

The  
PARO  
Primer  
on

# Competency by Design

## INTRODUCTION

PARO champions the issues that create the conditions for residents to be their best and ensure optimal patient care. We advocate for optimal training, where residents feel confident to succeed and competent to achieve excellence in patient care. Over the next few years, the Royal College of Physicians and Surgeons of Canada is planning a gradual transition to a Competency-Based Medical Education (CBME) training model called Competency by Design (CBD). PARO has developed this document to serve as a quick and easy guide to CBD for our members and elected representatives as roll out and implementation begins in Ontario - however, we hope that there may be others who find our guide to be helpful to them as well.

## COMPETENCY BASED MEDICAL EDUCATION AND COMPETENCY BY DESIGN: THE BASICS

### What is Competency Based Medical Education?

CBME is a medical education model that is intended to ensure all graduates achieve competence in all essential domains of their specialty. Instead of requiring residents to complete a pre-determined amount of time at one level or on one skillset, residents will be able to progress through their training once they have demonstrated competency and skill in a particular area. This curriculum is designed to focus on outcomes in a learner-centered model and de-emphasizes time-based training.

### What is Competence by Design?

Competence by Design (CBD) is the RCPSC's initiative to implement a CBME approach to residency training and specialty practice in Canada. CBD will organize training into stages with competencies that must be acquired at each stage. In order to progress, all necessary competencies within a stage must be met.

Our understanding is that CBD will provide residents and educators with more well-defined learning objectives and more frequent and comprehensive assessments, which will allow more individualized training and flexibility based on learner needs.

### Will CBD be time-free?

CBD is not intended to be a time-free model, but rather a hybrid between the current time-based model and a "pure" time-free CBME model.

The Royal College expects that training time will not change significantly for most trainees. Instead, residents will have the ability to achieve competencies at their own rate within their program's timeframe. Residents who need additional support to gain competence in a particular area will be able to focus on improving their skills instead of having to jump ahead to another objective, while residents who demonstrate competence quickly will have the opportunity to further refine their skills.

While there may be some situations where CBD could shorten training time, for the majority of residents the time needed to complete training will remain the same.

## What is the Triple C Curriculum?

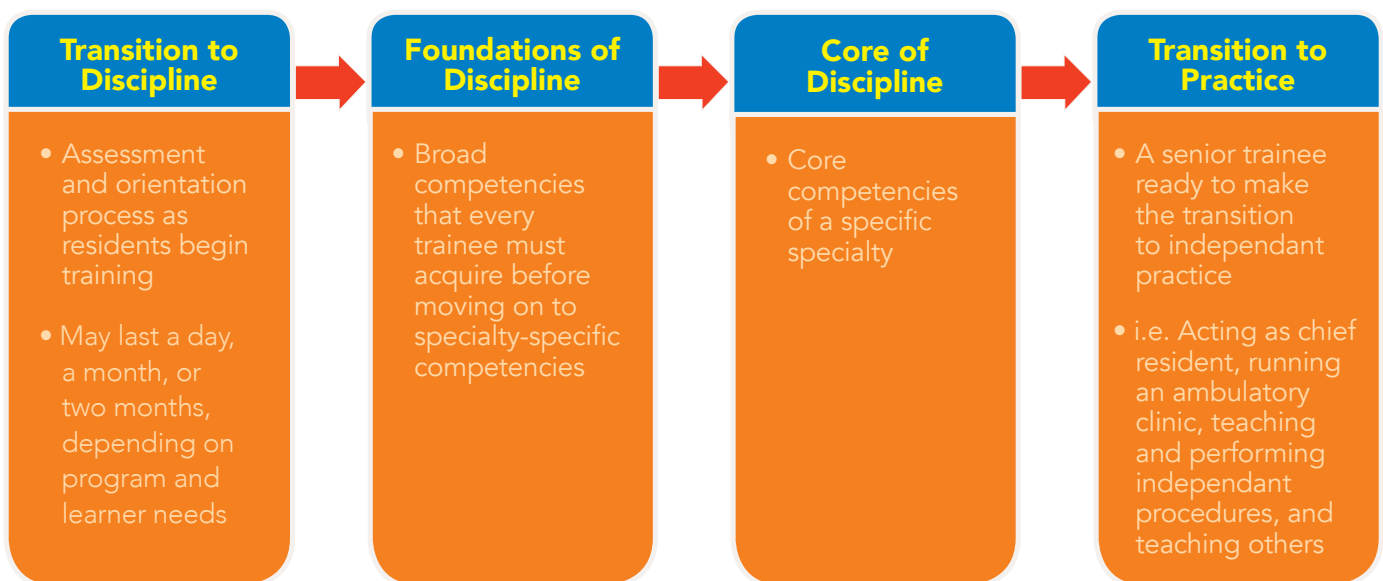
Triple C is the CFPC's competency-based curriculum for Family Medicine trainees. The three Cs stand for *Comprehensive Care, Continuity of Education, and Centered in Family Medicine*. Triple C utilizes in-depth assessments, field notes, and regular observation and feedback.

