CHAPTER 21

Clinical competency committees in an entrustable professional activity-based curriculum and assessment system

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Abstract

Competency-based education (CBE) in the health professions is grounded in teaching and assessing the requisite competencies to develop professionals prepared to meet the health care needs of the public and provide high-quality and safe patient care. As such, the outcome of education is the demonstrable competence of graduates in patient care. A curriculum and assessment framework based on entrustable professional activities (EPAs) provides excellent scaffolding for ensuring this outcome. The system is dependent, however, on its ability to support grounded, credible, and summative decisions regarding granting or withholding trainee progression through a program and awarding of increased autonomy (i.e., less supervision) in patient care.

In this chapter, we begin by defining a clinical competency committee (CCC) and establishing its roles. We then provide a rationale for the group structure of a CCC as best suited to make the grounded, credible, and summative decisions required in an EPA-based curriculum and assessment system. Next, we explore more deeply the central role of a CCC—'what' it does. Then we address the 'how' of running a CCC, that is, the strategies to help CCCs function optimally, including issues of CCC structure and process. Finally, we explore some of the common pitfalls, misconceptions, and limitations regarding CCCs and suggest some mitigating strategies to overcome them.

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Introduction

Competency-based education (CBE) in the health professions is grounded in teaching and assessing the requisite competencies to develop professionals who are prepared to meet the health care needs of the public and provide high-quality and safe patient care.[1] As such, the outcome of education is the demonstrable competence of graduates in patient care.

Clinical faculty make judgments on trainees' development, progress, and readiness to perform essential tasks of the profession. Decisions to delegate tasks, called summative entrustment decisions, should be based on grounded trust, that is, trust based on essential and longitudinal experience with the trainee and preceded by sufficient observation and pertinent data to qualify the trainee to act with a decreased level of supervision.[2] While in some programs those decisions are made by individual supervising faculty, in most programs summative decisions are made by a collective of supervising faculty and, in some committees, staff engaged in assessment as well. There are several names given to these committees. In some jurisdictions, the term clinical competency committee (CCC) is used. In programs using entrustable professional activities (EPAs) as the framework for their curriculum and assessment, these committees are often called entrustment committees. For the purposes of this chapter, we will collectively refer to these committees as CCCs.

A CCC can be defined as a group of individuals involved in trainee education and assessment responsible for making effective and credible judgments of trainee performance based on the review and interpretation of multiple aggregated assessments and then deliberately deciding on progression and entrustment of patient care tasks.[3–6] The primary tasks of the CCC are thus to make grounded, credible, and summative decisions on granting or withholding trainee progression through the program and on awarding increased autonomy (i.e., less supervision) in patient care. Summative decisions can therefore: (a) recognize attainment of a milestone within a phase of education or training; (b) provide permission to proceed to the next phase of training; or (c) provide entrustment decisions regarding EPAs, potentially allowing the learner to perform the EPA with decreased supervision. The entrustment decisions may also be accompanied by a statement of awarded responsibility (STAR).[7] A STAR provides formal documentation that a trainee has met the threshold for a given EPA to carry that EPA out unsupervised (in the case of a resident or fellow trainee) or with indirect supervision (in the case of an undergraduate trainee). Through these decisions, a CCC ultimately contributes to the primary purposes of competency-based education—educational accountability to the public and the learner.

Many programs use EPA assessments for formative feedback as well, and may engage a CCC in that formative feedback, reviewing trainee performance on EPAs and providing feedback to the trainee without rendering high-stakes decisions.[8] As an example, a CCC may use EPA assessment data formatively in an early meeting where trainee data is insufficient to make a summative entrustment decision but can be fed back to the trainee to provide guidance on opportunities to advance in the performance of the EPA toward entrustment. CCCs can also provide formative feedback through curricular suggestions to trainees, such as a rotation that might be advantageous, based on gaps the CCC identifies through the aggregate assessment data.

