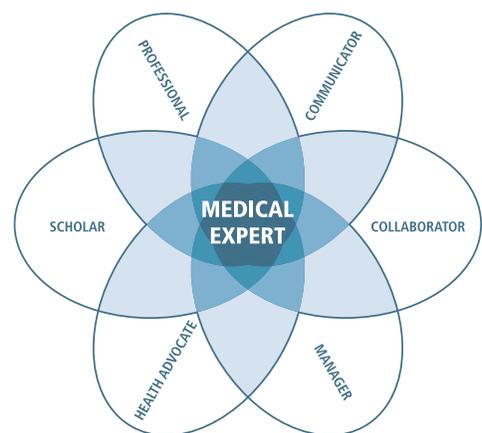

The Draft CanMEDS 2015

Milestones Guide

September 2014

Editors

Jason R. Frank | Linda S. Snell | Jonathan Sherbino



Competence
by Design

CanMEDS 2015

 **ROYAL COLLEGE**
OF PHYSICIANS AND SURGEONS OF CANADA

Draft CanMEDS 2015 Milestones Guide – September 2014

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CanMEDS 2015

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Introduction to the CanMEDS Milestones Guide

At a glance: What's new

- The second draft of the CanMEDS Milestones Guide incorporates more than 2,500 comments submitted by educators and clinicians from at least 14 countries. Thank you!
- For ease of use, the milestones have been moved from the [CanMEDS Framework document](#) to this companion document, the CanMEDS Milestones Guide.
- The Competence Continuum diagram depicting the stages of medical education has been updated on the basis of the feedback we received.
- The editors and the Integration Committee have used the feedback to make some tough choices in compiling the September 2014 versions of the draft CanMEDS Framework and the Milestones Guide. We eliminated redundancy in the key and enabling competencies, reduced the number of enabling competencies by 12, consolidated the milestones by 16%, removed jargon in favour of more accessible language, and streamlined the text wherever possible.
- The editors and the Integration Committee have reaffirmed that the Communicator Role will house the competencies needed for physician–patient/family encounters. Other communication skills are included within the framework, such as those needed for team communication in the Collaborator Role.
- The CanMEDS 2015 milestones are a “palette,” “toolkit,” or “guide” for medical educators to use to describe the progression of competence for each discipline. We do not expect that educators will use all of the milestones when they tailor the framework to their discipline.
- The undergraduate (medical school) milestones have been removed from this draft at the request of the Association of Faculties of Medicine of Canada to make way for their own UGME milestones process. Prerequisite abilities to enter residency have been crafted and are included in the “Requirements for Residency” column of the milestones table.
- Please continue to provide us with your feedback.

An invitation to participate

The CanMEDS Framework describes the abilities physicians require to effectively meet the needs of the people they serve. Since its launch in 1996, CanMEDS has become the most widely accepted and applied physician competency framework in the world. Renewal is key to ongoing success: the Royal College is committed to updating the framework at regular, and practicable, intervals. The framework was last updated in 2005. With the CanMEDS 2015 project, the framework moves toward its third iteration. For more information on the history of CanMEDS, visit www.royalcollege.ca/canmeds.

In early 2013, thirteen CanMEDS 2015 Expert Working Groups (EWGs) were assembled to examine how the framework should be updated to meet the demands of contemporary practice. The EWGs examined the seven core CanMEDS Roles and provided advice on integrating new content related to patient safety and quality improvement and to eHealth into the Roles. Their deliberations, together with input from national and international advisory committees and the Royal College Integration Committee, resulted in the release of the first draft of the CanMEDS 2015 Framework in February 2014 and of the CanMEDS milestones in May 2014.

The CanMEDS milestones describe how the CanMEDS competencies can be acquired in a progressive fashion across the continuum of training—with a focus on residency and continuing professional development. A [diagram](#) depicting this continuum of training is presented in draft form on page 9 of this document.

Between February and June 2014, over 1000 stakeholders provided their input and feedback on the draft competencies and milestones, thus helping to inform the changes reflected in the Series III draft of the Framework and the September 2014 version of the CanMEDS Milestones Guide. A [summary of the feedback](#) has been released concurrently with the revised framework (Series III) and the milestones.

Are we on the right track? Have we captured the essence of the medical competencies to meet today's challenges and prepare us to move forward? By sharing your reactions, comments, insights, and suggestions, you will help us to make the CanMEDS 2015 Framework and Milestones Guide better, more useful, and more comprehensive. All of the feedback we receive will be read, analyzed, and integrated into a report that will inform decisions about the milestones' content and design. An [online survey](#) will enable you to provide quick responses as well as open-ended comments on the CanMEDS Framework as a whole, on specific Roles, and on the CanMEDS Milestones Guide.

Please participate—and help to shape the world's most influential medical education framework!

September 2014

Jason R. Frank
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Acknowledgements

This update to the Royal College CanMEDS Physician Competency Framework could not have been accomplished without the participation of hundreds of dedicated medical educators, clinicians, residents, committee members, and staff who have contributed not only to the working drafts of the 2015 Framework and CanMEDS Milestones Guide, but to all of the earlier versions of the framework as well. This effort is about revision and renewal, not reinvention. We must therefore gratefully acknowledge the work of [past contributors](#), on whose shoulders the CanMEDS 2015 Framework will stand.

We truly appreciate the dedicated work of the members of the Expert Working Groups, the Integration Committee, the National Advisory Committee, and the International Advisory Committee.* The commitment and expertise of the Chairs of the Expert Working Groups deserves special mention. Thank you to Farhan Bhanji, Ming-Ka Chan, Deepak Dath, Leslie Flynn, Bart Harvey, Kendall Ho, Eddy Lang, Alan Neville, Anna Oswald, Denyse Richardson, Jonathan Sherbino, Linda Snell, and Brian Wong. Sincere thanks also to Elaine Van Melle for her scholarly and research support to the Expert Working Groups and Royal College staff throughout the project.

We also recognize the important contribution of the CanMEDS 2015 Project Advisor, Cynthia Abbott, and we thank her for her leadership in developing a truly collaborative and consultative review process.

Finally, we thank all other participants in the CanMEDS 2015 project: ePanelists, focus group participants, survey respondents, and the 200 participants in “town hall” meetings. Their input will help to ensure the utility and validity of the CanMEDS 2015 Framework and the associated CanMEDS Milestones Guide.

* The [members of these groups and committees](#) are listed at the end of this document.

The CanMEDS 2015 project: objectives and principles

To help prepare physicians to meet societal expectations in a dynamic and increasingly demanding health care environment, the Royal College is committed to keeping the CanMEDS Framework current and to facilitating its implementation in the real world of medical education and practice. In response to evolving trends and challenges in today's health care, the CanMEDS 2015 project aims to meet the following objectives, while working within the existing CanMEDS Roles:

- to update and add new content, particularly with regard to patient safety and quality improvement, intraprofessionalism, and eHealth
- to address the needs of front-line educators, who have asked for [practical changes and updates](#) to make it easier to teach and assess the CanMEDS Roles
- to develop and integrate new competency [milestones](#) to provide a guide to the practical application of the framework in residency training programs and throughout a physician's career

To meet these objectives, the participants in the CanMEDS 2015 revision process have adopted the following principles as foundational to their work:

- The process is one of revision and renewal: improvement, not reinvention, is the goal.
- The primary target audience will be the users of the framework: trainees, front-line teachers, program directors of various curricula, and clinician educators who design programs.
- The competency constructs need to be grounded in theory and best practices, while their presentation should be realistic and related to the daily practice of any physician.
- Generic competencies should be articulated for all specialties.
- Concepts that are relevant to multiple Roles should be articulated in the Role where they are the most prominent. Although redundancy and overlap are accepted, and even expected, in practice, the framework itself should avoid repetition while ensuring the appropriate integration of Roles.

CanMEDS 2015 and the Competence by Design initiative

The CanMEDS 2015 update is occurring in a special context. It is part of the [Competence by Design](#) initiative of the Royal College, a major, multi-year project to implement an enhanced model for competency-based medical education (CBME) in residency training and specialty practice in Canada.

The aim of the Competence by Design project is to improve the fundamental building-blocks of Canadian medical training. At its core is a move away from the practice of credentialing physicians solely on the basis of time spent on rotations and activities, and toward forms of assessment that examine the learner's

achievement of milestones of competence. Therefore, the CanMEDS 2015 Framework will not only update the content of the Roles, but will also provide a set of proposed milestones across the continuum of medical education that can be applied both in curriculum development and in learner assessment. With the input of a consortium of key partners, including participating organizations in the Future of Medical Education in Canada Postgraduate project, the Competence by Design project will position Canadian medical education as the first in the world to integrate CBME across the full continuum of a physician's career.

CanMEDS 2015: a collaborative methodology

Those who use the CanMEDS Framework in education and practice need to be confident that it is a valid and practical foundation for excellence in patient care. Since its beginning in the 1990s, CanMEDS has been the product of an evidence-informed, collaborative process involving hundreds, if not thousands, of Royal College Fellows, family physicians, educators, and other expert volunteers. Its development has involved countless hours of literature reviews, stakeholder surveys, focus groups, interviews, consultations, consensus-building exercises, debate, and work on educational design. Many people in Canada and around the world feel that the strength of the CanMEDS Framework lies in the fact that it was made by physicians for physicians.

For the CanMEDS 2015 project, the Royal College has engaged as many experts and partners as possible to ensure that the next version of the framework is even stronger. As of September 2014, more than 2500* people have contributed directly or indirectly to the development of this working draft of the CanMEDS Framework. In early 2013, the Royal College created a series of committees and working groups, all of whom are contributing to the update process. Participants were recruited for a range of reasons, including their subject matter expertise, their representation of a particular stage of physician development, and their understanding of the health care and medical education systems. These groups and their roles are described below. A [list of committee and working group members](#) is given at the end of this document.

Expert Working Groups

With input from key partners, the Royal College assembled thirteen [Expert Working Groups](#) (EWGs) to examine the seven core CanMEDS domains. For the Scholar and Professional EWGs, subgroups were formed to focus on the distinct aspects of these Roles. Two additional groups were created to advise the

* To date, the CanMEDS 2015 project has involved 230 participants in ePanels, 100 Expert Working Group members, 29 National Advisory Committee members, 2000 survey respondents, and 200 participants in “town hall” meetings. The roles of the groups and committees are described below.

EWGs on integrating new content related to patient safety and quality improvement and to eHealth across the existing seven CanMEDS Roles.

The thirteen EWGs are therefore as follows:

- Medical Expert
- Communicator
- Collaborator
- Manager
- Health Advocate
- Scholar:
 - Lifelong Learning
 - Critical Appraisal
 - Teaching
 - Research
- Professional:
 - Professionalism
 - Physician Health
- [Patient Safety and Quality Improvement](#)
- [eHealth](#)

Each EWG is composed of medical educators and practising physicians from a range of specialties and provinces. They have helped to shape the revised framework, and they contributed their expertise in the development of the first draft of the milestones guide. The EWGs were tasked with

- reviewing the CanMEDS 2005 Framework to identify potential concepts requiring clarification or modification, as well as any gaps or redundancies in the existing CanMEDS competencies
- incorporating new themes such as patient safety and collaboration among health care professionals
- developing the draft milestones within each existing CanMEDS Role
- ensuring that the framework is practical and useful for education across the continuum
- acting on feedback from consultations and integrating relevant content into the revised CanMEDS Framework

CanMEDS 2015 National Advisory Committee

The CanMEDS 2015 National Advisory Committee provides strategic direction and input on the overall CanMEDS 2015 initiative and includes 29 representatives from a range of key stakeholders and partner organizations.