Though the training and assessment models of CBD and Triple C will look different, they share similar goals of producing graduates who are highly competent and prepared to address the evolving patient needs of the populations they serve.

## TRAINING IN A COMPETENCY BY DESIGN MODEL

### What are the stages of residency education in CBD?

The Royal College has developed a Competence Continuum to illustrate how a resident will evolve throughout their training:



### When will the final RCPSC certification exams take place?

The RCPSC has indicated that they believe in most cases, the specialty written exam will be moved earlier in training. It is most likely that residents will write their exams towards the end of the Core of Discipline stage, prior to entry into the Transition to Practice stage. Timing may vary by specialty, based on factors such as the educational strategy of the specialty, or the nature of the exam (written, oral, OSCE, etc).

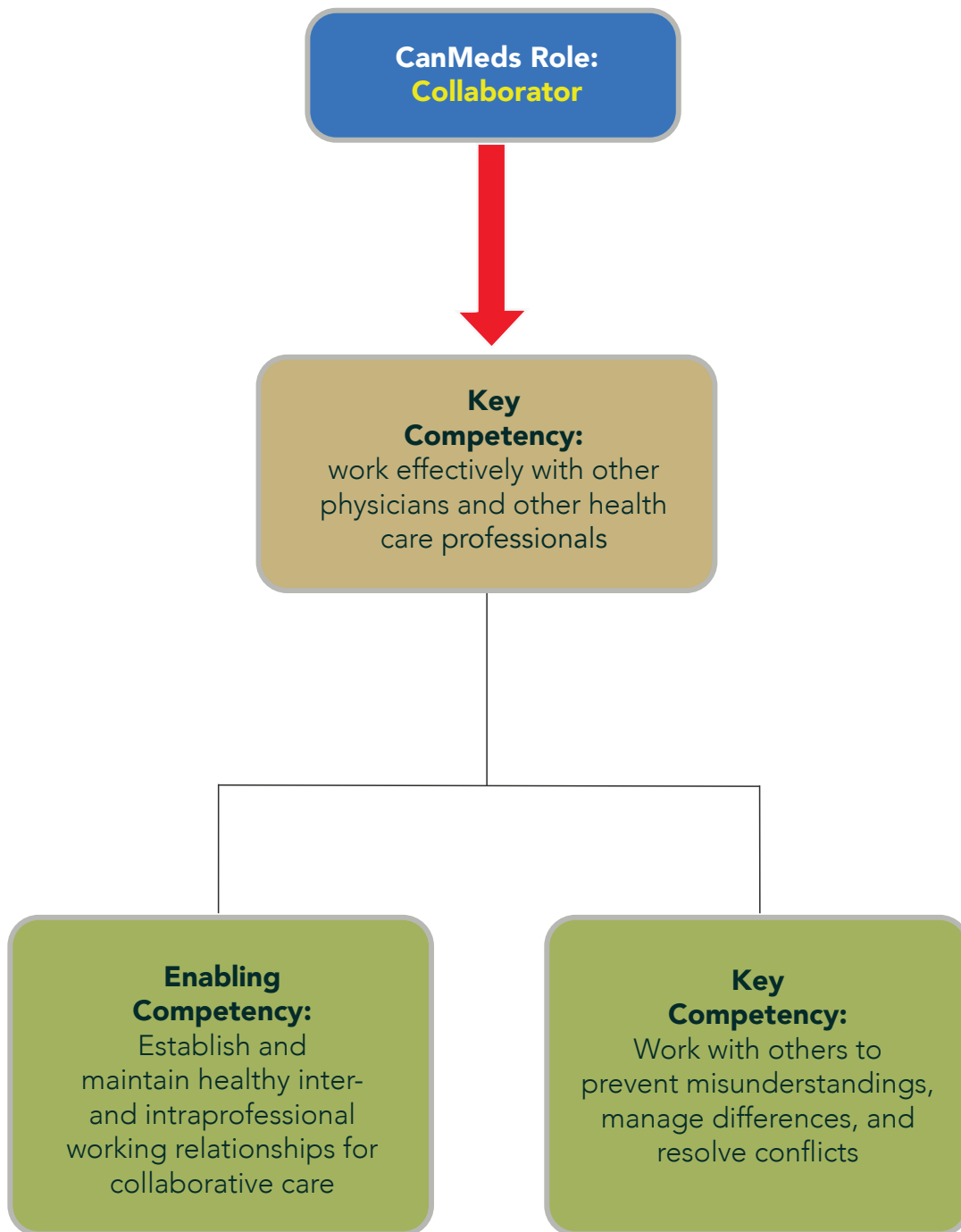
### What does competence mean?

