TERMINOLOGY FOR COMPETENCY-BASED MEDICAL EDUCATION (CBME)

CBME/CBD CONCEPTS

CBME, CBD, TRIPLE C: Differences and Similarities

We've noticed that many are trying to sort out the differences between CBME and CBD, and understand what the impact is for them, their residents, their program, and their faculty.

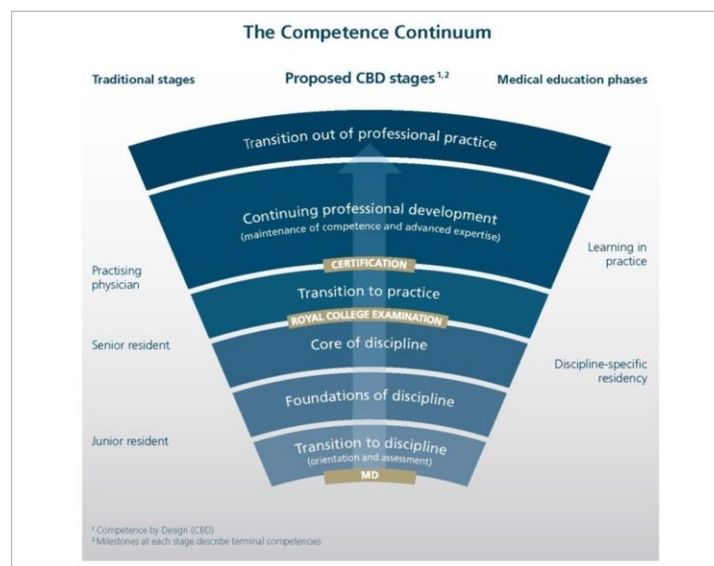
Competency-Based Medical Education (CBME)[1,2] is an outcomes-based educational model that emphasizes the demonstration of competence in key skills and abilities deemed essential for future practice, and de-emphasizes time. Residents are assessed more frequently, with a preference for direct observation. Feedback is more timely, frequent, and constructive, and therefore helpful in the growth and progression of the resident. The ultimate goal of competency-based education is to graduate competent physicians and surgeons, align the medical curriculum with societal needs and expectations, and optimize patient outcomes.

Competence By Design (CBD)[2] is the Royal College's multi-year, medical education, transformational change initiative aimed at implementing a CBME approach to education and assessment to residency training and specialty practice in Canada. The goal of CBD is to enhance patient care by improving learning and assessment across the continuum (from residency to retirement), ensuring that physicians have the skills and behaviours required to continuously meet evolving patient needs.

Triple C[2,3] is a competency-based curriculum for family medicine residency training that has three components:

- **Comprehensive** care and education
- **Continuity** of care and education
- **Centred** in Family Medicine

The **Competence Continuum** reflects the developmental stages of professional practice (See Figure 1 below). In each stage there will be specific milestones that a resident will be expected to demonstrate. The duration (e.g. weeks, blocks, months) for each stage is being determined by each specialty as part of their cohort plans for implementation of CBD.



- The first stage for residents is Transition to Discipline (TTD), which will include an orientation to and demonstration of readiness for the autonomy of residency education and clinical responsibilities.

- Foundations of Discipline (FOD), the second stage of the continuum of residency education, is when the basics, including the most common and frequent patient problems of the specialty, are taught, learned, assessed, and demonstrated.
- Core of Discipline (COD) is the third stage of the continuum of residency education where the patient problems are increasingly complex and complicated and where the less common patient problems are managed. It is anticipated that in the future the specialty exam will be administered near the end of the Core stage.
- The fourth and final stage of residency education is Transition to Practice (TTP), which focuses on ensuring residents' confidence and competence to practice within their discipline.

Entrustable Professional Activities (EPAs)[3,2,4] are tasks in the clinical setting that may be delegated to a resident by their supervisor once sufficient competence has been demonstrated. Typically, each EPA integrates multiple milestones and it is generally used for overall assessment.

Learners, teachers, and assessors will focus on concrete critical clinical activities that provide insight to the residents' development, progress, and proficiency.

