

**2017**

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*Effective for residents who enter training on or after July 1<sup>st</sup> 2017.*

## **DEFINITION**

Anesthesiology is a medical specialty responsible for the care of patients before, during and after surgical operations, labour and delivery, and certain interventional procedures. Anesthesiologists have unique skills and knowledge to support, and in appropriate circumstances lead, the provision of resuscitation, critical care medicine, palliative care and pain medicine.

## **ANESTHESIOLOGY PRACTICE**

Anesthesiologists are perioperative medicine specialists. They are responsible for providing preoperative assessment and preparation; delivering safe, high quality general anesthesia, regional anesthesia, and monitored anesthesia care for surgical and obstetrical, therapeutic, and diagnostic interventions; and providing postoperative care to optimize the patient's condition and outcomes. They are stewards of patient safety and comfort. In addition, Anesthesiologists apply their knowledge and technical expertise in the care of the critically ill, during resuscitation, and in the provision of acute, chronic, and palliative pain management. Anesthesiologists must respond in a timely fashion, appropriate to the clinical circumstance.

Anesthesiologists provide care to patients of all ages, with any disease state, for all types of surgeries and interventions. Additional training prepares Anesthesiologists for their role in providing advanced care for the very young and for their role in highly specialized procedures (e.g., advanced cardiac surgery).

Anesthesiologists respond to the needs of their practice location; the scope of practice of an anesthesiologist will reflect their unique work environment and the services it provides. Anesthesiologists may practice in a wide variety of settings. Anesthesiology care is most likely to be provided in an operating suite, but other sites may include the labour and delivery unit, diagnostic and interventional imaging suites, radiotherapy units, endoscopy procedure rooms, intensive care units, and pain clinics.

Anesthesiologists are facilitators, working with others to provide diagnostic, therapeutic, interventional, curative, and palliative care. Anesthesiologists have, at all hours of the day and night, a leadership role in the management and delivery of operating room services, and a supervisory role in the oversight of the care provided by anesthesiology assistants and/or respiratory therapists. Anesthesiologists are leaders in patient safety and quality improvement, embracing new technologies and practices that mitigate procedural and

perioperative risk, shorten recovery, and improve the patient experience.

## ANESTHESIOLOGY COMPETENCIES

### Medical Expert

#### **Definition:**

As *Medical Experts*, Anesthesiologists 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: Anesthesiologists are able to...**

### **1. Practice 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 Anesthesiology
- 1.3. Apply knowledge of the clinical and biomedical sciences relevant to Anesthesiology
  - 1.3.1. Anatomy of the upper airway and proximal tracheobronchial tree
    - 1.3.1.1. Factors that predict difficult intubation
    - 1.3.1.2. Impact of disease states on airway anatomy
    - 1.3.1.3. Changes in airway anatomy with age
  - 1.3.2. Anatomy and sonoanatomy of the cardiovascular, respiratory, and neuraxial and peripheral nervous system
  - 1.3.3. Physiology as it applies to respiration, cardiac function, autonomic control, thermoregulation, renal function, endocrine function, hemostasis, nervous system function, neuromuscular function and nociception
  - 1.3.4. Physiology of maternal changes in pregnancy, labour and the postpartum period
  - 1.3.5. Physiology of the transition from fetus to newborn
  - 1.3.6. Normal physiology of the newborn, the infant, and the elderly
  - 1.3.7. Pathophysiology of disordered oxygen delivery, respiratory disease, cardiac disease, neurologic disease, neuromuscular disease, musculoskeletal disease, liver dysfunction, renal dysfunction, endocrine disorders, infection, shock, anaphylaxis, hematologic disorders, disorders of coagulation, and massive transfusion, as well as pregnancy-associated diseases, pediatric diseases, and geriatric disorders
  - 1.3.8. Antimicrobial prophylaxis, antibiotic stewardship, and infection prevention and control

