Objectives of Training in Medical Oncology

2014

VERSION 1.0

This document applies to those who begin training on or after July 1st, 2014.

DEFINITION

Medical Oncology is a medical subspecialty concerned with the study, research, diagnosis, and medical management of neoplastic diseases.

GOALS

Upon completion of training, a resident is expected to be a competent subspecialist in Medical Oncology capable of assuming a consultant’s role in the subspecialty. The resident must acquire a working knowledge of the theoretical basis of the subspecialty, including its foundations in the basic medical sciences and research.

Only candidates certified by the Royal College of Physicians and Surgeons of Canada in Internal Medicine may be eligible for certification in Medical Oncology.

During the course of training, the resident must acquire a high degree of clinical competence in the investigation and management of patients with the spectrum of neoplastic diseases. The resident must acquire understanding of the basic scientific principles that relate to cancer and its treatment, particularly systemic management. Competency must also be attained in issues of survivorship, acute and long-term complications of cancer and its treatments, and supportive and palliative care. The resident must develop the ability to function as a consultant in both inpatient and ambulatory settings as a part of an interprofessional team. Expertise in communication, relevant investigative methods, and technical skill is essential, together with skill in the collection and interpretation of data and decision-making.

Residents must demonstrate the requisite knowledge, skills, and attitudes for effective patient-centred care and service to a diverse population. In all aspects of specialist practice, the graduate must be able to address ethical issues and issues of gender, sexual orientation, age, culture, and ethnicity in a professional manner.

MEDICAL ONCOLOGY COMPETENCIES

At the completion of training, the resident will have acquired the following competencies and will function effectively as a:
Medical Expert

Definition:

As Medical Experts, Medical Oncologists integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centred care. Medical Expert is the central physician Role in the CanMEDS framework.

Key and Enabling Competencies: Medical Oncologists are able to...

1. Function effectively as consultants, integrating all of the CanMEDS Roles to provide optimal, ethical, and patient-centred medical care
   1.1. Perform a Medical Oncology consultation effectively, including the presentation of well-documented assessments and recommendations in written and/or oral form in response to a request from another health care professional
   1.2. Demonstrate use of all CanMEDS competencies relevant to Medical Oncology
   1.3. Identify and appropriately respond to relevant ethical issues arising in the care of patients with cancer
   1.4. Demonstrate the ability to prioritize professional duties when faced with multiple patients and problems
   1.5. Demonstrate compassionate and patient/family-centred care
   1.6. Recognize and respond to the ethical dimensions in medical decision-making
   1.7. Demonstrate medical expertise in situations other than patient care, such as providing expert legal testimony or advising governments

2. Establish and maintain clinical knowledge, skills, and attitudes appropriate to Medical Oncology
   2.1. Apply knowledge of the clinical, socio-behavioural, and fundamental biomedical sciences relevant to Medical Oncology, including:
      2.1.1. Basic sciences as they relate to the understanding of cancer and its treatment
         2.1.1.1. Growth kinetics
         2.1.1.2. Molecular biology
         2.1.1.3. Pharmacology
         2.1.1.4. Endocrinology
         2.1.1.5. Immunology
         2.1.1.6. Biochemistry
         2.1.1.7. Radiobiology
      2.1.2. Natural history of cancer, including risk factors, genetic predisposition, growth and dissemination patterns, and prognostic variables
2.1.3. Appropriate diagnostic tools to evaluate the patient with cancer, including but not limited to laboratory tests, imaging modalities, and endoscopy

2.1.4. Staging of different tumours using the TNM (tumour, node, metastasis) staging system, or other relevant classification system, and applicable prognostic indices

2.1.5. Mechanisms of action, indications, complications, and expected outcomes of different therapeutic modalities

2.1.5.1. Chemotherapy
2.1.5.2. Hormonal therapy
2.1.5.3. Biologic therapy
2.1.5.4. Immunotherapy
2.1.5.5. Stem cell transplantation
2.1.5.6. Supportive care medications
2.1.5.7. Radiation therapy
2.1.5.8. Surgery, alone or in combined-modality treatment
2.1.5.9 Radiopharmaceuticals

