

Effective for residents who enter training on or after July 1, 2021.

DEFINITION

Pediatric Hematology/Oncology is the branch of medicine concerned with the diagnosis and treatment of infants, children, and adolescents with cancer or non-malignant disorders of the blood and blood-forming tissues.

PEDIATRIC HEMATOLOGY/ONCOLOGY PRACTICE

Pediatric hematologists/oncologists provide medical care to infants, children, and adolescents with a predisposition to or a suspected or confirmed diagnosis of a malignant or benign neoplastic condition, and to those with disorders of the blood and blood-forming tissues. They also provide consultation and care for patients requiring hematopoietic stem cell transplantation or cellular therapy for any indication.

Pediatric hematologists/oncologists provide care and support to patients and their families¹ throughout the trajectory of their illness. This may include screening, initial assessment and diagnosis, active treatment, follow-up, management of cancer relapse or exacerbations or progression of the disorder, survivorship care, supportive and palliative care, and care of the dying. Active treatment may include pharmacologic treatment, systemic therapy, targeted therapeutics, transfusion therapy and use of blood products and derivatives, apheresis, and supportive therapies such as pain and symptom control, nutrition, and rehabilitation.

Clinical research is highly integrated into the care of children and adolescents with cancer and blood disorders. Pediatric hematologists/oncologists offer enrolment in clinical trials, work effectively with the research team, monitor patients in clinical trials as part of their ongoing care, and fulfil the regulatory requirements of trial participation.

Pediatric hematologists/oncologists work in multidisciplinary teams, communicating and collaborating with pathologists, hematopathologists, surgeons, radiation oncologists, and radiologists to develop a multimodal, evidence-based approach to patient management. They work effectively within an interprofessional health care team to provide comprehensive care to patients and their families.

¹ *Throughout this document, references to the patient's family 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, caregivers, legal guardians, and substitute decision-makers.*

Due to the high degree of specialized care required to support this patient population, and the need for access to a pediatric intensive care unit and other subspecialty services, pediatric hematologists/oncologists typically practice in tertiary and quaternary care hospitals.

ELIGIBILITY REQUIREMENTS TO BEGIN TRAINING

Royal College certification in Pediatrics.

OR

Eligibility for the Royal College certification examination in Pediatrics.

OR

Registration in a Royal College-accredited residency program in Pediatrics.
(See requirements for these qualifications.)

A maximum of one year of training may be undertaken during concurrent training for certification in Pediatrics.

ELIGIBILITY REQUIREMENTS FOR EXAMINATION²

All candidates must be Royal College certified in Pediatrics in order to be eligible to write the Royal College examination in Pediatric Hematology/Oncology.

PEDIATRIC HEMATOLOGY/ONCOLOGY COMPETENCIES

Medical Expert

Definition:

As *Medical Experts*, pediatric hematologists/oncologists integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional values in their provision of high-quality and safe patient-centred care. Medical Expert is the central physician Role in the CanMEDS Framework and defines the physician's clinical scope of practice.

Key and Enabling Competencies: Pediatric hematologists/oncologists are able to...

1. Practise medicine within their defined scope of practice and expertise

- 1.1. Demonstrate a commitment to high-quality care of their patients
- 1.2. Integrate the CanMEDS Intrinsic Roles into their practice of Pediatric Hematology/Oncology

² These eligibility requirements do not apply to Subspecialty Examination Affiliate Program (SEAP) candidates. Please contact the Royal College for information about SEAP.