A summary of potential tasks, that have been ascribed to CCCs, besides making summative decisions about entrustment and trainee progress and associated feedback, include[3–6,9]:

1. identifying both suboptimal performance or dyscompetence (i.e., less than expected ability in one or more domains of competence in a certain context and at a defined stage of education or practice[10]) and performance exceeding expectations in trainees;
2. providing program directors with a transparent, rich, holistic group perspective on trainee performance;

3. providing trainees with credible and actionable feedback;
4. formulating remediation interventions and tailored training opportunities for learners who require them, or referring the learners to another entity such as a remediation or clinical coach;
5. evaluating program effectiveness and identifying weaknesses in curriculum or program of assessment;
6. providing feedback to those overseeing the program of assessment on the focus and quality of workplace-based assessments.

This chapter focuses on the role of CCCs in EPA assessment and entrustment decisions. Specifically, we explore the 'why' behind the critical nature of CCCs in implementing a curriculum and assessment system with EPAs, what evidence is used by CCCs to inform group decisions, and how a CCC operates. Finally, we explore some of the pitfalls, limitations, and misconceptions surrounding CCCs and offer some mitigating strategies.

Why do we need clinical competency committees in an EPA-based curriculum and assessment system?

An EPA-based curriculum and assessment system requires summative decisions about: (a) learners' ability to perform the EPAs with decreased levels of supervision; (b) learners' overall progress in the program; and (c) learners' overall trustworthiness. Programs that use EPAs as curricular building blocks and for learner assessment generate large amounts and varied types of data on learner performance. Making the high-stakes decisions, therefore, requires a process to synthesize and interpret these data. Synthesis involves more than just averaging entrustment scores or compiling all narrative comments. In fact, because the attainment of competence is a nonlinear developmental process, the learner's trajectory over time is considerably more important than any average rating, and longitudinal review of performance is essential. This process also involves human judgment to interpret and synthesize data and is vulnerable to bias. We submit that high-stakes decision-making in health professions education and training is thus optimally done by a group such as a CCC, the members of which can provide varying perspectives on the longitudinal view of the learner's trajectory, ensure defensible decisions, and mitigate bias.

Group decision-making within a CCC is important because, in general, groups make better decisions than individuals acting alone.[5] A group process that is well designed and implemented using recommendations for effective group procedures can generate greater buy-in to decisions among members, learners, the program, and the public. Group decision-making done well affords multiple benefits compared to decision-making by a single individual. The interactions among group members during meetings serve as real-time faculty development to build a shared mental model of expected trainee performance. Discussing what evidence pertains to the EPAs and what evidence demonstrates a trainee's achievement at a given level of entrustment promotes a shared understanding and interpretation of the data among members.[11] This shared understanding of expected development of trainees allows for earlier recognition by the CCC of trainees who are missing learning experiences or not progressing as expected. Early identification creates opportunities for intervention, such as adjusting learning experiences or strengthening feedback on certain skills or competencies. Group decision-making is thus a critical core component of programmatic assessment in CBE.[12]

One additional benefit to the group process designed to make determinations of individual trainee's progress is that it also generates insights about the program as a whole. A high-functioning CCC contributes to the overall quality of assessment and education by affording

regular review of trainee outcomes both between and within phases of education and training.[13] Committee members can identify strengths or gaps of the curriculum and learning experiences and recommend adjustments to improve the content or quality of training.

With this understanding of the 'why' behind the use of CCCs in CBE in general and specifically in a CBE program that utilizes EPAs as the framework for curriculum and assessment, we turn to the 'nuts and bolts' of what a CCC does and how it best functions.

What does a CCC do?

The central role of all CCCs is to review aggregate evidence over time regarding trainees' performance in executing the EPAs, and to decide when a trainee has reached a predetermined level of entrustment to allow increased autonomy and advancement within or beyond an educational or training program. In general, that level of entrustment is at the indirect supervision level for undergraduate medical students advancing to residency, and unsupervised practice for residents moving to practice or fellowship.[14] In some countries, however, trainees move directly from undergraduate medical education to practice. Similarly, in many health professions, trainees move from a prelicensure undergraduate program directly to unsupervised practice. In these cases, trainees need to be entrusted at the level of unsupervised practice prior to graduation for those EPAs that they will be performing in practice.