2.1.6. Principles of the administration of systemic therapies

2.1.7. Screening and preventive methods for different cancers

2.1.8. Paraneoplastic syndromes

2.1.9. Emergencies arising from the cancer itself or the systemic therapy administered

2.1.10. Management of cancers arising in special populations, including but not limited to immunosuppressed hosts, pregnant women, geriatric groups, adolescents and young adults, and patients in remote geographic locations

2.1.11. Supportive and palliative care of the patient with cancer

2.1.12. Support for the caregivers and family of the patient with cancer

2.1.13. Impact of therapeutic interventions including acute, subacute, long-term and late toxicities, and adverse outcomes

2.1.14. Issues related to cancer survivorship, including but not limited to physical, psychological, emotional, vocational, sexual, financial, lifestyle, and fertility

2.2. Describe the CanMEDS framework of competencies relevant to Medical Oncology

2.3. Apply lifelong learning skills of the Scholar Role to implement a personal program to keep up-to-date and enhance areas of professional competence

2.4. Contribute to the enhancement of quality care and patient safety in Medical Oncology, integrating the available best evidence and best practices

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3. Perform a complete and appropriate assessment of a patient
   3.1. Identify and explore issues to be addressed in a patient encounter, including the patient’s context and preferences, which may determine the level and amount of information he/she wishes to receive and the treatment methods to be addressed
   3.2. Elicit a concise, accurate history and perform a focused physical examination that is relevant to a patient with suspected cancer, who has cancer, or is a cancer survivor, for the purposes of diagnosis, management, health promotion, and disease prevention
   3.3. Select and accurately interpret appropriate investigations for accurate diagnoses and optimal staging, in a resource-effective and ethical manner
   3.4. Demonstrate effective clinical problem solving and judgment to address patient problems, including interpreting available data and integrating information to generate differential diagnoses and evidence-based management plans
   3.5. Evaluate the clinical syndromes and toxicities associated with the therapies used in Medical Oncology

4. Use preventive and therapeutic interventions effectively
   4.1. Implement a management plan in collaboration with a patient and the patient’s family
   4.2. Demonstrate appropriate and timely application of preventive and therapeutic interventions relevant to Medical Oncology
   4.3. Ensure appropriate informed consent is obtained for therapies
   4.4. Ensure patients receive appropriate, comprehensive, end-of-life care that takes into account the resources of patients, caregivers, and their support systems

5. Demonstrate proficient and appropriate use of procedural skills, both diagnostic and therapeutic
   5.1. Demonstrate effective, appropriate, and timely performance or delegation of diagnostic procedures relevant to Medical Oncology
      5.1.1. Diagnostic paracentesis, thoracentesis, and pericardiocentesis
      5.1.2. Lumbar puncture
      5.1.3. Bone marrow aspiration/biopsy
      5.1.4. Diagnostic tissue biopsies
   5.2. Demonstrate effective, appropriate, and timely performance or delegation of therapeutic procedures relevant to Medical Oncology
      5.2.1. Therapeutic paracentesis, thoracentesis, and pericardiocentesis, including use of sclerosing agents or indwelling catheters
      5.2.2. Intrathecal chemotherapy through lumbar puncture or an Ommaya reservoir
      5.2.3. Management of central venous catheter
5.3. Demonstrate effective, timely, and appropriate supervision of systemic therapy
5.4. Ensure appropriate informed consent is obtained for procedures
5.5. Document and disseminate information related to procedures performed and their outcomes
5.6. Ensure adequate followup is arranged for procedures performed and provide timely management of complications

6. **Seek appropriate consultation from other health professionals, recognizing the limits of their own expertise**

6.1. Demonstrate insight into their own limits of expertise in their care of cancer patients
6.2. Demonstrate effective, appropriate, and timely consultation of another health professional as needed for optimal interprofessional patient care
6.3. Arrange appropriate supportive and followup care services for a patient and the patient’s family, which include but are not limited to referral to a family physician, palliative care, home care services, psychological support, spiritual support, nutritional support, and/or rehabilitation

**Communicator**

**Definition:**

As *Communicators*, Medical Oncologists effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter.

