

# Initial Assessment of Competence (IAC)

Entrustable Professional Activities 1 and 2

**WORKBOOK** 

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## Introduction

The Initial Assessment of Competence (IAC) is the first milestone in UK Anaesthetics training and is a mandatory component of Core Training in Emergency and Intensive Care Medicine. The indicative time-course for attaining the IAC is 3-6 months. The term 'novice anaesthetist', is used to describe an anaesthetist in training who is yet to achieve their IAC. Award of the IAC does not signify readiness for independent practice. Inexperienced anaesthetists should always be overseen by more senior anaesthestic colleagues, who are able to provide prompt assistance when required.

Entrustable Professional Activities (EPA) 1 & 2 describe the core learning outcomes for the IAC (Figure 1):

**EPA 1**: Perform an anaesthetic preoperative assessment

EPA 2: Provide general anaesthesia for ASA I/II patients having uncomplicated surgery

Each EPA is underpinned by Key Capabilities. These are the essential areas of knowledge, skills, attitudes and behaviours required for safe practice. To be awarded the IAC, Anaesthetists in training must demonstrate capability to perform EPAs 1 & 2 with supervision Level 2B (see Table 1). This workbook details the learning activities needed to achieve the Key Capabilities, and explains the summative assessment.

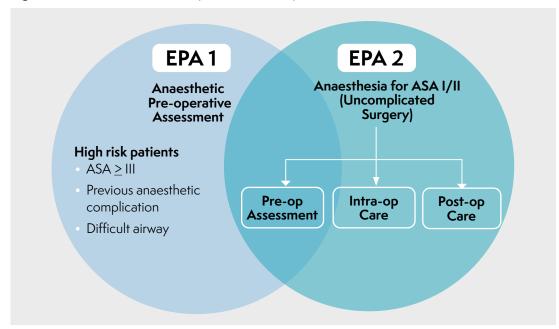
**Table 1:** RCoA Supervision Scale

1	Direct supervisor involvement, physically present in theatre throughout.
2A	Supervisor in theatre suite, available to guide aspects of activity through monitoring at regular intervals.
2B	Supervisor within hospital for queries, able to provide prompt direction/assistance.
3	Supervisor on call from home for queries able to provide directions via phone or non-immediate attendance.
4	Should be able to manage independently with no supervisor involvement (although should inform consultant supervisor as appropriate to protocols).

#### Novice training faculty

A dedicated faculty of trainers should deliver novice anaesthesia training in each department where possible. This is to improve the consistency of supervision for learners and to facilitate faculty judgements for summative assessment.

Figure 1: EPA 1 and EPA 2 description and overlap



# IAC learning activities

Evidence of learning should be linked to the Key Capabilities for EPAs 1 and 2 on the Lifelong Learning Platform (LLP). To reduce the assessment burden, related capabilities have been clustered together, and evidence of achievement should be linked to each cluster. EPA 1 has a single cluster of Key Capabilities. EPA 2 has four clusters, arranged under the headings of 'Pre-operative Preparation', 'Intra-operative Care', 'Post-operative Care' and 'Management of Emergencies and Simulation'.

The types of evidence that can be used are shown in Table 2. **These learning activities are formative in nature.** No single activity is intended to be used in isolation as an assessment of clinical capability.

Table 2: recording learning activities for the IAC

Type of evidence	Examples and purpose
Supervised Learning Events (SLEs)	<ul> <li>These are low-stakes episodes of feedback and reflection in the workplace used to improve performance.</li> <li>Select A-CEX, DOPS, CBD or ALMAT tools as appropriate.</li> <li>Feedback for SLEs is enhanced by the use of supervision levels, which may also be used to demonstrate learning progression over time.</li> <li>There is no minimum number of SLEs that is required to progress.</li> </ul>
Personal activities	<ul> <li>These may include attendance at relevant courses, departmental teaching or private study.</li> <li>Simulation based learning is used for the management of emergencies as part of EPA 2</li> <li>The simulation requirements are detailed in Appendix 2.</li> </ul>
Personal reflections	<ul> <li>Reflective practice should be used to consolidate learning from clinical and other educational experiences.</li> <li>Reflections can be used as evidence of achievement of the Key Capabilities for each EPA.</li> <li>Personal reflections should be written in accordance with published College guidance and should not contain patient identifiable information.</li> </ul>
Logbook of cases	This demonstrates the range of anaesthetic techniques undertaken and the caseload experienced during the period of training.

# SLEs and supervision levels WHAT WE MEAN

- ✓ Make SLEs a regular part of everyday clinical training.
- Complete them contemporaneously where possible.
- Use SLEs to show progression, showing evidence of learners taking greater responsibility for patient care.
- ✓ The Supervision Level for an SLE is a judgement made by the supervisor. It should reflect the level of supervision they feel the learner would need, if dealing with a similar clinical case or activity again right here, right now.
- ✓ Supervision levels are adjuncts to feedback which can demonstrate progress when reviewed over time.

