



# Anesthesiology Entrustable Professional Activity Guide

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How to cite this document

Anesthesiology Specialty Committee. *Anesthesiology EPA Guide*. Ottawa: Royal College of Physicians and Surgeons of Canada; 2018.

#### **Origins and Use**

This document, commonly known as the Anesthesiology EPA Guide, was developed by the Royal College's Anesthesiology Committee to support the discipline's transition to Competence by Design (CBD). The format and structure of the document is designed specifically to support the development of the Royal College's technical infrastructure. Recognizing, however, that some faculty and residents will benefit from access to the document for teaching and planning purposes, the Royal College has opted to make the technical document available, as is. This material is subject to change. It is the user's responsibility to ensure that he/she is using the latest version, which is accessible via the Royal College's website.

#### Structure and Format

The following information provides guidance on navigation and interpretation of the various elements of this technical document.

When working with the electronic version of this document, you will find a navigation bar on the left-hand side of the PDF. This will support quick and easy transition between items.

Many of the items span multiple pages and share common design features. The following table describes the different design elements and should help users navigate through the items.

Feature	Description
Title	The title of each item includes the name of the discipline followed by the stage of training and item number. Items in each stage of training begin at number one.
	In some cases, there may be a letter after the number (i.e. an A or P). The letter refers to the stream within the discipline to which this item is applicable (e.g. 1AP – Item 1 is applicable to both the adult and pediatric stream).
EPA name	The Entrustable Professional Activity (EPA) name appears immediately after the title. This is a statement about the work of the discipline. It is observable and measurable.
Key features	<ul> <li>The key features section describes the EPA and may include:</li> <li>the focus of the EPA (e.g. body system, type of injury, safe patient monitoring),</li> <li>different aspects of the observation (E.g. patient assessment and procedural skills, observed in preoperative clinic)</li> <li>pre-learning requirements (E.g. builds on skills previously attained), or</li> <li>procedural requirements (E.g., includes surgical and non-surgical management)</li> <li>This description helps both residents and supervisors better understand the nature and limitations of this professional activity; it may also emphasize requirements for consideration of entrustability.</li> </ul>

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Assessment Plan	The assessment plan describes the nature of the information that should be provided to the Competence Committee in order for that group to have enough information that they are able to make a decision regarding entrustment of this professional activity. This includes instruction on who is to provide the observation information (supervisor, delegate, other health professionals), the nature of the observation (e.g., direct or indirect), as well as the suggested ePortfolio observation form(s). This section also lists any additional information that should be collected about the case or observation, such as patient factors, diagnoses, treatments, and/or setting of care. This information helps build the observation form. The various factors included in this section are selected by the specialty committee in order to provide the Competence Committee with the breadth of information required to make a decision regarding entrustment of this EPA.
Relevant CanMEDS Milestones	Most EPAs are comprised of several CanMEDS milestones. Each milestone is preceded by a series of letters and numbers which link the milestone to the corresponding key and enabling competency within <u>CanMEDS Interactive</u> .
	For example, if the code is <b>ME 1.6</b> .
	<ul> <li>-ME refers to the CanMEDS Role, <i>Medical Expert</i>. Other possibilities are COM= Communicator, COL=Collaborator, L = Leader, HA=Health Advocate, S=Scholar and P = Professional.</li> <li>-1.6 refers to the Key and enabling competencies within the aforementioned Role.</li> </ul>

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#### Entrustable Professional Activities for Anesthesiology

2019 **VERSION 2.0** 

#### Anesthesiology: Transition to Discipline EPA #1

#### Performing preoperative assessments for healthy adult patients who will be undergoing a non-complex scheduled surgical procedure

#### Key Features:

- This EPA includes:
  - 1) Establishing rapport with the patient who is scheduled for a non-complex surgery
  - 2) Effectively gathering the data required for safe conduct of anesthesia
  - 3) Organizing information appropriately in the anesthetic chart
  - 4) Recognizing when to seek help in providing clear explanations to the patient
- The observation of this EPA is divided into two parts: supervisor observation of patient assessment; submission of a logbook of preoperative assessments.