- 1.3. Apply knowledge of the clinical and biomedical sciences relevant to Pediatric Hematology/Oncology
 - 1.3.1. Physiological changes in growth and development as they relate to cancer and non-malignant hematologic disorders, including normal laboratory values and the maturation of hematopoietic organs and tissues
 - 1.3.2. Pathophysiological processes as they relate to cancer and non-malignant hematologic disorders
 - 1.3.3. Anatomical pathology as it relates to pediatric cancers
 - 1.3.4. Cellular and molecular biology, genomics, biochemistry, pharmacology, and immunology of cancer and non-malignant hematologic disorders
 - 1.3.5. Implications for patients and families with an inherited predisposition to cancer or hematologic conditions, and the role of genetic counselling
 - 1.3.6. Application of medical imaging principles, including the appearance of normal and tumour tissue
 - 1.3.7. Epidemiology and biostatistics, including the design, execution, and evaluation of clinical trials
 - 1.3.8. Pediatric cancer and neoplastic disease
 - 1.3.8.1. Diagnostic evaluation of a patient with a potential underlying malignancy
 - 1.3.8.2. Diagnosis and management of cancer predisposition syndromes
 - 1.3.8.3. Diagnosis, staging, risk stratification, and management of pediatric malignancies, including
 - 1.3.8.3.1. Leukemias, myeloproliferative diseases, and myelodysplastic diseases
 - 1.3.8.3.2. Lymphomas and reticuloendothelial neoplasms
 - 1.3.8.3.3. Langerhans cell histiocytosis
 - 1.3.8.3.4. Central nervous system neoplasms
 - 1.3.8.3.5. Neuroblastoma and other peripheral nerve cell tumours
 - 1.3.8.3.6. Retinoblastoma
 - 1.3.8.3.7. Renal tumours
 - 1.3.8.3.8. Hepatic tumours
 - 1.3.8.3.9. Malignant bone tumours
 - 1.3.8.3.10. Soft tissue and other extraosseous sarcomas
 - 1.3.8.3.11. Germ cell tumours, trophoblastic tumours, and neoplasm of gonads
 - 1.3.8.3.12. Malignant epithelial neoplasms and malignant melanomas
 - 1.3.8.4. Diagnosis and management of common oncologic emergencies
 - 1.3.8.4.1. Febrile neutropenia

- 1.3.8.4.2. Tumour lysis syndrome
- 1.3.8.4.3. Superior vena cava syndrome
- 1.3.8.4.4. Anterior mediastinal mass
- 1.3.8.4.5. Hyperleukocytosis
- 1.3.8.4.6. Spinal cord compression

- 1.3.8.5. Cancer chemotherapy and targeted therapies, including their role, mechanisms of action, and toxicities
- 1.3.8.6. The role of, indications for, and complications of surgery
- 1.3.8.7. The role of, indications for, and complications of radiation therapy

- 1.3.9. Non-malignant hematologic disorders
 - 1.3.9.1. Diagnosis and management of
 - 1.3.9.1.1. Bone marrow failure/dysfunction
 - 1.3.9.1.1.1. Inherited
 - 1.3.9.1.1.2. Acquired

 - 1.3.9.1.2. Red cell disorders
 - 1.3.9.1.2.1. Disorders of hemoglobin
 - 1.3.9.1.2.2. Red cell membrane defects
 - 1.3.9.1.2.3. Red cell enzyme deficiencies
 - 1.3.9.1.2.4. Polycythemia
 - 1.3.9.1.2.5. Nutritional anemias
 - 1.3.9.1.2.5.1. Iron deficiency
 - 1.3.9.1.2.5.2. Megaloblastic

 - 1.3.9.1.2.6. Dyserythropoiesis
 - 1.3.9.1.2.7. Hemolytic anemia

 - 1.3.9.1.3. White cell disorders
 - 1.3.9.1.3.1. Neutropenia
 - 1.3.9.1.3.2. Neutrophil function defects
 - 1.3.9.1.3.3. Eosinophilia
 - 1.3.9.1.3.4. Storage diseases

 - 1.3.9.1.4. Disorders of hemostasis and thrombosis
 - 1.3.9.1.4.1. Thrombocytopenia