CanMEDS 2015 ePanels

To engage an even broader constituency in the development of the framework, the Royal College convened a series of ePanels open to anyone with an interest in reviewing and commenting on drafts of the framework. The various EWGs have and will continue to engage these panelists at critical junctures in their work. As of January 2014, more than 230 people had participated as CanMEDS 2015 ePanelists.

CanMEDS 2015 International Advisory Committee

The CanMEDS 2015 International Advisory Committee was convened to provide input on the overall CanMEDS initiative from a global perspective, with a view to the potential impact of the revised framework in other countries and jurisdictions. Members include representatives from a range of international stakeholders and partner organizations.

The Royal College Integration Committee

A small team of clinician educators from across Canada was commissioned to edit the framework. The role of the [Integration Committee](#) is to synthesize the contributions to the CanMEDS 2015 project into a coherent version of the new framework. These contributions include Expert Working Group reports, direction from the National and International Advisory Committees, survey and focus groups results, and reports from sister institutions worldwide.

Consultations—ensuring we get it right

Changes to the CanMEDS physician competency framework will have an impact on all levels of medical education in Canada. With help from key partners, we have undertaken a comprehensive consultation process to ensure we get it right. The data from these consultations are shaping—and will continue to inform—the iterative work of the CanMEDS 2015 EWGs.

2013 consultations—setting the stage for change.

In 2013, consultations included sharing information about the project and gathering feedback regarding the strengths, weaknesses, and gaps of the 2005 Framework. Our tactics ranged from direct personal discussions with key audiences to more structured consultations. A [summary report](#) of the results of these consultations is available on the Royal College website.

2014 consultations—content validation. In 2014, our consultations are focused on gathering feedback on the draft framework and on the draft CanMEDS Milestones Guide. This stakeholder feedback will be key to shaping further revisions to these documents.

A [summary report](#) of the results of these consultations is available on the Royal College website.

Launching the CanMEDS 2015 Framework

The CanMEDS 2015 Framework and associated faculty development tools will be officially launched at the 2015 [International Conference on Residency Education](#) in Vancouver, British Columbia. The rollout of specialty-specific objectives of training and other associated resources will continue for several years after the launch of the framework, and will include support for faculty development from the Royal College.

What's new in CanMEDS 2015: milestones

Unlike past updates, CanMEDS 2015 is part of the Competence by Design (CBD) project. This major initiative of the Royal College is intended to improve the fundamental building blocks of Canadian medical training. At its core, CBD is a move away from credentialing physicians solely on the basis of time spent on rotations and activities, in favour of assessing achievement on the basis of attained milestones of competence. The addition of these milestones is arguably the biggest change from the 2005 to the 2015 version of the CanMEDS Framework. Unlike the Framework, which will change infrequently, the CanMEDS Milestones Guide will be treated as a living document and undergo continual revision as educators modify the milestones for their discipline.

The 2005 Framework describes the competencies expected of trainees at the end of their training (i.e., at the point when they are “ready” to enter practice). All trainees and their program directors know from the start what competencies are expected of them by the end of their training, but no standard expectations are articulated for other phases of their career. With the introduction of milestones—descriptions of the abilities expected of a trainee or physician at a defined stage of professional development—all of that will change. Trainees, educators, and practitioners will have specific guidelines to help them determine at every phase whether they are “on track.” Thus, milestones will be used to

- mark the progression of competence throughout a physician's career
- provide clearly defined targets to guide authentic learning and assessment
- enable learners to focus their learning activities more effectively
- enable assessors (and programs) to know when a learner has achieved a given milestone or set of milestones and is truly ready to move to the next stage of training or development

About the CanMEDS Milestones Guide—September 2014

The second draft of national competency milestones for Canadian medical education is being released concurrently with the Series III framework. The September 2014 draft is quite different from the earlier draft: it contains fewer milestones and uses plainer language, and in response to the feedback we received as part of the comprehensive consultation process, the milestones have been recalibrated to better match each stage of development.

- **The September 2014 milestones are a draft.** Although they were many months in the making by hundreds of physicians and others, the milestones are still new and will require further work. We hope to engage the medical education community in a dialogue about the stages through which the attainment of medical expertise progresses. We welcome your thoughts and suggestions, and we fully expect further changes and edits to occur in subsequent releases of the Milestones Guide.
- **The milestones are generic.** The milestones in this document have been written to apply to any medical discipline (Obstetrics, Internal Medicine, General Surgery, etc). We expect the milestones will be tailored to each and every discipline to be truly useful for teaching, learning, assessment, and policy.
- **The milestones represent a continuum of learning.** The expert working group authors were given the task of crafting milestones for Canadian medicine. We felt that the success of the initiative required coherency across all the stages of physician expertise. Competence by Design is an example of a competency-based medical education project: It takes a developmental perspective on training. To write useful milestones for residency education, we felt that statements of ability were needed for undergraduate training. Similarly, to write advanced milestones for learning in practice, the exit competencies of residency needed to be clear. We aspire to make explicit for the first time the critical path to becoming a master clinician in our health care system. Let us know how close we have come.

We invite all those interested in medical education to comment on any of the statements proposed here.

- **The final number of milestones will be determined over the next 12 months.** The “raw” milestones that arrived from the expert working groups were 1010 in total—a large number that spanned the entire career of physicians from day one of medical school to the end of practice. The Series II Draft CanMEDS Framework was released with 847 milestones. The September 2014 version of the CanMEDS Milestones Guide is being released with 710 milestones.
- **The milestones are a guide.** We hope that these milestones will evolve to become a “palette” of competency statements for groups of educators such as deans and specialty committees to choose among as they design curricula and learning and assessment tools. We don’t anticipate that each and every one of these milestones will be used for every physician over the course of his or her career. Moreover, the milestones may be used in combination with EPAs (entrustable professional activities) for a robust design.

Milestones have the potential to be a powerful tool to organize training. We welcome your comments on this second draft of a national template.

How to use the September 2014 draft of the CanMEDS Milestones Guide

- The CanMEDS Milestones Guide can be used on its own, but it is most useful when used in conjunction with the [CanMEDS 2015 Framework—Series III](#).
- The Milestones are presented in tables organized by the seven CanMEDS Roles: Medical Expert, Communicator, Collaborator, Leader (Manager), Health Advocate, Scholar and Professional. The Role definitions, descriptions, and key concepts can be found within the CanMEDS 2015 Framework—Series III.
- The Milestones are designed to be read from left to right, reflecting a progression of competence for each of the CanMEDS enabling competencies.

Milestones and the competency-based approach

Traditional stages of medical education. Within the traditional model of physician education, the path to becoming a specialist is broken down into the stages below. These stages encompass specialty-specific training, and learning throughout practice:

- Junior resident
- Senior resident
- Practising physician

The CBD approach. By introducing a next-generation competency-based medical education (CBME) model into resident training and specialty practice, the CBD initiative will break down specialist education into a series of integrated stages—starting with the transition to the learner’s discipline and moving through practice. (See [diagram](#) on p. 9.)

Competency-based medical education: some definitions

Competency-based medical education (CBME): An approach to designing medical training that is focused on outcomes in the form of the abilities of graduates.

Competency: An observable ability of a health professional that develops through stages of expertise from novice to master clinician.

Entrustable professional activity (EPA): A key task of a discipline that can be entrusted to an individual who possesses the appropriate level of competencies.

Milestone: The expected ability of a health professional at a stage of expertise.

See: Frank JR et al. Competency-based medical education: theory to practice. *Med Teacher* 2010; 32(8):638–45.

Medical education phases and stages

Physicians develop competencies at different stages during discipline-specific residency and throughout practice.

Discipline-specific residency. This phase is the period in which a physician trainee builds upon the

foundational abilities acquired in medical school to learn the competencies needed for practice (four advancing stages: transition to discipline, foundations of discipline, core of discipline, and transition to practice).

Transition to discipline. In many cases this will be a new addition to the residency phase of medical education. This stage emphasizes the orientation and assessment of new trainees arriving from different medical schools and programs (including outside Canada). Although this stage does exist in some form in many residency programs (for example, residency “boot camps”), the CBD approach will formalize the assessment and orientation process, ensuring a level playing field for residents as they begin their specialist training. This stage may require a day, a month, or two months, depending on the needs of each program and of individual learners.

Foundations of discipline. The second stage in the residency phase of medical education covers broad-based competencies that every trainee must acquire before moving on to more advanced, discipline-specific competencies. This may involve rotating through a number of clinical settings so the trainee can acquire a breadth of foundational abilities to prepare for core training.

Core of discipline.* The third stage in the residency phase of medical education covers the core competencies that make up the majority of a discipline.

* **Royal College examination:** The CBD approach proposes that the Royal College examination be taken at the end of the “core of discipline” stage, rather than the end of the training stage (where it currently sits). Moving the exam will ensure trainees are able to focus on further clinical training in their final year, allowing them to use their final supervised training time to hone competencies. Emphasis will be placed on increasingly independent work and skills—creating physicians who are truly ready for independent practice.

Transition to practice. In the final stage in the residency phase of medical education, the senior trainee should demonstrate readiness to make the transition to autonomous practice: for example, acting as a chief resident, running an ambulatory clinic, teaching and performing increasingly independent procedures, and teaching others. Within CBD, examination would take place at the end of the “core of discipline” stage, allowing residents to hone their competencies in their last months of training. Royal College certification will be granted upon the successful completion of the “transition to practice” stage.

Continuing professional development (CPD).

A physician maintains and enhances competence throughout practice in the following ways:

Maintenance of competence. A physician engages in CPD to remain up to date and sustain expertise within his or her scope of practice.

Advanced expertise. The physician acquires new or expanded skills and abilities so that his or her practice can evolve over time in response to practice needs and interests.

