surgery, grommets, manipulation of fractures, appendicectomy) with distant supervision.

Pain medicine

Core clinical learning outcomes:

- To be competent in the assessment and management of acute surgical and non-surgical pain in most patient groups and circumstances.
- To be an effective member of the acute pain team.
- To understand the importance of managing acute or chronic pain in a timely manner.
- To have knowledge of assessment and management of chronic and cancer pain.

Optional Units

Ophthalmic

Core clinical learning outcomes:

- Deliver safe perioperative anaesthetic care to adults and children requiring routine ophthalmic surgery under direct supervision, and emergency anaesthesia for ASA 1 and 2 patients requiring minor/ intermediate ophthalmic surgery under distant supervision.
- Demonstrates the ability to provide local anaesthesia for eye surgery with competence in one technique.

Plastics/burns

Core clinical learning outcome:

- Delivers safe perioperative anaesthetic care to ASA 1–3 adult patients for minor to intermediate plastic surgery (e.g. tendon repair or split skin grafting) with distant supervision.

Vascular surgery

Core clinical learning outcome:

- To gain knowledge of the perioperative anaesthetic management of patients undergoing elective and emergency abdominal aortic surgery and newer stenting techniques.
- To anaesthetise patients for carotid endarterectomy and aortic aneurysm surgery with direct supervision.

Higher Anaesthesia

Essential Units

Anaesthesia for neurosurgery, neuroradiology and neuro critical care

Core clinical learning outcomes:

- Deliver safe peri-operative anaesthetic care to complicated ASA 1–3 adult patients requiring complex elective intra-cranial and spinal surgery and neuroradiological investigations under direct supervision.
- Deliver peri-operative 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).
- Lead the resuscitation, stabilisation and transfer of adult patients with brain injury (Cross reference Transfer section).

Cardiothoracic anaesthesia and cardiothoracic critical care

Core clinical learning outcomes:

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

General Duties Units

All trainees must complete at least eight of these sub-units satisfactorily, whatever their final career aspirations may be, two of which must be 'airway management' and 'management of respiratory and cardiac arrest'.

General duties – airway management *

Core clinical learning outcomes:

- 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.
- Able to manage patients with complex airway disorders, safely and proficiently, in all situations, under local supervision.

General duties – day surgery

Core clinical learning outcome:

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

General duties – head, neck, maxillo-facial and dental surgery

Core clinical learning outcomes:

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

General duties – general, urological and gynaecological surgery (incorporating peri-operative care of the elderly)

Core clinical learning outcomes:

- Demonstrates the ability to provide safe and effective peri-operative anaesthetic care to high risk emergency surgical cases, including those with potential for massive haemorrhage (e.g. the ruptured aortic aneurysm).
- Demonstrates the ability to provide safe and effective peri-operative anaesthetic care for patients requiring complex lower abdominal and/or bariatric surgery.
- 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.

General duties – management of respiratory and cardiac arrest *

Core clinical learning outcomes:

- The management of patients requiring cardio-respiratory resuscitation (with distant supervision) by:
 - 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).
 - Leading the debrief sessions for both staff and relatives in a sensitive, compassionate and constructive manner.

General duties – non-theatre

Core clinical learning outcome:

- To deliver safe peri-procedure anaesthesia/sedation to adult patients outside the operating theatre, including remote sites, under distant supervision, as described in Section 6.2.

General duties – obstetrics

Core clinical learning outcomes:

- To be able to provide the appropriate anaesthetic management for any patient who requires emergency obstetric anaesthesia.
- 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).

General duties – orthopaedic surgery

Core clinical learning outcome:

- 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.

General duties – regional

Core clinical learning outcomes:

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

General duties – sedation

Core clinical learning outcome:

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

General duties – transfer medicine

Core clinical learning outcomes:

- Demonstrates the ability to lead a multidisciplinary team undertaking the initial assessment and stabilisation of patients, prioritising their early treatment.
- 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.
- Demonstrates an understanding of the roles and responsibilities of teaching and supervising those undergoing training in the transfer of patients.

