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Assessing intern performance and readiness to practise using entrustable professional activities (EPAs)

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List of Abbreviations

Abbreviation	Term
APC	Australian Pharmacy Council
A RICH	Agency, Reliability, Integrity, Capability, Humility
CbD	Case-based Discussion
CBME	Competency based medical education
EBD	Entrustment-based Discussion
EPA	Entrustable Professional Activity
SPO	Short Practice Observation
WPA	Workplace-based assessment

Assessing intern performance and readiness to practise using entrustable professional activities (EPAs).

Definition and description

The term Entrustable Professional Activity, or EPA, was coined in 2005 and is defined as “a unit of professional practice (a task or group of tasks) that can be fully entrusted to a trainee, as soon as he or she has demonstrated the necessary competence to execute this activity unsupervised” (ten Cate, Carraccio, Damodaran et al, 2021, p. 200). EPAs were introduced as a means of operationalising competency based medical education (CBME) by evaluating the progressive increase in responsibility and autonomy of a learner or trainee in carrying out the activity, which then leads to a decrease in the level of supervision required for safe and successful performance of that activity. The implementation of EPAs in workplace-based assessment (WPA) results in a movement away from assessment of individual decontextualised competencies to a more holistic approach which awards a level of trust to perform an activity requiring the coordinated use of multiple competencies.

ten Cate, Chen, Hoff et al (2015) outline the defining characteristics of EPAs as being “executable within a given time, observable, measurable, confined to qualified personnel and suitable for focused entrustment decisions” (p. 985).

As units of professional practice, EPAs are primarily structured descriptions of particular tasks or activities undertaken in the workplace. Within the workplace, an assessment is made about the intern’s capacity to perform the EPAs safely and appropriately under decreasing supervision, ranging from being permitted only to observe the task being carried out, through to providing supervision to more junior colleagues. The use of EPAs can be considered as a mastery learning approach (ten Cate et al, 2015) because an individual must perform all aspects of the EPA in order to be allowed to carry out the EPA with less supervision and ultimately achieve endorsement to practice unsupervised.

The EPA concept allows supervisors to make competency-based decisions on the level of supervision required by trainees (ten Cate, 2013). EPAs are, therefore, distinctly different from competencies. Competencies are attributes of a person, while an EPA is a task. An individual must possess certain competencies to be able to complete a task (an EPA). Essentially, over time as, an individual gains more competency they are able to complete the task (the EPA) with less and less supervision. The underlying competencies needed to complete an EPA can be mapped. Hence EPAs can be mapped to competencies in a manner similar to the mapping of the enabling competencies of the National Competency Standards Framework for Pharmacists in Australia to the Performance Outcomes Framework¹ published by the Australian Pharmacy Council (APC) as part of its 2020 accreditation documentation.

¹ Accreditation Standards for Pharmacy Programs in Australia. Performance Outcomes Framework 2020. ©Australian Pharmacy Council at [Accreditation Standards for Pharmacy Programs | Australian Pharmacy Council](#).

EPAs are well aligned with principles of safe and socially accountable professional practice, the first domain of the Accreditation Standards for Pharmacy Programs in Australia and New Zealand 2020². Further, the concept of entrustment is consistent with the future-focused nature of the Accreditation Standards and Performance Outcomes Framework, which are intended to ensure pharmacists are equipped with “*the skills and flexibility to adapt to new scopes of practice as they emerge.*” (p. 6)

Entrustment as prospective assessment

Entrustment is a central concept for the assessment of a trainee’s readiness to practise. As highlighted by ten Cate et al (2015), “*Trust relates to the acceptance that the trustee is permitted to act in circumstances where risks are present but can be managed*” (p. 991). It is not possible for an intern to be assessed on all possible dimensions of professional practice within the supervised practice period, and in coming to a decision that an intern is ready for unsupervised practice, extrapolations must be made about likely performance beyond what has been observed and assessed.

