



## From case-based to entrustment-based discussions

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*Editor's note: In August 2015 we published an editorial on entrustable professional activities (EPAs) and now we are honoured to introduce this Toolbox article on EPAs co-authored by Professor ten Cate, who designed and developed the concept 10 years ago. In health professional education we have steadily moved on from learning objectives, to learning outcomes, to competencies and now we are beginning to consider EPAs, reflecting the complexity of clinical practice. This toolbox highlights the difficulties of assessment in relation to the actual performance of clinical tasks in the workplace. EPAs are defined as the units of professional practice that make up what health professionals do in their daily clinical work. Clinical teachers have to be able to assess whether, and when, learners can be trusted to carry out clinical tasks and the level of supervision required at different stages of training. In other words teachers need to be able to trust their learners, and this decision to trust does involve risks. The authors discuss how trust builds over time and how risks may be assessed. This is a valuable and stimulating addition to our toolbox series, and it is likely to generate much discussion.*

### WHAT ARE ENTRUSTABLE PROFESSIONAL ACTIVITIES?

Competency-based medical education has become popular over the past two decades.<sup>1</sup> Several countries now

build their medical curricula around elaborate competency frameworks such as the CanMEDS model.<sup>2</sup> The translation of these frameworks to the assessment of actual performance of clinical tasks remains difficult in practice. Many competencies cannot be adequately assessed in isolation,

and competencies often only attain their relevance in a specific clinical context.<sup>3</sup> The wish to bridge this gap between well-elaborated competency frameworks and clinical practice in patient care led the primary author (Olle ten Cate) to create the concept of an entrustable

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professional activity (EPA).<sup>4</sup> EPAs are the units of professional practice that constitute what clinicians do as daily work.<sup>5</sup> They can be conceived of the responsibilities or tasks that must be performed in patient care. These can be small or big. An attending physician – a specialist doctor (or similar) or resident – junior doctor/registrar on a clinical ward, called by a nurse in the night, must be able to evaluate a deteriorating patient and take action to stabilise the patient's condition. This could typically be an EPA for residency in intensive care. A junior resident in obstetrics may be entrusted with the care for a delivery if there are no signs that point to complications. A senior medical student may be asked to examine and evaluate a patient with a known chronic condition, order diagnostic tests if needed, prepare follow-up medication, and do all the work that sometimes only needs to be checked and signed off by a clinical staff member. Even a junior medical student can contribute to health care with small but significant tasks that do not have to be checked regularly if the student has been trained well to do them.<sup>6</sup>

Entrustable professional activities (EPAs) and competency-based training are not confined to undergraduate and postgraduate medical education, but are increasingly applied to education in different health professions, such as nursing, midwifery, veterinary medicine and physician assistant training.

**ENTRUSTMENT DECISIONS AS A CORE COMPONENT OF ASSESSMENT IN THE WORKPLACE**

Entrustable professional activities can be delegated to learners if they are deemed ready for them. The decision to transfer a responsibility to a learner has been called an entrustment decision.<sup>7</sup>

Such decisions happen every day in the clinical environment on an ad-hoc basis. An essential component of training is the regular transfer of responsibilities, if the situation allows for it. A supervising physician does this when she feels that the skills of the learner at that time match the complexity of the patient, and the risks in doing this are acceptable. These are called ad-hoc entrustment decisions.<sup>8</sup> In contrast, summative entrustment decisions have the nature of certification. These are decisions taken for the future responsibilities of the learner from that moment on. In a workplace curriculum built on EPAs, anticipated summative entrustment decisions shape the assessment of learners: they constitute the permission to carry out an EPA when there is a sufficient grounding of trust among the staff that the learner can bear this responsibility with less supervision.<sup>9</sup>

A limited number of assessment approaches in the clinical workplace have been identified to be particularly suitable if EPAs and entrustment are the focus of the assessment: short practice observation (such as the mini-clinical evaluation exercise, mini-CEX); case-based discussion; longitudinal practice observations (such as those performed for multi-source feedback); and products (including entries in electronic health records, written reports and presentations).<sup>10–13</sup> Most of these are not revolutionary, nor new. Case-based discussions, however, if re-shaped to support EPA-based workplace curricula, are particularly useful and are the focus of this article.