**Key and Enabling Competencies: Medical Oncologists are able to...**

1. **Develop rapport, trust, and ethical therapeutic relationships with patients and families**
   1.1. Recognize that being a good communicator is a core clinical skill for Medical Oncologists
   1.2. Establish positive therapeutic relationships with patients with cancer and their families that are characterized by understanding, trust, respect, honesty, and empathy
   1.3. Respect patient confidentiality, privacy, and autonomy
   1.4. Listen effectively
   1.5. Be aware of and responsive to nonverbal cues
   1.6. Facilitate a structured clinical encounter effectively, including but not limited to a family meeting
2. Accurately elicit and synthesize relevant information and perspectives of patients and families, colleagues, and other professionals
   2.1. Gather information about a patient’s disease and about a patient’s beliefs, concerns, expectations, and illness experience
       2.1.1. Consider factors such as age, ethnic and cultural background, socioeconomic status, general health status, and performance status
   2.2. Seek out and synthesize relevant information from other sources, such as a patient’s family, caregivers, and other professionals, with appropriate respect for patient confidentiality

3. Convey relevant information and explanations accurately to patients and families, colleagues, and other professionals
   3.1. Deliver information to a patient, the patient’s family, colleagues, and other professionals in an empathetic, humane manner and in such a way that it is understandable and encourages discussion and participation in informed decision-making, while respecting the patient’s preference for the extent of information he/she wishes to receive
   3.2. Participate in and appropriately document informed decision-making processes
   3.3. Convey information effectively and sensitively regarding serious issues, including but not limited to the diagnosis or progression of a patient’s cancer and end-of-life-care
   3.4. Describe the opportunity to participate in a clinical trial, including the ability to convey and manage medical uncertainty

4. Develop a common understanding on issues, problems and plans with patients, families, and other professionals to develop a shared plan of care
   4.1. Identify and explore problems to be addressed from a patient encounter effectively, including the patient’s context, responses, concerns, and preferences
   4.2. Respect diversity and differences, including but not limited to the impact of gender, religion, and cultural beliefs on decision-making
   4.3. Encourage discussion, questions, and interaction in the encounter
   4.4. Engage patients, families, and relevant health professionals in shared decision-making to develop a coherent plan of interprofessional cancer care, with well-defined roles for each party involved
   4.5. Address challenging communication issues effectively
       4.5.1. Overcoming language barriers
       4.5.2. Addressing anger, confusion, and misunderstanding

5. Convey effective oral and written information about a medical encounter
   5.1. Maintain clear, concise, accurate, timely, and appropriate records of clinical encounters and plans, using staging systems or prognostic indices as needed
5.2. Present oral reports of clinical encounters and plans  
5.3. Convey medical information appropriately to ensure safe transfer of care  

6. Present information about cancer effectively to the public  

Collaborator  

Definition:  

As Collaborators, Medical Oncologists work effectively within a health care team to achieve optimal patient care.  

Key and Enabling Competencies: Medical Oncologists are able to...  

1. Participate effectively and appropriately in an interprofessional health care team  
   1.1. Recognize that being a good collaborator and working with radiation oncologists, surgeons, radiologists, pathologists, and associated interprofessional teams to establish an appropriate multidisciplinary management plan is a core skill for Medical Oncologists  
   1.2. Recognize and respect the diverse roles, responsibilities, and competencies of other professionals in relation to their own  
   1.3. Engage other members of the interprofessional team effectively to assess, plan, provide, and integrate care for individuals and groups of patients with cancer  
   1.4. Work with others to assess, plan, provide and review other tasks, such as research problems, educational work, program review, or administrative responsibilities  
   1.5. Participate in interprofessional team meetings, including but not limited to tumour boards  
   1.6. Respect team ethics, including confidentiality, resource allocation, and professionalism  
   1.7. Demonstrate leadership in a health care team  

2. Work with other health professionals effectively to prevent, negotiate, and resolve interprofessional conflict  
   2.1. Demonstrate a respectful attitude towards colleagues and members of an interprofessional team  
   2.2. Work with other professionals in a manner that prevents conflicts  
   2.3. Employ collaborative negotiation to resolve conflicts  
   2.4. Respect differences and address misunderstandings and limits of scope of practice in other professionals  
   2.5. Recognize one’s own differences, misunderstanding, and limitations that may contribute to interprofessional tension
2.6. Reflect on interprofessional team function

**Manager**

**Definition:**

As Managers, Medical Oncologists are integral participants in health care organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the health care system.

