



Guidance for Workplace-Based Assessment (WBA)

Introduction

This document describes the principles, the various assessment tools, and the conduct of the workplace-based assessment in the anaesthetic training program.

Why do we want to assess trainees?

Anaesthesia is a life-long career that necessitates life-long learning. It is important that the trainees are learning and progressing according to the stages of training, and achieving the learning outcomes as described in the curriculum. Assessments can encourage learning and they are opportunities for trainers to give feedback to the trainees and the trainees to reflect on their own training and development.

When the trainees finish the anaesthetic training, they should be able to demonstrate competence and professionalism in their workplace as well as in the different roles of an anaesthetic specialist.

Types of Assessment

Assessment can be either summative or formative 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 under standardized conditions, or the trainees have to achieve certain standard requirements. They are high-stake assessments and based on which the decision to progress to the next stage of training or not is made. The summative assessments under the training program include the intermediate and final examinations, exit assessment and the in-training assessments.

Formative assessment is *assessment for learning*. The goal of formative assessment is to offer ongoing constructive feedback, in order to monitor progress, with the aim of improving performance, building the foundation for learning more advanced skills and driving one's desire to advance his knowledge and skills. Good quality feedback is the key and the purpose. There is no grade or mark, no pass or fail in formative assessment. It assesses the performance of the trainees in terms of competence, teamwork and professionalism, and the focus is on practice improvement. They are relatively low-stake assessments and cannot be standardized, but they have validity. The main formative assessments in the training program are the workplace-based assessments (WBA). Multiple assessment tools, multiple assessors and multiple data points are involved in workplace-based assessments.

The Goals of Workplace-Based Assessment

- To assess competencies, as listed in the learning outcomes of each section of the curriculum.
- To offer ongoing constructive feedback with the aim of improving performance.
- To provide a framework to support teaching and learning in the clinical environment.
- To engage the trainer and trainee in professional educational conversations.
- To enable trainees to reflect on their own practice, know their strengths and weaknesses, and use feedback from the trainers to inform and develop their own practice.

- To monitor the progress of training and development.
- To create a record to document holistically a trainee's clinical performance.

The Workplace-Based Assessment Tools

The WBA tools adopted in the curriculum include the followings:

- Direct Observation of Procedural Skills (DOPS)
- Clinical Evaluation Exercise (CEX)
- Case-Based Discussion (CBD)
- Anesthesia List Management Tool (ALMAT)
 - o Done only during Provisional Fellowship Year
- Multisource Feedback (MSF)
 - o At least one during Basic Training, one during Higher Training, and one during PF Year

1. Direct Observation of Procedural Skills (DOPS)

- For assessing technical skills e.g. arterial cannulation
- For assessing trainees who have learned a new skill
- Can be assessed in real patients, or in simulated environment e.g. the use of a defibrillator
- Feedback should focus on the whole event, not just the success or failure of the procedure.
 - o e.g. understanding of the clinical procedures and alternatives, able to discuss risks and benefits in different clinical scenarios, issues on informed consent, relevant anatomy, safety concerns, documentation and interaction with patients.

2. Clinical Evaluation Exercise (CEX)

- The CEX tool looks at the trainee's performance in a case rather than focusing on a specific procedure, e.g. the anaesthetic management of a patient with renal failure.
- The trainer will act primarily as an observer
- The trainee manages the major part of the clinical work.
- The trainer will discuss the case management with the trainee to assess the understanding of the topic and stimulate self-reflection.
- Possible areas of feedback
 - o Anaesthetic plan, techniques and procedures, management of the problems arose, safety concerns, teamwork.

3. Case-Based Discussion (CBD)

- CBDs offer an opportunity to discuss a case in depth and to explore thinking, clinical judgment and knowledge.
- They provide a useful forum for reflection on practice, especially in cases of critical incidents or complications.
- When undertaking a CBD, the trainee should bring the case notes and/or anaesthetic record of a case they wish to discuss *in retrospect*.
- A "virtual" CBD can also be undertaken, e.g. management of a patient with ruptured AAA.
- The possible areas of feedback include

- The conduct and peri-operative management of the case
- Appropriateness of anaesthesia plans, and awareness of alternatives
- Problems arising (e.g. clinical or equipment) , crisis management, differential diagnosis and thought process involved
- Non-technical skills, e.g. leadership, communication, mobilization of resources, etc
- The standards of documentation
- Safety and quality issues e.g. critical incident reporting
- Follow up actions if necessary.