- 1.3.9.1.4.2. Thrombocytosis
- 1.3.9.1.4.3. Platelet dysfunction
- 1.3.9.1.4.4. Congenital coagulation disorders
- 1.3.9.1.4.5. Acquired coagulation disorders
- 1.3.9.1.4.6. Hypercoagulable states
- 1.3.9.1.4.7. Disorders of fibrinolysis

- 1.3.9.1.5. Splenomegaly and disorders of splenic function
- 1.3.9.1.6. Lymphadenopathy
- 1.3.9.1.7. Histiocytic disorders
 - 1.3.9.1.7.1. Hemophagocytic lymphohistiocytosis

- 1.3.9.2. Diagnosis and management of hematologic and thrombotic emergency conditions
 - 1.3.9.2.1. Chest crisis
 - 1.3.9.2.2. Splenic sequestration crisis
 - 1.3.9.2.3. Stroke
 - 1.3.9.2.4. Pulmonary embolism
 - 1.3.9.2.5. Life- or limb-threatening thrombosis
 - 1.3.9.2.6. Life-threatening hemorrhage
 - 1.3.9.2.7. Hemolytic crisis

- 1.3.10. Hematopathology and laboratory medicine
 - 1.3.10.1. Indications for, methods and limitations of, and interpretation of the results of
 - 1.3.10.1.1. Peripheral blood morphology
 - 1.3.10.1.2. Bone marrow aspiration and biopsy
 - 1.3.10.1.3. Cerebral spinal fluid (CSF) analysis
 - 1.3.10.1.4. Hemostasis and thrombosis evaluation
 - 1.3.10.1.5. Transfusion medicine tests
 - 1.3.10.1.6. Flow cytometry, including immunophenotyping
 - 1.3.10.1.7. Hemoglobinopathy evaluation
 - 1.3.10.1.8. Cytogenetics and molecular diagnostics

 - 1.3.10.2. Principles of laboratory management
 - 1.3.10.2.1. Quality control
 - 1.3.10.2.2. Laboratory costs and utilization

1.3.10.2.3. Standards for testing and release of blood products

1.3.11. Hematopoietic stem cell transplantation (HSCT) and cellular therapy

- 1.3.11.1. Biology of hematopoiesis and HSCT, and the immunologic relationships between donor hematopoietic cells and the recipient
- 1.3.11.2. Indications for autologous and allogeneic stem cell transplantation
- 1.3.11.3. Indications for cellular therapy
- 1.3.11.4. Human leukocyte antigen (HLA) system and the principles involved in choosing matched and unmatched stem cell donors, including matched siblings and family members, matched and mismatched unrelated donors, and haploidentical stem cell transplants
- 1.3.11.5. Sources of hematopoietic stem cell transplants and the benefits and risks of each
- 1.3.11.6. Preparative regimens used in HSCT, including the differences between myeloablative, reduced-toxicity/reduced-intensity, and non-myeloablative regimens
- 1.3.11.7. Strategies to prevent, diagnose, and manage complications of HSCT and cellular therapy
- 1.3.11.8. Pathogenesis, clinical features of, and basic treatment for both acute and chronic graft-versus-host disease

1.3.12. Long-term follow-up

- 1.3.12.1. Disease monitoring according to published guidelines, when available
- 1.3.12.2. Detection of late effects of therapy, including early mortality, second malignancy, cardiac toxicity, neurocognitive deficits, endocrine dysfunction, fertility issues, and psychosocial challenges
- 1.3.12.3. Promotion and maintenance of a healthy lifestyle

1.3.13. Supportive care

- 1.3.13.1. Prevention and treatment of infectious complications
- 1.3.13.2. Prevention and treatment of chemotherapy-related organ dysfunction
- 1.3.13.3. Fertility preservation
- 1.3.13.4. Management of acute, chronic, and complex pain
- 1.3.13.5. Management of mucositis
- 1.3.13.6. Nutritional support
- 1.3.13.7. Management of constipation
- 1.3.13.8. Anti-emetic therapy
- 1.3.13.9. Blood component and product support
- 1.3.13.10. Care and use of central venous access devices