Relation with other EPAs: This EPA is a preparatory step to the Foundations EPA on «using the anesthetic assessment to generate the anesthetic considerations» which deals with data interpretation and synthesis and the Foundations EPA on «providing perioperative anesthetic management» which deals with application of the data gathered to deliver an anesthetic. Performing the preoperative assessment is also part of the EPA on «providing perioperative anesthetic management»

Assessment plan – recommendations: Part A: Patient assessment

Direct observation or chart/case review by supervisor

Use Form 1 or local alternative. Form collects information on:

- Type of surgical procedure: general surgery; gynecology; ophthalmology; orthopedic surgery; otolaryngology; plastic surgery; urology; other
- Age of patient: [write in]
- Type of observation: direct; chart/case review

Collect observations from a large breadth of training experience with the expectations not all will be achieved, with a minimum of 3 observations of achievement

Part B: Submit logbook of patient assessment encounters

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#### Relevant milestones:

- **1** ME 2.2 Elicit a history for a patient prior to their scheduled minor procedure including relevant past medical history, review of old records, anesthetic history and functional review of systems
- 2 ME 2.2 Perform a pre-anesthetic physical examination of a patient prior to their scheduled minor procedure, including an airway assessment
- **3 ME 2.2** Identify relevant investigations required prior to the scheduled minor procedure
- 4 COM 1.1 Communicate in a way that encourages patient trust and autonomy and is characterized by empathy, respect, and compassion
- **5 COM 1.4** Identify, verify and validate non-verbal cues on the part of patients and their families
- **6 COM 2.2** Conduct a focused and efficient patient interview, managing the flow of the encounter while being attentive to the patient's cues and responses
- **7 COM 3.1** Communicate the plan of care in a clear, compassionate, respectful, and accurate manner to the patient and family
- 8 COM 3.1 Recognize when to seek help in providing clear explanations to the patient and family
- **9 COM 4.1** Conduct an interview, demonstrating cultural awareness
- **10 COM 4.3** Demonstrate steps to obtaining informed consent
- **11** ME 2.2 Synthesize clinical information for presentation to a supervisor in an organized manner
- 12 COM 5.1 Organize information in appropriate sections within an electronic or written medical record
- **13 COL 2.1** Convey information thoughtfully
- **14 COL 2.1** Respond to requests and feedback in a respectful and timely manner
- **15 S 1.1** Describe physicians' obligations for lifelong learning and ongoing enhancement of competence
- **16** P 1.1 Prioritize the needs of patients and others to ensure a patient's legitimate needs are met
- **17 P 1.1 Demonstrate punctuality**
- **18** P 1.1 Complete assigned responsibilities in a timely fashion

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#### Anesthesiology: Transition to Discipline EPA #2

# Monitoring adult patients undergoing non-complex surgical procedures, under general or regional anesthesia

#### Key features:

- This EPA focuses on preparing for, recognizing, and initiating patterned management for critical changes in patient status and other intraoperative events (i.e., situational awareness).
- This EPA includes
  - Preparing the operating room for non-complex surgical procedures including appropriate equipment checks, monitor selection/application and basic medication preparation
  - Recording physiologic values at appropriate intervals in the anesthetic chart
  - Identifying vital sign/monitoring abnormalities and initiating management/calling for help when needed
- This EPA does not require diagnosis or complete management of all situations.

Relation with other EPAs: This EPA demonstrates the structured knowledge and understanding required for progression to the Foundation EPA on «anticipating, preventing and managing common intraoperative events»

<u>Assessment plan – recommendations:</u> Direct observation by supervisor

Use Form 1 or local alternative. Form collects information on

- Type of surgical procedure: general surgery; gynecology; ophthalmology; orthopedic surgery; otolaryngology; plastic surgery; urology; other
- Type of anesthesia: general; regional

Collect observations from a large breadth of training experience with the expectations not all will be achieved, with a minimum of 3 observations of achievement

- **ME 1.1** Demonstrate a commitment to high-quality care for their patients
- 2 ME 1.3 Apply the CAS Guidelines to the Practice of Anesthesia in preparing an operating room for patient care, including preparation of the required monitoring equipment
- 3 ME 1.3 Apply knowledge of the normal and abnormal physiologic values for an adult patient during general or regional anesthesia
- 4 ME 1.5 Demonstrate awareness of limitations and seek help as needed in a timely manner
- 5 ME 3.4 Ensure that the OR is adequately prepared and that all necessary equipment and medications are readily available for the patient and proposed procedure

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- 6 ME 3.1 Apply appropriate monitors for the planned surgical procedure
- 7 ME 3.4 Demonstrate effective procedure preparation, including gathering required equipment, patient monitoring and positioning, the use of a preprocedure timeout or safety checklist as appropriate
- 8 ME 5.2 Prepare medications and label syringes in a manner that optimizes patient safety and minimizes adverse events
- 9 ME 5.2 Apply the principles of proper sharps disposal in an operating room environment
- **10** ME 5.2 Demonstrate situational awareness
- 11 COM 5.1 Document anesthetic care and physiologic values at appropriate intervals during the continued monitoring under general or regional anesthesia
- 12 COL 1.1 Describe the role of respiratory therapists/anesthesia assistants in the preparation of an OR for patient care
- 13 COL 1.2 Negotiate overlapping and shared responsibilities of preparing an operating room with respiratory therapists/anesthesia assistants/RNs/RPNs
- 14 COL 1.3 Work with the team by communicating abnormal physiologic values that require attention
- 15 L 4.1 Demonstrate awareness of the organization of operating room preparation such that it efficiently uses the time available in the operating room for the patient and proposed procedure
- 16 ME 3.4 Demonstrate knowledge of appropriate settings of visual and auditory alarms in the continued monitoring of the adult patient under general or regional anesthesia undergoing a non-complex surgical procedure
- **17** ME 5.2 Apply the principles of universal precautions and importance of infection prevention and control in preparing an operating room for a patient and proposed procedure
- **18** P **1.1** Prioritize the needs of patients and others to ensure the patient's legitimate needs are met
- **19** P **1.2** Ensure that operating rooms are always prepared appropriately before engaging in patient care