The notion of "trust" is not new to residency education as, each day, faculty members decide which patients or patient problems they will assign to which residents. What EPAs aim to do is to provide some consistency in when, how, and where specific activities of a discipline are taught, learned, and assessed.

Milestones

As part of the renewal of CanMEDS 2015, generic milestones were identified. As each program moves through CBD, they use those generic milestones to inform the design of specialty-specific milestones.

Milestones:

- Illustrate the developmental nature, features, and progression of the competencies
- Assist learners in monitoring their own developmental progress
- Are used as a reference to monitor individual learner progress
- Guide development of the teaching program
- Assist in the early identification of learners whose progress is not following the typical development sequence and allow for the initiation of early intervention

The CanMEDS 2015 Milestones Guide[5] is a companion document to the CanMEDS 2015 Framework[6], and describes the competencies expected along the continuum of practice.

RC-Entrustable Professional Activities (EPA) is the Royal College approach to EPAs. For the implementation of CBD, each specialty program will develop a list of important activities that residents need to learn and perform. Example RC-EPAs are: "run a code", "do procedure X", "lead a meeting with a patient and their family disclosing serious news". As well, each discipline is working to identify specific RC-EPAs that teachers/faculty will "sign-off on" after direct observation, thereby entrusting that the residents will be able to perform the activity independently.

Required Training Experiences (RTE) is a new Royal College document being developed for each of the programs transitioning into Competence By Design. This document includes the eligibility requirements for the discipline, as well as the training experiences required or recommended for each of the four stages of the residency education competence continuum.

CBME IMPLEMENTATION RESOURCES

A **Curriculum Map** is an educational tool which provides a simplified picture of what and who is involved in learning and teaching in residency education, including:

- who are learners (i.e. competence continuum stage, PGY level)
- who are teachers (i.e. faculty, other team members, co-residents, self-assess)
- what is being taught (e.g. clinical/patient care focus, priority CanMEDS roles for learning/teaching)

- when this is occurring (e.g. blocks or months, competence continuum stage)
- where the education is occurring (e.g. clinical location(s)).

An **Assessment Plan** is an educational tool that provides an overall plan for the assessments in residency education. The plan provides an accurate picture of a resident's progress on the competence continuum, including:

- who are learners (i.e. competence continuum stage, PGY level)
- who are assessors (i.e. faculty, other team members, co-residents, self-assess)
- what is being assessed (e.g. EPAs, competencies, milestones, priority CanMEDS roles)
- when it will be assessed (e.g. blocks or months, competence continuum stage)
- where it will be assessed (e.g. clinical location(s))
- why it is being assessed (e.g. formative assessment, summative assessment)
- how it is being assessed (e.g. encounter forms, multisource feedback, ITERS, written exams, "homework assignments"

A **Rotation Plan** is a focused educational tool that provides the specific information for a given rotation or learning experience, including:

- location(s), timing, and focus of rotation/educational experience
- specific goals and objectives, required training experiences, and entrustable professional activities included in the rotation
- learning/teaching activities and planned assessments

The University of Toronto's Postgraduate Medical Education (PGME) Education Integration Group (EIG) is facilitating CBD implementation, including working with programs in the preparation of curriculum maps, assessment plans, and rotation plans.

CanMEDS[2,6] is a physician competency framework that identifies and describes the abilities physicians must have to meet patient care needs. These abilities are grouped thematically under seven roles: medical expert, communicator, collaborator, leader, health advocate, scholar, and professional. A competent physician integrates the competencies of all seven CanMEDS roles.

CanMEDS Tools Guide[7]

The *CanMEDS Teaching and Assessment Tools Guide* (CanMEDS Tools Guide) was developed for busy Program Directors and faculty who are responsible for implementing the CanMEDS physician competency framework in residency programs.

This guide was inspired by a desire to enhance residency education in Canada and support the implementation of the CanMEDS 2015 Framework. It is a resource designed to support learning, teaching, and assessment of the core skills and competencies of the CanMEDS Roles as part of everyday resident work. Included are tips for teaching and assessment, and ready-to-use (or modify) tools.