Competence is the ability to effectively perform the various abilities and skills across multiple domains that make up the role of a physician. An individual doctor's competence will continually change over time, experience, and setting, and is directly related to their practice context.

## What is a competency?

A competency is an observable ability or skill of a physician that develops as experience is gained. Competencies focus on how well a learner can perform a specific task within a professional activity.

The CanMEDS 2015 curriculum identifies “key” competencies under each CanMEDS role. Each key competency is made up of “enabling” competencies that must be mastered in order to achieve the key competency.



## What are Entrustable Professional Activities (EPAs)?

EPAs are activities that are part of the day-to-day patient care in a specialty or subspecialty.

“Entrustable” refers to an individual’s readiness to safely perform an activity without supervision, therefore an EPA is a task that can be delegated to a resident once they have demonstrated a certain level of competency. As residents progress, they will be trusted with activities that correspond to increasing levels of responsibility.

EPAs often involve multiple CanMEDs roles and are used for overall assessment of residents.

For example, an EPA for a PGY1 on their first day of residency might be “Gather a patient history and complete a physical exam.”

As they progress, an EPA might be “manage patients with acute, common diagnoses in an ambulatory, emergency, or inpatient setting.”

EPAs may be used for both clinical and non-clinical tasks.

## What are Milestones?

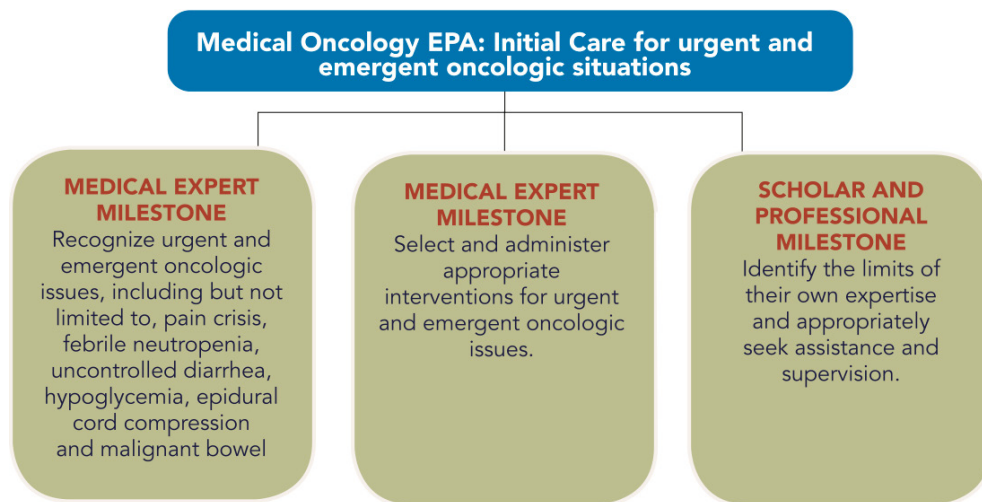
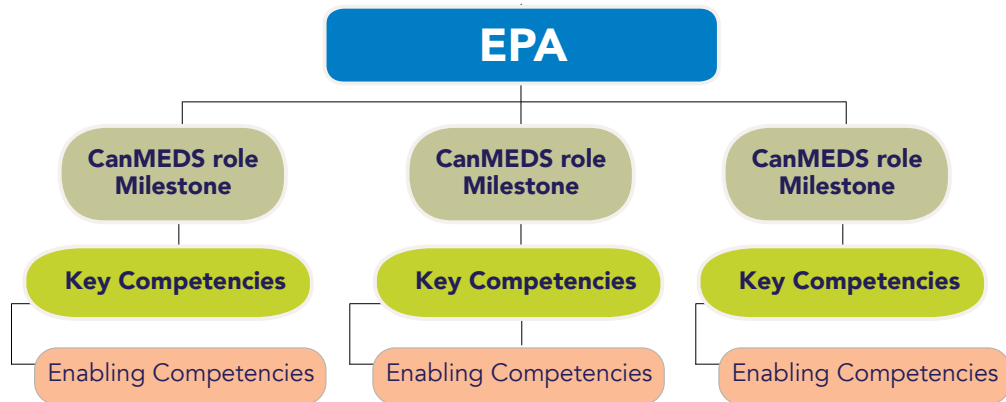