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#### Anesthesiology: Transition to Discipline EPA #3

# Performing the postoperative transfer of care of healthy adult patients following a non-complex surgical procedures, including postoperative orders

#### Key features:

- This EPA focuses on safe patient handover to the PACU team.
- This includes providing necessary information to the receiving nurse in PACU, such as procedure performed, relevant comorbidities, medications used, complications, blood loss, fluids administered, analgesics and antiemetics given, and postoperative analgesia plan.
- It also includes providing clear orders for postoperative care and ensuring the patient is in stable condition for PACU care.

#### <u>Assessment plan – recommendations:</u>

Direct observation and review of order set by supervisor

Use Form 1 or local alternative. Form collects information on

- Type of procedure: general surgery; gynecology; ophthalmology; orthopedic surgery; otolaryngology; plastic surgery; urology; other
- Type of anesthesia: general; regional; monitored anesthesia care (MAC)

Collect a minimum of 3 observations

- At least 1 general anesthesia
- At least 2 different assessors

- **1 ME 5.1** Recognize the occurrence of a patient safety incident
- 2 ME 5.2 Describe and demonstrate the principles of situational awareness and their implications for medical practice, among other by ensuring that the patient is stable before leaving the post anesthetic care unit
- **3 ME 2.4** Describe the various levels of patient care available in their center (step down, remote oximetry, ICU, etc)
- 4 COM 5.1 Organize information in appropriate sections within an electronic or written medical record
- 5 COM 5.1 Complete clinical documentation in a timely manner, including documenting patient status on arrival to PACU
- 6 COM 5.1 Write orders clearly and legibly, using pre-printed order sets where appropriate
- **7 COL 2.1** Convey information thoughtfully

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- 8 **COL 2.1** Respond to requests and feedback in a respectful and timely manner
- 9 COL 3.2 Provide information required for safe and effective handover during transitions in care, specifically, relating the necessary information to the receiving nurse
- **10** COL 3.2 Ensure receiving nurse is comfortable with the level of care required by the patient
- **11 HA 1.1** Analyze a given patient's needs for health services or resources related to the scope of anesthesiology
- **12** P 1.1 Complete assigned responsibilities in a timely fashion

# Using the anesthetic assessment to generate the anesthetic considerations and management plan including postoperative disposition, and obtaining informed consent, for non-complex patients and non-complex surgery

#### Key Features:

- The focus of this EPA is the interpretation of clinical data to identify and prioritize anesthetic considerations related to patient and surgical issues, and subsequent proposal of an anesthetic management plan encompassing preoperative, intraoperative and postoperative phases of care.
- This EPA includes the communication skills of obtaining informed consent. Examples include consent for general, neuraxial or other regional anesthesia, and need for blood products.
- Legibility of the chart is mandatory.
- This EPA may be observed in the preoperative clinic and/or immediately prior to routine scheduled outpatient procedures.

Relation with other EPAs: This EPA is not about the data gathering aspect of preoperative assessments (see EPA TTD «performing preoperative assessment» that must be completed prior to this EPA). Instead, it is the interpretation of the data to identify the anesthetic considerations and to propose a management plan.

Does not apply to patients who have an anticipated difficult airway (see EPA Foundations «identifying and preparing for difficult airway») nor to pediatric patients (see EPA Foundations «performing preoperative assessment for pediatric patients») This EPA is a step that should be accomplished prior to the achievement of the EPA Foundations «providing perioperative anesthetic management»

#### <u>Assessment plan – recommendations:</u>

Direct (for consent) or indirect observation (case and chart review) by supervisor

Use Form 1 or local alternative. Form collects information on:

- Type of procedure: general surgery; gynecology; ophthalmology; orthopedic surgery; otolaryngology; plastic surgery; trauma; urology; other
- Age of patient: [write in]
- Type of observation: direct; indirect
- Observation of consent: [select all that apply] not done; done; language barrier; cognitive impairment; substitute decision maker