In addition to reviewing data regarding trainee performance of EPAs, data that speak to the trainee's trustworthiness, in particular the ability to know one's limits and seek help, are central to a CCC's making sound entrustment decisions.[15,16] One published review of the literature suggests that there are five components of trustworthiness: Agency (proactive toward work, team, safety, personal development); Reliability (conscientious, predictable, accountable, responsible); Integrity (truthful, benevolent, patient-centered); Capability (specific knowledge, skills, experience, situational awareness), and Humility (recognizes limits, asks for help, receptive to feedback). Together, these factors allow for 'A RICH' entrustment decision.[17] For these reasons, CCCs making entrustment decisions perform best when they collect and use information about these factors in their deliberations.

In addition to these central roles, as noted above, some CCCs may also engage in: identifying trainees with both suboptimal performance and performance exceeding expectations; providing program evaluation based on aggregate data; providing trainees with formative, actionable feedback; formulating remediation interventions and tailored training opportunities for learners who require them; referring the learners to a remediation or clinical coach; and providing feedback to those overseeing the program of assessment on the focus and quality of workplace-based assessments.

How do CCCs function best?

An important first consideration in the optimal function of a CCC starts with the formation of the group. The CCC should have a chair with excellent knowledge of the education or training program and the assessment system. This individual is often a program or assessment leader. The membership of CCCs is also a critical factor in the group's function. Diversity of the membership in personal identities, specialty affiliation within a health profession, other health professionals, nonclinical members (e.g., PhDs), patients, trainees, and representatives of other training programs can enhance the CCC functioning, leading to better-informed or more defensible decisions than individuals acting alone or in a homogeneous group.[5,18,19] Diversity of the membership is also one of the primary strategies for mitigation of bias in assessment. CCCs should also include direct supervisors of trainees.[20]

Consistent membership, the ability to remove members, having a clear leader, and having administrative support are also important components for optimal CCC function.[19]

The literature also offers several structure and process considerations for the work of CCCs to optimize entrustment decisions in an EPA-based curriculum. First, they should follow evidence-based group decision-making practices.[21,22] CCCs need structured procedures for reviewing and interpreting learner performance information and generating decisions.[23] This approach should include processes for how consensus is reached, including means for conflict resolution either between committee members or between conflicting data points.[18,20,21,24–26] CCCs also need the time, energy, space, and engagement to complete their work with an eye toward maintaining a reasonable workload.[13,18,19,21] Achieving these goals may require completing prereviews of trainees before CCC meetings.[13,18,27]

Strategies to engage all group members in discussion and encourage information sharing maximize the wisdom of the group and can mitigate bias.[5] For example, the chair should use intentional meeting facilitation strategies such as encouraging junior members to speak first and inviting disparate opinions.[28] Appointing someone to serve in a role to monitor for bias or offer counterarguments and varied interpretations is another strategy for optimizing engagement, leveraging diverse opinions, and minimizing bias.[20] CCCs must similarly mitigate against groupthink, in which the desire to maintain harmony within the group overrides members' willingness or ability to speak up when a decision may be erroneous, harmful, or incomplete.[29] Social loafing arises when group members over-rely on others in the group and contribute less effort than if they were working alone.[30]

The optimal CCC meeting frequency is unclear. It will often depend on the volume of learners and the number of committee members. Higher volumes of learners will require more frequent meetings, often reviewing a subset of those learners at each meeting.[15] Higher volumes of committee members may make logistics more difficult but may also allow for a subset of committee members to form a quorum for any given meeting. The literature suggests a minimum of at least two meetings per year,[18] but quarterly[27,31,32] or even monthly[19] meetings have also been suggested. Not surprisingly, small programs have reported that the work of the CCC is easier, with more time to devote to reviewing each trainee.[18]

