The Royal College of Pathologists
Pathology: the science behind the cure

OVERVIEW OF WORKPLACE BASED ASSESSMENT IN CHEMICAL PATHOLOGY FOR ASSESSORS AND TRAINEES

1. INTRODUCTION

The Royal College of Pathologists considers that workplace-based assessment (WPBA) forms an important part of assessing the competency of trainees, and ensuring that they are making satisfactory progress. The principle is that trainees are assessed on work that they are actually doing and that, as far as possible, the assessment is integrated into their day-to-day work. All assessments have been blueprinted to the curriculum.

Workplace-based assessments are mandatory for all StRs appointed to:

a. A specialty training programme with a National Training Number (NTN)
b. A Locum Appointment for Training (LAT).

The following are the workplace-based assessment tools used in chemical pathology:

- case-based discussion (CbD)
- direct observation of practical skills (DOPS)
- evaluation of clinical events (ECE)
- mini clinical evaluation exercise (Mini-CEX)
- Link to multi-source feedback (MSF)

These tools together with further guidance are available at: Workplace-based assessment tools.

Workplace-based assessments should be recorded in the Learning Environment for Pathology Trainees (LEPT) system. The LEPT system is an ePortfolio to capture trainees' progress during training. It records workplace-based assessments including multi-source feedback (MSF) and includes a functionality to support the Annual Review of Competence Progression (ARCP) process.

The printable workplace-based assessment forms on the College website are available for instances when trainees/assessors do not have direct access to a PC/internet when the assessment is being conducted. In such cases, it is expected that the forms will be used to record the assessment with the intention of transferring the contents to the LEPT system either by the trainee or assessor.

The process of conducting workplace-based assessment is initiated by the trainee. The trainee should identify suitable opportunities i.e. choosing the assessment tool, procedure and the assessor. Assessments should be undertaken by a range of assessors and, since the assessments are short, it should be possible to cover a broad range of activities and scenarios. Trainees should not repeat an assessment for the same procedure or scenario unless an unsatisfactory outcome was recorded the first time.

Chemical pathology trainees will undertake the following workplace-based assessments during a year's training (please note that MSF assessments are carried out three times during the training period):

Specialty	Case-based Discussion (CbD)	Direct Observation of Practical Skills (DOPS)	Evaluation of Clinical Events (ECE)	Mini Clinical Evaluation Exercise (Mini-CEX)	Multi-source feedback (MSF)
Chemical Pathology	Minimum 6 3 by end of month 6 for mid-year review (MYR) 3 by end of month 10 for the ARCP	Minimum 6 3 by end of month 6 for MYR 3 by end of month 10 for ARCP	Minimum 6 3 by end of month 6 for MYR 3 by end of month 10 for ARCP	Minimum 6 3 by end of month 6 for MYR 3 by end of month 10 for ARCP	3 during training Month 7 for ST1 chemical pathology/ST3 chemical pathology (metabolic medicine) trainees

The above table also applies to trainees undertaking sub-specialty training in metabolic medicine.

The MSF for Year 1 (ST1/ST3) trainees is centrally co-ordinated by the College via the LEPT system and trainees will be contacted with further details when it is due to begin. Further information is available at: MSF for ST1 specialty trainees (Stage A)

Trainees at Year 3/5 (ST5/ST7) must initiate their own MSF assessments via the LEPT system so that it coincides well with any forthcoming ARCP. Further information is available at: MSF for ST3/5 and ST5/7 specialty trainees (Stages B-C/D)

The reliability of workplace-based assessments depends on the cumulative assessment by a number of different assessors. The above minimum of six satisfactory assessments gives a reliable indication of the progress of the trainee. All assessments, whether satisfactory or unsatisfactory must be included in the training portfolio. Satisfactory completion of the minimum number of workplace-based assessments is one of the requirements necessary for consideration of progression in training at the ARCP. The workplace-based assessments submitted to the ARCP do not have to include any deemed unsatisfactory ones.

Level of complexity

The trainee should undertake workplace-based assessments for a wide variety of procedures, cases, specimen and sample types, and with a range of complexity levels which must be related to the stage of training. The assessment should be representative of the trainee's current practice. The assessor must decide the level of complexity for the assessment.

Definition of *Low* complexity
Uneventful and straight-forward, with few demands made on the trainee.