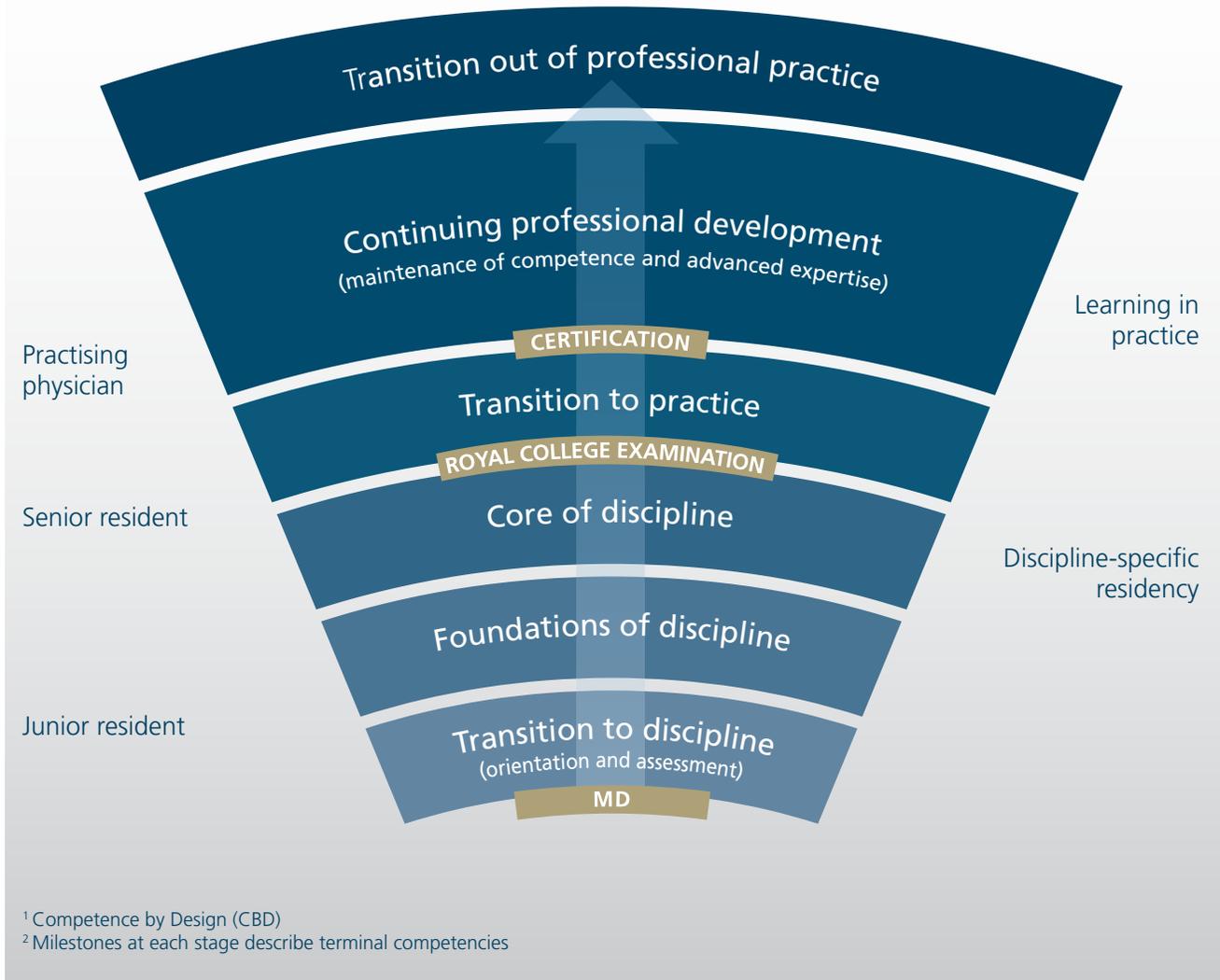
Transition out of professional practice. In this last stage, physicians adapt to the final practice period and their changing health care role.

The Competence Continuum

Traditional stages

Proposed CBD stages^{1,2}

Medical education phases



¹ Competence by Design (CBD)

² Milestones at each stage describe terminal competencies

The Draft CanMEDS 2015 Milestones Guide—September 2014

Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise
MEDICAL EXPERT MILESTONES						
1 Practise medicine within their defined scope of practice and expertise						
1.1 Demonstrate a commitment to high-quality care of their patients	While engaging as a learner in the clinical environment, demonstrate a duty of care toward patients		Demonstrate compassion for patients	Under supervision, demonstrate commitment and accountability for patients in their care	Demonstrate a commitment to high-quality care of their patients	Role-model a commitment to high-quality patient care
1.2 Integrate the CanMEDS Intrinsic Roles into their practice of medicine	Describe the CanMEDS Roles and explain how they relate to the practice of medicine	Explain how the Intrinsic Roles need to be integrated in practice of their discipline to deliver optimal patient care			Integrate the CanMEDS Intrinsic Roles into their practice of medicine	Teach and assess the application of the CanMEDS Competency Framework to medical practice
1.3 Apply knowledge of the clinical and biomedical sciences relevant to their discipline	Apply knowledge of biomedical sciences and clinically relevant skills to identify, diagnose, and address common clinical problems		Apply clinical and biomedical sciences to manage core patient presentations in their discipline		Apply a broad base and depth of knowledge in clinical and biomedical sciences to manage the breadth of patient presentations in their discipline	Teach aspects of their discipline to other clinicians Provide expert opinion to advise government or other organizations or to provide expert legal testimony
1.4 Perform appropriately timed clinical assessments with recommendations that are well organized and properly documented in written and/or oral form	Perform an assessment of a patient and provide an interpretation of the clinical situation to the supervising physician Document recommendations from the treating team accurately in the consultation record		Perform focused clinical assessments with recommendations that are well-documented Recognize urgent problems that may need the involvement of more senior colleagues and engage them immediately	Perform clinical assessments that address the breadth of issues in each case	Perform appropriately timed clinical assessments addressing the breadth of the discipline with recommendations that are well organized and properly documented in written and/or oral form	Develop system-level processes to facilitate appropriately timed clinical assessments with recommendations Teach colleagues how to perform, document, and communicate consultations Use technology to facilitate consultation for patients who may have limited or delayed access to specialist care

MEDICAL EXPERT MILESTONES

Note: In the progression through pre-residency, residency training, and professional practice, competencies acquired at a given stage are sustained and developed further through subsequent stages. Where a specific milestone for the acquisition of an enabling competency is not specified for a given stage, it should be assumed that earlier milestones for that competency still apply.

Continued on next page.

Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise
1.5 Carry out professional duties in the face of multiple, competing demands	Recognize competing demands in professional duties and seek assistance in determining priorities		On the basis of patient-centred priorities, seek assistance to prioritize multiple competing tasks that need to be addressed	Maintain a duty of care and patient safety while balancing multiple responsibilities Prioritize patients on the basis of clinical presentations	Carry out professional duties in the face of multiple, competing demands	Teach and role-model how to prioritize professional duties
1.6 Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice	Recognize that there is a degree of uncertainty in all clinical decision-making		Identify clinical situations in which complexity, uncertainty, and ambiguity may play a role in decision-making	Develop a plan that considers the current complexity, uncertainty, and ambiguity in a clinical situation Adapt care as the complexity, uncertainty, and ambiguity of the patient's clinical situation evolves	Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice	Teach about complexity and clinical decision-making
2 Perform a patient-centred clinical assessment and establish management plans appropriate for their speciality						
2.1 Identify and prioritize issues to be addressed in a patient encounter	Identify the concerns and goals of patients and their families* for the encounter		Reach agreement with patients and their families on priorities for each encounter at the outset	Consider clinical urgency, feasibility, availability of resources, and comorbidities in determining priorities for the patient encounter Identify and prioritize which issues need to be addressed during future visits or with other health care practitioners Iteratively establish priorities, considering the perspective of the patient and his or her family (including values and preferences) as the patient's situation evolves	Identify and prioritize which issues need to be addressed during future visits or with other health care practitioners Iteratively establish priorities, considering the patient's and /or caregiver's perspective (including values and preferences) as the patient's situation evolves	

* Throughout the Series III draft of the CanMEDS 2015 Framework and Milestones Guide, phrases such as "patients and their families" are intended to include all those who are personally significant to the patient and are concerned with his or her care, including, according to the patient's circumstances, family members, partners, caregivers, legal guardian, and substitute decision-makers.

Continued on next page.

Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise	MEDICAL EXPERT MILESTONES
2.2 Elicit a history, perform a physical exam, select appropriate investigations, and interpret their results for the purpose of diagnosis and management, disease prevention, and health promotion	<p>Elicit a history and perform a physical exam that informs the diagnosis</p> <p>Develop a general differential diagnosis relevant to the patient's presentation</p>			<p>Develop a specific differential diagnosis relevant to the patient's presentation</p> <p>Select and interpret appropriate investigations based on a differential diagnosis</p> <p>Synthesize patient information to determine a diagnosis</p> <p>Focus the clinical encounter, performing it in a time-effective manner, without excluding key elements</p>	<p>Elicit a history, perform a physical exam, select appropriate investigations, and interpret their results for the purpose of diagnosis and management, disease prevention, and health promotion</p>	<p>Conduct a clinical assessment in challenging or unusual situations</p> <p>Conduct a clinical assessment when a second opinion is requested or when a high degree of diagnostic uncertainty has already been established</p>	
2.3 Establish goals of care in collaboration with patients and their families,* which may include slowing disease progression, achieving cure, improving function, treating symptoms, and palliation	<p>Initiate discussions with patients and their families, under supervision, about goals of care</p>		<p>Work with patients and their families to understand relevant options for care</p>	<p>Address the patient's and his or her family's ideas about the nature and cause of the health problem, their fears and concerns, and their expectations of health care professionals</p> <p>Address the impact of the medical condition on the patient's ability to pursue life goals and purposes</p> <p>Share concerns, in a constructive and respectful manner, with patients and their families about their goals of care when they are not felt to be achievable</p>	<p>Establish goals of care in collaboration with patients and their families, which may include slowing disease progression, achieving cure, improving function, treating symptoms, and palliation</p>		

Continued on next page.

Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise	MEDICAL EXPERT MILESTONES	
<p>2.4 Establish a patient-centred management plan</p>	<p>Develop an initial management plan for common patient presentations</p>		<p>Develop and implement initial management plans for common problems in their discipline</p> <p>Ensure that patients and their families are informed about the risks and benefits of each treatment option in the context of best evidence and guidelines</p> <p>Discuss with patients and their families the degree of uncertainty inherent in all clinical situations</p>	<p>Develop and implement management plans that consider all of the patient's health problems and context in collaboration with patients and their families and, when appropriate, the interdisciplinary team</p> <p>Develop, in collaboration with the patient and his or her family, a plan to deal with clinical uncertainty</p>	<p>Establish patient-centred management plans for all patients in a practice</p>	<p>Establish management plans in patient encounters when there are significant disagreements about what is achievable</p>		
<p>3 Plan and perform procedures and interventions for the purpose of assessment and/or management</p>								
<p>3.1 Determine the most appropriate procedure(s) for the purpose of assessment and/or management</p>			<p>Describe to patients common procedures in the discipline for the purpose of assessment and/or management of a given problem</p> <p>Describe the indications, contraindications, risks, and alternatives for a given procedure</p>	<p>Integrate all sources of information to develop a procedural plan that is safe, patient-centred, and considers the risks and benefits of all approaches</p> <p>Integrate planned procedures into global assessment and management plans</p>	<p>Determine the most appropriate procedure(s) for the purpose of assessment and/or management</p>	<p>Develop novel procedures while respecting ethical standards for experimentation</p>		
<p>3.2 Obtain and document informed consent, explaining the risks and benefits of, and the rationale for, the proposed options</p>	<p>Describe the ethical principles and legal process of obtaining and documenting informed consent</p>		<p>Obtain informed consent for commonly performed procedures and therapies, under supervision, explaining the indications, risks, benefits, and alternatives</p> <p>Document procedures accurately</p>	<p>Use shared decision-making in the consent process, taking risk and uncertainty into consideration</p>	<p>Obtain and document informed consent, explaining the risks and benefits of, and the rationale for, the proposed options</p>			