These extrapolations are already made implicitly when a preceptor certifies that an intern is ready for general registration. The formal process of entrustment makes these extrapolations more overt and explicit, and the use of EPAs provides a framework for making a more well-rounded, justifiable, and evidence-based decision. Importantly, the framework provides a basis for identifying when an intern is **NOT** ready to perform with less supervision or oversight; this type of decision is critical for maintaining safe and socially accountable practice.

Entrustment, therefore, represents a means of prospective assessment, while traditional assessments of competency and past performance are more retrospective.

It should be noted that traditional assessment tasks or processes can be used to support entrustment decisions, and that a wholesale revision of assessments is not generally necessary if an entrustment-based approach is adopted. What will be different are the questions that the assessor asks when deciding on the outcome of the assessment. In essence, a **retrospective assessment** focuses on asking how well the intern performed in the task as observed, while **prospective assessment** asks how their observed performance will inform or relate to future performance in different contexts and with different variables. ten Cate et al (2021) describe the difference as “*While a traditional assessment reflects how a trainee has performed when observed, an entrustment decision looks into the future and represents a calculated risk, anticipating that the trainee will do well when there is no supervision. It combines evaluation with an estimation of risk*” (p. 994).

Entrustment decisions thus imply a degree of subjectivity on the part of the assessor; this is deliberate and critical for future safe practice. At each point of assessment, assessors will need to make a point-in-time judgement about how much supervision is needed to mitigate any perceived risks to an acceptable level, noting that some residual risk is inevitable. In an individual scenario, they may judge that an intervention is necessary in order to ensure

² Accreditation Standards for Pharmacy Programs in Australia 2020. ©Australian Pharmacy Council at [Accreditation Standards for Pharmacy Programs | Australian Pharmacy Council](#).

patient safety; alternatively, they may choose to observe from a distance if the intern is performing well. Clearly, these judgements and actions are already being made many times a day in the workplace, thus in some respects the concept of entrustment is not unique to EPAs. Within the EPA framework, these point-in-time judgements are known as **ad hoc entrustment decisions**.

Explicitly adopting an EPA-based framework allows these ad hoc entrustment decisions to be integrated and incorporated into a system for making **summative entrustment decisions**. Summative entrustment decisions are made for the purpose of formally acknowledging that an intern is ready to practice the EPA with increasing autonomy.

Evidence for summative entrustment decisions

In order to make a summative entrustment decision, sufficient evidence must be gathered and reviewed to justify an evaluation that the risks associated with the intern performing under less supervision are acceptable and manageable. Interns must be able to demonstrate not only that they have the capacity to perform under their current supervision level, but also that they have the **adaptive expertise** (ten Cate et al, 2021) to perform in situations where they have not previously been observed. ten Cate et al (2021) rightly point out that “*it is impossible to control for all possible situations in which the entrusted learner will act, and it is deceptive to suggest that prior observations have covered every possible context for the enactment of the EPA*” (p. 201).

Adaptive expertise encompasses aspects such as interns’ insight into their own limits and willingness to ask for assistance, when necessary, ability to adapt to new situations and contexts, assess and manage unforeseen risks, and use prior experiences to respond to new clinical issues. Based on a review of published research, ten Cate & Chen (2020) propose a model for entrustment decision-making using the acronym **A RICH**.

This model proposes that entrustment decisions should be made on the basis of five features of the trainee which engender trust: **C**apability (or competency), **A**gency, **R**eliability, **I**ntegrity and **H**umility.

Capability refers to the knowledge, skills, experiences, and situational awareness of the intern, and includes aspects such as communication, clinical reasoning/judgement, and collaboration skills as well as task-specific knowledge and procedural skills. This element corresponds to aspects which are commonly assessed retrospectively in the workplace and confirms their critical nature. Entrustment is more likely when the intern demonstrates the capability to carry out the activity appropriately and safely on a consistent basis.

Agency refers to the level of active involvement by interns in their learning and practice. Greater agency can be inferred when interns show curiosity, passion, energy, and enthusiasm in their work, when they take ownership of their training and personal development, and when they are responsive rather than reactive to the needs of patients and the workplace. Entrustment is more likely when the intern offers options for solutions to identified problems rather than waiting for answers from others and identifies potential problems (and solutions) before they arise.