General duties – 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:
 - 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.
 - Delivering safe anaesthetic management for all multiply injured patients for ongoing assessment and early/definitive treatment.

General duties – vascular surgery

Core clinical learning outcome:

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

Paediatrics

Core clinical learning outcomes:

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

Optional Units

Pain medicine

Core clinical learning outcomes:

- Fully competent in the assessment and management of acute surgical, acute non-surgical and acute on chronic pain in all patients and in all circumstances, including infants, children, the older person, the cognitive impaired, those with communication difficulties, the unconscious and critically ill patient.
- To have knowledge and skills in the management of chronic and cancer pain.
- To be an effective member of a multi-professional pain management service.

Paediatric intensive care medicine

Core Clinical Learning Outcomes:

- To recognise the signs and symptoms of clinical deterioration in infants and children which might lead to a PICU admission.
- To institute, as a member of a skilled team, appropriate resuscitative measures to manage acute deterioration and stabilise the critically ill and injured infant and child prior to transfer to a PICU.
- To understand the principles and hazards of transferring, when appropriate (eg acutely deteriorating head injury) a critically ill and injured paediatric patient to an appropriate referral centre for further management.

Ophthalmic

Core clinical learning outcomes:

- Provide comprehensive anaesthetic care to all ASA 1–4 adult patients for all types of elective and emergency ophthalmic surgery with distant supervision.
- The ability to perform sub-Tenon's and peribulbar blocks with distant supervision.

Plastics/burns

Core clinical learning outcome:

- Anaesthetise ASA 1-3 adult patients for major reconstructive plastic surgery (e.g. breast reconstruction with pedicled flap with distant supervision).

Anaesthesia in developing countries

Learning outcomes:

- To gain knowledge, skills and experience of the peri-operative anaesthetic care of patients in a developing country.
- To support the speciality of anaesthesia by providing teaching and training to anaesthetists, theatre staff and medical students in a developing country.
- To understand the level of competency, skill and support that is required to sustain safe and effective provision of anaesthesia in a resource poor setting.

Conscious sedation in dentistry

Learning Outcomes:

- Gain mastery in this special interest area of practice by building on all the principles, knowledge and skills learnt and developed in the advanced CS unit of training.
- To develop the necessary skills and knowledge to use conscious sedation techniques for dentistry appropriately in the hospital and non-hospital setting.
- To understand the spectrum of behavioural and pharmacological techniques of pain and anxiety control for dentistry as an adjunct to local anaesthesia.
- To understand the limitations of working in the isolation of the non-hospital environment.

Military anaesthesia

Learning Outcomes:

- To equip the trainee with the additional knowledge and skills required to perform appropriate pre-hospital care, resuscitation, field anaesthetics and critical care within military environments.
- To gain an understanding of the management of medical support to military operations.

Remote and rural anaesthesia

Core clinical learning outcomes:

- Deliver perioperative anaesthetic care to ASA 1–4 patients in the remote and rural setting.
- Lead the resuscitation, stabilisation and transfer of patients from the remote and rural centre to the referral centre (air transfer by helicopter or fixed wing, road transfer).
- Be an effective team member for delivery of acute services within a remote and rural centre.

Advanced Anaesthesia

Anaesthesia for neurosurgery, neuroradiology and neuro critical care

Core clinical learning outcomes:

- To be capable of undertaking the perioperative anaesthetic care for a wide variety of complex neurosurgical and neuroradiological procedures independently; this implies an ability to:
 - Provide perioperative anaesthetic care to a wide-range of such cases demonstrating a fundamental understanding of the problems encountered.
 - Show the decision making and organizational skills required of an anaesthetist to manage busy neurosurgery/neuroradiology sessions ensuring that the care delivered to patients is safe and timely, benefiting both the patient and the organisation.
 - Provide clinical input and leadership where required in neurological post-operative care units (including high dependency units).
 - Assist colleagues in decisions about the suitability of surgery in difficult situations.
 - Provide teaching to less experienced colleagues of all grades.

Where significant input to neuro-critical care is likely, should, in addition to the above:

- Provide clinical leadership to a wide variety of patients requiring neuro critical care.
- Provide management and leadership in using the facilities available to best effect.