Definition of *Average* complexity
Routine with manageable complications, that most likely occurs on a regular basis.

Definition of *High* complexity
Difficult or unusual, due to demanding encounters or unusual findings.

2. OUTLINE OF THE WORKPLACE-BASED ASSESSMENT TOOLS

2.1 Case-based discussion (CbD)

Case-based discussion (CbD) is a way for trainees to present and discuss their cases with more experienced colleagues throughout their training and obtain systematic and structured feedback from the assessor. It is designed to assess decision-making and the application or use of medical knowledge in relation to the care of patients where the trainee has been involved either clinically or through their laboratory involvement. It also enables the discussion of the ethical and legal framework of practice and in all instances, it allows trainees to discuss why they acted as they did. The trainee selects two cases which they have recently been involved with. One of these will be chosen by the assessor for the case-based discussion which will be centred on the trainee's documented involvement either in the medical notes or laboratory records and reports. The trainee chooses the timing, the cases and the assessor. The discussion should take no longer than 15-20 minutes. The assessor will then spend 5-10 minutes providing immediate feedback. The assessor will complete the assessment form with the trainee present; it must be as soon as possible after the discussion takes place.

2.2 Direct observation of practical skills (DOPS)

Direct observation of practical skills (DOPS) is used for assessing competence in the practical procedures that trainees undertake. The assessments should be made by different assessors and cover a wide range of procedures (please refer to the curriculum for topics). The observation takes place whilst the trainee undertakes the activity. The procedure being observed should last no more than 10-15 minutes before the assessment takes place. The assessor will then spend 5-10 minutes providing immediate feedback and completing the assessment form with the trainee present.

2.3 Evaluation of clinical/management events (ECE)

Evaluation of clinical/management events (ECE) is a tool used for assessing the trainee in the performance of their duties in complex tasks, often involving teamworking or interacting with other professional staff. Examples include clinicopathological evaluation and reporting of diagnostic material, presentation of a case at a multidisciplinary team (MDT) meeting, or contributing to quality assurance and audit processes in clinical and laboratory settings.

The assessment takes place whilst the trainee undertakes the activity then the assessor will then spend 5-10 minutes providing immediate feedback. The assessor will complete the assessment form as soon as possible after the assessment takes place with the trainee present.

2.4 Mini Clinical Evaluation Exercise (Mini-CEX)

Mini-CEX is a tool designed to provide feedback on skills essential to the provision of good clinical care by observing an actual clinical encounter. The Mini-CEX assessment focuses on the core clinical skills that trainees demonstrate in patient encounters. It can be easily implemented in any setting as it takes only as long as the routine patient encounter. It can therefore be integrated seamlessly into the normal ward or outpatient environment. The focus can be on any aspect of the patient encounter that is appropriate. The patient should be aware that a Mini-CEX is being undertaken and their permission should be sought.

The observation takes about 15-20 minutes and provides a 'snapshot' of the trainee/patient interaction. Studies by the Royal College of Physicians show that it provides a reliable assessment of a trainee's performance. Not all elements need be assessed on each occasion. Feedback should be provided immediately afterwards to the trainee.

2.5 Multi-source feedback

The Royal College of Pathologists has developed a multi-source feedback (MSF) tool for Year 1 pathology trainees. The tool was initially developed in Sheffield for obtaining multi-source feedback for trainees in paediatrics. SPRAT (Sheffield Peer Review Assessment Tool) is a 360° or multi-

source feedback tool and was developed for use in consultant appraisal, to inform annual assessment for doctors in training and to fulfil revalidation requirements.

Multi-source feedback is a process whereby the recipient is rated on their performance by people who are familiar with their work. As part of the development and implementation process, its reliability and validity have been evaluated and it is shown to be a robust assessment tool. Importantly, the generation of structured feedback can be used to inform personal development planning.

Multi-Source Feedback

3. WHO CAN BE AN ASSESSOR?

All departments should cultivate an environment where training staff are encouraged to assess and give feedback to trainees. The training departments need to identify staff competent to assess trainees and ensure that they are trained to do so. The College will provide a number of training opportunities for assessors but cannot provide training for all who might undertake this task. Training departments should ensure that appropriate training such as provided by the College is cascaded to relevant staff.