**CASE-BASED DISCUSSIONS AS A PARTICULAR TOOL TO ASSESS READINESS FOR ENTRUSTMENT**

Case-based discussions (CBDs), the British version of what Americans call chart-stimulated recall, were developed in the

early 1980s, and have been an important workplace-based assessment tool for a long time. The CBD can be described as a 15–20 minute conversation between a supervisor and a trainee related to a patient case that the trainee has handled, usually based on the information in the (electronic) health record, supplemented with 5–10 minutes of feedback and the filling out of a form. The discussion is framed around actual cases, not hypothetical events, and aims to elicit evidence of competence rather than just knowledge.<sup>12,14</sup> Once reframed to support entrustment decisions, we suggest renaming CBDs as entrustment-based discussions (EBDs). The EBD can be defined as *a 15-minute conversation between a supervisor and a trainee, following the execution of an EPA, to evaluate the learner's readiness to conduct this EPA safely with less supervision in different variations and situations*. The purpose of the EBD is to create a valid impression of the learner's readiness to perform a specific EPA as a whole in its most common variations. The focus on entrustment requires the discussion to include a risk assessment. The activity to be discussed may have been observed, but this is actually not always necessary. The conversation between supervisor and learner is guided by four items, and should conclude with providing feedback (Table 1).

**FOCUS ON REQUIRED SUPERVISION AND RISK MANAGEMENT**

The measure or scale against which to assess EPAs is an estimation of the level of supervision the learner requires. At the beginning of an undergraduate training programme a learner may be permitted to be present in just an observational role, whereas at the end of a postgraduate specialty programme supervision should no longer be required. In

**Table 1. Entrustment-based discussion (EBD) items**

	EBD questions	Purpose
1	What you have done?	Let learner explain the case, and its relationship to the entrustable professional activity
2	Exhibit understanding	Ask for rationale, indication, pathophysiology and clinical reasoning
3	Which risks and possible complications were involved?	How was the learner prepared to cope with these risks and complications?
4	What if the patient or situation were different?	Think of differences in culture, medical history, unexpected findings, mental or physical abnormality; same case in a night shift etc.

co-morbidity. When asked which risks and possible complications could be involved, one would expect the trainee to think of a failure to ventilate the patient or difficulties intubating the trachea. The trainee should then be able to explain which measures should be taken to secure patient safety. When asked what the trainee would do in a different situation, an example would be an elderly patient or a patient with cardiac failure or other serious morbidity.

A score may be given for each of the four items: (1) correct execution, as derived from self-report; (2) adequate knowledge and understanding; (3) adequate anticipation of risks and complications; (4) knowing how to deal with different patients or unfamiliar situations, aligning with the EBD questions (Table 1). The evaluation of the learner should relate to current performance, but may anticipate on a future level of supervision. Most important is an overall recommendation for readiness for a specific supervision level, as indicated in Table 2. In that estimation, the supervisor includes his or her impressions about the learner in a more general sense, as described above (ability, integrity, reliability, humility). After this conversation it is essential to point to strengths and to discuss the learner's ideas for further learning activities. In that sense, ad-hoc entrustment decisions serve a formative purpose.

### SAMPLING, REGULATION AND GENERALISATION ISSUES

As always in workplace assessment, supervisors and their teams must make decisions about the progression of learners on incomplete data. It will never be possible to observe and rate all of the required features of clinical competence (current and future) in undergraduate education, nor

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between, there are many shades of supervision. The supervision levels in Table 2 are based on a generic framework of five levels,<sup>4</sup> now widely used, supplemented with sublevels, as proposed by Chen et al.<sup>15</sup> and Peters et al.<sup>11</sup> The assessment serves to support the translation of the appraisal of learner competence into trust to have the learner engage in health care activities with a reduced level of supervision.<sup>16</sup>

It is important to realise that entrustment decisions involve risks. When a medical student is left alone with a sick patient the supervisor must be confident that the student will do well, and will truthfully report on his or her findings. In other words, the risks must be considered manageable to enable entrustment, whether it is a conversation with the patient, a lumbar puncture, the chairing of a multi-disciplinary meeting, the prescription of drugs or the administration of anaesthetics.<sup>17</sup>

### TRUST IS BUILT OVER TIME

Trust develops over time, by repeated assessments of performance of the learner in different situations. Formal entrustment of the task described in an EPA cannot be based on a single observation or a single discussion.