- 1.3.9. Pharmacology as it relates to the pharmacokinetics, pharmacodynamics, mechanism of action, toxicity, routes of delivery, and elimination of common medications used for the purpose of:
  - 1.3.9.1. General anesthesia
  - 1.3.9.2. Local, regional and neuraxial anesthesia
  - 1.3.9.3. Sedation
  - 1.3.9.4. Reversal/antagonism of sedation and general anesthesia
  - 1.3.9.5. Neuromuscular blockade and its reversal
  - 1.3.9.6. Acute and chronic pain management
  - 1.3.9.7. Prophylaxis and treatment of anesthesia induced effects, including but not limited to shivering, nausea, and vomiting
  - 1.3.9.8. Inotropy and acute blood pressure regulation
  - 1.3.9.9. Anticoagulation and its reversal
  - 1.3.9.10. Uterine relaxation and the management of uterine atony
- 1.3.10. Pharmacology as it related to pharmacokinetics, pharmacodynamics, mechanisms of action, routes of delivery and elimination, and adverse effects of medications with a significant impact on anesthesia care and surgery including:
  - 1.3.10.1. Antibiotics
  - 1.3.10.2. Cardiovascular medications
  - 1.3.10.3. Respiratory medications
  - 1.3.10.4. Endocrine medications
  - 1.3.10.5. Glucocorticoid and anabolic steroids
  - 1.3.10.6. Cancer chemotherapy
  - 1.3.10.7. Common recreational drugs
  - 1.3.10.8. Herbal or over the counter products
- 1.3.11. Teratogenicity and fetal effects of medications commonly used in the practice of Anesthesiology
- 1.3.12. Monitoring for depth of anesthesia as well as cardiovascular, respiratory neuromuscular, and neurologic function
  - 1.3.12.1. Principles and practice of measurement
  - 1.3.12.2. Function of monitors and sources of error
  - 1.3.12.3. Interpretation of clinical information from monitors
- 1.3.13. Principles of the use of inhaled anesthetic delivery systems
  - 1.3.13.1. Storage and delivery of medical gases

- 1.3.13.2. Machine mechanics
- 1.3.13.3. Safety mechanisms
- 1.3.13.4. Methods of cleaning, disinfection, and sterilization of equipment
  
- 1.3.14. Principles of use of blood products and recombinant factors
- 1.3.15. Principles of fluid management and volume resuscitation
- 1.3.16. Principles of nutrition support for critically ill patients
- 1.3.17. Principles of resuscitation, including neonatal resuscitation program (NRP), advanced cardiac life support (ACLS), pediatric advanced life support (PALS), and advanced trauma life support (ATLS)
- 1.3.18. Principles of clinical application of the current guidelines relevant to the practice of anesthesia
- 1.3.19. Airway management techniques and complications
  - 1.3.19.1. Management options for the difficult airway
  
- 1.3.20. Strategies to optimize outcomes for surgical, obstetric, procedural, and anesthesia care
- 1.3.21. Principles of the development of anesthesia care plans, including induction, maintenance, and emergence from anesthesia
- 1.3.22. Principles of the acute recovery from surgery and common postoperative problems
- 1.3.23. Principles of acute and chronic pain management: pharmacologic, non-pharmacologic, and interventional
- 1.3.24. Principles of surgical care
  - 1.3.24.1. Positioning
  - 1.3.24.2. Surgical stress response
  - 1.3.24.3. Wound healing
  
- 1.3.25. Principles of diagnosis and management of the pregnant patient
  - 1.3.25.1. Medical diseases during pregnancy and their peripartum management
  - 1.3.25.2. Obstetrical complications
  
- 1.3.26. Principles of the diagnosis and management of critical illness
  - 1.3.26.1. Acute coronary syndromes
  - 1.3.26.2. Agitation and delirium
  - 1.3.26.3. Arrhythmias, including cardioversion and temporary pacing
  - 1.3.26.4. Decreased level of consciousness and coma