Reliability refers to the extent to which interns demonstrate conscientiousness, predictability, accountability, and responsibility in their daily practice. Entrustment is more

likely when the intern consistently fulfils allocated responsibilities, works thoroughly and with attention to detail, and takes a fair share of the work to be done.

Integrity refers to the extent to which interns demonstrate honesty, act with benevolence, and show commitment to person-centred care. Integrity also encompasses cultural safety, respect and responsiveness, and a commitment to safety and social accountability. Entrustment is more likely when interns do not withhold information, particularly information that does not present them in a good light and admit readily to errors and oversights. Entrustment is also more likely when the intern demonstrates person-centredness through respect, empathy, professional and ethical behaviours and personal accountability for decisions and outcomes.

Humility refers to interns' ability to discern their own limits in knowledge and skills, know when to ask for help, and be willing to do so. It also encompasses openness to feedback and willingness to act on it, the ability to learn and improve as a result of making errors, acknowledgement of the existence of uncertainty, and the recognition that non-professional colleagues may have valuable expertise. Entrustment is more likely when interns accept their own fallibility and are open to suggestions on how to improve practice and patient care.

It is worth noting that Performance Outcomes 4.2 and 5.3 address some elements of this framework, and entrustment decisions made in relation to EPAs are also likely to provide evidence in relation to:

- identifying and acknowledging professional limitations and seeking appropriate support where necessary, including additional professional education and/or referral of patients to other health care professionals (4.2)
- recognising and responding to the inherent complexity, ambiguity, and uncertainty of contemporary and future professional practice (5.3)

Reflection

Adaptive expertise is therefore critical to the concept of entrustment since an individual will ultimately be entrusted to perform in situations and contexts which have not previously been encountered. The development and maintenance of adaptive expertise is underpinned by the capacity to reflect realistically and effectively on past performance in order to make decisions about how a related event or activity will be handled in the future. Insight into their own areas of strength and weakness provides evidence of the adaptive expertise of interns, who should be encouraged to engage systematically in reflective practice.

The importance of developing a reflective mindset and approach to professional practice cannot be underestimated or underemphasised. Reflective elements are included in the assessment protocols for each EPA, and a standalone reflective activity is also available to supplement the EPA assessments.

Levels of supervision related to entrustment decisions

The original formulations of EPAs described five levels of supervision (ten Cate, 2013), which correlate to permission to:

- be present and observe only, without active participation (Level 1)
- act with direct, proactive supervision, (i.e., with a supervisor physically present in the room) (Level 2)
- act with indirect, reactive supervision, (i.e., supervision readily available on request) (Level 3)
- act with supervision not readily available, but with distant supervision and oversight (Level 4)
- provide supervision to junior trainees (Level 5)

For the purpose of this Guide and the context of the pharmacy intern year, the following descriptors are used:

Level 1	Observe only, even with direct supervision
Level 2	Perform with direct, proactive supervision and intervention
Level 3	Perform with indirect proximal (nearby) supervision, on request and quickly available
Level 4	Perform with minimal supervision, available if needed, essentially independent performance
Level 5	Supervise more junior colleagues (outside scope of the intern year)

Table 1: Levels of Supervision related to entrustment decisions for EPAs

Granting general registration to a pharmacist indicates that the individual is now able to practice with no supervision, which equates to level 4 entrustment. It is therefore expected that interns will become entrustable at that level at some point in the intern year before general registration is granted.

It is critical to note, however, that even when an intern has been deemed entrustable at level 4, the Pharmacy Board requirements for supervision while the intern is provisionally registered still apply. In addition, at least one pharmacist with general registration must be physically present on the premises in accordance with legal requirements under the Health Practitioner Regulation National Law.

From a practical perspective, within the individual workplace, supervisors may identify that an intern is entrustable at level 4 but should still ensure that their work is adequately checked. This may entail allowing the intern to carry out the activity independently but putting measures in place to require an independent verification of accuracy and appropriateness.