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Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise	MEDICAL EXPERT MILESTONES	
3.3 Prioritize procedures, taking into account clinical urgency, potential for deterioration, and available resources		Recognize and discuss the importance of the triaging and timing of clinical procedures	Consider urgency, and potential for deterioration, in advocating for the timely execution of procedures for their patients	<p>Triage procedures, taking into account clinical urgency, potential for deterioration, and available resources</p> <p>Advocate for patients' procedures on the basis of urgency and available resources</p>	Prioritize procedures, taking into account clinical urgency, potential for deterioration, and available resources	Triage and schedule procedures in complex situations, demonstrating a collaborative approach when competing for limited resources		
3.4 Perform procedures in a skilful and safe manner, adapting to unanticipated findings or changing clinical circumstances	Perform simple procedures under direct supervision	<p>Demonstrate effective procedure preparation, including the use of a pre-procedure time-out or safety checklist as appropriate</p> <p>Appropriately set up and position patients for procedures</p>	<p>Perform common procedures in a skillful, fluid, and safe manner with minimal assistance</p> <p>Seek more supervision as needed when unanticipated findings or changing clinical circumstances are encountered</p>	<p>Competently and efficiently execute discipline-specific procedures</p> <p>Establish and implement a plan for post-procedure care</p> <p>Recognize uncertainty and the need for assistance in situations that are complex or new to the physician</p>	Independently perform procedures in a skilful and safe manner, adapting to unanticipated findings or changing clinical circumstances	<p>Perform specialized procedures that extend beyond routine practice in the discipline, in a manner that peers identify as highly skilled</p> <p>Perform simple and complex procedures with great efficiency</p> <p>Teach the procedures of the discipline to others</p>		
4 Establish plans for ongoing care and, when appropriate, timely consultation								
4.1 Establish the roles of physicians, other health care professionals, and the patient in the provision of a patient-centred care plan that supports ongoing care, including follow-up on investigations, response to treatment, and further consultation	Describe the importance of consultation and follow-up in patient care		<p>Coordinate investigation, treatment, and follow-up plans when multiple physicians and health care professionals are involved</p> <p>Ensure follow-up on results of investigation and response to treatment</p>	<p>Establish plans for ongoing care for the patient, taking into consideration his or her clinical state, circumstances, preferences, and actions, as well as available resources, best practices, and research evidence</p> <p>Determine the necessity and appropriate timing of consultation</p>	Establish the roles of physicians, other health care professionals and the patient in the provision of a patient-centred care plan that supports ongoing care, including follow-up on investigations, response to treatment, and further consultation	Develop a novel system of follow-up that is flexible and adaptable to the patient, families, and community resources		

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Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise
5 Actively participate, as an individual and as a member of a team providing care, in the continuous improvement of health care quality and patient safety						
5.1 Recognize and respond to adverse events and near misses	Describe the scope and burden of health-care–related harm	Recognize the occurrence of an adverse event or near-miss	Prioritize the initial medical response to adverse events to mitigate further injury Include adverse events in differential diagnoses, as appropriate	Disclose adverse events or near-misses to patients and families and to appropriate institutional representatives	Recognize near-misses in real time and respond to correct them, preventing them from reaching the patient Identify potential improvement opportunities arising from adverse events and near-misses	Teach about the impact of adverse events and near-misses and how to improve patient care
5.2 Contribute to a culture that promotes patient safety	Describe the features of a fair and non-punitive approach to patient safety			Respond to feedback on their own practice and patient outcomes Actively encourage all involved in health care, regardless of their role, to report and respond to unsafe situations	Contribute to a culture that promotes patient safety	Teach others about promoting a health care culture that enhances safety and quality Evaluate the culture of a given institution or group with respect to health care safety and quality
5.3 Adopt strategies that promote patient safety and mitigate negative human and system factors	Describe the individual factors that can affect human performance, including sleep deprivation and stress Describe system factors that can affect patient safety, including resource availability and physical and environmental factors	Describe common types of cognitive bias Describe the principles of situational awareness and their implications for medical practice	Use cognitive aids such as procedural checklists, structured communication tools, or care paths, to enhance patient safety Describe strategies to mitigate the negative effects of human and system factors on clinical practice	Apply the principles of situational awareness to clinical practice Engage patients and their families in the continuous improvement of patient safety	Adopt strategies that promote patient safety and mitigate negative human and system factors	Evaluate the impact of system changes on the provision of patient care Design safety initiatives that incorporate needs and metrics identified by patients and their families

Communicator milestones begin on next page.

Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise
COMMUNICATOR MILESTONES						
1 Establish professional therapeutic relationships with patients and their families*						
1.1 Communicate using a patient-centred approach that encourages patient trust and autonomy and is characterized by empathy, respect, and compassion	Describe the key components of a patient-centred approach to medical care Outline the evidence that effective physician–patient communication enhances patient and physician outcomes		Demonstrate the key components of a patient-centred approach in complex clinical encounters	Assess a patient's health literacy Demonstrate flexibility in applying a patient-centred approach in the breadth of clinical encounters in practice	Communicate using a patient-centred approach that facilitates patient trust and autonomy and is characterized by empathy, respect, and compassion	Teach and assess the patient-centred approach to communication
1.2 Optimize the physical environment for patient comfort, dignity, privacy, engagement, and safety	Describe elements of the physical environment that affect patient comfort, privacy, engagement, and safety (e.g., curtains, background noise, time standing or sitting, lighting, heating)	Mitigate physical barriers to communication to optimize patient comfort, privacy, engagement, and safety	Optimize the physical environment for patient comfort, privacy, engagement, and safety			Participate in institutional/system initiatives to improve the physical environment for patients
1.3 Recognize when the values, biases, or perspectives of patients, physicians, or other health care professionals may have an impact on the quality of care, and modify the approach to the patient accordingly	Describe how patient and physician values, biases, and perspectives affect clinical encounters			Recognize when patient and physician values, biases, or perspectives threaten the quality of care, and modify the approach to patient care according to the context of the discipline		Teach learners to recognize situations in which patient and physician values, biases, or preferences may threaten the quality of care, and how to modify the approach to patient care

* Throughout the Series III draft of the CanMEDS 2015 Framework and Milestones Guide, phrases such as “patients and their families” are intended to include all those who are personally significant to the patient and are concerned with his or her care, including, according to the patient's circumstances, family members, partners, caregivers, legal guardian, and substitute decision-makers.

Note: In the progression through pre-residency, residency training, and professional practice, competencies acquired at a given stage are sustained and developed further through subsequent stages. Where a specific milestone for the acquisition of an enabling competency is not specified for a given stage, it should be assumed that earlier milestones for that competency still apply.

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Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise
1.4 Respond to patients' non-verbal communication and use appropriate non-verbal behaviours to enhance communication with patients	<p>Identify non-verbal communication on the part of patients and their families and its impact on physician–patient communication</p> <p>Describe how to utilize nonverbal communication to build rapport</p>	<p>Identify, verify, and validate non-verbal cues on the part of patients and their families</p> <p>Use appropriate non-verbal communication to demonstrate attentiveness, interest, and responsiveness to patients and their families</p>		<p>Respond to patients' non-verbal communication and use appropriate non-verbal behaviours to enhance communication with patients</p>		<p>Demonstrate advanced non-verbal communication skills in difficult situations</p> <p>Teach others how to use non-verbal communication to enhance physician–patient rapport</p>
1.5 Manage disagreements and emotionally charged conversations	<p>Describe physician, patient, and contextual factors that lead to strong emotions</p> <p>Describe how strong emotions may affect the patient–physician interaction</p> <p>Critically reflect upon emotional encounters and identify how different approaches may have affected the interaction</p>		<p>Recognize when personal feelings in an encounter are valuable clues to the patient's emotional state</p>	<p>Recognize when strong emotions (such as, anger, fear, anxiety, or sadness) are affecting an interaction and respond appropriately</p> <p>Establish boundaries as needed in emotional situations</p>	<p>Manage disagreements and emotionally charged conversations</p>	<p>Teach others to anticipate, recognize, and manage emotions in routine clinical encounters</p>
1.6 Adapt to the unique needs and preferences of each patient and to his or her clinical condition and circumstances	<p>Describe models of decision-making along the spectrum from "paternalistic" to "shared" to "autonomous"</p> <p>Discuss the advantages and risks of actively involving patients in decisions about their care</p> <p>Discuss the importance of capacity assessment</p> <p>Assess patients' preferred involvement in decisions about their care</p>		<p>Assess patients' decision-making capacity</p>		<p>Tailor approaches to decision-making to patient capacity, values, and preferences</p>	<p>Teach others to tailor approaches to decision-making to patient capacity, values, and preferences</p> <p>Teach others how to assess patients' decision-making preferences</p>

Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise	COMMUNICATOR MILESTONES
2 Elicit and synthesize accurate and relevant information, incorporating the perspectives of patients and their families							
2.1 Use patient-centred interviewing skills to effectively gather relevant biomedical and psychosocial information	Describe the basic elements of the patient-centred interview Conduct a patient-centred interview under supervision, gathering relevant biomedical and psychosocial information in the context of an uncomplicated presentation of a common medical problem		Conduct a patient-centred interview, gathering all relevant biomedical and psychosocial information for any clinical presentation	Actively listen and respond to patient cues Integrate, summarize, and present the biopsychosocial information obtained from a patient-centred interview	Use patient-centred interviewing skills to effectively gather relevant biomedical and psychosocial information	Role-model for learners various approaches to the patient-centred interview	
2.2 Integrate and synthesize information about the patient's beliefs, values, preferences, context and expectations with biomedical and psychosocial information	Incorporate questions about patient preferences, health care goals, etc. into the patient-centred interview			Integrate and synthesize information about the patient's beliefs, values, preferences, context and expectations with biomedical and psychosocial information		Intervene when a learner ignores the patient's beliefs, values, etc. during the patient interview	
2.3 Provide a clear structure for and manage the flow of the entire encounter	Use a model to guide a patient encounter Conduct a patient interview without using a checklist		Conduct a focused and efficient patient interview, managing the flow of the encounter while being attentive to the patient's cues and responses	Manage the flow of challenging patient encounters, including those with angry, distressed, or excessively talkative individuals	Provide a clear structure for and manage the flow of an entire patient encounter		
2.4 Seek and synthesize relevant information from other sources, including the patient's family, with the patient's consent	Describe potential sources of information that may assist in a given patient's care		Seek and synthesize relevant information from other sources, including the patient's family, with the patient's consent				