**Key and Enabling Competencies: Medical Oncologists are able to...**

1. **Participate in activities that contribute to the effectiveness of their health care organizations and systems**
   1.1. Work collaboratively with others in their organizations
   1.2. Participate in systemic quality process evaluation and improvement
       1.2.1. Develop and implement patient safety initiatives
       1.2.2. Develop practice guidelines and treatment protocols
       1.2.3. Participate in multidisciplinary tumour boards, and morbidity and mortality rounds
   1.3. Describe the structure and function of the provincial cancer care system, including the roles of Medical Oncologists
   1.4. Describe principles of cancer care funding, including but not limited to the financing of new and expensive therapies and drugs, physician remuneration, and organizational funding

2. **Manage their practice and career effectively**
   2.1. Set priorities and manage time to balance patient care, practice requirements, outside activities, and personal life
   2.2. Demonstrate an understanding of how to manage a practice, including finances and human resources
   2.3. Implement processes to ensure personal practice improvement and maintenance of competence
   2.4. Employ information technology appropriately for patient care

3. **Allocate finite health care resources appropriately**
   3.1. Recognize the importance of just allocation of health care resources, aiming to provide optimal patient care while maximizing effectiveness, efficiency, and accessibility to these resources
   3.2. Apply evidence-based investigation, treatment, and sound management processes to ensure the most efficient use of available resources
3.3. Recognize the financial impact of prescribing treatments and demonstrate an understanding of the importance of being a good steward of available resources

4. Serve in administration and leadership roles, as appropriate
   4.1. Chair or participate effectively in committees, meetings, and tumour boards
   4.2. Contribute to or participate in changes in cancer care
   4.3. Recognize the relevant resources required for the effective delivery of systemic therapy, including but not limited to adequate human resources such as nurses and pharmacists specialized in cancer care, adequate physical space, and clinic capacity

Health Advocate

Definition:

As Health Advocates, Medical Oncologists responsibly use their expertise and influence to advance the health and well-being of individual patients, communities, and populations.

Key and Enabling Competencies: Medical Oncologists are able to...

1. Respond to individual patient cancer care needs and issues
   1.1. Identify the health needs of an individual patient with cancer by identifying the patient's status with respect to all relevant determinants of health, including but not limited to exposure history, poverty, unemployment, and/or education, adapting the assessment and management plans accordingly
   1.2. Identify the appropriate services in the health and social systems that are available to the patient with cancer; assess the patient’s ability to access these services and effectively advocate for access
   1.3. Advocate effectively for individual patients in overcoming financial barriers to receiving the most effective therapies, including but not limited to enrolling patients in financial assistance programs or advocating for funding through a patient’s private insurance
   1.4. Identify and act upon opportunities for health promotion and disease prevention with individual patients and their caregivers, including but not limited to smoking cessation or referral to a familial cancer clinic

2. Respond to the health needs of the communities that they serve
   2.1. Describe the practice communities that they serve
   2.2. Identify opportunities for advocacy, health promotion, and cancer prevention in the communities that they serve, and respond appropriately
   2.3. Appreciate the possibility of competing interests between the communities served and other populations
3. **Identify the determinants of health for the populations that they serve**
   3.1. Identify and demonstrate an understanding of the evidence underlying the most important determinants of health for populations with cancer, including but not limited to environmental/occupational exposures, genetic and socio-economic factors, and barriers to access to care and resources
   3.2. Identify vulnerable or marginalized populations within those served and respond appropriately

4. **Promote the health of individual patients, communities, and populations**
   4.1. Describe an approach to implementing a change in a determinant of health of the populations they serve
   4.2. Describe how public policy impacts on the health of the populations served, including but not limited to screening and prevention for cancers
   4.3. Demonstrate an understanding of the structures of local and national cancer care systems, and identify opportunities for patient advocacy within those systems
   4.4. Describe the ethical and professional issues inherent in health advocacy, including but not limited to social justice and autonomy
   4.5. Appreciate the conflict inherent as a health advocate for a patient or community with that of being a good steward of available resources
   4.6. Describe the role of the medical profession in advocating collectively for health and patient safety

**Scholar**

**Definition:**

As Scholars, Medical Oncologists demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application, and translation of medical knowledge.