Collect observations from a large breadth of training experience with the expectations not all will be achieved, with a minimum of 8 observations of achievement

- At least 3 involving consent

Relevant milestones:

**1 ME 1.1** Demonstrate compassion for patients

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- 2 ME 1.3 Apply clinical and biomedical sciences to manage core patient presentations in anesthesiology, internal medicine, and surgery
- 3 ME 1.3 Demonstrate an understanding of common non-complex surgical procedures and how surgical requirements impact upon anesthetic management
- **4 ME 1.5** On the basis of patient-centered priorities, seek assistance to prioritize multiple competing tasks that need to be addressed
- 5 ME 2.2 Synthesize patient information into prioritized anesthetic considerations, including considerations relevant to the surgical procedure
- 6 ME 2.4 Establish patient-centred anesthetic management plans, including preoperative investigations and optimization, intraoperative monitoring, use of regional anesthesia, or need for blood products, and the postoperative period
- 7 COM 1.6 Assess patient's capacity to understand and appreciate the issues and risks, participate in decision-making and provide informed consent
- 8 ME 3.1 Determine the appropriate procedure and/or intervention
- 9 ME 3.2 Demonstrate knowledge of the potential risks and benefits of the procedure and/or intervention, and the specific risks for the patient
- **10** COM 3.1 Convey information about the procedure, risks, benefits and alternatives to the patient clearly
- **11 COM 4.3** Answer questions from the patient and family
- 12 COM 5.1 Document informed consent for commonly performed anesthesia procedures and therapies
- 13 COM 5.1 Ensure the anesthetic chart is legible and well organized
- **14 COL 2.2** Communicate clearly and directly to promote understanding, manage differences, and resolve conflicts
- **15 S 1.1** Recognize gaps in competencies and seek corrective solutions
- **16** S 1.1Accept feedback readily and incorporate suggestions for improvement
- **17 S 1.1** Engage in self-reflection and self- assessment to improve performance
- **18 S 3.4** Incorporate evidence-based medicine into clinical practice
- **19 P 2.2** Demonstrate a commitment to patient safety
- 20 P 3.1 Fulfil and adhere to the professional and ethical codes, standards of practice, and laws governing consent

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# Providing perioperative anesthetic management for non-complex cases in adult patients

#### Key features:

- This EPA focuses on doing the anesthetic care in its entirety. This includes preoperative assessment, investigation/optimization if needed, informed consent, anesthetic management, postoperative management and determination of postoperative disposition.
- This EPA is a critical task of the discipline: accordingly, the assessment plan is recurrent, rigorous, and robust – it is divided into three parts: direct observation, with formative longitudinal observation for progression; multisource feedback; and review of the breadth of clinical experience as documented in the resident's logbook.
- This EPA can be completed for any anesthetic case. In comparison to a daily assessment form, its focus is on the performance during a specific case versus the performance during the whole day.
- This EPA should be observed in a breadth of patients and procedures. They can be ambulatory in nature or require hospital admission postoperatively, and can be urgent or emergent cases.
- Observations of this EPA should be collected each time the resident is participating in a block of time in an anesthesia training experience to gather longitudinal information on the resident's performance both before and after achievement of entrustment.

*Relation with other EPAs: This EPA builds upon the EPA on «using the anesthetic assessment to generate the anesthetic considerations and the management plan» .* 

#### <u>Assessment plan – recommendations:</u>

Part A: Anesthetic management

Direct observation and/or indirect observation by supervisor

Use Form 1 or local alternative. Form collects information on:

- Type of surgical procedure: general surgery; gynecology; ophthalmology; orthopedic surgery; otolaryngology; plastic surgery; trauma; urology; other
- Type of anesthesia: general; neuraxial; regional; monitored anesthesia care (MAC)
- Priority of surgery: elective; urgent
- Observation: direct; indirect

Collect observations from a large breadth of training experiences including different types of anesthesia and priority of surgery with the expectations not all will be achieved, with a minimum of 20 observations of achievement

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#### Part B: Multisource feedback

Feedback must come from different environments

Part C: Submit resident logbook of anesthetic cases

#### Relevant milestones: Part A

- 1 ME 2.2 Perform a focused history, including a review of electronic medical records, and physical exam including regional areas where invasive procedures may be planned, review investigations, and interpret their results for the purpose of preoperative assessment and optimization of patient prior to surgery
- **2 ME 2.2** Synthesize patient information into prioritized anesthetic considerations, including important considerations relevant to the proposed surgical procedure
- **3 ME 3.1** Describe the indications, contraindications, risks, and alternatives for the anesthetic management of the patient
- 4 ME 3.1 Determine the most appropriate anesthetic management in relation to patient's condition and surgical procedure
- **5** ME 3.2 Obtain and properly document informed consent for commonly performed anesthesia procedures and therapies
- 6 ME 3.3 Determine the urgency of the procedure
- 7 ME 2.2 Determine the patient's readiness for surgery and judge the appropriate optimization of the emergency patient
- 8 ME 3.4 Perform all case management skills with appropriate proficiency including adapting to unanticipated findings or changing clinical circumstances, anticipation and management of issues around induction, maintenance, emergence of anesthesia, and pain management
- **9 ME 5.2** Use cognitive aids such as procedural checklists, structured communication tools, or care paths, to enhance patient safety