Where practice is entirely neuro-critical care, should in addition to all the above:

- To have a thorough understanding of the complexity of the breadth of neurosurgery/neuroradiology performed and provide clinical leadership to any patient requiring neuro-critical care.
- Provide management and leadership in using the facilities available to best effect.

Cardiothoracic anaesthesia and cardiothoracic critical care

Core clinical learning outcomes:

- To be capable of undertaking the perioperative anaesthetic care for a wide variety of complex cardiothoracic surgical cases and cardiological procedures independently; this implies an ability to:
 - Provide perioperative anaesthetic care to a wide-range of such cases demonstrating a fundamental understanding of the problems encountered.
 - Show the decision making and organizational skills required of an anaesthetist to manage busy cardiothoracic operating sessions ensuring that the care delivered to patients is safe and timely, benefiting both the patient and the organisation.
 - Assist colleagues in decisions about the suitability of surgery in difficult situations.
 - Provide teaching to less experienced colleagues of all grades.

Where significant input to cardiothoracic critical care is likely, should, in addition to the above:

- Provide clinical leadership to a wide variety of patients requiring cardiothoracic critical care.
- Provide management and leadership in using the facilities available to best effect.

Obstetrics

Core clinical learning outcomes:

- To be capable of undertaking the perioperative anaesthetic care for a wide variety of complex obstetric cases and list management independently; this implies an ability to:
 - Provide perioperative anaesthetic care to a wide-range of obstetric cases performed both in the labour ward and theatre, demonstrating a fundamental understanding of the problems encountered.
 - Show the decision making and organizational skills required of an anaesthetist to manage busy labour ward and operating sessions, ensuring that the care delivered is safe and timely, benefiting both patients and the organisation.
 - To assist colleagues in decisions about the suitability of surgery in difficult situations.
 - Provide teaching to less experienced colleagues of all members of the multi-disciplinary team.

Paediatric

Core clinical learning outcomes:

For a DGH anaesthetist with a regular commitment to children's anaesthesia:

- To be capable of undertaking the perioperative anaesthetic care for a wide variety of paediatric procedures performed in the DGH environment independently; this implies an ability to:
 - Provide perioperative anaesthetic care to a wide-range of such cases demonstrating a fundamental understanding of the problems encountered.
 - Show the decision making and organisational skills required of an anaesthetist to manage busy paediatric surgical/procedural sessions ensuring that the care delivered to patients is safe and timely, benefiting both the patient and the organisation.
 - Communicate compassionately and effectively with children and young people, parents and other carers and members of the multidisciplinary team.
 - Assist colleagues in decisions about the suitability of surgery in difficult situations.
 - Provide teaching to less experienced colleagues of all grades.

For the Paediatric specialist in a tertiary centre, additionally:

- To be capable of undertaking the perioperative anaesthetic care for a wide variety of complex paediatric (including neonates) surgery and other procedures independently. This implies the ability to demonstrate the above core outcomes to this level of practice.

Finally, all trainees must maintain their training in child protection. For those aspiring to be career paediatric anaesthetists, additional training is advised.

Paediatric intensive care medicine

Core Clinical Learning Outcomes:

- To know the core differences in physiology, anatomy and pharmacology between infants, children and adults.
- To recognise the signs and symptoms of clinical deterioration in infants and children which might lead to a PICU admission, including knowledge of paediatric early warning scores.
- To institute, as a member of a skilled team, appropriate resuscitative measures to manage acute deterioration and stabilise the critically ill or injured child prior to transfer to a PICU.
- To understand the principles and hazards of referring and transferring, when appropriate (eg acutely deteriorating head injury) a critically ill or injured paediatric patient to an appropriate referral centre for further management.
- To understand advanced monitoring techniques including but not limited to arterial and central venous pressure monitoring (including umbilical), EEG, central venous saturation, echocardiography, ultrasound.
- To understand advanced organ support techniques amongst which are line placement, inhaled nitric oxide administration, High frequency oscillation, renal support (peritoneal dialysis and haemofiltration and dialysis), knowledge of ECMO and its indications and complications, intracranial pressure monitoring.
- To understand the ethics and law of paediatric medical care, and in particular knowledge of child protection matters.
- To understand the approach to brain death and organ donation in children.