- 1.3.13.11. Psychosocial support
 - 1.3.14. Palliative and end-of-life care
 - 1.3.14.1. Pain and symptom management in palliative and end-of-life care
 - 1.3.14.2. Psychosocial needs of the patient and family in the context of palliative care and complex pain management
 - 1.3.14.3. Community and hospital resources necessary to provide appropriate palliative care services
 - 1.4. Perform appropriately timed clinical assessments with recommendations that are presented in an organized manner
 - 1.5. Carry out professional duties in the face of multiple competing demands
 - 1.6. Recognize and respond to the complexity, uncertainty, and ambiguity inherent in Pediatric Hematology/Oncology practice
- 2. Perform a patient-centred clinical assessment and establish a management plan**
- 2.1. Prioritize issues to be addressed in a patient encounter
 - 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
 - 2.2.1. Elicit a history relevant to the presentation
 - 2.2.2. Elicit a maternal, perinatal, neonatal, and family history, as relevant
 - 2.2.3. Perform a physical exam tailored to the patient's symptoms, diagnosis, and the possible toxicities and effects of treatment
 - 2.2.4. Assess and grade toxicities of therapy
 - 2.2.5. Plan and coordinate an appropriate diagnostic workup
 - 2.2.6. Select and apply results of the following diagnostic investigations
 - 2.2.6.1. Newborn screening
 - 2.2.6.2. Peripheral blood morphology
 - 2.2.6.3. Bone marrow aspiration and biopsy
 - 2.2.6.4. CSF assessment
 - 2.2.6.5. Hemostasis and thrombosis evaluation
 - 2.2.6.6. Flow cytometry, including immunophenotyping
 - 2.2.6.7. Hemoglobinopathy investigation
 - 2.2.6.8. Cytogenetics and molecular diagnostics
 - 2.2.6.9. Transfusion medicine tests
 - 2.2.6.10. Biochemical studies

- 2.2.6.11. Genetic testing
- 2.2.6.12. Medical imaging
- 2.2.6.13. Tissue sampling

- 2.2.7. Integrate clinical data to establish the diagnosis, stage, prognosis, and goals of care
- 2.2.8. Identify patients whose conditions merit discussion at a multidisciplinary case conference

- 2.3. Establish goals of care in collaboration with patients and their families, which may include slowing disease progression, treating symptoms, achieving cure, improving function, and palliation
- 2.4. Establish a patient-centred management plan
 - 2.4.1. Identify the role and availability of clinical trial participation as a therapeutic option in appropriate situations
 - 2.4.2. Develop and implement cancer treatment plans
 - 2.4.2.1. Select chemotherapy and other forms of systemic therapy
 - 2.4.2.2. Integrate multimodal therapies, including surgery and radiation therapy, into the patient care plan
 - 2.4.3. Coordinate comprehensive multidisciplinary care for patients with chronic hematologic conditions
 - 2.4.4. Adjust management and treatment based on toxicity of therapies, response to treatments, unanticipated circumstances, and other emerging relevant clinical data
 - 2.4.5. Manage medical emergencies and complications that may arise as a result of cancer or non-malignant hematologic disorders and their treatment
 - 2.4.6. Provide supportive care, including the prevention and management of pain, nausea, vomiting, and infections, and the use of blood components and hematopoietic growth factors
 - 2.4.7. Provide end-of-life care

- 3. Plan and perform procedures and therapies for the purpose of assessment and/or management**
 - 3.1. Determine the most appropriate procedures and therapies
 - 3.1.1. Tissue procurement
 - 3.1.2. Lumbar puncture
 - 3.1.3. Bone marrow aspiration and biopsy
 - 3.1.4. Appropriate staging of oncologic disease
 - 3.1.5. Systemic therapy