#### **10** ME 5.2 Demonstrate situational awareness

- **11 ME 5.2** Demonstrate an understanding of the anesthetic guidelines of practice and their appropriate application
- 12 COM 1.1 Communicate using a patient-centred approach that encourages patient trust and autonomy and is characterized by empathy, respect, and compassion

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**13 COM 5.2** Communicate effectively using a written health record, electronic medical record, or other digital technology

# 14 COM 5.1 Document all aspects of an anesthesia encounter in an accurate, complete, legible, timely, and accessible manner, in compliance with regulatory and legal requirements

- **15 COL 1.1** Establish and maintain positive relationships with physicians and other colleagues in the health care professions to support relationship-centered collaborative care
- 16 COL 3.2 Provide handover of anesthetic care to the recovery unit and communicate with the receiving physicians or health care professionals during transitions in care, clarifying issues after transfer as needed
- **17 L 4.2** Demonstrate leadership skills in the peri-operative environment including participation in "time-out" sessions
- **18 S 1.2** Identify, record, prioritize and answer learning needs that arise in daily work, scanning the literature or attending formal or informal education sessions

### **19** S 1.2 Review post-operative patient follow-up as a source of information on one's own performance and opportunities for learning and improvement

- **20 S 1.2** Identify opportunities for learning and improvement by regularly reflecting on and assessing one's own performance using various internal and external data sources
- 21 P 1.1 Exhibit appropriate professional behaviours

### **22** P 2.2 Demonstrate a commitment to patient safety and quality improvement through adherence to infection control and sterility procedures

**23 P 4.1** Manage the impact of physical and environmental factors on performance and on patient well-being during anesthetic management

Relevant milestones: Part B - MSF

- **1 ME 5.2** Demonstrate situational awareness
- 2 COM 1.1 Communicate using a patient-centred approach that encourages patient trust and autonomy and is characterized by empathy, respect, and compassion
- **3** COM 5.2 Communicate effectively using a written health record, electronic medical record, or other digital technology
- 4 COM 5.2 Write orders clearly and legibly, using pre-printed order sets where appropriate

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- 5 COL 1.1 Receive and appropriately respond to input from other health care professionals
- 6 COL 1.1 Establish and maintain positive relationships with physicians and other colleagues in the health care professions to support relationshipcentered collaborative care
- 7 COL 2.1 Actively listen to and engage in interactions with collaborators
- 8 COL 2.2 Listen to understand and find common ground with collaborators
- 9 COL 3.2 Provide handover of anesthetic care to the recovery unit and communicate with the receiving physicians or health care professionals during transitions in care, clarifying issues after transfer as needed
- **10** L 1.1 Demonstrate leadership skills in the peri-operative environment including participation in "time-out" sessions
- **11** P 1.1 Exhibit appropriate professional behaviours
- **12** P **1.5** Exhibit professional behaviours in the use of technology-enabled communication

#### Performing the non-airway basic procedures of Anesthesiology

#### Key Features:

- This EPA includes:
  - selecting appropriate patients and techniques for the procedure
  - obtaining informed consent
  - performing the technical aspects of the procedure
  - appropriate documentation
  - managing post-procedure complications
- Basic procedures include: spinal, arterial line, central line insertion.
- The observation of this EPA is divided into two parts: procedural skills; procedural experience (logbook).
- This EPA does not include clinical interpretations from procedures (e.g. arterial blood gas reports) or management of entire case (refer to Foundations EPA «providing perioperative anesthetic management»).

#### <u>Assessment plan – recommendations:</u>

Part A: Procedural skills Direct observation by supervisor

Use Form 2 or local alternative. Form collects information on:

- Procedure: arterial line; central line; spinal
- Use of ultrasound: yes; no
- Anatomical site of central line: not applicable; jugular; subclavian; femoral; PICC
- Setting: operating room; ICU; ER; other

Collect 20 observations of achievement:

- At least 2 arterial lines
- At least 5 central lines
- At least 5 spinals

Part B: Logbook Submit logbook of procedures performed

Logbook tracks

- Type of procedure: arterial line, central line, spinal

Logbook should demonstrate performance of at least 20 of each procedure

Relevant Milestones:

#### Part A: Procedural skills

- **1** ME 3.1 Describe the indications, contraindications, risks and alternatives for basic procedures
- 2 ME 3.2 Obtain and properly document informed consent for commonly performed anesthesia procedures and therapies

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- 3 ME 3.4 Demonstrate effective procedure preparation, including gathering required equipment, patient monitoring and positioning, the use of a preprocedure timeout or safety checklist as appropriate
- 4 ME 3.4 Perform the procedural tasks in a timely, fluid, skillful, and safe manner
- 5 ME 3.4 Identify changing clinical circumstances or unanticipated findings and seek assistance as needed
- 6 ME 3.4 Recognize and manage common complications of basic procedures
- 7 COM 1.2 Optimize the clinical environment for patient comfort, privacy, engagement and safety
- 8 COM 5.1 Document the encounter to convey the procedure and outcome

# Identifying patients presenting with an anticipated difficult airway and preparing for management options

#### Key Features:

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- This EPA includes:
  - Identifying patients with an anticipated difficult airway
    - 4 categories of anticipated difficulties: bag mask ventilation, intubation, supraglottic airway, front of neck access (FONA)
    - Discussing risks with the patient and obtaining informed consent
  - Planning management options; this must include plans for ventilation and oxygenation, and anticipated plans for safe extubation and postoperative management. It should also include having at least plan A and plan B.
  - Preparation of the operating room and equipment
- This EPA may be observed in adults and children.

Relation with other EPAs: This EPA does not include managing the airway – this will be observed in Core EPA « managing patients presenting with an anticipated difficult airway» Some observations of the Core EPA on doing a difficult intubation might happen in Foundations.

#### Assessment plan - recommendations:

Direct observation or chart review and case discussion by supervisor

Use Form 1 or local alternative. Form collects information on:

- Age: [write in]
- Type of airway management technique planned: [text box]

Collect observations of a variety of management plans, with a minimum of 5 observations of achievement

- **1 ME 1.3** Apply knowledge of airway anatomy and physiology
- 2 ME 1.3 Apply knowledge of indications, contraindications, basic pharmacology and risks of sedation during airway management
- **3 ME 1.4** Perform focused clinical assessments
- 4 ME 2.2 Synthesize clinical data to identify patients with the potential for a difficult airway and/or bag mask ventilation
- **5 ME 1.4** Recognize urgent problems that may need the involvement of more experienced colleagues and seek their assistance

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- 6 ME 1.3 Apply knowledge of the criteria for a safe extubation
- 7 ME 1.3 Apply knowledge of difficult airway management algorithms and cognitive aids
- 8 ME 1.3 Apply knowledge of the indications, contraindications, risks and alternatives for the different airway management tools
- **9 ME 1.3** Apply knowledge of the differences between adult and pediatric difficult airway management
- **10** ME 2.4 Develop an airway management plan, and alternatives, for patients with an anticipated difficult airway
- **11 ME 3.2** Ensure that the patient and family are informed about the risks and benefits of each treatment option in the context of best evidence and guidelines
- **12** ME 3.2 Obtain and properly document informed consent for commonly performed anesthesia procedures and therapies
- 13 ME 3.4 Prepare equipment and supplies for airway management
- **14 ME 3.3** Consider urgency, and potential for deterioration, in advocating for the timely execution of a procedure or therapy
- **15 COM 1.2** Optimize the physical environment for patient comfort, privacy, engagement, and safety
- 16 COM 5.1 Document information about the airway difficulty in a manner that enhances intra- and inter-professional care
- 17 COL 1.1 Respect established rules of their team
- **18 COL 2.1** Actively listen to and engage in interactions with collaborators
- **19** L **2.2** Apply evidence and guidelines with respect to resource utilization in common clinical scenarios
- **20 S 1.2** Identify, record, prioritize and answer learning needs that arise in daily work, scanning the literature or attending formal or informal education sessions
- **21 P 2.2** Demonstrate a commitment to patient safety and quality improvement through adherence to institutional policies and procedures

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# Managing and coordinating patient positioning during anesthesia care and preventing and recognizing related complications

#### Key Features:

- This EPA includes:
  - Performing optimal positioning for a surgery
  - Coordinating the team during positioning
  - Applying knowledge of the risks of complications associated with suboptimal positioning
  - Recognizing a potential complication related to patient positioning and planning its management
- This EPA may be observed in adults or children.