As an example, an intern may carry out the dispensing process (EPA 1) with little supervision, but a final check is carried out by a generally registered pharmacist before supplying to the patient. Supervisors will need to balance the level of supervision that is required by the intern with the professional responsibility of the supervisor to ensure accountability and patient safety.

Components of an EPA

As described by ten Cate and Taylor (2020), an EPA comprises eight components which are elaborated in the table below.

EPA Title	This describes the activity, not how or where it is carried out. It should be succinct, intuitive, and general.
Specifications and limitations	<p><i>Specifications</i> outline the details and breadth of the activity and create the framework for consistent interpretation of what is required in the performance of the activity. The aim is to generate a shared understanding between all participants (regulators, preceptors, interns, curriculum designers, other health care professionals, patients, carers etc.) of what is encompassed by the EPA.</p> <p><i>Limitations</i> set the boundaries for the scope of the EPA – where and when it cannot be performed, based on the complexity of the activity and the qualifications of the intern. For example, an intern may be entrusted to perform simple compounding but not complex compounding; or an intern may not be entrusted to provide advice to patients where communication barriers exist.</p>
Potential risks in case of failure	Since the outcome of the assessment of an EPA is a decision to award trust, there are inherent associated risks which must be considered and clearly articulated. Risks are adverse outcomes which could arise from poor performance of the EPA and include risks to the health and safety of patients and other persons in addition to other potential adverse effects.
Most relevant performance outcomes*	This identifies the critical performance outcome or outcomes from the APC Performance Outcomes Framework. It is not necessary to include all performance outcomes which may be relevant to some parts of the activity only.

<p>Required knowledge, skills, attitudes, and experiences (A RICH)</p>	<p>This identifies the key underpinning capabilities (C) necessary for performing the activity, together with necessary agency (A), reliability (R), integrity (I) and humility (H) as outlined in the A RICH framework. All aspects are considered in terms of how they relate to future unsupervised performance of the activity in unpredictable contexts and circumstances.</p>
<p>Information sources to assess progress and ground a summative entrustment decision</p>	<p>While ad hoc entrustment decisions can be made on informal evidence, summative entrustment decisions are made on the basis of sufficient evidence from a range of sources. Use of diverse tools and approaches is critical since current observed performance must be extrapolated to future unsupervised performance. In addition, multiple assessment points are required, with the quantum based on how high the stakes are for entrustment. Sampling should be representative of the breadth of contexts, and there should be sufficient assessment points to be confident the learner is performing consistently. Sampling should also capture the perspectives of the range of stakeholders impacted by the entrustment decision (e.g., allied health professionals, patients, peers).</p>
<p>Entrustment/supervision level expected at which stage of training</p>	<p>This specifies the level of supervision expected on entry to intern training, and the level required to undertake unsupervised practice (i.e., to be entrusted during the intern year).</p>
<p>Time period to expiration if not practiced</p>	<p>For some EPAs, the ability to perform at any level of supervision may decay if the activity is not performed regularly. During the intern year, this aspect may or may not be relevant; nevertheless, it remains an important consideration and re-assessment of entrustment should be carried out where appropriate.</p>

*In the original EPA models, this component usually refers to competency domains; however, in the context of Australian pharmacy intern assessments, the Performance Outcomes Framework is regarded as the relevant framework. As outlined in the performance outcomes documentation, all enabling competencies in the National Competency Standards Framework have been mapped to one or more performance outcomes.

Assessing pharmacy intern performance using EPAs

Interns, or provisionally registered pharmacists, are eligible to apply for general registration on completion of a period of supervised practice and specified assessments as determined by the Pharmacy Board of Australia. A critical element is the certification by preceptors that the intern is ready for unsupervised practice. Preceptors reach their decision about the readiness-to-practice of interns based on working closely and observing them over an extended period. Preceptors are responsible for providing feedback designed to improve intern performance and then making a point-in-time decision that they can practice without supervision. These two responsibilities are equivalent to formative and summative assessment decisions respectively.