- 1.3.26.5. Head trauma and raised intracranial pressure (ICP)
  - 1.3.26.6. Hypertensive crises
  - 1.3.26.7. Organ failure
  - 1.3.26.8. Poisoning and drug related complications
  - 1.3.26.9. Serotonin syndrome, malignant hyperthermia, neuroleptic malignant syndrome
  - 1.3.26.10. Shock: hypovolemic, cardiogenic, septic, obstructive, anaphylactic, and neurogenic
  - 1.3.26.11. Status epilepticus
  - 1.3.26.12. Trauma: blunt, penetrating, thermal, and burn
  - 1.3.26.13. Venous thromboembolic disease
- 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
    - 1.5.1. Prioritize patients on the basis of the acuity of clinical presentation
  - 1.6. Recognize and respond to the complexity, uncertainty, and ambiguity inherent in Anesthesiology practice

## **2. Perform a patient-centred clinical assessment and establish a management plan**

- 2.1. Prioritize issues to be addressed in a patient encounter
  - 2.1.1. Identify and resolve conflicting anesthesia priorities for complex patients undergoing any surgical procedure
  - 2.1.2. Identify the patient in need of resuscitation and initiate appropriate resuscitative measures
  - 2.1.3. Concurrently diagnose and manage life threatening emergencies
  - 2.1.4. Adapt management plans as the clinical situation evolves
- 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, in a time effective manner, a history of the condition leading to the surgical, obstetric or procedural intervention
  - 2.2.2. Explore and consider the implications of pre-existing medical conditions and their impact on the anesthesia care and planned procedure
  - 2.2.3. Review past anesthesia care and any concerns
  - 2.2.4. Review family history of anesthetic complications
  - 2.2.5. Explore issues relevant to perioperative acute pain management

- 2.2.6. Evaluate the upper airway and proximal tracheobronchial tree by physical examination, endoscopy, and/or diagnostic imaging
- 2.2.7. Identify those patients and disease states which are at higher risk of a difficult airway
- 2.2.8. Select and interpret:
  - 2.2.8.1. Diagnostic imaging
  - 2.2.8.2. Assessments of cardiac, respiratory, and renal function
  - 2.2.8.3. Arterial and venous flow studies, including but not limited to assessments of coronary perfusion and deep venous thrombosis
  - 2.2.8.4. Images obtained from focused transthoracic echocardiography
- 2.2.9. Interpret clinical information provided by invasive and non-invasive monitors
- 2.2.10. Synthesize patient information to determine anesthetic considerations, to plan perioperative management and/or to develop pain management plans
- 2.2.11. Demonstrate effective clinical problem solving and judgment to address patient problems
- 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
  - 2.3.1. Ensure treatment plans align with the patient's expressed goals of care
- 2.4. Establish a patient-centred management plan
  - 2.4.1. Pre-operative risk reduction and optimization of patient for surgery
  - 2.4.2. Anesthetic management for patients undergoing scheduled or emergent surgery
  - 2.4.3. Postoperative pain management, care, and disposition
  - 2.4.4. Labour analgesia and peripartum anesthetic management
  - 2.4.5. Anesthetic management for procedures performed outside the operating suite
  - 2.4.6. Acute and chronic pain management
  - 2.4.7. Resuscitation, hemodynamic support and plan for life-sustaining therapies

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\*Throughout this document, 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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**3. Plan and perform procedures and therapies for the purpose of assessment and/or management**

- 3.1. Determine the most appropriate procedures or therapies
  - 3.1.1. Airway management, with rationale for choices and alternatives
  - 3.1.2. Non-invasive and/or invasive monitoring
  - 3.1.3. General anesthesia, with rationale for choices and alternatives
  - 3.1.4. Regional anesthesia, with rationale for choices and alternatives
  - 3.1.5. Pain management strategies
- 3.2. Obtain and document informed consent, explaining the risks and benefits of, and the rationale for, a proposed procedure or therapy, as appropriate
- 3.3. Prioritize a procedure or therapy, taking into account clinical urgency and available resources
  - 3.3.1. Advocate for a patient's procedure or therapy
  - 3.3.2. Advocate for timely access to palliative surgical procedures
  - 3.3.3. Prioritize among surgical cases, taking into account clinical urgency, potential for deterioration, and available resources
- 3.4. Perform a procedure in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances

Diagnostic Procedures

- 3.4.1. Ultrasound guidance for vascular access and common regional blocks
- 3.4.2. Endoscopy of the upper airway and proximal tracheobronchial tree
- 3.4.3. Focused transthoracic echocardiography

Therapeutic Procedures

- 3.4.4. Airway management
  - 3.4.4.1. Non-invasive airway and ventilation support
  - 3.4.4.2. Extraglottic airway support
  - 3.4.4.3. Endotracheal intubation, with and without adjuncts, including but not limited to fiberoptic bronchoscope and videolaryngoscope
  - 3.4.4.4. Appropriate use of invasive airway management, including but not limited to surgical airway
  - 3.4.4.5. Lung isolation
- 3.4.5. Vascular access
  - 3.4.5.1. Peripheral venous catheter

- 3.4.5.2. Arterial catheter
- 3.4.5.3. Central venous catheter
- 3.4.5.4. Pulmonary artery catheter
  
- 3.4.6. Neuraxial anesthesia/analgesia
  - 3.4.6.1. Spinal
  - 3.4.6.2. Epidural
  - 3.4.6.3. Combined spinal epidural
  
- 3.4.7. Peripheral nerve blockade
- 3.4.8. Resuscitation techniques
  - 3.4.8.1. Basic Cardiac Life Support
  - 3.4.8.2. Advanced Cardiac Life Support
  - 3.4.8.3. Pediatric Advanced Life Support
  - 3.4.8.4. Neonatal Resuscitation Program
  - 3.4.8.5. Advanced Trauma Life Support
  
- 3.4.9. Crisis resource management
- 3.4.10. Declaration of death, including neurological determination of death (NDD)

#### **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. Ensure complete and appropriate follow up for patients seen in preoperative consultation, including follow up of preoperative investigations and referral for care, where appropriate
  - 4.1.2. Assess and manage complications resulting from anesthesia care, procedures and therapies, including but not limited to local anesthetic toxicity and complications of general and regional anesthesia
  - 4.1.3. Optimize patient status throughout the perioperative period, anticipating, preventing, and treating complications
  - 4.1.4. Determine the appropriate disposition of the perioperative patient

#### **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
  - 5.1.1. Identify potential improvement opportunities arising from harmful patient



safety incidents and near misses

- 5.2. Adopt strategies that promote patient safety and address human and system factors
  - 5.2.1. Apply local protocols with regard to minimizing wrong site surgery and procedures, particularly when providing regional anesthesia

## **Communicator**

### **Definition:**

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

### **Key and Enabling Competencies: Anesthesiologists are able to...**

#### **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
- 1.2. Optimize the physical environment for patient comfort, dignity, privacy, engagement, and safety
- 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
- 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 his or her clinical condition and circumstances
  - 1.6.1. Delineate management strategies for patients who do not wish to be resuscitated
  - 1.6.2. Delineate management strategies for patients who refuse blood products

#### **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. Address and clarify any previous problems with anesthesia care
- 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 checking for patient and family understanding
  - 3.1.1. Address any patient concerns related to the planned procedure
  - 3.1.2. Provide anesthesia care and postoperative analgesic options, along with their inherent risks, in clear language
  - 3.1.3. Discuss end of life care planning as it relates to anesthesia care, when appropriate
- 3.2. Disclose harmful patient safety incidents to patients and their families accurately and appropriately
  - 3.2.1. Disclose anesthesia-related complications to a patient and their family