- 3.1.5.1. Chemotherapy
 - 3.1.5.2. Hormonal therapy
 - 3.1.5.3. Targeted therapy
 - 3.1.5.4. Immunotherapy

 - 3.1.6. Other cancer treatment modalities, with or without systemic therapy
 - 3.1.7. Pharmacologic therapy for non-malignant hematologic disorders
 - 3.1.8. Experimental therapy
 - 3.1.9. Blood components and products, and recombinant factors
 - 3.1.10. Anticoagulants
 - 3.1.11. Apheresis
 - 3.1.12. HSCT and cellular therapy
 - 3.1.13. Central venous access
 - 3.1.14. Supportive care, including medications to prevent or reduce adverse effects or treat symptoms
 - 3.1.15. Minimally invasive procedures for relief or palliation of symptoms

 - 3.2. Obtain and document informed consent, explaining the risks and benefits of, and the rationale for, a proposed procedure or therapy
 - 3.3. Prioritize procedures or therapies, taking into account clinical urgency and available resources
 - 3.4. Perform procedures in a skilful and safe manner, adapting to unanticipated findings or changing clinical circumstances
 - 3.4.1. Bone marrow aspiration and biopsy from a site appropriate to the size and clinical status of the patient
 - 3.4.2. Lumbar puncture for diagnostic investigation and the administration of intrathecal medication

 - 4. Establish plans for ongoing care and, when appropriate, timely consultation**
 - 4.1. Implement a patient-centred care plan that supports ongoing care, follow-up on investigations, response to treatment, and further consultation
 - 4.1.1. Determine the necessity and appropriate timing of referral to other health care providers
 - 4.1.2. Provide referral for specialized care, including HSCT, cellular therapy, and experimental therapy
 - 4.1.3. Develop and implement plans to monitor the response to therapy and the course of the patient's illness
 - 4.1.4. Develop and implement survivorship surveillance plans
 - 4.1.5. Develop and implement a plan for transition to the adult care setting
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5. Actively contribute, as an individual and as a member of a team providing care, to the continuous improvement of health care quality and patient safety

- 5.1. Recognize and respond to harm from health care delivery, including patient safety incidents
- 5.2. Adopt strategies that promote patient safety and address human and system factors
 - 5.2.1. Follow standard operating procedures when ordering and administering systemic and intrathecal therapy
 - 5.2.2. Develop and adhere to individualized care plans and protocols

Communicator

Definition:

As *Communicators*, pediatric hematologists/oncologists form relationships with patients and their families that facilitate the gathering and sharing of essential information for effective health care.

Key and Enabling Competencies: Pediatric hematologists/oncologists are able to...

1. Establish professional therapeutic relationships with patients and their families

- 1.1. Communicate using a patient-centred approach that encourages patient and family trust and autonomy and is characterized by empathy, respect, and compassion
 - 1.1.1. Establish an atmosphere of open communication
 - 1.1.2. Convey interest, sensitivity, empathy, and support
- 1.2. Optimize the physical environment for patient and family comfort, dignity, privacy, engagement, and safety
- 1.3. Recognize when the perspectives, values, or biases of patients, patients' families, physicians, or other health care professionals may have an impact on the choice and quality of care, and modify the approach to the patient accordingly
- 1.4. Respond to a patient's non-verbal behaviours to enhance communication
- 1.5. Manage disagreements and emotionally charged conversations
- 1.6. Adapt to the unique needs and preferences of each patient and to each patient's clinical condition and circumstances

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
 - 2.1.1. Communicate effectively with children of all ages and their families

- 2.2. Provide a clear structure for and manage the flow of an entire patient encounter
- 2.3. Seek and synthesize relevant information from other sources, including the patient's family, with the patient's consent

3. Share health care information and plans with patients and their families

- 3.1. Share information and explanations that are clear, accurate, and timely, while assessing for patient and family understanding
 - 3.1.1. Convey information about diagnosis and prognosis clearly and compassionately
 - 3.1.2. Convey information about investigations, treatment options, and enrolment in clinical trials in a manner that enhances patient and family understanding
- 3.2. Disclose harmful patient safety incidents to patients and their families