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Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise
3 Share health care information and plans with patients and their families						
3.1 Skilfully share information and explanations that are clear, accurate, timely, and adapted to the patient's and his or her family's level of understanding and need	Describe ethical principles of truth-telling in the physician-patient relationship	Communicate the plan of care clearly and accurately to patients and their families Recognize when to seek help in providing clear explanations to patients and their families	Use strategies to verify and validate the patient's and his or her family's understanding of the diagnosis, prognosis, and management plan	Communicate clearly with patients and others in the setting of ethical dilemmas Provide information on diagnosis and prognosis in a clear, compassionate, respectful, and objective manner Convey information related to the patient's health status, care, and needs in a timely, honest, and transparent fashion	Skilfully share information and explanations that are clear, accurate, timely, and adapted to the patient's and his or her family's level of understanding and need	
3.2 Disclose adverse events to patients and their families accurately and appropriately	Define the terms "close call," "no-harm event," "potential harm event," and "adverse event" Describe the ethical, professional, and legal obligations, and policies for, disclosure of reporting adverse events Differentiate complications or expected outcomes of disease from adverse events	Describe the steps in providing disclosure after an adverse event		Disclose the reasons for unanticipated outcomes and adverse events Express regret for an adverse event and apologize appropriately	Disclose adverse events to patients and their families accurately and appropriately Plan and document follow-up to an adverse event	Lead disclosure teams Conduct peer review and practice assessments related to adverse events Contribute to the improvement of the system of disclosure of adverse events
4 Engage patients and their families in developing plans that reflect the patient's health care needs and goals						
4.1 Facilitate discussions with patients and their families in a way that is respectful, non-judgmental, and culturally safe	Describe principles of cross-cultural interviewing List relevant questions to ask patients, families, and partners in care to elicit an understanding of health care goals and needs	Conduct an interview, demonstrating cultural awareness	Explore the perspectives of patients and others when developing care plans Communicate with cultural awareness and sensitivity		Facilitate discussions with patients and their families in a way that is respectful, non-judgmental, and culturally safe	Teach others and assess their ability to engage patients in a way that is respectful and non-judgmental and that provides cultural safety

COMMUNICATOR MILESTONES

Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise	COMMUNICATOR MILESTONES
[4.1 continued]	<p>Demonstrate interviewing techniques for encouraging discussion, questions, and interaction</p> <p>Conduct culturally safe interviews with close supervision</p> <p>Describe steps for conducting an interview with a translator</p>		Engage patients and others in shared decision-making				
4.2 Assist patients and their families to identify, access, and make use of information and communication technologies to support their care and manage their health	Describe the various technologies available to enhance patients' understanding and management of their health care				Assist patients and their families to identify, access, and make use of information and communication technologies to support their care and manage their health	Contribute to the development of communication technologies to enhance patient care and medical knowledge	
4.3 Use appropriate communication skills and strategies to help patients and their families make informed decisions regarding their health	Describe elements of informed consent	Demonstrate steps to obtaining informed consent	Answer questions from patients and their families about next steps		Use appropriate communication skills to help patients and their families make informed decisions regarding their health		
5 Document and share written and electronic information about the medical encounter to optimize clinical decision-making, patient safety, confidentiality, and privacy							
5.1 Document clinical encounters in an accurate, complete, timely, and accessible manner, in compliance with legal and regulatory requirements	<p>Describe the functions and principal components of a medical record</p> <p>Describe the regulatory and legal requirements, including privacy legislation, for record keeping</p>	<p>Describe the record keeping guidelines for their discipline</p> <p>Organize information in appropriate sections within an electronic or written medical record</p>	Demonstrate proficiency in using the vocabulary and appropriate abbreviations specific to their discipline and workplace	<p>Document clinical encounters to adequately convey clinical reasoning and the rationale for decisions</p> <p>Adapt record keeping to the specific guidelines of their discipline and the clinical context</p>	Identify and correct vague or ambiguous documentation	<p>Teach or conduct peer review and practice assessment regarding record keeping practices</p> <p>Use medical record review to assess trainee clinical reasoning and their understanding of their patients as persons</p>	

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Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise	COMMUNICATOR MILESTONES
[5.1 continued]	<p>Identify potential difficulties and errors in medical record keeping that have a negative impact on patient care or patient safety</p> <p>Document the essential elements of a clinical encounter using a structured approach</p> <p>Maintain accurate and up-to-date problem lists and medication lists</p> <p>Include as appropriate in the medical record the patient's narrative* of his or her illness experience</p>		<p>Document information about patients and their medical conditions in a manner that enhances intra- and interprofessional care</p>	<p>Participate in an analysis of patient safety incidents involving suboptimal written, verbal, or electronic communication</p>	<p>Document clinical encounters in an accurate, complete, timely and accessible manner, and in compliance with legal and privacy requirements</p>		
5.2 Communicate effectively using a written health record, electronic medical record, or other digital technology	<p>Demonstrate effective documentation of a simulated encounter in a written or electronic record</p> <p>Demonstrate reflective listening, open-ended inquiry, empathy, and effective eye contact while using a written or electronic medical record</p>	<p>Build reminders and clinical practice guidelines into the health record to enhance care</p>	<p>Share information in his or her health record with the patient to enhance collaboration and joint decision-making</p>	<p>Adapt use of the health record to the patient's health literacy and the clinical context</p>	<p>Communicate effectively using a written health record, electronic medical record, or other digital technology</p> <p>Use electronic tools appropriately to communicate with patients, protecting their confidentiality</p>	<p>Model effective communication while using an electronic medical record</p> <p>Teach others how to effectively communicate with patients while using an electronic medical record</p> <p>Contribute to the improvement of electronic medical records and other electronic tools of communication with patients</p>	

*The patient's narrative is the story of the patient's illness. It includes his or her feelings about the illness and ideas about what may be wrong or what might be causing it, how the illness affects the patient's day-to-day functioning, and the patient's expectations of his or her health care professionals.

Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise
COLLABORATOR MILESTONES						
1 Work effectively with physicians and other colleagues in the health care professions						
1.1 Establish and maintain healthy relationships with physicians and other colleagues in the health care professions to support relationship-centred collaborative care	<p>Describe relationship-centred care</p> <p>Identify the stages of group development in health care settings</p> <p>Introduce themselves and their role to physicians and other colleagues in the health care professions</p> <p>Identify opportunities for collaboration among health care professionals along the continuum of care</p>		<p>Compare and contrast enablers of and barriers to collaboration in health care</p> <p>Respect established rules of their team</p> <p>Receive and appropriately respond to input from other health care professionals</p> <p>Differentiate between task and relationship issues among health care professionals</p>	<p>Anticipate, identify, and respond to patient safety issues related to the function of a team</p>	<p>Establish and maintain healthy relationships with physicians and other colleagues in the health care professions to support relationship-centred collaborative care</p>	<p>Analyze interactions among health care professionals to provide feedback to optimize the performance of a team for the benefit of patients</p> <p>Advocate for organizational structures that support relationship-centred collaborative care</p> <p>Contribute to policy discussions related to collaborative care</p> <p>Teach, assess, or develop the relationship-centred model of collaborative care</p>
1.2 Negotiate overlapping and shared responsibilities with physicians and other colleagues in the health care professions	<p>Describe the importance of professional role diversity and integration in high-quality and safe patient care</p>	<p>Discuss the role and responsibilities of a specialist in their discipline</p>	<p>Describe the roles and scopes of practice of other health care professionals related to the discipline</p>	<p>Consult as needed with other health care professionals, including other physicians or surgeons</p>	<p>Negotiate overlapping and shared care responsibilities with physicians and other colleagues in the health care professions</p>	<p>Teach, assess, and model the negotiation of role overlap and shared responsibilities with other health care professionals</p>

COLLABORATOR MILESTONES

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Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise	COLLABORATOR MILESTONES
1.3 Engage in respectful shared decision-making	Describe strategies to promote engagement of physicians and other colleagues in the health care professions in shared decision-making	Discuss with patients and their families* any plan for involving other health care professionals, including other physicians, in their care	Identify referral and consultation as opportunities to improve quality of care and patient safety by sharing expertise Integrate the patient's perspective and context into the collaborative care plan	Communicate effectively with physicians and other colleagues in the health care professions Provide timely and necessary written information to colleagues to enable effective relationship-centred care	Engage in respectful shared decision-making with patients and their families and with physicians and other colleagues in the health care professions	Integrate feedback into shared decision-making processes as part of a quality improvement initiative Analyze, for the purposes of teaching others, shared decision-making processes Use eHealth tools to enhance collaboration in health care	
2 Work with physicians and other colleagues in the health care professions to prevent misunderstandings, manage differences, and resolve conflicts							
2.1 Show respect toward collaborators	Respect the diversity of perspectives and expertise among health care professionals	Convey information considerately	Actively listen to and engage in interactions with collaborators	Delegate tasks and responsibilities in an appropriate and respectful manner Maintain positive relationships in all professional contexts	Engage physicians and other colleagues in the health care professions in genuine and respectful relationships	Engage physicians and other colleagues in the health care professions to promote a respectful culture	
2.2 Implement strategies to resolve conflicts in a manner that supports a collaborative culture	List factors that contribute to misunderstandings, differences, and conflicts in the health care setting List different approaches to preventing misunderstanding and managing differences	Respond to requests and feedback in a respectful and timely manner	Identify communication barriers in a health care team Communicate clearly and directly to resolve conflicts Listen to understand and find common ground with collaborators	Gather the information and resources needed to resolve conflicts among collaborators Analyze problems with team dynamics Gain consensus among colleagues in resolving conflicts	Implement strategies to resolve conflicts in a manner that supports a collaborative culture	Provide conflict management consultations Teach conflict management in health care	

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Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise
3 Effectively and safely transfer care to another health care professional						
3.1 Assess when care should be transferred to another physician or health care professional	Describe how scope of practice can trigger transfer of care Describe common transitions in health care and the process of safe transfer of care		Identify the appropriateness of transferring patients to other physicians or services Summarize a patient's issues in the transfer summary, including plans to deal with ongoing issues Recognize and act on patient safety issues in the transfer of care	Organize the transfer of care to the most appropriate health care professional	Decide when care should be transferred to another physician or health care professional	
3.2 Demonstrate safe transfer of care, using both verbal and written communication, during a patient transition to a different health care professional, setting, or stage of care	Describe a structured communication framework for transfer of care	Describe specific information required for safe handover during transitions in care	Communicate with health care professionals during transitions in care, clarifying issues after transfer as needed Communicate with a patient's primary health care professional about his or her contribution to the patient's care	Analyze gaps in communication between health care professionals during transitions in care	Demonstrate safe transfer of care, both verbal and written, during a patient transition to a different health care professional, setting, or stage of care	Model effective handover, teaching learners structured communication techniques to facilitate safe and effective transfer of care Analyze local handover practices and contribute to process improvements to enhance the safety and effectiveness of transfer of care

COLLABORATOR MILESTONES

Leader milestones begin on next page.

Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise
LEADER MILESTONES						
1 Contribute to the improvement of health care delivery in teams, organizations, and systems						
1.1 Apply the science of quality improvement to contribute to improving systems of patient care	Describe the relevance of system theories in health care at the practice, organization, and health system levels		Describe quality improvement methodologies	Conduct a patient safety and/or quality improvement investigation	Analyze processes seen in one's own practice, team, organization, and system	Lead quality improvement initiatives
	Describe a patient's longitudinal experience through the health care system		Compare and contrast the traditional methods of research design with those of improvement science			
	Describe the domains of health care quality (safe, effective, patient-centred, timely, efficient, equitable)		Compare and contrast systems thinking with traditional approaches to quality improvement		Provide feedback on processes seen in one's own practice, team, organization, and system	Lead patient safety reviews
	Discuss how practice processes are interdependent and fit together to form programs		Seek data to inform practice and engage in an iterative process of improvement		Engage health professionals and others to collaborate in improving systems of patient care	Design processes to mitigate the impact of human and system factors on performance
						Apply the science of complexity to the improvement of health care
						Teach and assess quality improvement science
1.2 Analyze adverse events and near misses to enhance systems of care	Describe the elements of the health care system that facilitate or protect against adverse events or near misses	Describe the process for reporting adverse events and near misses	Report patient safety hazards and adverse events	Analyze a given adverse event or near miss to generate recommendations for safer care	Analyze adverse events and near misses to enhance systems of care	Implement systems-level improvements in processes for identification of and response to patient safety hazards and adverse events
		Describe the available supports for patients and health care professionals when adverse events and near misses occur				
						Champion a blame-free culture to enhance patient safety

LEADER MILESTONES

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Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise	LEADER MILESTONES
1.3 Use health informatics to improve the quality of patient care and optimize patient safety	Describe the benefits and limitations of electronic medical records in the delivery of patient care	Use a health information system for patient care		Map information flow in the care of patients in their specialty and suggest process changes for quality improvement	Use health informatics to improve the quality of patient care and optimize patient safety	Participate in systems-based informatics development and improvement Engage others in the adoption and refinement of health information technology	
2 Engage in the stewardship of health care resources							
2.1 Allocate health care resources for optimal patient care	<p>Explain health care spending and how it has changed over time</p> <p>Discuss the differences between cost, efficacy, and value with respect to health care delivery</p> <p>Describe the ethical debate related to resource stewardship in health care</p> <p>Describe cost-utility methodology</p> <p>Analyze a clinical case to show how practice-related decisions affect service utilization and health-system sustainability</p>	Identify costs of common diagnostic and therapeutic interventions as well as factors affecting these costs	<p>Model practice patterns after senior colleagues who deliver a high standard of service</p> <p>Describe models for resource stewardship in health care used at the institutional level</p> <p>Account for costs when choosing care options</p>	Use clinical judgment and assessment of probability to minimize wasteful practices	<p>Optimize practice patterns for cost-effectiveness and cost control</p> <p>Develop practice-based and system-based rules for resource allocation</p>	<p>Assess performance of learners in providing high-value care</p> <p>Advocate for providing value in care to learners, colleagues, and patients</p> <p>Contribute to the elimination of zero-value care from practice</p> <p>Design processes that balance standardization and variability to reduce errors in the delivery of health care</p> <p>Experiment with care delivery models that may improve care, value, or efficiency</p>	
2.2 Apply evidence and management processes to achieve cost-appropriate care	<p>Describe potential changes in practice that could address rising costs</p> <p>Discuss strategies to overcome the personal, patient, and organizational factors that lead to waste of health care resources</p>		Apply evidence and guidelines with respect to utilization relevant to common clinical scenarios	<p>Apply applicable evidence or recommendations for cost-appropriate care</p> <p>Determine cost discrepancies between best practice and their current practice</p>	Develop plans to change areas of wasteful practice within their discipline	Collect utilization data and compare practices with colleagues and other institutions to revise activities that are inefficient or unnecessary	

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Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise	LEADER MILESTONES	
[2.2 continued]	Describe how evidence-informed medicine can be applied to optimize health care resource allocation					Engage health care administration and leadership to reduce waste Analyze a proposed practice innovation to determine its cost impact in the clinical microsystem		
3 Demonstrate leadership in professional practice								
3.1 Develop their leadership skills	Describe leadership styles as they relate to health care Describe how self-awareness, self-reflection, and self-management are important to developing leadership skills Discuss aspects of own style (including strengths, weaknesses, and biases) that are relevant to leadership		Actively engage in change initiatives led by others	Participate in activities and educational programs that develop self-awareness, self-reflection, and self-management as a leader and a follower in health care organizations Demonstrate techniques to motivate themselves and others for quality care	Use self-awareness, self-reflection, and self-management to improve practice	Provide mentorship and guidance to help others develop leadership and motivational skills Demonstrate the ongoing enhancement of leadership competencies Reflect on the impact of their own leadership style on their clinical performance		
3.2 Design and organize elements of health care delivery	Describe society's perspective on the role of physicians and other health care professionals Compare and contrast the Canadian health care system with other models around the world			Describe key health policy and organizational issues in their discipline or setting of care Describe key health policy and organizational issues in their discipline or setting of care	Use management or performance information to monitor service delivery against accepted targets or goals	Align the performance of staff within their area of responsibility with overall health care delivery goals Seek leadership roles to engage in global health care planning and delivery		

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Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise	LEADER MILESTONES			
[3.2 continued]	Analyze how health care goals from diverse stakeholders help set the direction for health care delivery				Use data on measures of clinical performance during team discussions and to support team decision-making	Decide on health care target goals and timelines Ensure that structures are in place to continue to meet health care target goals and improve upon them		LEADER MILESTONES		
3.3 Facilitate change in health care to enhance services and outcomes	Describe the key issues regarding the need to improve health care delivery and the role of physician leadership in this improvement Analyze patient feedback to help improve patient experiences and clinical outcomes Describe a recent local or national health system change and the basis for acceptance or resistance to this change		Present a recommendation for a change in health care delivery at a team meeting	Develop a strategy for implementing change with patients, colleagues, and staff	Critique an ongoing change occurring in health care delivery	Engage with a multidisciplinary team to implement a change in clinical care delivery using a specific change framework Provide advice and guidance from a clinical perspective to managers and policy-makers Ensure that failures to achieve health care goals or targets are identified and addressed			LEADER MILESTONES	
4 Manage their practice and career										
4.1 Set priorities and manage time to balance practice and personal life	Reflect on and set personal, educational, and professional goals Align short-, medium-, and long-term goals Demonstrate time management skills	Organize work using strategies that address strengths and areas to improve in personal effectiveness and efficiency Align priorities with expectations for education and clinical work Identify and approach potential mentors	Build relationships with mentors	Balance personal life with responsibilities in education, research, administration, and patient care	Align goals with opportunities for participation in work and other activities Develop time management skills in specific contexts, such as for delegation, in meetings, and for teamwork Build relationships with mentors for future practice, and provide mentorship to others	Adjust priorities to enable participation in clinical care, the profession, and institutional, provincial, national, or international activities Teach and assess time and personal management skills				LEADER MILESTONES

Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise	LEADER MILESTONES
<p>4.2 Manage career planning, finances, and health human resources in a practice</p>	<p>Describe societal needs and current and projected workforce requirements, aligning these with personal factors important to choosing a career</p> <p>Prioritize practice choice factors and apply to residency programs on the basis of personal strengths and goals, the needs of society, and current and projected workforce needs</p> <p>Create a professional curriculum vitae</p>	<p>Review opportunities for practice preparation, including choices available for further training</p> <p>Reconcile projected residency expenses against expected income</p> <p>Maintain a portfolio of performance</p>	<p>Examine personal interests and seek career mentorship and counselling</p>	<p>Reconcile expectations for practice with job opportunities and workforce needs</p> <p>Adjust educational experiences to gain competencies necessary for future independent practice</p>	<p>Align early practice with career goals and current opportunities</p> <p>Plan practice finances, considering short- and long-term goals</p> <p>Outline remuneration models as they pertain to discipline</p>	<p>Teach others about career and financial planning</p> <p>Hire according to defined capabilities and their own long-term goals</p> <p>Consider legal requirements when hiring and practising in teams</p>	
<p>4.3 Implement processes to ensure personal practice improvement</p>	<p>Develop systematic habits for practice management (e.g., checklists, prompts, to-do lists, and standard operating procedures)</p> <p>Use tools and technologies to manage their own schedule</p>	<p>Use their institution's and/or discipline's practice management tools</p>	<p>Analyze potential facilitators of and barriers to implementation of practice management tools and process improvement</p>	<p>Create a personal organized approach for practice management to improve patient care</p> <p>Describe how practice standardization can improve quality of health care through specific case examples and reflection on personal experience</p>	<p>Complete a plan for personal practice improvement, including evaluating a problem, setting priorities, executing the plan, and analyzing the results</p>	<p>Engage regulatory bodies to improve standards of practice</p> <p>Engage others to develop a culture of continuous practice improvement</p> <p>Solicit feedback and external practice audits to drive practice improvement</p>	

Health Advocate milestones begin on next page.

Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise
HEALTH ADVOCATE MILESTONES						
1 Respond to the individual patient's health needs by advocating with the patient within and beyond the clinical environment						
1.1 Work with patients to address determinants of health that affect them and their access to needed health services or resources	Describe the role of health care professionals in patient advocacy Define determinants of health and explain their implications Identify the obstacles patients and families face in obtaining health care resources	Analyze a given patient's needs for health services or resources related to the scope of their discipline	Demonstrate an approach to working with patients to advocate for beneficial services or resources	Facilitate timely patient access to services and resources	Work with patients to address the determinants of health that affect them and their access to needed health services or resources	Advocate to administrative or governing bodies on behalf of patients Champion the development, implementation, and promotion of health advocacy teaching
1.2 Work with patients and their families* to increase opportunities to adopt healthy behaviours	Describe the value and limitations of promoting healthy behaviours Describe principles of behaviour change	Identify resources or agencies that address the health needs of patients	Select patient education resources related to their discipline	Apply the principles of behaviour change during conversations with patients about adopting healthy behaviours	Work with patients and their families to increase opportunities to adopt healthy behaviours	Create health promotion and education resources
1.3 Incorporate disease prevention, health promotion, and health surveillance activities into interactions with individual patients	Describe the processes of disease prevention, health promotion, and health surveillance		Work with patients and their families to identify opportunities for disease prevention, health promotion, and health protection	Evaluate with a patient the potential benefits and harms of health screening	Incorporate disease prevention, health promotion, and health surveillance activities into interactions with individual patients	Champion education programs for disease prevention, health promotion, and health surveillance

HEALTH ADVOCATE MILESTONES

*Throughout the Series III draft of the CanMEDS 2015 Framework and Milestones Guide, phrases such as “patients and their families” are intended to include all those who are personally significant to the patient and are concerned with his or her care, including, according to the patient's circumstances, family members, partners, caregivers, legal guardian, and substitute decision-makers.