Pain medicine

Core clinical learning outcomes:

- To be capable of delivering all aspects of pain medicine as an independent practitioner. This implies:
 - Having a comprehensive knowledge of Pain Medicine service delivery.
 - Being able to assess a wide variety of patients with pain using a biopsychosocial model including, history taking, physical examination, psychological assessment and interpretation of investigations.
 - Being aware of the treatment options available to provide effective management for patients with acute, chronic and cancer pain.
 - Becoming technically proficient in a range of procedures for Pain Medicine.
 - Having the communication and organisational skills to be an effective member of the multi-disciplinary Pain Medicine team.
 - Demonstrates empathy when caring for patients with pain.
 - Providing clinical leadership in the development of comprehensive pain medicine services, for the benefit of both patients and the organisation.
 - Acting as an effective teacher of Pain Medicine topics.
 - Being able to assess evidence from research related to Pain Medicine.

Plastics/Burns

Core clinical learning outcomes:

- To be capable of undertaking the perioperative anaesthetic care for a wide variety of complex plastics and burns cases independently; this implies an ability to:
 - Manage perioperative anaesthetic care for highly complex plastics and burns cases independently (including major reconstructive surgery) demonstrating a fundamental understanding of the problems encountered.
 - Show the decision making and organizational skills required of an anaesthetist to manage busy operating sessions that involve patients having major plastics and burns surgery ensuring that the care delivered is safe and timely, benefiting both the patient and the organisation.
 - To assist colleagues in decisions about the suitability of surgery in difficult situations.
 - Provide teaching to less experienced colleagues of all grades.
 - Anaesthetise adult patients for major burns excision and grafting surgery independently.

General Duties Units

General duties – airway management

Core clinical learning outcomes:

- To be capable of undertaking the perioperative airway and anaesthetic care for a wide variety of patients with complex airway problems independently; this implies an ability to:
 - Perform fiberoptic intubation in all clinical situations where it is an essential part of safe airway care .
 - Show the decision making and organizational skills required of an anaesthetist to manage busy operating sessions that involve patients having major airway surgery and ensuring that the care delivered is safe and timely, benefiting both the patient and the organisation.
 - To assist colleagues in decisions about the suitability of surgery in difficult situations.
 - Provide teaching to less experienced colleagues of all grades.

General duties – head, neck, maxillo-facial and dental surgery

Core clinical learning outcomes:

- To be capable of undertaking the perioperative anaesthetic care for a wide variety of complex ENT, maxillo-facial and dental surgical cases independently; this implies an ability to:
 - Provide perioperative anaesthetic care to a wide-range of surgical cases performed (including those with thoracic extension, complex tumour resection and associated reconstruction (+/- free-flap), frequently requiring the ability to manage extremely complex airway problems), demonstrating a fundamental understanding of the problems encountered.
 - Show the decision making and organizational skills required of an anaesthetist to manage busy operating sessions that involve patients having major ENT, maxillo-facial and dental surgery and ensuring that the care delivered is safe and timely, benefiting both patients and the organisation.
 - To assist colleagues in decisions about the suitability of surgery in difficult situations.
 - Provide teaching to less experienced colleagues of all grades.

General duties – general surgery, urology and gynaecology surgery

Core clinical learning outcomes:

- To be capable of undertaking the perioperative anaesthetic care for a wide variety of complex abdominal surgical cases independently; this implies an ability to:
 - Provide perioperative anaesthetic care to a wide-range of surgical cases performed (including those where pleural breach may occur), demonstrating a fundamental understanding of the problems encountered.
 - Show the decision making and organizational skills required of an anaesthetist to manage busy operating sessions that involve patients having major abdominal surgery and ensuring that the care delivered is safe and timely, benefiting both the patient and the organisation.
 - Assist colleagues in decisions about the suitability of surgery in difficult situations.

Provide teaching to less experienced colleagues of all grades.