**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
- 4.2. Assist patients and their families to identify, access, and make use of information and communication technologies to support their care and manage their health
- 4.3. 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. Ensure that anesthesiology consultations contain clear, concise opinions and recommendations with regard to patient optimization, investigations required, and risk
  - 5.1.2. Maintain a clear and accurate anesthetic record
  - 5.1.3. Document information about the patient with a difficult airway in a manner that enhances patient safety and intra- and interprofessional care
- 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 respects patient privacy and confidentiality, and enhances understanding

## Collaborator

### **Definition:**

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

### **Key and Enabling Competencies: Anesthesiologists 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. Take responsibility effectively in the organization and leadership of the operating room working environment
  - 1.2.2. Utilize the unique skills and competencies of team members effectively to achieve optimal patient care
  - 1.2.3. Contribute expertise and skills to complete team tasks
  - 1.2.4. Coordinate and lead the work of all team members, as appropriate
- 1.3. Engage in respectful shared decision-making with physicians and other colleagues in the health care professions
  - 1.3.1. Consult as needed with other Anesthesiologists or consultants
  - 1.3.2. Delineate anesthetic concerns to the surgeon, especially if they involve a high risk patient, cancellation or postponement of the surgery
  - 1.3.3. Identify issues that require direct verbal communication with other anesthesiologists or physicians, and convey that information effectively
  - 1.3.4. Apply closed loop communication
  - 1.3.5. Engage with surgical colleagues regarding preoperative optimization and its impact on postoperative outcomes

#### **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
  - 2.1.1. Discuss special needs, including but not limited to monitoring, with nurses, anesthesiology assistants, respiratory therapists and/or perfusionists in a professional and respectful manner
  - 2.1.2. Synthesize and discuss pertinent information regarding anesthetic considerations and appropriate anesthetic plan with the collaborators in anesthesia care

- 2.2. Implement strategies to promote understanding, manage differences, and resolve conflict in a manner that supports a collaborative culture
  - 2.2.1. Ensure clear and audible communication with surgeons, nurses, anesthesiology assistants and/or respiratory therapists to facilitate patient care, safety, and to prevent errors

**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 verbal and written communication, during a patient transition to a different health care professional, setting, or stage of care
  - 3.2.1. Demonstrate safe handover of care in the post-anesthesia care unit (PACU) and in the intensive care unit (ICU)
  - 3.2.2. Demonstrate safe handover of a patient undergoing ongoing anesthesia care

**Leader**

**Definition:**

As *Leaders*, Anesthesiologists 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: Anesthesiologists 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 contribute to improving systems of patient care
  - 1.1.1. Apply a systems-based approach to address quality improvement and patient safety issues
  - 1.1.2. Apply quality improvement tools to identify gaps in patient care and develop solutions
- 1.2. Contribute to a culture that promotes patient safety
  - 1.2.1. Promote and follow policies which create a just culture of patient safety
  - 1.2.2. Provide direction to hospital administrators regarding compliance with national practice guidelines and equipment standards for anesthesiology

- 1.3. Analyze patient safety incidents to enhance systems of care
  - 1.3.1. Conduct morbidity and mortality reviews
- 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. Determine priority of surgical cases based on clinical urgency and available resources
  - 2.1.2. Allocate pain management resources
- 2.2. Apply evidence and management processes to achieve cost-appropriate care
  - 2.2.1. Demonstrate knowledge of the contributors to anesthetic expenditures

## **3. Demonstrate leadership in professional practice**

- 3.1. Demonstrate leadership skills to enhance health care
  - 3.1.1. Demonstrate knowledge of the administrative structure of an operating room
  - 3.1.2. Demonstrate knowledge of the management of operating rooms, both the conduct of individual rooms and the overall surgical suite
  - 3.1.3. Demonstrate knowledge of the guidelines concerning anesthesiology practice and equipment in Canada
- 3.2. Facilitate change in health care to enhance services and outcomes
  - 3.2.1. Demonstrate an understanding of the organization of effective and efficient service delivery models at the local, regional, and provincial levels
  - 3.2.2. Participate actively in the development and use of surgical safety check lists, taking a leadership role, when appropriate