**Key and Enabling Competencies: Medical Oncologists are able to...**

1. **Maintain and enhance professional activities through ongoing learning**
   1.1. Describe the principles of maintenance of competence
   1.2. Identify a gap in knowledge and complete a learning strategy to address it appropriately, including but not limited to completing a personal learning project through a maintenance of competence program
   1.3. Recognize and reflect on learning issues in practice
   1.4. Demonstrate an understanding of the utility of practice audits, multidisciplinary case conferences, and morbidity and mortality rounds to improve clinical outcomes
   1.5. Integrate new learning into practice
   1.6. Evaluate the impact of a change in practice
   1.7. Demonstrate and document the learning process
2. Critically evaluate medical information and its sources, and apply this appropriately to practice decisions
   2.1. Describe and utilize the principles of critical appraisal
   2.2. Critically appraise retrieved evidence in order to address a clinical question
   2.3. Integrate critical appraisal conclusions into clinical care

3. Facilitate the learning of patients, families, students, residents, other health professionals, the public, and others
   3.1. Describe principles of learning relevant to medical education
   3.2. Identify collaboratively the learning needs and desired learning outcomes of others
   3.3. Select effective teaching strategies and content to facilitate others’ learning
   3.4. Demonstrate effective lecture or presentation skills
   3.5. Assess and reflect on a teaching encounter
   3.6. Provide effective feedback
   3.7. Describe the principles of ethics with respect to teaching

4. Contribute to the development, dissemination, and translation of new knowledge and practices
   4.1. Describe the principles of research and scholarly inquiry
   4.2. Describe the principles of research ethics
   4.3. Pose a scholarly question
   4.4. Conduct a systematic search for evidence
   4.5. Select and apply appropriate methods to address the question
   4.6. Disseminate the findings of a study
   4.7. Participate effectively in the care of patients being considered for and enrolled in clinical trials
   4.8. Participate in a research or scholarly project relevant to Medical Oncology

Professional

Definition:

As Professionals, Medical Oncologists are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.
Key and Enabling Competencies: Medical Oncologists are able to...

1. Demonstrate a commitment to their patients, profession, and society through ethical practice
   1.1. Exhibit appropriate professional behaviors in practice, including honesty, integrity, commitment, compassion, respect, and altruism
   1.2. Demonstrate a commitment to delivering the highest quality care and maintenance of competence
   1.3. Recognize and appropriately respond to ethical issues encountered in caring for patients with cancer
      1.3.1. Truth-telling
      1.3.2. Informed decision-making/consent
      1.3.3. End-of-life care
      1.3.4. Conflict of interest
      1.3.5. Funding of cancer therapies and technologies
   1.4. Recognize and appropriately respond to ethical issues encountered in research
   1.5. Recognize and manage real or perceived conflicts of interest
   1.6. Recognize the principles and limits of patient confidentiality as defined by professional practice standards and the law
   1.7. Maintain appropriate boundaries with patients

2. Demonstrate a commitment to their patients, profession, and society through participation in profession-led regulation
   2.1. Demonstrate knowledge and understanding of the professional, legal, and ethical codes of practice
   2.2. Fulfil the regulatory and legal obligations required of current practice
   2.3. Demonstrate accountability to professional regulatory bodies
   2.4. Recognize and respond appropriately to others' unprofessional behaviours in practice
   2.5. Participate in peer review

3. Demonstrate a commitment to physician health and sustainable practice
   3.1. Balance personal and professional priorities to ensure personal health and a sustainable practice
   3.2. Strive to heighten personal and professional awareness and insight
   3.3. Recognize other professionals in need and respond appropriately
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This document is to be reviewed by the Specialty Committee in Medical Oncology by December 31, 2015.

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