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Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise
2 Respond to the needs of the communities or patient populations they serve by advocating with them for system-level change						
2.1 Work with a community or population to identify the determinants of health that affect them	Describe communities or populations facing health inequities		Identify communities or populations they serve who are experiencing health inequities	Analyze current policy or policy developments that affect the communities or populations they serve	Work with a community or population to identify the determinants of health that affect them	Contribute to policy discussions relevant to the determinants of health Engage the communities or populations they serve about ways to improve health
2.2 Improve clinical practice by applying a process of continuous quality improvement to disease prevention, health promotion, and health surveillance activities		Participate in health promotion and disease prevention programs relevant to their practice	Identify patients or populations that are not being served optimally in their clinical practice	Report epidemics or clusters of unusual cases seen in practice, balancing patient confidentiality with the duty to protect public health	Improve clinical practice by applying a process of continuous quality improvement to disease prevention, health promotion, and health surveillance activities	Collaborate with organizations and surveillance programs to identify populations in need
2.3 Participate in a process to improve health in the community or population they serve			Partner with others to identify the health needs of a community or population they serve	Appraise available resources to support the health needs of communities or populations they serve Distinguish between the potentially competing health interests of the individuals, communities, and populations they serve	Participate in a process to improve health in the communities or populations they serve	Partner with others to support, plan, or lead the implementation of a program to improve the health of the communities or populations they serve

HEALTH ADVOCATE MILESTONES

Scholar milestones begin on next page.

Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise
SCHOLAR MILESTONES						
1 Engage in the continuous enhancement of their professional activities through ongoing learning						
1.1 Develop, implement, monitor, and revise a personal learning plan to enhance professional practice	<p>Describe principles of effective learning relevant to medical education</p> <p>Describe learning opportunities, resources, and assessment and feedback opportunities relevant to learning in the clinical setting</p>	<p>Demonstrate a structured approach to monitoring progress of learning in the clinical setting</p> <p>Describe physicians' obligations for lifelong learning and ongoing enhancement of competence</p>	<p>Create a learning plan in collaboration with a designated supervisor and others as needed, identifying learning needs related to their own discipline and career goals</p> <p>Use technology to develop, record, monitor, revise, and report on learning in medicine</p>	<p>Review and update earlier learning plan(s) with input from others, identifying learning needs related to all CanMEDS Roles to generate immediate and longer-term career goals</p>	<p>Create a learning plan, incorporating all CanMEDS domains, targeting residency program completion and the transition to practice</p> <p>Discuss a learning plan and strategy for ongoing self-monitoring with a mentor, faculty advisor, or learning coach</p>	<p>Develop a plan to enhance competence across all CanMEDS domains for practice and update it regularly</p> <p>Coach others to enhance their own learning plans for practice</p>
1.2 Identify opportunities for learning and improvement by regularly assessing their performance using various internal and external data sources	<p>Identify and prioritize, with guidance, personal learning needs based on formal curriculum learning objectives</p> <p>Define reflective learning as it relates to medicine</p> <p>Use exam results and feedback from teachers and peers to enhance self-assessment and improve learning</p> <p>Compare, with guidance, self-assessment with external assessments</p>	<p>Identify, record, and answer questions arising in daily work</p> <p>Seek help or pursue learning opportunities, as appropriate, when limits of current expertise are reached</p> <p>Describe the implications for medical learning of reflection during action and after action</p>	<p>Regularly engage in personal learning by drawing upon various sources (daily work, literature, scanning of literature, formal or informal education sessions) to identify and prioritize learning needs</p>	<p>Seek and interpret multiple sources of performance data and feedback, with guidance, to continuously improve performance</p>	<p>Define a personal performance assessment question</p> <p>Demonstrate initiation and maintenance of improvements to performance</p>	<p>Access and summarize sources of performance data applicable to a scope of practice</p> <p>Use practice performance data in dialogue with a peer or mentor to inform a personal performance improvement plan and continuing learning</p> <p>Revise and monitor a performance improvement plan on the basis of changes to scope of practice</p>

SCHOLAR MILESTONES

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Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise	SCHOLAR MILESTONES
1.3 Engage in collaborative learning to continuously improve personal practice and contribute to collective improvements in practice	Participate effectively in collaborative group learning		Identify the learning needs of a health care team		Engage in collaborative learning to continuously improve personal practice and contribute to collective improvements in practice	Lead learning activities of a team to address patient safety and quality improvement	
2 Facilitate the learning of students, residents, the public, and other health care professionals							
2.1 Recognize the power of role-modelling and the impact of the hidden curriculum on learners	Describe the concepts of formal, informal, and hidden curricula		Identify behaviours associated with positive and negative role-modelling Describe the link between role-modelling and the hidden curriculum	Use strategies for deliberate, positive role-modelling	Apply strategies to mitigate the tensions between formal, informal, and hidden curricula	Address systemic issues that contribute to the hidden curriculum	
2.2 Promote a safe learning environment	Describe factors that can positively or negatively affect the learning environment Describe strategies for reporting and managing witnessed or experienced mistreatment		Explain how power differentials between learners and teachers can affect the learning environment		Ensure a safe learning environment for all members of the team	Address systemic or institutional processes that may compromise the safety of the learning environment Coach others about optimizing learning environments	
2.3 Ensure patient safety is maintained when learners are involved	Work within their limitations, seeking guidance and supervision when needed		Speak up in situations in the clinical training environment where patient safety may be at risk	Recognize unsafe clinical situations involving learners and manage them appropriately	Balance clinical supervision and graduated responsibility, ensuring the safety of patients and learners	Contribute to guidelines on the supervision of learners with regard to patient safety and quality improvement	
2.4 Collaboratively identify the learning needs of others and prioritize learning outcomes			Describe how to formally plan a medical education session	Define specific learning objectives for a teaching activity	Describe sources of information used to assess learning needs	Integrate formal and informal methods of needs assessment to guide the development and/or modification of learning activities	

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Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise	SCHOLAR MILESTONES	
2.5 Demonstrate effective teaching to facilitate learning	Describe the characteristics of effective teachers in medicine	Demonstrate basic skills in teaching others, including peers	Describe a model of clinical teaching relevant to their discipline		Choose appropriate content, teaching format, and strategies tailored to a specific educational context	Teach the public and other health care stakeholders Use relevant learning theories to enhance the learning of others Coach others to enhance their teaching		
2.6 Provide effective feedback to enhance learning and performance	Describe the features of effective feedback and its importance for teaching and learning	Provide written or verbal feedback to other learners, faculty and other members of the team			Role-model regular self-assessment and feedback-seeking behaviour Provide effective feedback to enhance learning and performance of others	Help learners and teachers manage the emotional impact of giving and receiving feedback Work with recipients of feedback to develop plans for improvement Coach others to enhance their ability to seek, provide, and use feedback		
2.7 Use assessment and evaluation tools and practices that are relevant to the teaching and learning context	Evaluate teachers and programs in an honest, fair, and constructive manner		Contribute to the assessment of other learners		Demonstrate appropriate assessment of junior learners	Plan systematic approaches to assessment of learners or evaluation of programs		
3 Integrate best available evidence, contextualized to specific situations, into real-time decision-making								
3.1 Recognize practice uncertainty and knowledge gaps in clinical and other professional encounters and generate focused questions that can address them	Describe the different kinds of evidence and their roles in clinical decision-making		Recognize uncertainty and knowledge gaps in clinical and other professional encounters relevant to their discipline	Generate focused questions that can address practice uncertainty and knowledge gaps				

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Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise	SCHOLAR MILESTONES	
3.2 Demonstrate proficiency in identifying, selecting, and navigating pre-appraised resources	Describe the advantages and limitations of pre-appraised resources Select appropriate sources of knowledge as they relate to addressing focused questions				Demonstrate proficiency in identifying, selecting, and navigating clinical information sources that provide or are based on pre-appraised evidence	Coach others to find and select sources of evidence for a given practice-related question		
3.3 Integrate evidence into decision-making in their practice	For a given clinical case, demonstrate the application of evidence during decision-making				Demonstrate the use of an integrated model of decision-making that combines best evidence, resources, and clinical expertise in the context of patient values and preference	Coach other health professionals to integrate evidence effectively into decision-making in their practice		
4 Critically evaluate the integrity, reliability, and applicability of health-related research and literature								
4.1 For a given practice scenario, formulate well-structured scholarly questions	Formulate structured clinical or scholarly questions using a specific question architecture that can inform a critical appraisal exercise			Formulate clinical or scholarly questions in the categories of diagnosis and therapy	Formulate detailed scholarly questions in the categories of diagnosis, prognosis, prevention, therapy, harm reduction, and clinical prediction, incorporating outcomes important to the patient	Develop questions that address the cost-effectiveness of interventions or management strategies Coach another physician to formulate clinical or scholarly questions based on a medical scenario		
4.2 Identify scholarly sources that shed light on a given professional question	Contrast the various study designs used in medicine and the quality of various pre-appraised resources Identify the design best suited to address a given clinical question	Identify scholarly sources that inform the clinical question at the centre of a structured critical appraisal activity			Demonstrate how various scholarly sources such as studies, expert opinion, and audits inform practice	Coach another health professional on the selection of relevant sources of evidence for a given scholarly question		

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Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise	SCHOLAR MILESTONES	
[4.2 continued]	Describe how various sources of clinical information (studies, expert opinion, practice audits) contribute to the evidence base of medical practice							
4.3 Interpret study findings, including a discussion and critique of their relevance to professional practice	Describe the various ways that researchers can present their findings in a research study		Interpret study findings, including a discussion and critique of their relevance to professional practice		Correctly apply study findings to practice	Participate in the development of an evidence synthesis for one's peers		
4.4 Determine the validity and risk of bias in a wide range of scholarly sources	Demonstrate the use of critical appraisal frameworks to evaluate common study designs		Determine the validity and risk of bias in a wide range of scholarly sources			Demonstrate the use of research evaluation and reporting tools for specific study designs or scholarly sources Coach another health professional to use critical appraisal frameworks to evaluate common study designs		
4.5 Describe study results in both quantitative and qualitative terms	Outline the core concepts related to measures of association, relative and absolute effects, and precision	Generate measures of association and diagnostic accuracy	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			
4.6 Evaluate the applicability (external validity or generalizability) of evidence from a wide range of information resources	Describe the threats to external validity or generalizability of a study or synthesis of studies				Evaluate the applicability (external validity or generalizability) of evidence from a wide range of research			

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Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise	SCHOLAR MILESTONES	
4.7 Discuss the barriers to and facilitators of applying study findings to professional practice		Demonstrate an understanding of the principles of knowledge translation and the Knowledge to Action Framework			Discuss the barriers to and facilitators of applying study findings to professional practice	Supervise a critical appraisal session		
4.8 Use quality appraised evidence-alerting services that highlight new evidence appropriate to their scope of professional practice		Describe the need for and benefits of evidence-alerting services appropriate to one's scope of professional practice			Use quality appraised evidence-alerting services that highlight new evidence appropriate to their scope of professional practice	Coach another health professional to use evidence-alerting services		
5 Contribute to the dissemination and/or creation of knowledge and practices applicable to health								
5.1 Demonstrate an understanding of the scientific principles of research and scholarly inquiry and the role of research evidence in contemporary health care	Describe the basic scientific principles of research and scholarly inquiry Describe the role of research and scholarly inquiry in contemporary health care		Discuss the role of research and scholarly inquiry in addressing questions in their discipline		Apply the principles of research and scholarly inquiry to contribute to a scholarly investigation or the dissemination of research findings in their discipline	Supervise a research project or scholarly inquiry Teach the principles of research and scholarly inquiry to others		
5.2 Identify ethical principles for research and incorporate them into obtaining informed consent, considering potential harms and benefits, and considering vulnerable populations	Describe the ethical principles applicable to research and scholarly inquiry		Discuss and provide examples of the ethical principles applicable to research and scholarly inquiry relevant to their discipline		Identify ethical principles for research and incorporate them into obtaining informed consent, considering harm and benefit, and considering vulnerable populations	Apply ethical principles relevant to research and scholarly inquiry Serve as a member on a research ethics board		