General duties – hepatobiliary surgery

Core clinical learning outcomes:

- To be capable of undertaking the perioperative anaesthetic care for a wide variety of complex hepatobiliary surgical cases independently; this implies an ability to:
 - Provide perioperative anaesthetic care to a wide-range of surgical cases performed, demonstrating a fundamental understanding of the problems encountered.
 - Show the decision making and organizational skills required of an anaesthetist to manage busy operating sessions that involve patients having major hepatobiliary surgery and ensuring that the care delivered is safe and timely, benefiting both the patient and the organisation.
 - Assist colleagues in decisions about the suitability of surgery in difficult situations.
 - Provide teaching to less experienced colleagues of all grades.

General duties – vascular

Core clinical learning outcomes:

- To be capable of undertaking the perioperative anaesthetic care for a wide variety of complex vascular cases independently; this implies an ability to:
 - Provide perioperative anaesthetic care to a wide range of cases in and out of theatre (including those where supra renal or thoracic aortic cross clamping occurs), demonstrating a fundamental understanding of the problems encountered.
 - Show the decision making and organizational skills required of an anaesthetist to manage busy clinical sessions that involve patients having major vascular procedures, ensuring that the care delivered is safe and timely, benefiting both the patient and the organisation.
 - To assist colleagues in decisions about the suitability of surgery in difficult situations.
 - Provide teaching to less experienced colleagues of all grades.

General duties – day surgery

Core clinical learning outcomes:

- To be capable of undertaking the perioperative management of a wide range of patients for day case procedures including those with co-morbidities independently.
- Show the decision making and organizational skills required of an anaesthetist to manage a busy day surgery session ensuring that the care delivered is safe and timely, benefiting both the patient and the organisation.
- Show the organisational and team working skills to lead and manage a day surgery unit in conjunction with the other members of the multi-disciplinary team.
- Assist colleagues in decisions about the suitability of surgery in difficult situations.
- Provide teaching to less experienced colleagues of all grades.

General duties – sedation

Core clinical learning outcomes:

- To be capable of delivering safe and effective peri-procedural conscious sedation to patients requiring a wide variety of complex investigative/treatment procedures independently; this implies an ability to:
 - Provide safe and effective sedation using a wide variety of techniques to best effect for patients and the organisation, demonstrating a fundamental understanding of the problems encountered.
 - Show the decision making and organizational skills required of an anaesthetist to manage patients requiring sedation in remote locations.
 - To assist colleagues in decisions about the suitability of (frequently) invasive investigative/treatment procedures in difficult situations.
 - Provide teaching to less experienced colleagues of all grades

Conscious sedation in dentistry (optional additional unit) – this optional unit should only be undertaken once the advanced unit of conscious sedation has been completed.

General duties – orthopaedics

Core clinical learning outcomes:

- To be capable of undertaking the perioperative anaesthetic care for a wide variety of complex orthopaedic cases (including major spinal cases +/- pleural breach) and list management independently; this implies an ability to:
 - Provide perioperative anaesthetic care to a wide-range of surgical cases demonstrating a fundamental understanding of the problems encountered.
 - Show the decision making and organizational skills required of an anaesthetist to manage busy operating sessions that involve patients having major orthopaedic surgery and ensuring that the care delivered is safe and timely, benefiting both the patient and the organisation.
 - To assist colleagues in decisions about the suitability of surgery in difficult situations.
 - Provide teaching to less experienced colleagues of all grades.

General duties – regional

Core clinical learning outcomes:

- To be capable of undertaking a wide variety of regional anaesthetic techniques independently; this implies an ability to:
 - Provide perioperative anaesthetic care to a wide-range of surgical cases performed under regional anaesthesia, demonstrating a fundamental understanding of the problems encountered.
 - Show the decision making and organizational skills required of an anaesthetist to manage busy operating sessions that involve patients having regional anaesthesia as part of their anaesthetic planned care.
 - Assist colleagues in decisions about the use of regional anaesthesia in difficult situations and where their use might be controversial.
 - Provide teaching to less experienced colleagues of all grades.
 - Provide advice to colleagues on the appropriate practice of regional anaesthesia.