'Meantime Options' for CBD implementation refers to those elements of CBD that programs can consider if and how to include so that their program is aligned with the values and structure of CBD. Implementing Meantime Options will help facilitate future formal integration of CBD standards.

Meantime Options include:

- Take stock: what are you doing now that you want to keep?
- Align your early/orientation experiences for entering PGYs (i.e. start 'on-service' to support integration)
- Align your Transition to Practice (i.e. how to improve confidence and competence for 'real' practice)
- Develop a feedback culture (i.e. a KEY activity to consider)
- Connect your residents, faculty & clinicians (e.g. longitudinal experiences, structure advisory/coaching relationships)
- Initiate a sample workplace-based assessment (WBA)
- Refresh / develop your promotions (aka competence) criteria and committee

- Improve / develop approach to handover of learners
- Initiate faculty development on CBME and CBD

ASSESSMENT AND EVALUATION

Assessment[2] refers to the data collected and analyzed to understand the performance, progress, and outcomes of individuals. (This is different from Evaluation; see below)

Best Practices in Evaluation and Assessment (BPEA)[2] is an initiative undertaken by the Postgraduate Medical Education (PGME) Office in 2016 to inform best practices in the area of resident evaluation and assessment, in light of the move by the CFPC and the Royal College to competency-based medical education.

Board of Examiners[2] is a standing committee of the Council of the Faculty of Medicine that makes all final decisions related to a resident's standing and promotion.

Confirmation of competence is the confirmation of resident progress for each stage of the Royal College competence continuum. The Competence Committee is to make decisions as to the progress of resident competence, at regularly scheduled meetings, through the review of assessments completed during each stage. Confirmation of competence permits residents to move on to the next stage of education.

Disclosure of Learner Needs[2] is *sharing information* about learner needs from one educator and/or educational setting to the next. This sharing will occur as needed during educational experiences. (See Learner Handover)

Evaluation[2] means the data collected and analyzed to understand the effectiveness of the residency program and postgraduate systems and their outcomes, and includes annual program reviews, internal reviews, and accreditation (i.e. program evaluation). (This is different from Assessment; see above)

Learner Handover [2] is the *process* by which information about a learner's progress in a program is transferred between faculty members responsible for supervising, evaluating, and assessing the learner. (See Disclosure of Learner Needs)

Promotion[2] is the confirmation of resident advancement from one year to the next (e.g. from PGY1 to PGY2) within a residency training program.

Remediation[2] is a formal program of individualized training aimed at assisting a trainee to correct identified weaknesses, where it is anticipated those weaknesses can be successfully addressed to allow the trainee to meet the standards of training.

OTHER

Accreditation[2] is a process that ensures that residency programs adhere to a set of minimum standards. In Canada; family medicine postgraduate programs are accredited by the College of Family Physicians of Canada (CFPC) and specialty postgraduate programs are accredited by the Royal College of Physicians and Surgeons of Canada (Royal College).

Best Practices in Applications and Selection (BPAS)[2] was an initiative undertaken by the PGME Office in 2013 to inform best practices in applications and selection, with the goal of ensuring diversity and equity, and improving objectivity and transparency in PGME selection processes.

College of Family Physicians of Canada (CFPC)[2] is the professional organization responsible for establishing standards for the training, certification, and lifelong education of family physicians, and for advocating on behalf of the specialty of family medicine, family physicians, and their patients.

Continuing Professional Development (CPD)[2] refers to the discovery, application, and communication of knowledge that is provided, both in person and through online programs and conferences, to physicians and health professionals. The goal of CPD is to improve the health of individuals and populations by enabling the delivery of best outcomes based on best practices.

Future of Medical Education in Canada (FMEC)[2] is a comprehensive suite of projects, funded by Health Canada, that are focused on ensuring that Canada's medical education system continues to meet the changing needs of Canadians, both now and into the future.

Royal College of Physicians and Surgeons of Canada (Royal College)[2] is the professional organization responsible for the medical education of specialists in Canada. The Royal College accredits the university programs that train resident physicians for their specialty practices, and writes and administers the examinations that residents must pass to become certified as specialists.

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