Milestones are descriptions of the expected competencies and skills of a trainee or physician at a defined stage of professional development. They are a tool to a) allow learners to assess their progress related to a specific competency and target their educational activities more effectively, and b) allow assessors to design educational activities and teach specific abilities, as well as to know when a trainee is ready to progress to the next stage of training.

Each EPA role will have specific milestones within it, and will be tailored to different medical disciplines. Within each milestone will be key competencies that a trainee will need to master before they can progress to the next stage of training.

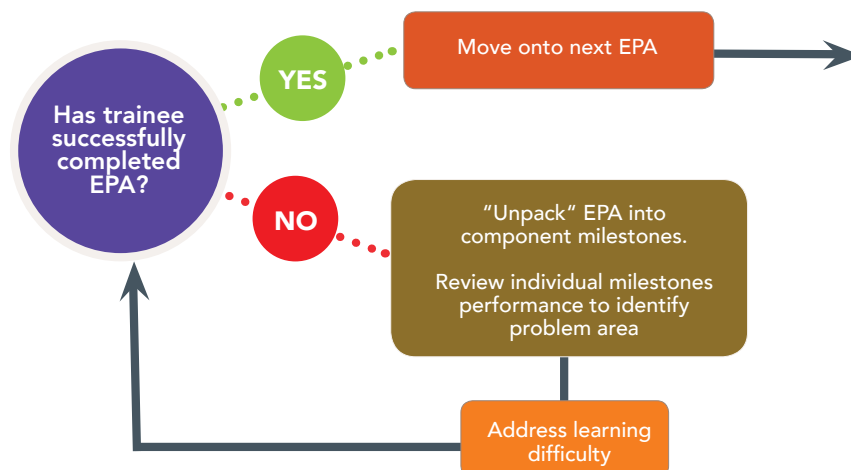
CanMEDS Role	Competency	Milestone: Transition to Discipline	Milestone: Foundation of Discipline	Milestone: Transition to Practice
<b>Medical Expert</b>	Perform an appropriately timed consultation, presenting well-documented assessments and recommendations in written or oral form.	Perform consultations, presenting well-documented assessments and proposing recommendations. Recognize urgent problems that may need the involvement of more senior colleagues and engage them immediately.	In response to the urgency of a situation, perform an appropriately timed consultation, presenting well-documented assessments and recommendations	Conduct well- documented assessments and communicate clear and useful recommendations. Prioritize consultations on the basis of clinical presentations
<b>Scholar</b>	Describe study results in both quantitative and qualitative terms	Generate measures of association and diagnostic accuracy from 2 x 2 tables	Demonstrate an understanding of the role of qualitative research and analyze its limitations and applicability	Describe study results in both quantitative and qualitative terms as appropriate

## What is the difference between EPAs and Milestones?

Milestones are the *abilities and skills* of an individual at a certain stage of their professional development, while EPAs are the tasks and activities doctors do to care for patients. EPAs generally integrate multiple milestones.