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Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise	SCHOLAR MILESTONES
5.3 Contribute to the work of a research program		Describe the roles and responsibilities of principal investigators and collaborators in a research project		Compare and contrast the roles and responsibilities of members of a research team and describe how they differ from clinical and other practice roles and responsibilities	Contribute to the work of a research program	<p>Actively participate as a research team member, balancing the roles and responsibilities of a researcher with the clinical roles and responsibilities of a physician</p> <p>Create and lead research teams</p> <p>Serve as a role model and mentor for others with respect to the responsibilities of a researcher</p>	
5.4 Pose questions amenable to scholarly investigation and select appropriate methods to address them	<p>Describe the characteristics of a well-constructed research question</p> <p>Describe common methodologies used for scholarly inquiry in medicine</p>	Discuss and critique the possible methods of addressing a given scholarly question	Describe and compare the common methodologies used for scholarly inquiry in their discipline		<p>Pose medically and scientifically relevant and appropriately constructed questions amenable to scholarly investigation</p> <p>Select appropriate methods of addressing a given scholarly question</p>	<p>Take responsibility for the development of relevant, appropriately constructed questions to guide scholarly investigation</p> <p>Coach others to pose relevant, appropriately constructed questions that are amenable to scholarly investigation</p> <p>Assist in the application and implementation of appropriate methods in a scholarly investigation</p>	
5.5 Summarize and communicate to professional and lay audiences, including patients and their families, the findings of relevant research and scholarly inquiry			Summarize and communicate to peers the findings of applicable research and scholarship		<p>Summarize and communicate to professional and lay audiences, including patients and their families, the findings of relevant research and scholarly inquiry</p> <p>Prepare a manuscript suitable for publication in a peer-reviewed journal</p>	Take responsibility for summarizing and communicating study findings to stakeholders	

Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise
PROFESSIONAL MILESTONES						
1 Demonstrate a commitment to patients by applying best practices and adhering to high ethical standards						
1.1 Exhibit appropriate professional behaviours and relationships in all aspects of practice, reflecting honesty, integrity, commitment, compassion, respect, altruism, respect for diversity, and maintenance of confidentiality	Exhibit honesty and integrity with patients and other physicians and other health professionals	Consistently prioritize the needs of patients and others to ensure a patient's legitimate needs are met	Independently manage specialty-specific issues of confidentiality, intervening when confidentiality is breached	Manage complex issues while preserving confidentiality Intervene when behaviours toward colleagues and learners undermine a respectful environment	Exhibit appropriate professional behaviours and relationships in all aspects of practice, reflecting honesty, integrity, dedication, compassion, respect, altruism, respect for diversity, and maintenance of confidentiality	Lead and advise on professionalism and professional behaviour Lead initiatives that promote respectful work environments Demonstrate special expertise in issues of confidentiality and serve as a resource for others
	Demonstrate caring and compassion Recognize and respect boundaries Demonstrate sensitivity to issues concerning diversity with respect to peers, colleagues, and patients Consistently maintain confidentiality in the clinical setting, while recognizing the special limitations on confidentiality					
1.2 Demonstrate a commitment to excellence in all aspects of practice	Reflect on experiences in the clinical setting to identify personal deficiencies and modify behaviour accordingly				Demonstrate a commitment to excellence in all aspects of practice Analyze how the system of care supports or jeopardizes excellence	Systematically address barriers to excellence in clinical care

PROFESSIONAL MILESTONES

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Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise	PROFESSIONAL MILESTONES
1.3 Recognize and respond to ethical issues encountered in practice	Describe principles and theories of core ethical concepts Identify appropriate ethical concepts to address ethical issues encountered during clinical and academic activities			Manage ethical issues encountered in the clinical and academic setting	Recognize and respond to ethical issues encountered in independent practice	Advise on complex ethical issues in practice Teach and assess the management of ethical issues in clinical practice	
1.4 Recognize and manage conflicts of interest	Describe the implications of potential personal, financial, and institutional conflicts of interest, including conflicts of interest with industry Recognize personal conflicts of interest and demonstrate an approach to managing them			Proactively resolve real, potential or perceived conflicts of interest transparently and in accordance with ethical, legal and moral obligations	Recognize and manage conflicts of interest in independent practice	Advise on conflicts of interest in practice and in institutions	
1.5 Exhibit professional behaviours in the use of technology-enabled communication	Explain the potential abuses of technology-enabled communication and their relation to professionalism Describe policies related to technology-enabled communication Use technology-enabled communication, including their online profile, in a professional, ethical, and respectful manner Follow relevant policies regarding the appropriate use of electronic medical records			Intervene when aware of breaches of professionalism involving technology enabled communication	Exhibit professional behaviours in the use of technology-enabled communication	Role-model and develop professional technology-enabled communication for health care	

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Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise
2 Demonstrate a commitment to society by recognizing and responding to the social contract in health care						
2.1 Demonstrate accountability to patients, society, and the profession	<p>Describe the social contract between the profession of medicine and society</p> <p>Explain physician roles and duties in the promotion of the public good</p> <p>Describe the levels of reciprocal accountability of medical students, physicians, and the medical profession in relation to individual patients, society, and the profession</p> <p>Describe the tension between the physician's role as advocate for individual patients and the need to manage scarce resources</p>		<p>Manage tensions between societal and physicians' expectations</p>	<p>Demonstrate a commitment to the promotion of the public good in health care, including stewardship of resources</p> <p>Demonstrate a commitment to maintaining and enhancing competence</p>	<p>Demonstrate accountability to patients, society, and the profession by recognizing and responding to societal expectations of the profession</p>	<p>Influence the profession's response to issues of societal accountability</p> <p>Advise institutions on social accountability and the profession</p>
3 Demonstrate a commitment to the profession by adhering to standards and participating in physician-led regulation						
3.1 Fulfill and adhere to the professional and ethical codes, standards of practice, and laws governing practice	<p>Describe the regulatory structures governing physicians, and the profession</p>			<p>Describe how to respond to a complaint or legal action</p> <p>Monitor institutional and clinical environments and respond to issues that can harm patients or the delivery of health care</p>	<p>Fulfill and adhere to the professional and ethical codes, standards of practice, and laws governing practice</p> <p>Demonstrate accountability to patients, the profession, and society with regard to the impact of decisions that are made</p>	<p>Contribute to the development of professional codes, standards, or laws governing practice</p>

PROFESSIONAL MILESTONES

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Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise	PROFESSIONAL MILESTONES
[3.1 continued]				Describe the relevant codes, policies, standards, and laws governing physicians and the profession including standard-setting and disciplinary and credentialing procedures			
3.2 Recognize and respond to unprofessional and unethical behaviours in physicians and other colleagues in the health care professions	Describe and recognize key behaviours that are unprofessional or unethical Personally respond to peer group lapses in professional conduct				Recognize and respond to unprofessional and unethical behaviours in physicians and other colleagues in the health care professions Describe and identify regulatory codes and procedures relevant to involving a regulatory body in a case of serious unprofessional behaviour or practice	Lead systematic initiatives to minimize unprofessional and unethical behaviours in colleagues	
3.3 Participate in peer assessment and standard-setting	Describe the principles of peer assessment			Participate in the review of practice, standard setting and quality improvement activities Participate in the assessment of junior learners Prepare a morbidity and mortality report or chart review	Participate in peer assessment and standard-setting	Participate in the regulatory procedures that govern the profession Lead a debrief of a difficult clinical interaction	

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Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise	PROFESSIONAL MILESTONES	
4 Demonstrate a commitment to physician health and well-being to foster optimal patient care								
4.1 Exhibit self-awareness and effectively manage influences on personal well-being and professional performance	<p>Describe how physicians are vulnerable to physical, emotional and spiritual illness</p> <p>Use strategies to improve self-awareness to enhance performance</p> <p>Describe the connection between self-care and patient safety</p>		<p>Manage the impact of physical and environmental factors on performance</p> <p>Demonstrate an ability to regulate attention, emotions, thoughts, and behaviours while maintaining capacity to perform professional tasks</p>	<p>Integrate skills that support adaptation and recovery in challenging situations</p>	<p>Exhibit self-awareness and effectively manage influences on personal well-being and professional performance</p>	<p>Role-model and teach self-regulation</p> <p>Advise on strategies to mitigate the negative effects of physical and environmental factors on physician wellness and practice performance</p> <p>Role model and coach others in resilience</p>		
4.2 Manage personal and professional demands for a sustainable practice throughout the physician life cycle	<p>Identify strategies to support personal well-being, a healthy lifestyle and appropriate self-care, with the help of a primary health professional, therapist and/or spiritual advisor</p> <p>Describe the transitions through a physician's life cycle, including periods of vulnerability</p> <p>Seek appropriate health care for their own needs</p> <p>Use strategies to mitigate stressors during transitions and enhance professional development</p> <p>Consider career options that will promote personal strengths and enhance well-being, while addressing the needs of society</p>	<p>Recognize evolving professional identity transitions and manage inherent stresses</p>	<p>Describe the influence of personal and environmental factors on the development of a career plan</p>	<p>Manage competing personal and professional priorities</p>	<p>Manage personal and professional demands for a sustainable practice throughout the physician life cycle</p>	<p>Role-model and teach the management of competing personal and professional priorities</p> <p>Eliminate system barriers to physicians seeking care</p> <p>Advocate for learning and work environments that provide opportunities for a healthy lifestyle</p> <p>Coach physicians in the transition out of professional practice (retirement)</p>		

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Key and enabling competencies	Requirements for residency	Transition to discipline	Foundations of discipline	Core of discipline	Transition to practice	Advanced expertise	PROFESSIONAL MILESTONES	
[4.2 continued]	Incorporate self-care into personal and professional routines Seek mentorship to address professional development needs							
4.3 Promote a culture that recognizes, supports, and responds effectively to colleagues in need	Describe the multiple ways in which poor physician health can present, including disruptive behaviour, and offer support to peers when needed Describe the importance of early intervention for colleagues in need of assistance, identify available resources, and describe professional and ethical obligations and options for intervention Practice positive behaviours and deal with negative behaviours to promote a collegial work environment		Use strategies to mitigate the impact of critical incidents or adverse events	Provide mentorship to colleagues Support others in their professional transitions	Promote a culture that recognizes, supports, and responds effectively to colleagues in need	Role-model and teach learners and colleagues about personal and professional choices to effectively manage their practice Establish a mentorship program Teach and positively influence the behaviour of others to promote a culture of wellness		

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