## **4. Manage career planning, finances, and health human resources in a practice**

- 4.1. Set priorities and manage time to integrate practice and personal life
  - 4.1.1. Work efficiently in and out of the operating room, including but not limited to consultations in emergency room, obstetric unit, intensive care unit, and ward
- 4.2. Manage a career and a practice
  - 4.2.1. Demonstrate the ability to run the operating room efficiently, safely, and

effectively

4.2.2. Assume a leadership role in the management of complex cases

4.3. Implement processes to ensure personal practice improvement

## Health Advocate

### **Definition:**

As *Health Advocates*, Anesthesiologists 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: Anesthesiologists 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. Advocate for access to acute and chronic pain management, anesthesia care, surgical care, obstetric care, and critical care
- 1.2. Work with patients and their families to increase opportunities to adopt healthy behaviours
  - 1.2.1. Identify the perioperative period as a significant opportunity for health behavior change
  - 1.2.2. Advocate for and prescribe positive health behavior change, including but not limited to smoking cessation, and preoperative physical fitness, to improve post-surgical and post anesthesia outcomes
- 1.3. Incorporate disease prevention, health promotion, and health surveillance into interactions with individual patients
  - 1.3.1. Advocate for and prescribe pharmacologic intervention in the perioperative period, including but not limited to blood glucose management, to improve post-surgical and post-anesthesia outcomes
  - 1.3.2. Discuss and implement blood conservation strategies to reduce exposure to allogeneic blood products

#### **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
  - 2.2.1. Champion patient safety initiatives in acute and chronic pain management, anesthesia care, surgical care, obstetric care, and critical care
- 2.3. Contribute to a process to improve health in the community or population they serve
  - 2.3.1. Promote policies which measure and support access to surgical care
  - 2.3.2. Promote policies which benchmark patient outcomes in anesthesia, surgery, obstetrics, critical care, and pain management

## Scholar

### **Definition:**

As *Scholars*, Anesthesiologists 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: Anesthesiologists 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
  - 1.1.1. Use technology or personal documentation to record, monitor, and report on procedures performed
- 1.2. Identify opportunities for learning and improvement by regularly reflecting on and assessing their performance using various internal and external data sources
  - 1.2.1. Seek and interpret multiple sources of performance data and feedback, to continually improve performance
- 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-modeling and the impact of the formal, informal, and hidden curriculum on learners
- 2.2. Promote a safe 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
- 4.2. Identify ethical principles for research and incorporate them into obtaining informed consent, considering potential harms and benefits, and considering vulnerable populations
- 4.3. Contribute to the work of a research program
  - 4.3.1. Execute scholarly work
- 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*, Anesthesiologists 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: Anesthesiologists 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

- 1.2. Demonstrate a commitment to excellence in all aspects of practice
- 1.3. Recognize and respond to ethical issues encountered in practice
  - 1.3.1. Demonstrate knowledge of the legal and ethical requirements regarding informed consent of patients, including those that lack capacity
- 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
  - 2.1.1. Demonstrate a commitment to maintaining and enhancing competence
- 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 the professional and ethical codes, standards of practice, and laws governing practice
- 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. Demonstrate the ability to stay calm during a challenging situation
  - 4.1.2. Demonstrate knowledge of occupational hazards for Anesthesiologists and implement measures to minimize those risks
  - 4.1.3. Develop a personal plan for managing stress and maintaining physical and mental well-being during independent practice
- 4.2. Manage personal and professional demands for a sustainable practice throughout the physician life cycle

*ANESTHESIOLOGY COMPETENCIES (2017)*

- 4.3. Promote a culture that recognizes, supports, and responds effectively to colleagues in need
  - 4.3.1. Support others in challenging situations
  - 4.3.2. Recognize health issues in colleagues and support their seeking medical care

*This document is to be reviewed by the Specialty Committee in Anesthesiology by December 2018.*

**APPROVED** – Specialty Standards Review Committee – January 2017

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