

Detailed Graduation Objectives for the MD Program

Medical Expert

The graduating physician will demonstrate enduring ability to apply and integrate medical knowledge, clinical skills (both cognitive and procedural), and professional attitudes to provide medical care to patients across the spectrum of health (wellness, acute illness, chronic illness) and along the continuum of life. The graduating physician will integrate an understanding of the determinants of health and the modifiers of illness, together with an understanding of the unique characteristics and circumstances of each patient, to guide diagnosis and patient- and family-centered clinical decision-making.

Domains	Competencies
Recognition of Wide Variability of “Normal” Human Health	-integrate knowledge of normal human development, structure and function from a biological, physical, psychological, cognitive and social perspective within the context of the individual’s age, life stage, personal, family and community situation
	-apply basic principles of surveillance and screening to the normal/healthy population
Health Promotion	-integrate knowledge of evidence to help patients make informed decisions about healthy personal habits (diet, exercise, appropriate use of dietary supplements, etc.)
	-integrate longitudinal knowledge of an individual patient with knowledge of family history and other factors to predict modifiable health risks; develop appropriate mitigation strategies
Illness Prevention	-integrate knowledge of determinants of health with knowledge of patient’s life circumstances and clinical context; develop patient-, family-, and community-centered interventions as required
	-integrate knowledge of principles of public health (hygiene, immunization, harm reduction, etc) with knowledge of patient’s life circumstances and clinical context; develop

	<p>patient-, family-, and community-centered interventions as required</p>
Diagnosis of Acute Illness	<p>-Safety first: develop and apply appropriate skills for triage and immediate intervention in acute, life-threatening situations</p>
	<p>-integrate knowledge of natural laws, medical concepts, principles, methods and procedures, the natural history and pathology of a discrete number of common and important diseases, and how illness presents differently in various personal/clinical settings; develop a reasoned and reliable approach to the diagnosis of undifferentiated illness</p>
	<p>-procure relevant and necessary information in each clinical situation, including:</p> <ul style="list-style-type: none"> -patient- and family-centered interview and history-taking; -detection and interpretation of physical signs, both positive and negative, by performing an appropriate and focused physical examination that minimizes patient discomfort; -development of initial working diagnostic hypotheses based upon history and physical examination; -selection and interpretation of appropriate diagnostic tests, including laboratory, imaging, electrophysiologic and other modalities, using evidence-informed decision-making together with patient and family preferences and risk tolerance to determine the relative appropriateness and necessity of such tests based upon the working diagnostic hypotheses; -integrate ancillary information; -integrate relevant elements of the foregoing to test the working diagnostic hypotheses and arrive at a final presumptive diagnosis
Treatment of Acute Illness	<p>-integrate knowledge of presumptive diagnosis, prognosis, disease progression, and evidence for and against efficacy of proposed remedies</p>
	<p>-within the context of the patient-centered approach to care, develop appropriate therapeutic interventions, using both pharmacological and non-pharmacological techniques as appropriate to the diagnosis and the patient's circumstances and preferences</p>

<p align="center">Informed Consent</p>	<p>- using ethical principles, assist patients to understand the risks and benefits of accepting or refusing suggested therapeutic interventions</p>
<p align="center">Safe and Effective Use of Medications</p>	<p>-integrate knowledge of pharmacotherapy (matching diagnosis to therapy; pharmacology, including kinetics, dynamics, therapeutic window, important potential adverse events and drug interactions) with knowledge of patient circumstances and preferences, to recommend illness- and patient-specific drug therapies</p> <p>-assist patients and families to mitigate the risks of polypharmacy, including the risks of cross-reaction to self- or other-prescribed drugs, over-the-counter medications, and herbal, “natural” or nutraceutical products</p> <p>-revision and re-evaluation of the presumptive diagnosis and/or treatment plan based on new information and/or response to treatment</p>
<p align="center">Chronic Disease Management</p>	<p>-integrate a functional conceptualization of “dis-ease” (effect on patient within patient’s personal context) and static vs. progressive problems into clinical approach to patients with chronic illness or disability; promote patient autonomy and independence to greatest degree possible and/or desired by patient/family</p> <p>-integrate knowledge of acute illness to inform approach to interventions in “acute on chronic” situations</p> <p>-integrate concepts of community-based care and self-monitoring (by patient or family caregiver) into clinical approach to care</p>
<p align="center">Palliative Care/End of Life Support</p>	<p>-integrate a functional approach to determining medical futility of interventions; within patient- and family-centred care plans and in accordance with ethical principles, assist patients and families to avoid futile and harmful interventions</p> <p>-using a multi-dimensional understanding of “suffering”, strive to relieve suffering and assist patients and families through the process of dying in disease-specific and person-specific context</p>