General duties – trauma and stabilisation

Core clinical learning outcomes:

- To be capable of leading the clinical care of the multiply injured patient from reception in the emergency department independently; this implies an ability to:
 - Provide leadership in the discussions with the emergency services managing the multiply injured patient at the site of injury through to arrival in the Emergency Department.
 - Demonstrates good interpersonal skill, assertiveness (when needed) and leadership as Trauma Team Leader when leading the multi-disciplinary team that receives, assesses and delivers the necessary definitive care to the patient.
 - Provides safe and effective anaesthetic care for a wide-range of complex cases including challenging head, airway, neck and spine, chest, abdominal, spinal, pelvic and limb, soft tissue and vascular trauma in both adults and children, demonstrating a fundamental understanding of the problems encountered.
 - Show the decision making, organizational and communication skills required of a trauma team leader to manage a busy receiving area for patients with multiple injuries, ensuring that the care delivered is safe and timely, benefiting both the patient and the organisation.
 - Assist colleagues in decisions about the suitability of surgery/further definitive care in difficult situations.
 - Lead discussions on end of life decisions with compassion, using appropriate language that can be understood by relatives and carers.
 - Provide teaching to less experienced colleagues of all grades.

General duties – transfer medicine and emergency medical retrieval (optional/advanced)

Core clinical learning outcomes:

- To be capable of leading the clinical care of the most complex patient requiring retrieval/transfer from, and between, any site independently; this implies an ability to:
 - Provide leadership in the discussions with the emergency services at the site of injury through to retrieval and transfer.
 - Demonstrate good interpersonal skills, assertiveness (when needed) and leadership when leading the multi-disciplinary retrieval/transfer team.
 - Provides safe and effective clinical care to a wide-range of complex cases, both adults and children, requiring retrieval/transfer, demonstrating a fundamental understanding of the problems encountered.
 - Assist colleagues in decisions about the suitability of retrieval/transfer in difficult situations.
 - Provide teaching to less experienced colleagues of all grades.

Appendix 2: Assessment blueprints

Blueprint for workplace based assessments against the basic level units of training

Unit of Training	A-CEX	ALMAT	CBD	DOPS
The basis of anaesthetic practice				
Preoperative assessment	✓		✓	✓
History taking	✓		✓	✓
Clinical examination	✓		✓	✓
Specific anaesthetic evaluation	✓		✓	✓
Premedication	✓		✓	✓
Induction of general anaesthesia	✓		✓	✓
Intra-operative care including sedation	✓		✓	✓
Postoperative and recovery room care	✓		✓	✓
Introduction to anaesthesia for emergency surgery	✓		✓	✓
Management of respiratory and cardiac arrest	✓		✓	✓
Control of infection	✓		✓	✓
Basic anaesthesia				
Airway management	✓		✓	✓
Critical incidents	✓		✓	✓
Day surgery	✓		✓	✓
General, urological and gynaecological surgery	✓	✓	✓	✓
Head, neck, maxillo-facial and dental surgery	✓		✓	✓
Intensive care medicine	See Annex F			
Non-theatre	✓		✓	✓
Obstetrics	✓		✓	✓
Orthopaedic surgery	✓		✓	✓
Paediatrics	✓		✓	✓
Child protection	✓		✓	✓
Pain medicine	✓		✓	✓
Regional	✓		✓	✓
Sedation	✓		✓	✓
Transfer medicine	✓		✓	✓
Trauma and stabilisation	✓		✓	✓

Blueprint of workplace based assessments mapped against the intermediate level units of training