Assessors can be consultants (medical or clinical scientist), staff grade and associated specialists (SAS), senior biomedical scientists (BMS), clinical scientists, a more senior trainee or other healthcare professionals competent in the area being assessed (e.g. nurses). Assessors do not need prior approval from the College or prior knowledge of the trainee but should be briefed about the standard required of the stage of training (see curriculum). For optimum reliability, assessments should be undertaken by as many different assessors as possible. Trainees are encouraged to include assessments from a broad range of consultants and senior staff.

Curriculum

4. STANDARDS FOR ASSESSMENT

Trainees must be assessed against the standard expected of a trainee at the end of the stage of training that they are in. Stages of training are normally defined as:

Stage A – ST1 (full outline of competency is available in curriculum). The trainee will be developing a comprehensive understanding of the principles and practices of the specialty under direct supervision.

Stage B – ST2 and ST3 leading to the Part 1 examination. The trainee will have acquired a good general knowledge and understanding of most principles and practices under indirect supervision.

Stage C – ST3 onwards leading to the Part 2 examination. The trainee will be undertaking further specialised general training.

Stage D – Meets the requirements of the CCT programme. The trainee will have an in-depth knowledge and understanding of the principles of the specialty.

The following grading scale must be applied to the assessment criteria for each workplace-based assessment tool. If a criterion is not applicable, the assessors should tick ‘unable to comment’.

Grading scale

The form offers a grading scale from 1-6:

1-2 Below expectations
3 Borderline
4 Meets expectations
5-6 Above expectations

Definition of borderline
In the context of workplace-based assessment, borderline trainees have not demonstrated that they have convincingly met expectations during the assessment but there are no major causes for concern.

Definitions for the grading scales are provided at:

Standards for assessment tools

Outcome of assessment
The outcome of the assessment is a global professional judgement of the assessor that the trainee has completed the task to the standard expected of a trainee at that stage.

Satisfactory - The trainee meets the standard overall
Unsatisfactory - The trainee needs to repeat the assessment

5. RECORD KEEPING

An assessment should not be approached as if it was an examination. After completing the assessment, the assessor should provide immediate feedback to the trainee. If the paper-based assessment form was completed in the first instance for entering into the LEPT system at a later date, then it should be duly signed and dated by the trainee and the assessor. Trainees are asked to check with their local arrangements whether they are required to give a photocopied version of the form to their educational supervisor/assessor and/or retain the original copy of the form in their portfolio for possible presentation to the ARCP panel.

6. EXAMPLES OF SCENARIOS FOR USE IN WORKPLACE BASED ASSESSMENT

The following are examples only and are not intended to be exclusive; nor will every trainee have an opportunity to be assessed in every scenario.

6.1 Case-based discussion

- Discussion of a range of cases in areas of:
  - general biochemistry
  - diabetes and endocrinology
  - lipidology
  - nutrition
  - inherited metabolic disease
  - 'special investigations'
- Involvement in critical incident or patient safety event
- Case involving diverging diagnostic opinions
- Case raising health and safety/risk management issues
- Evaluation of QC/QA data

6.2 Direct observation of practical skills

- Use of pipette
- Use of balance
- Use of centrifuge
- Preparation of buffer
- Measurement of glucose using meter
- Urinalysis using 'dipstick'
- Use of blood gas machine
- Manual (specify), e.g. osmometry
- Use of bilirubinometer
- Performance of sweat test
- Insertion of long line
- Supervision of dynamic function tests

- Observation of trainee-led teaching event

6.3 Evaluation of clinical/management events

- Presenting audit findings and leading discussion on the action required
- Observation of a trainee led teaching event
- Demonstration and presentation of cases at MDT
- Presentation at 'grand round'
- Referring a case for a specialist opinion
- Providing clinical biochemistry advice in response to enquiry (primary and secondary care) – by letter, by phone
- Use of critical incident/non-conformity reporting procedures
- Presenting findings and leading discussion on the action required
- Preparing a business case
- Writing clinical guidelines
- Appointment of staff

6.4 Mini clinical evaluation exercise (Mini-CEX)

Assessment of clinical skills in out-patient or in-patient environments involving:

- Diabetes
- Lipids/cardiovascular risk/hypertension
- Metabolic bone/calcium metabolism
- Inherited metabolic disease
- Obesity
- Parenteral nutrition ward round

These assessments should be carried out for a wide variety of patient types within each clinical modality. Refer to topics in the chemical pathology and metabolic medicine curricula.

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