<p>Compliance and Adherence to Treatment</p>	<p>-integrate knowledge of pathophysiology of specific disease process, risks/benefits of treatment and non-treatment (including limitations of knowledge) with patient's/family's understanding, fears, risk tolerance, economic and social circumstances, to negotiate care that is acceptable to patient, family and providers</p>
	<p>- if unable to negotiate a mutually acceptable approach to care provide information about alternative providers and/or transfer care according to relevant ethical principles and policies</p>
<p>Patient, Family and Provider Safety</p>	<p>-demonstrate self-knowledge and recognition of limits of knowledge/experience or limits imposed by personal, cultural, religious, or other constraints; enlist appropriate assistance and/or ensure transfer of care to an appropriate caregiver according to relevant ethical principles and policies</p>
	<p>-ensure coordination and continuity of care and clear delegation of responsibility or authority; accept or refuse responsibility or authority within scope of competence; minimize duplication and role confusion</p>
	<p>-identify and mitigate potential sources of error in assessment and management of clinical conditions</p>
	<p>-integrate a functional approach to cultural safety that respects the uniqueness and diversity of all persons, the power differentials inherent in the delivery of all types of health care, adjusts for those factors, and recognizes "safe care" as a patient-specific perception</p>
	<p>-maintain accurate, complete and timely records of patient care</p>

Communicator

The graduating physician will use effective communication skills and modalities to build and sustain a positive therapeutic relationship with patients and their families. Positive therapeutic relationships are characterized by trust, compassion, respect, empathy, honesty, and openness. The graduating physician will communicate the right information, at the right time, to the right person for the primary benefit of the patient, particularly where shared care, transfer of care, or additional opinions are required. The graduating physician recognizes that communication is a skilled process which will continue to evolve and develop throughout the clinician’s career.

Domains	Competencies
<p>Conduct Patient-Centered Interviews (A) elicit information effectively</p>	<p>-use principles of FIFE (feelings, ideas, function, expectations) to explore and understand the impact of the patient’s symptoms or diagnosis on his/her life and circumstances; recognize the difference between illness and disease, and explore both dimensions</p>
	<p>-use skills of active listening, silence, observation of non-verbal communication, and active reflection to ensure understanding of the patient perspective</p>
	<p>-adjust personal communication style (verbal and non-verbal) including pace, volume and timbre of voice, physical proximity and adjustment of personal space, to suit the patient’s reactions and the nature and content of the communication</p>
	<p>-adjust personal communication style in accordance with the patient’s cultural practices or traditions</p>
	<p>- listen and respond to full range of problems and issues presented by patients, including those that are not traditional biomedical problems</p>
	<p>- manage specific challenging communication situation such as: breaking bad news, medical error and adverse events, disclosure of abuse, sexual history, and suicide risk</p>
<p>(B) provide information effectively</p>	<p>-respect and adjust communication style to reflect functional literacy as well as psychological and other factors in patients’ and</p>

	<p>families' comprehension of information; use effective teaching techniques such as simplification, repetition, restatement and question/response to assess and ensure comprehension</p> <p>-assess, build, and reinforce understanding and retention of information over time</p>
(C)develop care plans effectively	<p>-use negotiating skills to “find common ground” with patients in defining the nature of the problem, the goals of management, and the roles of the patient, family and provider(s) in care</p>
Respect the Principles of Autonomy, Privacy, and Confidentiality as They Apply to the Acquisition, Use and Disclosure of Personal Health Information	<p>-integrate knowledge of principles with knowledge of statutory or other regulated requirements for the collection, use or disclosure of personal health information, irrespective of the method of data collection and record-keeping</p>
	<p>-recognize the difference between primary and secondary use of personal health information; apply higher standards for patient protection in any secondary use or disclosure, including explicit consent for such disclosures</p>
	<p>-recognize and respect disease-, patient-, or culture-specific variables that affect the relative sensitivity of personal health information</p>
	<p>-maintain written records securely; share patient information with other providers in a manner that ensures relevancy, timeliness, and security</p>
Negotiates Informed Choice	<p>-respect doctor-patient boundaries; use patient- and family-specific information to identify factors that affect personal and cultural safety; develop and apply strategies to avoid or mitigate risk of boundary violations</p>
	<p>-integrate knowledge of legal and ethical principles and requirements when communicating with patients for the purposes of negotiating patient choice in a broad variety of clinical situations <i>for which the student is competent</i></p>

Collaborator

The graduating physician recognizes that he/she is one member of a team whose goal is to achieve optimal care for each patient. Care teams are patient-, family-, diagnosis- and situation-specific and their characteristics and composition are fluid over time and across multiple sites or locations. Patients, their families and support systems are integral members of the care team. In addition to patients, families, physicians and other health professionals, the care team may include community and social agencies, educators, faith/cultural support persons, and traditional/alternative healers or service providers.