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
 - 4.1.1. Discuss complementary health care practices, their importance to families, and their potential benefits, risks, and limitations
- 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
 - 4.2.1. Facilitate self-care and chronic disease management
- 4.3. Use communication skills and strategies that 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 regulatory and legal requirements
 - 5.1.1. Prepare consultation, discharge, progress, and clinic notes that are well organized, document all relevant findings, and provide a plan for ongoing management
 - 5.1.2. Document survivorship care plans
- 5.2. Communicate effectively using a written health record, electronic medical record, or other digital technology
- 5.3. Share information with patients and others in a manner that enhances understanding and that respects patient and family privacy and confidentiality

Collaborator

Definition:

As *Collaborators*, pediatric hematologists/oncologists work effectively with other health care professionals to provide safe, high-quality, patient-centred care.

Key and Enabling Competencies: Pediatric hematologists/oncologists are able to...

1. Work effectively with physicians and other colleagues in the health care professions

- 1.1. Establish and maintain positive relationships with physicians and other colleagues in the health care professions to support relationship-centred collaborative care
- 1.2. Negotiate overlapping and shared responsibilities with physicians and other colleagues in the health care professions in episodic and ongoing care
 - 1.2.1. Work collaboratively with others in their organizations and share responsibility for health care delivery in intra- and interprofessional settings
- 1.3. Engage in respectful shared decision-making with physicians and other colleagues in the health care professions
 - 1.3.1. Consult and collaborate with primary care physicians
 - 1.3.2. Consult with other health care professionals as is appropriate for optimal patient care
 - 1.3.3. Participate in interdisciplinary team activities within and between hospitals, other health care facilities, and collaborative groups, including tumour board meetings

2. Work with physicians and other colleagues in the health care professions to promote understanding, manage differences, and resolve conflicts

- 2.1. Show respect toward collaborators
- 2.2. Implement strategies to promote understanding, manage differences, and resolve conflict in a manner that supports a collaborative culture

3. Hand over the care of a patient to another health care professional to facilitate continuity of safe patient care

- 3.1. Determine when care should be transferred to another physician or health care professional
- 3.2. Demonstrate safe handover of care, using both oral and written communication, during a patient transition to a different health care professional, setting, or stage of care
 - 3.2.1. Summarize all relevant patient issues in a transfer summary or referral
 - 3.2.2. Provide anticipatory guidance for results of outstanding investigations and next steps for management

Leader

Definition:

As *Leaders*, pediatric hematologists/oncologists engage with others to contribute to a vision of a high-quality health care system and take responsibility for the delivery of excellent patient care through their activities as clinicians, administrators, scholars, or teachers.

Key and Enabling Competencies: Pediatric hematologists/oncologists are able to...

1. Contribute to the improvement of health care delivery in teams, organizations, and systems

- 1.1. Apply the science of quality improvement to systems of patient care
 - 1.1.1. Apply knowledge of the role of audits, quality improvement, and risk management
- 1.2. Contribute to a culture that promotes patient safety
- 1.3. Analyze patient safety incidents to enhance systems of care
- 1.4. Use health informatics to improve the quality of patient care and optimize patient safety

2. Engage in the stewardship of health care resources

- 2.1. Allocate health care resources for optimal patient care
 - 2.1.1. Allocate finite resources, including blood components/products and HSCT and cellular therapy donor sources
- 2.2. Apply evidence and management processes to achieve cost-appropriate care
 - 2.2.1. Consider costs when choosing treatment options
 - 2.2.1.1. Demonstrate an understanding of cost/benefit ratios of diagnostic and therapeutic interventions; cost containment; and efficacy, effectiveness, and efficiency