# SLEs and supervision levels WHAT WE DON'T MEAN

- SLEs are summative assessments.
- \* An SLE must be recorded for every capability within each cluster.
- SLEs must reach supervision level 2B for all Key Capability clusters to enable award of the IAC.

## IAC Summative Assessment

Summative assessment for award of the IAC should be a holistic judgement made by the trainer faculty, supported by evidence from a range of sources (Table 3). The faculty must judge whether the anaesthetist in training can be entrusted to perform EPAs 1 & 2 at Supervision Level 2B.

Evidence of learning activities undertaken must be linked to each Key Capability cluster. Strict requirements or 'tickbox' lists have been avoided and consistent, thoughtful engagement is encouraged. Evidence requirements may be used flexibly; some anaesthetists in training may require less evidence to progress, for example those with prior anaesthetics experience. Regular progress reviews by the Educational Supervisor are recommended, with targeted learning activities to address performance gaps.

Source of evidence	Explanation
Multiple Trainer Report Tool (MTR)	<ul> <li>The MTR is a flexible tool used to collate consultant feedback.</li> <li>One MTR is required for the IAC. It should be completed by a minimum of three consultant respondents, selected by the Educational Supervisor.</li> <li>Several domains of the MTR (eg Intensive Care Medicine) do not apply to the IAC and can be marked 'unable to comment'.</li> </ul>
LLP review	<ul> <li>Learners should record a range of evidence for each cluster of key capabilities.</li> <li>Review of SLEs and assessment of progress:         <ul> <li>progression towards supervision level 2B</li> <li>evidence of increasing practice independence.</li> </ul> </li> <li>Personal activities.</li> <li>Personal reflections.</li> </ul>
Simulation training	■ Ensuring exposure to rare, life threatening emergencies (See Appendix 2)
Logbook review	<ul> <li>Ensuring appropriate clinical exposure to a range of cases in elective and emergency settings.</li> <li>Procedural skills undertaken with particular reference to airway management.</li> </ul>
Observation in clinical practice	Not all relevant information is recorded in the LLP and the collective judgements of experienced trainers are valid in the performance of summative assessment.

**Table 3:** Sources of evidence that support summative assessment

# EPA 1: perform an anaesthetic preoperative assessment

#### Summary

EPA 1 is the ability to perform an anaesthetic pre-operative assessment. This includes recognising factors that confer increased perioperative risk and communicating these factors to more experienced colleagues.

#### Limitations

- Advanced knowledge of perioperative risk stratification and optimisation is not expected at this stage of training.
- Novice anaesthetists are not expected to possess in-depth knowledge of the anaesthetic techniques used for major surgical procedures, nor should they be expected to take consent for procedures in which they are not trained.

#### Key capabilities

Takes a focused history, performs appropriate physical examinations and interprets relevant investigations.

Describes the features of the history and examination which confer increased anaesthetic risk and communicates these to senior colleagues, including:

- severe comorbidity (ASA ≥ III)
- previous anaesthetic complications
- anticipated or known difficult airway.

Explains how a patient's past medical, surgical and anaesthetic history influences the safe conduct of anaesthesia.

Communicates the anaesthetic plan to patients in an understandable way, including counselling on commonly occurring risks and addressing patient concerns.

Demonstrates understanding of the limitations and scope of practice of a novice anaesthetist.

# EPA 2: provide general anaesthesia for ASA I/II patients having uncomplicated surgery

#### Summary

EPA 2 is the provision of general anaesthesia for ASA I/II patients having uncomplicated surgery. In practice this prepares Anaesthetists in training to provide anaesthesia for low risk patients having unplanned, urgent or emergency surgery, while carrying out their on-call duties.

#### Limitations

- Does not include the unsupervised management of previously fit patients with significant physiological derangement such as septic shock or acute blood loss.
- Anaesthetists in training who have been awarded the IAC are not expected to be the sole anaesthetist responsible for elective operating lists.

#### **Key Capabilities**

#### Preoperative preparation

Relates knowledge underpinning EPA 1 (Anaesthetic Pre-operative assessment) to safe perioperative care planning.

Understands the scope of practice as an inexperienced practitioner and seeks help appropriately.

Recalls starvation policies for administration of general anaesthesia.

Demonstrates working knowledge of commonly used anaesthetic equipment, including the anaesthetic machine, standard monitoring and airway equipment.

Demonstrates working knowledge of the commonly used anaesthetic drugs (preparation/dose/effects/side-effects/cautions):

> induction agents

> muscle relaxants/reversal agents

volatile anaesthetic agents

antiemetics

> sympathomimetics/anticholinergics

> analgesics.

#### Intraoperative care

Performs airway management including the following techniques:

- Mask ventilation
- Supraglottic airway insertion
- > Endotracheal intubation using direct and video laryngoscopy

Performs a Rapid Sequence Induction.

Conducts anaesthesia with controlled and spontaneous ventilation.