Domains	Competencies
<p align="center">Collaboration Within the Health Care System</p>	<p>-intraprofessional collaboration: using a wide variety of physician colleagues, apply patient- and situation-specific knowledge to engage the right practitioners for the right reasons at the right time</p>
	<p>- understand their own role and the roles of those in other professions, and use this knowledge appropriately to establish and meet patient, family, and community goals*</p>
	<p>*National Interprofessional Competency Framework, Canadian Interprofessional Health Collaborative</p>
	<p>-understand the principles of team dynamics and group processes to enable effective interprofessional team collaboration*</p>
	<p>- actively engage self and others including the patient and family, in dealing effectively with interprofessional conflict*</p>
	<p>- work together with all participants, including patients and families, to formulate, implement, and evaluate care/services to enhance health outcomes*</p>
	<p>-use hospital-, community-, or ambulatory care- based teams as appropriate to the circumstances</p>
<p align="center">Collaboration Outside the Health Care System</p>	<p>-recognize role and function of educational, social, community, faith- or culturally based supports, and liaise with these as appropriate</p>
<p align="center">Patient and Family Engagement</p>	<p>-empower patients as active participants in their care</p>
	<p>-find common ground on the identification of problems, and the goals, priorities and methods</p>

	of intervention
Maintain Effective and Positive Work Environment	-articulate, revise and update the agreed care plan so that it remains focused on meeting the patient's (evolving) needs
	-communicate regularly and effectively with all members of the care team and with patients/families; attend team meetings as appropriate
	-utilize principles of team dynamics, recognize own limitations, work with others to prevent conflicts, respect team ethics and confidentiality, provide and receive focused and effective feedback, demonstrate professionalism, reflect upon and adjust team function in interests of optimal patient outcomes and/or resolution of patient problems

Manager

Physicians are integral participants in the health care of individuals and in the function of healthcare organizations. Physicians have a primary fiduciary responsibility to each individual patient but also a broader societal responsibility for prudence and wisdom in the use of scarce resources. Physicians are a resource to patients, their families, communities and populations. Physicians manage their personal, family and professional lives and their working relationships with employees, colleagues and other health care workers using effective processes of human resource and financial management. Physicians use information systems and practice management tools to coordinate care and ensure efficient and effective care. The graduating physician will have foundational knowledge of these principles and emerging competence in the areas of self-directed and self-managed professional practice.

Domains	Competencies
Primacy of the Patient-Physician Relationship	-ensure that decisions regarding the investigation and treatment of illness are made jointly with patients and their families, informed by evidence of risks and benefits, in the best interests of the patient
Management of System Resources	-integrate knowledge of the structure and function of the health care system, the role of physicians within the system, and the needs of patients, families and communities, to: -determine the appropriate level of care (inpatient, hospital ambulatory, outpatient, community, long term care, rehabilitation) for the patient; and -advocate for patients where external pressures threaten or affect clinical decision-making
Models of Clinical Practice and Remuneration	-understand various models of professional practice and remuneration, allowing graduating physician to recognize how these choices: -allow flexibility for special clinical interests and expertise, -support shared professional responsibilities, including provision of on-call services and coverage for vacation, illness, educational and other leaves; and -provide fair and reasonable compensation while meeting business and personal obligations

Health Advocate

Physicians use their expertise (knowledge) and influence (social, political, financial) to advance the health and well-being of individual patients, communities, and populations. Physicians contribute actively to the development of public policy, particularly in the areas affecting the determinants of health and access to care. Graduating physicians will recognize and attempt to balance competing backgrounds, interests and needs as they develop personal professional competency in this domain.