EPAs can be used as the basis for both formative and summative entrustment assessments of intern performance during the period of supervised practice. Each time an intern performs an EPA is an opportunity for development (formative), and when the EPA has been carried out consistently and appropriately over a period, the preceptor may decide that the intern can be trusted to perform that EPA without supervision (summative).

The APC has formulated EPAs which relate to some of the performance outcomes in the Performance Outcomes Framework. Each EPA description includes the eight components of the activity and is accompanied by an outline of the assessment process, activities to be observed such as Short Practice Observations (SPOs), and tools to facilitate assessment such as forms and templates. The EPA description also includes guidance on the conduct of entrustment discussions, both ad hoc (formative) and summative, between the intern and assessor. Where relevant, the product of the activity, for example a compounded medicine, or dispensed medicine should also be assessed.

Short Practice Observations (SPOs)

These take the form of any observation of the intern carrying out the EPA as part of normal professional practice. The SPO is an opportunity for the intern to be observed carrying out an EPA, and to receive feedback on both current performance and areas for improvement. It is therefore primarily a formative assessment, but evidence from a number of SPOs may be used as part of a summative entrustment decision. A designated observer/assessor, who could be the preceptor, another pharmacist, a non-pharmacist staff member, a peer, a patient, or any other person with an interest in the outcome of the EPA, observes the intern carrying out the activity from beginning to end and provides feedback on the intern's performance. The intern and observer/assessor should agree on the specific activity to be observed before commencing it; in other words, all participants should be aware that the observation is occurring, and that feedback will be provided. It is preferable to use a range of observers/assessors at different time points in the year to achieve a more holistic assessment, noting that only one observer/assessor should be present for each SPO. A brief written record should be made following each observation and should include comments on aspects where the intern performed strongly, and areas for improvement, including not only the practical aspects of the activity but also aspects such as situational awareness and recognition of risks.

SPOs should be regularly carried out for each EPA throughout the course of the intern year, as it is critical that the intern is able to demonstrate consistent performance of the EPA. Sufficient time should be allowed between successive SPOs to allow the intern to learn from experience and feedback, and to practice the task so that improvements can be incorporated.

Entrustment discussions

An entrustment discussion is a particular form of case-based discussion (CbD) or feedback session which “*focuses not only on what was done but also on the awareness of potential risk, and how the student would act when faced with unexpected findings or complications*” (ten Cate, Graafmans, Posthumus et al, 2018 p. 510). The purpose of entrustment discussions (also known as entrustment-based discussions or EBD) is to provide an assessor with more information about the intern’s:

- understanding of an activity that has been completed
- underlying knowledge, judgement and reasoning associated with the activity
- appreciation and assessment of the risks and/or complications associated with the activity
- recognition of and potential response to situations or patients which differed from what was encountered in the activity (ten Cate et al, 2018)

In other words, the entrustment discussion focuses on more than simply feedback about the intern’s actual performance of the EPA, but looks forward to future performance when the context, patient and parameters may be different; the assessor judges the readiness of the intern to perform a task with increasing autonomy (less supervision). Within each EPA, guidance is provided about the structure of the entrustment discussion, but in general it features four areas of exploration:

1. What the intern did.
2. The intern’s background understanding, and reasoning related to the EPA.
3. Awareness of risks and/or complications.
4. How the intern’s actions would have changed if the situation or patient had been different for any reason.

Entrustment discussions do not necessarily cease once a supervisor deems that the intern is entrustable at level 4 on a particular EPA. If a particular EPA is not practiced regularly, there is a potential for a decline in performance which may result in the intern no longer remaining entrustable at the current level. Supervisors should be alert for this possibility, and if any doubt exists, re-assessment of the EPA should be undertaken.

Products

Some EPAs involve the generation of a physical product, such as a dispensed medication or an extemporaneously prepared formulation. Assessments of the completeness, quality, accuracy, and other aspects of the product provide additional evidence of the intern’s readiness to perform the EPA with decreasing supervision.

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