Once the skills within a milestone have been taught, educators can assess the achievement of various milestones by having a resident perform an EPA. If a resident struggles with an EPA, the teacher can review the task by breaking it down into the individual abilities (milestones) to determine where further support is needed.



## What are Required Training Experiences (RTEs)?

The Royal College is currently in the process of developing recommended and required training experiences for residents in each of the programs transitioning into CBD. There will be specific RTEs for each stage of residency.

Each specialty will develop Required Training Experiences for each stage of training. RTEs will describe the nature of training (clinical and non-clinical) that is required or recommended for each specialty.

This framework is intended to provide more flexibility to local programs in the selection, duration, and sequencing of RTEs.

## How will residents be assessed?

The RCPSC has identified 6 elements to assessment in a CBD model:

- Specialty specific assessments based on EPAs and CanMEDs Milestones.
- Increased emphasis on direct and indirect observation.
- Many low-stakes observations of clinical tasks.
- Narrative, actionable, timely, concrete, recorded feedback.
- Use of a committee structure to facilitate decision-making about promotion and progression.
- Progressively increased entrustment for residents.

The RCPSC has developed four forms for assessing residents. However, Faculties may choose to use different tools instead, provided they perform the same functions.

The new model will not provide requirements for duration around any aspect of training, though each specialty may provide recommendations and guidance around the overall duration of training and/or specific RTEs.

Similarly, there are no specific requirements about the number of observations the RCPSC will require per EPA, though the Specialty may provide guidance to local programs.

## How will promotion decisions be made?

Each program will implement a Competence Committee. The Competence Committee will be responsible for reviewing learner portfolios to make recommendations around resident learning

and growth. The Competence Committee will report to the Residency Program Committee (RPC)/ Residency Training Committee (RTC), and make recommendations related to the promotion of residents to the next stage of training, readiness to challenge the RCPSC examinations, readiness to enter independent practice, and determining whether any trainee is failing to progress. The size and composition of each Competence Committee will vary based on the individual needs of the program.

## POTENTIAL IMPACTS OF CBD

### When will CBD be implemented?

CBD implementation is meant to be gradual, with specialty and subspecialty programs transitioning in cohorts. The Royal College aims to have all specialties in the process of transitioning to CBD by 2022. As of July 2017, residents entering specialties in the first two cohorts are training in the CBD curriculum.

At Queen's University, all training programs fully implemented CBME as of July 1, 2017 - all residents who entered Queen's on or after that date will be trained in a CBD system.

Please refer to the [RCPSC website](#) for the most up to date information about your specialty.

### How will the roll out of CBD impact residents who are currently training in the older, time-based model?

The RCPSC has stated that they expect that there will be parallel models operating during the transition to CBD. Residents who started their training prior to CBD will finish their training in the current model, rather than switch to a competency model.

### How will CBD benefit residents?

CBME is intended to focus specifically on the learning needs and goals of each individual resident. CBME also provides the framework to maintain competency for the full length of a physician's career. CBME is intended to ensure graduating physicians will be competent in all essential domains of their specialty. This change in education reflects a renewed commitment to improving patient outcomes.

### Are there any risks to CBD?

Some level of risk is inherent in any change or transition. For this reason, it will be crucial that



there is regular review and assessment of the model as it is implemented, with adjustments and changes made as necessary. There are some specific risks and concerns that will need to be addressed in the planning process, including ensuring that there are adequate financial, administrative, and human resources available to support the new system, ensuring that the increased number of assessments do not place an overwhelming administrative burden on residents and staff, and reworking policies such as promotions and appeals to reflect a system where not every individual will meet objectives within the same timeframe.

### **How can residents get involved with CBD?**

CBME is a learner-driven curriculum structure, and residents can have a large role in developing this curriculum. As an example, residents could get involved by putting CBME on the agenda of residency program committee meetings. By identifying what the challenges to CBME implementation are in each program, they can be a part of developing solutions to optimize their own training.