Unit of Training	A-CEX	ALMAT	CBD	DOPS
Essential units				
Anaesthesia for neurosurgery, neuroradiology and neuro critical care	✓		✓	✓
Cardiothoracic anaesthesia and cardiothoracic critical care	✓		✓	✓
General duties*				
Airway management	✓	✓	✓	✓
Critical incidents			✓	
Day surgery	✓	✓	✓	
General, urological and gynaecological surgery	✓	✓	✓	
Head, neck, maxillo-facial and dental surgery	✓	✓	✓	
Management of respiratory and cardiac arrest**				✓
Non-theatre	✓		✓	
Orthopaedic surgery	✓	✓	✓	
Regional	✓	✓	✓	✓
Sedation	✓	✓	✓	
Transfer medicine	✓	✓	✓	
Trauma and stabilisation	✓	✓	✓	
Intensive care medicine	See Annex F			
Obstetrics	✓		✓	✓
Paediatric	✓		✓	✓
Pain medicine	✓		✓	✓
Optional units				
Ophthalmic	✓		✓	✓
Plastics/Burns	✓		✓	✓
Vascular surgery	✓		✓	✓

* Assessment requirements for General Duties:

- Option of A-CEX or ALMAT for each unit blueprinted with both types of assessment
- Minimum of 3 CBD
- Airway course with assessment can replace DOPS for Airway Management

** Current ALS/ATLS/APLS can replace DOPS for Management of Cardiac and Respiratory Arrest

Blueprint of workplace based assessments mapped against the higher level units of training

Unit of Training	A-CEX	ALMAT	CBD	DOPS
Essential units				
Anaesthesia for neurosurgery, neuroradiology and neuro critical care	✓		✓	
Cardiothoracic anaesthesia and cardiothoracic critical care	✓		✓	
General duties*				
Airway management	✓	✓		✓
Day surgery	✓	✓	✓	
Head, neck, maxillo-facial and dental	✓	✓	✓	
General, urological and gynaecological surgery	✓	✓	✓	
Management of respiratory and cardiac arrest	✓		✓	
Non-theatre	✓		✓	
Obstetrics	✓	✓	✓	
Orthopaedic	✓	✓	✓	
Regional	✓	✓	✓	✓
Sedation	✓	✓	✓	
Transfer medicine	✓	✓	✓	
Trauma and stabilisation	✓	✓	✓	
Vascular	✓	✓	✓	
Intensive care medicine	See Annex F			
Paediatric	✓		✓	
Optional units				
Pain medicine	✓	✓	✓	✓
Paediatric intensive care medicine	✓		✓	
Ophthalmic	✓	✓	✓	
Plastics/Burns	✓	✓	✓	
Anaesthesia in developing countries	✓		✓	
Conscious sedation in dentistry	✓		✓	
Military anaesthesia	✓		✓	
Remote and rural	✓		✓	

* Assessment for General Duties:

- Option of A-CEX or ALMAT for each unit blueprinted with both types of assessment
- Minimum of 3 CBD

Blueprint of workplace based assessments mapped against the advanced level units of training

Unit of Training	A-CEX	ALMAT	CBD	DOPS
Advanced training				
Domain 1 – Clinical practice	✓	✓	✓	
Domain 2 – Team working		✓		
Domain 3 – Leadership				
Domain 4 – Innovation				
Domain 5 – Management				
Domain 6 – Education				
Anaesthesia for neurosurgery, neuroradiology and neuro critical care	✓	✓	✓	
Cardiothoracic anaesthesia and cardiothoracic critical care	✓	✓	✓	
General duties				
Airway management	✓			✓
Head, neck, maxillo-facial and dental	✓	✓		
General, urological and gynaecological surgery		✓		
Hepatobiliary surgery	✓	✓	✓	
Vascular	✓	✓	✓	
Day surgery	✓	✓		
Sedation and conscious sedation for dentistry	✓			
Orthopaedic surgery	✓	✓		
Regional	✓	✓		✓
Trauma and stabilisation	✓			
Transfer	✓			✓
Intensive care medicine	See Annex F			
Obstetrics	✓	✓	✓	
Paediatrics	✓	✓	✓	✓
Paediatric intensive care medicine	✓		✓	
Pain medicine	✓		✓	✓
Plastic/burns	✓	✓	✓	

Appendix 3: The WPBA tools

The tools used in anaesthesia are DOPS, A-CEX, CBD, and ALMAT, and in ICM, the ICM-ACAT. The trainee must complete a selection of these in each unit of training in order to progress. MSF is used in both theatre and ICU settings. The tools are described briefly below:

■ DOPS – Directly Observed Procedural Skills

The DOPS tool is used for assessing performance in procedures, such as arterial cannulation or epidural insertion. This tool is therefore more suited to Basic and Intermediate trainees rather than Higher/Advanced trainees, who should focus on higher level skills. They are useful for assessing trainees who have learnt a new skill, e.g. nerve block.