4. Anaesthesia List Management Tool (ALMAT)

- A trainee is given responsibility to run a list by himself/herself.
- ALMAT is done only during the Provisional Fellowship Year.
- It allows assessment of both clinical and non-clinical skills.
- Trainee should ask for this assessment before the start of the list.
- Possible areas of feedback:
 - Case order on the list – considerations and rationales
 - Communication with surgeons: case complexities, positioning, etc
 - Preparation of equipment
 - People management – nurses, anaesthetic assistants, relieving anaesthetist, etc (Teamwork)
 - Measures to reduce turnover time and increase efficiency
 - Management of potential overrun

5. Multisource Feedback (MSF)

- The use of MSF broadens the source of feedback on everyday clinical care, from different disciplines of the team (e.g. seniors, peers, nurses, surgeons and anaesthetic assistants)
- Trainees are expected to complete a minimum of one MSF each during basic training, higher training and provisional fellowship year.
- It gives an opportunity for trainees to receive feedback from members of the multidisciplinary team.
- The MSF is a valuable tool for assessing a trainee's professional attitudes and behavior.
- The trainee invites at least 15 people (from a mixture of disciplines) who have worked with the trainee in the past year.
- There should be at least
 - 6 seniors (Supervisors from Anaesthesia or ICU),
 - 3 peers (Anaesthetic trainees),
 - 2 surgeons,
 - 2 nurses, and
 - 2 anaesthetic assistants.
- The trainee's supervisor of training approves the list to ensure balance
- Emails will be sent to the assessors through the e-portfolio system.
- A minimum of eight assessors is required to support validity. If the minimum number of assessors is not achieved, then the process should be repeated.

- The SOT will receive the summary of the feedback and review the results before meeting the trainee for discussion.
- Further MSFs may need to be undertaken if concerns have been raised, either in the MSF or in the workplace.
- The detailed logistics of MSF are described in a separate section.

Documentation

- The conduct of the workplace-based assessment, as well as the feedback and the trainee's reflections should be documented electronically in the trainee's e-Portfolio. The instructions for documentation of the WBA are described in a separate section.

The Workplace-Based Assessment (WBA) Process

- Feedback is the most important element of a WBA.
- Trainees should initiate WBA relevant to their current modules of training
- No special placement beyond conventional rostering and rotation is expected in order to facilitate conduction of WBAs.
- Areas for assessment should be identified prior to starting a list, and the trainee should ask the trainer in advance to perform an assessment
- A trainer may also suggest conducting a WBA with the trainee, but this must be done with mutual agreement.
- The WBA should not delay, hinder, complicate, or add risk to the clinical work.
- Requesting assessments retrospectively is considered bad practice and is not acceptable, except in Case-Based Discussions.
- It is possible to use more than one assessment tools at one WBA occasion.
E.g. in a patient for Caesarean section under general anaesthesia, the trainer can assess the intubation skill (DOPS) and the anaesthetic management (CEX) in the same patient.
- Officially, there is no maximum number of WBA allowed in each single episode. However due to the limitation of time and other constraints in the clinical environment, as well as to ensure the quality of WBA, the trainer and trainee should limit the number of WBA to a reasonably manageable number in each single episode, say not more than 3.
- While a trainee is allowed to have more than one WBA on the same case, s/he can only enter the WBA in one specialty module. For example, a CBD is done in a paediatric patient having an eye operation, the trainee can enter the CBD under either paediatric or eye module, but not both.
- Trainees are encouraged to select different cases for WBA, with multiple assessors, at different stages of training to maximize the benefits of WBA.
- 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 teamwork.
- The assessment should be documented on the e-Portfolio soon after the assessment.

Who can conduct WBA?

- All specialist anaesthetists or intensivists (with FHKCA or equivalent) are inherent trainers, and they are eligible to conduct WBA. The trainers should possess expertise in the area to be assessed and be familiar with the assessment process.
- Trainers are recommended to have received WBA training (e.g. from the WBA TTT workshops by HKCA or from the trainers in the respective departments) before conducting WBA for trainees.
- The WBA are formative assessments, there is no grade or mark, no pass or fail.
- The principle is to assess competency and give constructive feedback to help trainees improve further. Trainees are encouraged to invite different trainers to do the WBA for them.
- Trainers who have conducted WBA for the trainees are eligible for 0.5 active CME point per WBA. Say a trainer has conducted a DOPS on intubation and a CEX with the trainee on the same patient, the trainer can claim 1 active CME point.

Required Number of Workplace-Based Assessment

- Trainees are required to complete a minimum number of WBA as specified in the curriculum according to their training status.
- Trainees are not allowed to progress to the next stage of training if the minimum number of WBA is not fulfilled.
- These tools are of most value when used as “assessment for learning”.
- Trainees are encouraged to do more than the minimum to assist them to develop their skills, knowledge and clinical management wherever possible.
- Assessors will recommend whether the trainee should repeat an assessment for a particular clinical scenario/situation or procedure if necessary.