Understands the physiological effects of general anaesthesia.

Manages the risks posed to patients when positioning them for surgery, in particular related to pressure areas, peripheral nerves and other delicate structures.

Follows infection prevention and control procedures in the operating theatre.

Manages tracheal extubation, including common complications occurring during emergence from anaesthesia; eg, laryngeal spasm.

#### Postoperative care

Gives a clear patient handover to recovery team.

Manages issues arising in recovery including acute postoperative pain, and the use of rescue opiates in recovery.

#### Managing emergencies and simulation

Discuss and rehearse the AAGBI Quick Reference Handbook 'Unknowns'.

Demonstrates the routine for dealing with a failed intubation on a manikin as per DAS Guidelines.

Demonstrates understanding and capability in Anaesthetic Non-technical Skills.

#### Appendix 1: Process map for IAC

#### Record learning activities

#### **Supervised Learning Events**

- Link to Key Capability Clusters
- Show progression towards required supervision level

#### Personal activities

- Simulation for managing emergencies
- Courses, private study etc.

#### Personal reflections

Reflections on learning development

- Select 'Add Milestone' in LLP to add simulation to IAC Certificate
- Link simulation activities to EPA2

Completed by a minimum three faculty members

Link MTR to EPAs 1 and 2 Send HALO for EPAs 1 and 2 to ES

Select Educational Supervisor and College Tutor as signatories

# IAC sign-off

ES reviews progress and porfolio

**ES initiates** Multiple Trainer Report Tool

**Trainee initiates** 'HALO' for EPAs 1&2

**Trainee initiates** IAC Certificate. Select and link MTR

## Appendix 2: simulation syllabus for IAC

Name of training	Novice anaesthesia skills and drills
Learning outcomes	Discuss and rehearse the AAGBI quick reference handbook (QRH) unknowns  Rehearse the routine for dealing with failed intubation on a manikin
Timing	CT1 0-3 months ACCS CT2 0-3 months
Delivery methods minimum requirements	Low fidelity Group / individual exposure to skills and drills Each individual must rehearse the routine for dealing with failed intubation on a manikin Could be multi-professional
Equipment minimum requirements	Intubatable manikin  Airway equipment – including difficult airway equipment used in your department
Faculty minimum requirements	A faculty member able to sign off work place based assessments
Location of training	In-situ or simulation suite

Name of training	Assessment of failed intubation drill for IAC
Learning outcomes	Demonstrate the routine for dealing with failed intubation on a manikin as per <u>DAS</u> <u>guidelines</u>
Timing	CT1, ACCS CT2 prior to IAC sign off
<b>Delivery methods</b> minimum requirements	Low fidelity  Each individual must demonstrate competency for dealing with failed intubation on a manikin
<b>Equipment</b> minimum requirements	Intubatable manikin  Airway equipment – including difficult airway equipment used in your department
Faculty minimum requirements	A faculty member approved to sign off IAC
Location of training	In-situ or simulation suite

#### Appendix 3: knowledge and skills for the IAC

Figure 4 demonstrates the knowledge and skills required to be awarded the IAC. This summary diagram can be used to guide learning and to support entrustment decision making. You are not required to provide evidence on the LLP for every individual element.

Figure 4: Knowledge and skills for the IAC

# Skills

- Pre-operative assessment (ASA 1/II)
- WHO checklist 'sign in'
- Peripheral venous cannulation
- Basic airway management (mask ventilation/airway adjuncts/SAD insertion)
- Transfer from anaesthetic room to theatre
- Positioning patients for surgery
- Maintenance of anaesthesia with volatile gases

- Preoperative assessment of high risk patients (ASA > III)
- Anaesthetic machine check
- Induction of general anaesthesia
- Tracheal intubation (direct and video laryngoscopy)
- Anaesthesia with spontaneous and controlled ventilation
- Assessment and reversal of neuro-muscular blockade
- Handover to recovery team
- Prescription for the postoperative period

- Rapid Sequence Induction (RSI)
- Management of emergence from general anaesthesia including tracheal extubation
- Failed intubation drills (simulation)
- Initiating management in emergencies and calling for help (simulation)
- Management of postoperative pain including patient controlled analgesia

# IAC

#### Start of Novice Period

- Anaesthetic preoperative assessment
- Predictors of difficult airway management
- Starvation policies
- Basic functions of

  anaesthetic machine
- Emergency drug preparation
- Physiological effects of general anaesthesia
- Basic pharmacology of common anaesthetic drugs

- Impact of major comorbidity on the conduct of anaesthesia
- Difficult Airway Society algorithm
- Priniciples of perioperative analegesia
- Postoperative nausea and vomiting
- Infection prevention and control in theatres
- Understand scope of novice anaesthetists' practice and when to call for help
- Human factors in the management of anaesthetic emergencie
- Recognition of critical illness in the surgical patient
- Adult Advanced Life Support
- Management of laryngeal spasm

# Knowledge

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