■ A-CEX – Anaesthesia Clinical Evaluation Exercise

The A-CEX tool looks at the trainee's performance in a case rather than focusing on a specific procedure, for example the anaesthetic management of a patient with renal failure.

■ CBD – Case-Based Discussion

When undertaking a CBD, the trainee should bring the case notes and/or anaesthetic chart of a case that they wish to discuss in retrospect. A 'virtual' CBD can also be undertaken. The conduct and management of the case as well as the standards of documentation and follow up should be discussed. CBDs offer an opportunity to discuss a case in depth and to explore thinking, judgement and knowledge. They provide a useful forum for reflecting on practice, especially in cases of critical incidents. Descriptors are available on the form to guide discussion.

■ ALMAT – Anaesthesia List Management Tool

When undertaking an ALMAT, a trainee is given responsibility for the running of a list according to their level of competence. This tool is particularly appropriate for more senior trainees and allows assessment of both clinical and non-clinical skills. Trainees should ask for this assessment before the start of the list, and they may be assessed either by the trainer with direct responsibility for that list, or it may be possible for a trainee working with indirect supervision to be assessed by the 'starred consultant' for that area.

■ MSF – Multi-source feedback

MSF is undertaken annually and gives an opportunity for members of the multidisciplinary team to provide feedback on a trainee. MSF can be undertaken in anaesthesia, pain medicine or ICM units. The trainee identifies around 15 people (who should be from a mixture of disciplines) with whom they have worked, for example, consultants, theatre staff, recovery staff and administrative staff, and sends a request to their email address through the e-Portfolio system. The trainee's educational supervisor approves the list of assessors to ensure balance, and reviews the feedback generated before meeting the trainee for discussion.

Although consultants provide feedback to allow completion of units of training, they must also be involved in the MSF process as this covers different domains of practice.

The MSF remains open for one month to allow assessors time to provide feedback, so trainees should allow time for this when preparing for the ARCP. A minimum of eight assessors is required to support validity. If the minimum number of raters is not achieved then the process should be repeated. Further MSFs may need to be undertaken if concerns have been raised, either in the MSF or in the workplace.

The MSF process covers many of the GMC criteria of Good Medical Practice and is thus a valuable tool for assessing a trainee's professional attitudes and behaviour. An MSF should also be completed during out of programme experience.

Detailed information on the MSF process [can be found here](#).

Appendix 4: Suggested feedback form – this may be modified by Schools to suit local requirements

Trainee:	Dates of period assessed:
Year of Training:	Assessor:

	Outstanding for level of training	Appropriate for level of training	Cause for concern*	Unacceptable*	Not applicable or unable to comment
CLINICAL SKILLS					
Pre-op assessment					
Record keeping					
Clinical judgement					
Practical skills					
Knowledge					
ATTITUDES AND WORKPLACE BEHAVIOUR					
Reliability and Punctuality					
Initiative					
Confidence					
Organisational ability					
Communication skills					
Dept. involvement					
RELATIONSHIPS					
Patients and relatives					
Staff and colleagues					
Team working					
OVERALL ASSESSMENT					

***Examples must be provided if ‘Cause for concern’ or ‘Unacceptable’ is ticked**

Have any problems been identified with honesty/integrity? Y / N

If yes, provide details:

Comments or concerns:

Any concerns **must** be explained.

Have any aspects of this assessment been discussed with the trainee? Y / N

If yes, provide details:

Signature:

Date:

Appendix 5: Workplace Based Assessment Working Party Members

Dr Janice Fazackerley (Chair)

Dr Darrell Lowry

Dr Simon Fletcher

Dr Jane Chestnut

Dr Ian Whitehead

Dr Anja Kuttler

Dr Aidan Devlin

Dr Gethin Pugh

Dr Geraint Briggs

Dr John-Paul Lomas

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