#### Assessment plan – recommendations:

Direct observation by supervisor

Use Form 1 or local alternative. Form collects information on:

- Type of surgical procedure: general surgery; gynecology; ophthalmology; orthopedic surgery; otolaryngology; plastic surgery; urology; spine surgery; neurosurgery; other
- Positioning of patient: supine; supine with laparoscopic surgery; gynecologic positioning/lithotomy; lateral decubitus; prone; sitting/semi-sitting; other

Collect a minimum of 8 observations

- At least five different positions

- **1** ME 1.3 Apply basic anatomy and physiology to manage patient positioning and related complications during surgery
- 2 ME 2.4 Develop and implement management plans for common problems or issues related to patient positioning during surgery
- 3 ME 3.2 Describe the indications, contraindications, risks, and alternatives for a given positioning during surgery
- 4 ME 3.4 Position the patient for the procedure in a skillful, fluid, and safe manner
- 5 ME 4.1 Coordinate investigation, treatment, and follow-up plans related to positioning injury considering potential involvement of multiple physicians and healthcare professionals

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### 6 ME 5.1 Recognize near-misses in real time and respond to correct them, preventing them from reaching the patient

- **7 ME 5.1** Incorporate, as appropriate, into a differential diagnoses, postoperative complications related to patient positioning
- 8 COL 1.1 Receive and appropriately respond to input from other health care professionals regarding patient positioning

# 9 COL 1.2 Coordinate and lead the work of all team members involved in patient positioning for surgery

- **10 COL 2.2** Communicate clearly and directly to promote understanding, manage differences, and resolve conflicts
- **11 P 2.2** Demonstrate a commitment to patient safety and quality improvement through adherence to institutional policies and procedures

#### Anticipating, preventing and managing common or expected intraoperative events and physiologic changes during non-complex cases

#### Key Features:

- The observation of this EPA is divided into two parts: patient care; reflection on patient safety.
- This EPA focuses on
  - Recognition and independent management of common or anticipated intraoperative events such as hypo/hypertension, tachycardia, bradycardia, bronchospasm, hypoxemia, ischemia, circuit disconnection, patient awareness and effects of medications (Part A)
  - Broader thinking around system issues contributing to adverse events and how patient safety could be improved (Part B). The observation of the reflection on patient safety is based on the resident's submission to a supervisor of a description of a patient safety incident or near miss, reflecting on contributing factors, potential improvements to enhance patient safety, and the intrinsic CanMEDS roles (professional, collaborator, communicator, health advocate, leader, and scholar). This must include debriefing the reflection with the supervisor.

*Relation with other EPAs: This EPA builds on knowledge and skills demonstrated through completion of EPA TTD «monitoring adult patients»* 

<u>Assessment plan – recommendations:</u>

Part A: Patient care

Direct observation and chart review by supervisor

Use Form 1 or local alternative. Form collects information on:

- Surgical procedure: [write in]
- Type of event hypo/hypertension; tachycardia; bradycardia; bronchospasm; hypoxemia; ischemia; circuit disconnection; patient awareness; effects of medications; other
- Category of event: anticipation/prevention; management; no anticipation with management

Collect observations from a large breadth of training experience with the expectations not all will be achieved, with a minimum of 5 observations of achievement

Part B: Reflection on patient safety

Written submission to supervisor of a reflection on a patient safety event or near miss. Supervisor's summary of the debrief is submitted to the Competence Committee

Use Form 4 Relevant milestones:

Part A: Patient care

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- **1** ME 1.4 Recognize urgent problems that may need the involvement of more experienced colleagues and seek their assistance
- 2 ME 2.4 Develop and implement management plans for common intraoperative problems
- **3 ME 4.1** Establish appropriate follow-up for common intraoperative problems
- 4 ME 2.2 Anticipate the most likely intraoperative events and physiologic changes based on the patients' medical history and type of surgery
- 5 ME 2.4 Develop strategies, including optimal monitoring, to favour prevention and early diagnosis of intraoperative events and physiologic changes
- **6 ME 3.3** Consider urgency, and potential for deterioration, in advocating for the timely execution of a procedure or therapy
- **7 ME 3.4** Perform common procedures in a skillful, fluid, and safe manner including appropriate infection control measures and using protective equipment
- 8 ME 5.2 Demonstrate situational awareness
- **9 COM 5.1** Organize information in appropriate sections within an electronic or written medical record
- **10** COM 5.1 Record intraoperative events in a complete and accurate manner
- **11 COM 5.1** Document clinical encounters to adequately convey clinical reasoning and the rationale for decisions
- 12 COL 1.3 Apply effective communication strategies with members of the operating room team to optimize response to perioperative events in a timely manner
- 13 COL 3.2 Summarize the patient's issues in the transfer summary, including plans to deal with the ongoing issues
- **14 P 1.1** Complete assigned responsibilities in a timely fashion

Part B: Reflection on patient safety

- **1 S 2.3** Identify unsafe clinical situations involving learners and manage them appropriately
- 2 **ME 5.1** Differentiate outcomes of medical conditions and diseases from complications related to the inherent risks of treatments and from patient safety incidents