3. Demonstrate leadership in health care systems

- 3.1. Demonstrate leadership skills to enhance health care
 - 3.1.1. Apply knowledge of the structure and function of the health care system as it relates to the care of infants, children, and adolescents with cancer or non-malignant disorders of the blood and blood-forming tissues
 - 3.1.2. Apply knowledge of standardization, quality control, quality assurance, and safety as each relates to hematopathology laboratory practices
 - 3.1.3. Apply knowledge of adverse effect/incident reporting and complaint management in a hospital and ambulatory setting

3.2. Facilitate change in health care to enhance services and outcomes

4. Manage career planning, finances, and health human resources in personal practice(s)

4.1. Set priorities and manage time to integrate practice and personal life

4.2. Manage personal professional practice(s) and career

4.3. Implement processes to ensure personal practice improvement

Health Advocate

Definition:

As *Health Advocates*, pediatric hematologists/oncologists contribute their expertise and influence as they work with communities or patient populations to improve health. They work with those they serve to determine and understand needs, speak on behalf of others when required, and support the mobilization of resources to effect change.

Key and Enabling Competencies: Pediatric hematologists/oncologists are able to...

1. Respond to an 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

1.1.1. Facilitate access to health care and social services and resources

1.1.2. Recognize the importance of community services, including school, recreation, and appropriate transportation, in the health of a child with a hematologic/oncologic disorder

1.1.3. Recognize that the health care needs of children are different from those of adults and that those needs change throughout the developmental continuum

1.1.4. Facilitate the transition from pediatric to adult health care services

1.2. Work with patients and their families to increase opportunities to adopt healthy behaviours

1.2.1. Work with patients to increase opportunities for self-care and independence

1.3. Incorporate disease prevention, health promotion, and health surveillance into interactions with individual patients

1.3.1. Promote and counsel relevant preventive health care

1.3.1.1. Immunization

1.3.1.2. Promotion of a healthy, active lifestyle

- 1.3.2. Provide screening and ongoing monitoring for patients with cancer predisposition syndromes
 - 1.3.3. Provide preventive strategies and screening for secondary malignancies in cancer survivors
- 2. Respond to the needs of the communities or populations they serve by advocating with them for system-level change in a socially accountable manner**
- 2.1. Work with a community or population to identify the determinants of health that affect them
 - 2.2. Improve clinical practice by applying a process of continuous quality improvement to disease prevention, health promotion, and health surveillance activities
 - 2.3. Contribute to a process to improve health in the community or population they serve
 - 2.3.1. Promote the benefits of newborn screening programs and develop and support processes that respond to their findings

Scholar

Definition:

As *Scholars*, pediatric hematologists/oncologists demonstrate a lifelong commitment to excellence in practice through continuous learning, and by teaching others, evaluating evidence, and contributing to scholarship.

Key and Enabling Competencies: Pediatric hematologists/oncologists are able to...

- 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
 - 1.2. Identify opportunities for learning and improvement by regularly reflecting on and assessing their performance using various internal and external data sources
 - 1.3. Engage in collaborative learning to continuously improve personal practice and contribute to collective improvements in practice

- 2. Teach students, residents, the public, and other health care professionals**
 - 2.1. Recognize the influence of role-modelling and the impact of the formal, informal, and hidden curriculum on learners
 - 2.2. Promote a safe and respectful learning environment
 - 2.3. Ensure patient safety is maintained when learners are involved
 - 2.4. Plan and deliver learning activities
 - 2.5. Provide feedback to enhance learning and performance

- 2.6. Assess and evaluate learners, teachers, and programs in an educationally appropriate manner

3. Integrate best available evidence into practice

- 3.1. Recognize practice uncertainty and knowledge gaps in clinical and other professional encounters and generate focused questions that can address them
- 3.2. Identify, select, and navigate pre-appraised resources
- 3.3. Critically evaluate the integrity, reliability, and applicability of health-related research and literature
- 3.4. Integrate evidence into decision-making in their practice