Summary of minimum Workplace Based Assessments (WBAs) at different stages of training

Clinical Fundamentals

Trainees must complete the following minimum WBAs during Basic Training and Higher Training periods: -

2.1 General Anaesthesia and Sedation

	FOCUS	DURING TRAINING	BASIC	DURING TRAINING	HIGHER
CEX/CBD	Themes focusing on learning outcomes listed above	1		1	
DOPS	Ultrasound guided Central Venous Cannulation	1		---	
	Arterial cannulation	1		---	
	Transducer set up and problem solving	1		---	

2.2 Regional Anaesthesia

	FOCUS	DURING TRAINING	BASIC	DURING TRAINING	HIGHER
CEX/CBD	Themes focusing on learning outcomes listed above	1		1	
DOPS	Spinal	1		---	
	Epidural or Combined Spinal Epidural Blocks (non-Obstetrics)	---		1	
	Peripheral plexus / nerve block (sites and approaches not specified, with or without catheter)	1		1	

2.3 Airway Management

	FOCUS	DURING TRAINING	BASIC	DURING TRAINING	HIGHER
CEX/CBD	Themes focusing on learning outcomes listed above	1		1	
DOPS	Elective airway management in an adult (BVM/LMA/ETT)	1		---	
	Rapid sequence induction in an adult	1		---	
	Fibreoptic intubation in an adult (including LA of the airway)	1 (CAN BE DONE IN BT OR HT YEARS)			
	Provision of airway management for patient with potential or actual cervical spine instability	1 (CAN BE DONE IN BT OR HT YEARS)			
	Provision of anaesthesia for tracheostomy in an adult	1 (CAN BE DONE IN BT OR HT YEARS)			

2.4 Acute Pain Management

	FOCUS	DURING TRAINING	BASIC	DURING TRAINING	HIGHER
CEX/CBD	Themes focusing on learning outcomes listed above To be performed during Acute pain round	1		1	
DOPS	Setting up PCA machines or postop analgesic infusions	1		---	

2.5 Perioperative Medicine

	FOCUS	DURING TRAINING	BASIC	DURING TRAINING	HIGHER
CEX/CBD	Themes focusing on learning outcomes listed above	1		1	

2.6 Trauma, Crisis management and Resuscitation

	FOCUS	DURING TRAINING	BASIC	DURING TRAINING	HIGHER
CEX/CBD	Themes focusing on learning outcomes listed above	1		1	

2.7 Safety and Quality in anaesthesia

	FOCUS	DURING TRAINING	BASIC	DURING TRAINING	HIGHER
CEX/CBD	Themes focusing on learning outcomes listed above	1		1	
DOPS	Checking of anaesthesia machine and breathing system	1		---	
	Care of patient requiring surgery done in the prone position	1 (CAN BE DONE IN BT OR HT YEARS)			

Specialty Modules

Trainees must complete the following minimum WBAs **before exit assessment**:-

	FOCUS	CEX/CBD
3.1 Anaesthesia for General surgery, Urology, Gynaecology and Endoscopic procedures	Themes focusing on learning outcomes	2
3.2 Anaesthesia for Head and Neck and Otorhinolaryngology procedures		2
3.3 Anaesthesia for Orthopaedic procedures		2
3.4 Paediatric anaesthesia		2
3.5 Obstetric anaesthesia and analgesia		2
3.6 Neuroanaesthesia		2
3.7 Ophthalmic anaesthesia		2
3.8 Anaesthesia outside operating theatre		2

3.9 Cardiac anaesthesia and interventional cardiology		2
3.10 Thoracic anaesthesia		2
3.11 Vascular anaesthesia		2
3.12 Pain medicine		2
3.13 Intensive Care Medicine		2

	FOCUS	DOPS
3.4 Paediatric anaesthesia	Elective airway management in paediatric patient (BVM/LMA/ETT)	1
	Inhalational induction in paediatric patient	1
	Caudal/Penile/Ilioinguinal block In paediatric patient	1
3.5 Obstetric anaesthesia and analgesia	Epidural insertion	1
3.10 Thoracic anaesthesia	Lung isolation and one-lung ventilation	1

Provisional Fellowship Year

	FOCUS	
CEX/CBD	Themes focusing on learning outcomes	1
ALMAT	Themes focusing on learning outcomes	1

Multisource Feedback (MSF)

Trainees are expected to complete at least one MSF

- During Basic Training
- During Higher Training
- During Provisional Fellowship Year