Faculty development for CCC members is also important.[18,26,33] Important aspects of faculty development include the development of common mental models for key functions of EPAs,[26,33] for what development looks like for individual EPAs,[19] and for what entrustment should and does mean.[34] Furthermore, if the CCC is making decisions at transition points, such as between medical school and residency, a common mental model for the entrustment–supervision level needed for transition is important.[27]

Finally, the way data are presented to CCC members is critical. Data visualization can be used to offset CCC members' cognitive load and help enable entrustment decision-making.[13,17,18,25–27,31,32,35,36] Dashboards that enable data visualization should be intuitive, contextualized, fast, and accessible.[35] Well-organized learner EPA performance data strengthen members' access to learner information and ability to interpret the data, optimizing their high-stakes decision-making.

Pitfalls, limitations, and misconceptions of CCCs

A full discussion of CCCs in an EPA-based curriculum and assessment system would not be complete without laying out and understanding the key pitfalls, limitations, and misconceptions. These are presented in Table 21.1 with some potential mitigating strategies.

Table 21.1: Pitfalls, misconceptions, and limitations regarding CCCs.

Potential pitfall, misconception, or limitation	Potential mitigating strategies
Pitfall: ignoring potential sources of bias in the CCC process	1. Ensure diversity of the CCC members (e.g., on issues of identity, specialty, phase of education/training, nonphysician members) 2. Faculty and trainee development on the evidence that suggests a trainee merits entrustment/advancement 3. Structured procedures for reviewing and interpreting learner performance information and generating decisions 4. Avoid having each member prepare for one trainee, precluding group deliberations. 5. Standard approach to data presentation
Pitfall: inadequate engagement of trainee in the process[37]	1. Standardized process for engaging trainees, transparent to both CCC members and trainees 2. A priori clarity around what trainee data is to be used by the CCC in decision-making, including data on trustworthiness 3. Standard process for trainee self-assessments on the EPAs that requires them to attest to their self-perceived readiness for entrustment 4. Involvement of trainees in a portion of the CCC meeting to present their self-assessment 5. Standard process for post-CCC meeting feedback (written and oral) to the trainee, including CCC findings and decisions and any plans for follow-up
Misconception: 'one size fits all.' CCCs will need to vary depending on the type of trainees they are assessing (e.g., where on the education–training–practice continuum the trainee is), the volume of trainees, and the volume of EPAs	1. Adjust meeting frequency to ensure ability to discuss each trainee's progress on the EPAs (i.e., ensure time allotted matches the workload) 2. Adjust size of CCCs to ensure engagement of all members 3. Adjust number of CCCs to accommodate increased trainee volume (for example, a program with four trainees per year might have a single CCC, while an undergraduate student body of 250 students/year might require several CCCs)
Misconception: the CCC is only for struggling trainees	1. Ensure discussion of all trainees at the same intervals and allow sufficient time to provide feedback on EPA-based decisions and progress to each trainee. (Note: This does not mean that a CCC must review every trainee at every meeting!)
Limitation: CCCs are time-consuming	1. Optimize administrative support, such as premeeting aggregation of data, intra-meeting notetaking, and post-meeting provision of written feedback 2. Develop a reward system for participation (such as counting toward promotion and tenure) 3. Create term limits for committee membership, when possible, to share the time commitment across faculty
Limitation: CCCs may be both an entrustment body and a promotion body simultaneously	1. Ensure roles are clear a priori regarding the decision-making expectations for entrustment on EPAs and for advancement across phases of training 2. Identify potential conflicts of interest a priori and determine standard processes for conflict resolution

Conclusion

The goal of CBE in the health professions is to produce trainees competent to meet the needs of the public. Ensuring competence requires decisions regarding trainees' capacity to perform in the clinical environment, and EPAs create an entrustment framework for the decision-making process. Such decisions are best served through the group process of clinical competency committees to ensure the fidelity of the process to all the stakeholders, including faculty, staff, trainees, and patients.

Competing interests

The authors declare that they have no competing interests.

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