Domains	Competencies
Recognition of Vulnerability	-integrate knowledge of patients' and providers' social, cultural, educational, and personal backgrounds and the impact of these on the dynamics of care relationships, as well as on system and community responses to individual needs - advocate for change where possible and appropriate
Balance of Competing Needs	-integrate knowledge of patient as individual, as member of family and community, and knowledge of system drivers and effects; apply ethical principles to inform decisions where needs of individuals and larger groups or systems are not synchronous
Reliance on External Support Networks	-liaise with, or facilitate patient and family connection to community support networks, disease-specific patient support groups, and other external agencies for advocacy and direct service to patients
Disease Prevention/Health Promotion	-integrate knowledge of communities, illness prevalence, determinants of health and other local factors with evidence to support specific interventions in order to advocate for the provision of services appropriate to the specific person/population/community/location

Scholar

The graduating physician recognizes the need for and commits to the process of lifelong reflective learning. The graduating physician accepts the responsibility to share, translate, teach, and enhance medical knowledge for the benefit of patients, students, colleagues, and society as a whole.

Domain	Competencies
Demonstrate Self-Directed Learning	-within practice/training experience, identify learning needs within all CanMEDS roles, find appropriate resources to address identified needs, and integrate new knowledge in practice/training setting; use quality improvement projects to enhance learning within training/clinical practice
Apply Evidence in Clinical Decision-Making	-integrate existing and emerging evidence for and against planned investigation or treatment; work with patients/families to formulate an evidence-informed and patient-centered plan -support and value the work of scientists as vital to the health of individuals and populations
Engage in Research	- use appropriate search strategies to find pertinent information - critique sources of information and apply basic principles of critical appraisal to research reports -apply ethical principles to the design and execution of research protocols; - plan a worthwhile and feasible QI project for a practice or study setting and/or participate in and contribute to a QI project <i>OR</i> - participate and make a contribution as a member of a research team
Dissemination of Knowledge	-integrate knowledge of patients' educational and literacy levels to provide patient teaching at an appropriate level; recognize need for and contribute to provision of knowledge and practices related to underserved and disadvantaged groups or individuals -integrate principles of patient-centered communication to assess understanding and retention of information -use learner-centered methods for student or peer educational activities and presentations

	and provide constructive feedback for presentations and activities
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Professional

The graduating physician accepts the tenets of the profession: commitment to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high standards of personal behaviour. Physicians are guided by codes of ethics, committed to clinical excellence, and embrace appropriate attitudes and behaviours, including honesty, altruism, integrity, commitment, compassion, respect, and the promotion of the public good.

Domain	Competencies
Altruism and Integrity	-act consistently in the best interest of the patient; avoid or declare competing interests and remove self where competing interests may compromise patient care
	-refrain and abstain from using the patient-physician relationship for any type of personal gain or benefit
	-respond to public health threats or crises, including epidemics and disasters (natural and other)
	-adhere to principles of patient autonomy, privacy and confidentiality (see Domain #2)
	- explain and internalize the evolving contract between physicians, their organizations, and society with reference to the Hippocratic Oath and the CMA Code of Ethics
Honesty	-disclose areas of uncertainty; promptly and voluntarily identify errors of omission or commission
	-understand the patient, personal and professional impacts of medical error and the appropriateness of apology
Respectfulness	-practice patient-centered skills in all patient encounters; demonstrate respect to all colleagues and collaborators in patient care, research, or education
	-practice personal safety, including awareness and adjustment for imbalances in personal power; refrain from self-disclosure to patients
	-practice cultural safety, including authentic, supportive and inclusive behaviours with First Nations, Inuit and Métis, immigrants, or with any other group or individual whose background or circumstances create the potential for differential or discriminatory behaviours
Responsibility	-complete assigned tasks (including documentation and follow-up), meet timelines, demonstrate self-

	<p>direction and accountability for personal actions</p> <p>-recognize and respond to needs of other professionals, particularly where such needs may adversely affect the ability to provide care to patients safely and appropriately</p> <p>-recognize and respond to unprofessional behaviours by colleagues or others; intervene as required</p> <p>- exercise other-awareness to identify and reach out to support colleagues who may be in personal or professional difficulty</p> <p>-accept and fulfill leadership roles as appropriate</p>
<p>Personal and Family Health and Wellbeing</p>	<p>- maintain and enhance personal development</p> <p>-achieve a healthy professional/personal balance for long term sustainability of professional competence</p> <p>-integrate knowledge of impact of stress, fatigue, personal/family illness, professional isolation and other factors; manage these factors in own professional circumstances</p> <p>-exercise self-awareness; access resources and supports provided by professional associations, employers and educational institutions to avoid or mitigate factors adversely affecting personal mental or physical health or family relationships</p> <p>-exercise particular vigilance for specific risks for substance abuse, including access to narcotics and other controlled drugs within the work situation</p>