4. Contribute to the creation and dissemination of knowledge and practices applicable to health

- 4.1. Demonstrate an understanding of the scientific principles of research and scholarly inquiry and the role of research evidence in health care
 - 4.1.1. Demonstrate an understanding of the roles and responsibilities of researchers, both principal investigators and collaborators, and how they differ from the roles and responsibilities of clinical care
- 4.2. Identify ethical principles for research and incorporate them into obtaining informed consent, considering potential harms and benefits, and vulnerable populations
- 4.3. Contribute to the work of a research program
- 4.4. Pose questions amenable to scholarly investigation and select appropriate methods to address them
- 4.5. Summarize and communicate to professional and lay audiences, including patients and their families, the findings of relevant research and scholarly inquiry

Professional

Definition:

As *Professionals*, pediatric hematologists/oncologists are committed to the health and well-being of individual patients and society through ethical practice, high personal standards of behaviour, accountability to the profession and society, physician-led regulation, and maintenance of personal health.

Key and Enabling Competencies: Pediatric hematologists/oncologists are able to...

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, demonstrating honesty, integrity, humility, commitment, compassion, respect, altruism, respect for diversity, and maintenance of confidentiality
 - 1.1.1. Assess personal strengths and weaknesses, including those related to professional competence
- 1.2. Demonstrate a commitment to excellence in all aspects of practice
- 1.3. Recognize and respond to ethical issues encountered in practice
 - 1.3.1. Identify and appropriately respond to the ethical issues arising in Pediatric Hematology/Oncology, such as futility, de-escalation of care, and withholding and withdrawal of life-sustaining treatment
 - 1.3.2. Develop and demonstrate use of a framework for recognizing and dealing with ethical issues in clinical and research practice, including truth-telling, consent, conflict of interest, resource allocation, privacy and confidentiality, and end-of-life-care
- 1.4. Recognize and manage conflicts of interest
- 1.5. Exhibit professional behaviours in the use of technology-enabled communication

2. Demonstrate a commitment to society by recognizing and responding to societal expectations in health care

- 2.1. Demonstrate accountability to patients, society, and the profession by responding to societal expectations of physicians
- 2.2. Demonstrate a commitment to patient safety and quality improvement

3. Demonstrate a commitment to the profession by adhering to standards and participating in physician-led regulation

- 3.1. Fulfil and adhere to professional and ethical codes, standards of practice, and laws governing practice

- 3.1.1. Practice medicine in an ethically responsible manner that respects the medical, legal, and professional obligations of belonging to a self-regulating body
 - 3.1.2. Demonstrate an understanding of relevant legislation that relates to the health care system in order to guide clinical practice
 - 3.1.3. Demonstrate knowledge of liability issues related to Pediatric Hematology/Oncology
 - 3.1.3.1. Outline the principles of liability
 - 3.1.3.2. Demonstrate adherence to practice guidelines
 - 3.1.3.3. Respond to situations that require legal counsel and consultation
 - 3.2. Recognize and respond to unprofessional and unethical behaviours in physicians and other colleagues in the health care professions
 - 3.3. Participate in peer assessment and standard setting
- 4. Demonstrate a commitment to physician health and well-being to foster optimal patient care**
- 4.1. Exhibit self-awareness and manage influences on personal well-being and professional performance
 - 4.1.1. Develop effective strategies to monitor fatigue, burnout, and psychological distress, and mitigate effects on clinical performance
 - 4.2. Manage personal and professional demands for a sustainable practice throughout the physician life cycle
 - 4.2.1. Maintain capacity for professional clinical performance in challenging situations
 - 4.3. Promote a culture that recognizes, supports, and responds effectively to colleagues in need

This document is to be reviewed by the Specialty Committee in Pediatric Hematology/Oncology by December 31, 2022.

Drafted – Specialty Committee – November 2019
Approved – Specialty Standards Review Committee – November 2019
Finalized – Specialty Committee – January 2020