Several assessments must be performed to enable a decision on the required level of supervision. When assessing learners, risk assessment should include the learner's ability (knowledge and skills), integrity (being truthful and benevolent), reliability (showing consistent and conscientious behaviour) and humility (being able and willing to face their own limitations and to ask for help if needed).<sup>16</sup> Assessment methods should therefore not only evaluate actual performance, but also estimate risks, should the level of supervision be decreased. Some of these features can be included in a well-designed discussion. A typical case to use in an EBD would involve an activity of the learner in patient care, but it can also pertain to an activity not directly involving a patient (e.g. consulting a specialist from another discipline or another health professional).

Items 3 and 4 in Table 1 specifically focus on risk assessment. These questions open a discussion on situations that have not been performed or observed, but that are covered within the entrustment decision for the EPA. For example, take an EBD that centres around the induction of anaesthesia in a young patient without any

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**Table 2. Supervision scale for entrustment decisions as an assessment<sup>11,15</sup>**

Undergraduate medical education ← Postgraduate medical → education	Indirect supervision	1a	Presence with this EPA not allowed
		1b	Observe the EPA being performed by others
	Direct supervision	2a	Practise the EPA as co-activity with supervisor
		2b	Practise the EPA alone with a supervisor present to observe
		3a	Practise the EPA without a supervisor in the room, but immediately available; all findings and decisions double-checked
	Indirect supervision	3b	Practise the EPA without a supervisor in the room, but immediately available; key findings and decisions double-checked
3c		Practise the EPA with a supervisor immediately available by phone; key findings and decisions reviewed	
Oversight	4a	Practise the EPA with distant supervision and post-hoc debriefing if desired	
	4b	Practise the EPA fully unsupervised	
	5	Supervise junior learners with this EPA	

EPA, entrustable professional activity.

in postgraduate education, and thus sampling is an important issue. A predominant consideration is which part of an EPA must be practised, observed and judged, and how often. There is no single best answer to this. Some less complex EPAs may be entrusted after just a few executions of the task (e.g. for an undergraduate student, inserting an intravenous line), whereas others (e.g. at postgraduate level, colonoscopy or radiology image interpretation) may require as many as one hundred practise tries or more.<sup>18</sup> Trainees may ask for rules (i.e. how many times do I have to show adequate performance to receive a summative entrustment decision?), so programmes must develop such rules. As entrustment involves risks, the programme must also decide how much risk is acceptable. EBDs in the described format are tools to arrive at this estimation. In addition, it is essential to be able to trust trainees in coping with unfamiliar situations. Attempts have been made to assess this,<sup>19</sup> but it is a long process to arrive at reliable, valid and feasible approaches. Current training practice

assumes a readiness for unfamiliar situations implicitly, however, by licensing and registration at the end of training, so anything that a programme can do to improve the estimation of this readiness for entrustment is beneficial.

## CONCLUSION

Entrustment-based discussion with learners in an EPA-based curriculum can be a valuable addition to the assessment toolbox. It differs from the usual CBD, considering its focus on risk assessment.

The EBD requires further investigation to establish the properties and value of the tool. The approach has been implemented in the undergraduate medical curriculum at University Medical Centre Utrecht (UMCU) since September 2016, with a cohort of 300, and the first experiences appear to be favourable. To support faculty members in executing these discussions, written instructions have recently been supplemented with an e-module (in Dutch). Anecdotally, students with experience of EBDs have been instrumental in

explaining the purpose of EBDs to new faculty members, and gradually the large community of clinicians involved in clerkship education at UMCU and its affiliated hospitals are becoming familiar with the approach. This is an early report.

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