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# Assessing the indications for transfusion of blood products and managing side effects and complications

#### Key Features:

- The observation of this EPA should be started in Foundations, and may be completed in Core.
- Assessment and management of complications and side effects may be evaluated through discussion, OSCE, or high fidelity simulation, as well discussion around actual clinical situations by asking resident's about indications, side effects, and complications when blood products are used.
- This EPA covers the more commonly used blood products: red blood cells (RBCs), frozen plasma (FP), platelets, cryoprecipitate, and prothrombin complex concentrate (PCC). Other products used less commonly, such as activated Factor VII or fibrinogen, are more appropriately covered in the relevant Core EPAs.
- This EPA can be observed in the operating room or in other environments (e.g. emergency room, critical care, ward).

Relation with other EPAs: The skills learned in this EPA in Foundation leads to the following situations that are linked to EPA's in Core: «assessing and managing patients with significant hematological disorders», «managing patients with major polytraumatic injury, with or without massive transfusion protocol», «managing the obstetric patient with hemorrhage», «managing blood transfusion or conservation strategies in cardiac surgery» «managing hemorrhage during aortic surgery» and «managing Jehovah Witness patients».

#### <u>Assessment plan – recommendations:</u>

Direct observation and case review and debrief by supervisor

Use Form 1 or local alternative. Form collects information on:

- Blood product type and amount: [write in]
- Location: OR; PACU; ICU; ward; other

The Specialty Committee has not provided guidance for the entrustment of this EPA. Entrustment decisions are left to discretion of the Competence Committee

- **ME 1.3** Apply knowledge of physiology and pathophysiology of blood loss
- 2 ME 2.2 Recognize signs and symptoms of acute hemorrhage and predict volume of blood loss
- 3 ME 2.4 Develop strategies for perioperative management to minimize blood loss
- 4 ME 1.3 Apply best evidence and guidelines for the transfusion of blood products

- **5 ME 3.2** Obtain and properly document informed consent for administration of blood products
- 6 ME 3.2 Describe the indications, contraindications and risks for crystalloid and/or colloid fluid administration and the replacement of blood products such as: RBC, frozen plasma (FP), prothrombin complex concentration (PCC), platelets, cryoprecipitate
- **7 COM 4.1** Explore the patient preferences and cultural practices regarding blood products when developing care plans
- 8 COM 5.1 Document information about fluid and blood products administered and the response of the patient
- **9 COL 1.3** Seek out and respond to input from the surgical team when fluid resuscitating a critically ill patient
- 10 L 2.1 Allocate health care resources for optimal patient care
- **11 L 2.2** Consider costs of blood products when choosing care options
- **12 L 1.1** Improve clinical practice by applying a process of continuous quality improvement to the perioperative optimization of anemia
- **13 S 3.4** Integrate evidence and best practice guidelines into decision-making in their individual practice and at the hospital level
- 14 P 3.1 Adhere to ABO blood compatibility and blood product administration guidelines

# Diagnosing and managing common issues in the post-anesthesia care unit (PACU), or the surgical ward

#### Key Features:

- Examples of common issues include: pain, nausea and/or vomiting, hypotension, hypertension, arrhythmias, cardiac ischemia, hypoxemia, respiratory depression, bronchospasm, pulmonary edema, deep venous thrombosis, delirium, slow awakening, decreased urine output.
- Management of conditions evolving into a life-threatening situation should not be considered part of this EPA. «Management of perioperative life-threatening complications» is a Core EPA.
- This EPA MUST include some observations of the management of non-complex patients with acute pain, either postoperative or traumatic, and managing common complications of acute pain.
- Options for managing acute pain should include at least IV PCA, multimodal analgesia and regional anesthesia.
- Observations of this EPA should be collected in **both** the PACU and on the surgical ward.
- This EPA may be observed by a senior resident.

Relation with other EPAs: In regards of pain management, this EPA is a step to the Core EPA on «comprehensive management of acute and acute on chronic pain conditions».

#### <u>Assessment plan – recommendations:</u>

Direct observation, or case and/or chart review with debrief, by supervisor

Use Form 1 or local alternative. Form collects information on:

- Type of issue: pain; nausea and/or vomiting; hypotension; hypertension; arrhythmias; cardiac ischemia; hypoxemia; respiratory depression; bronchospasm; pulmonary edema; deep venous thrombosis; delirium; slow awakening; decreased urine output; other
- Location: PACU; surgical ward; ICU; other
- Type of observation: direct; indirect
- Type of surgical procedure: general surgery; gynecology; neurosurgery; ophthalmology; orthopedic surgery; otolaryngology; plastic surgery; thoracic surgery; urology; vascular surgery; other

Collect observations from a large breadth of training experience and issues with the expectations not all will be achieved, with a minimum of 8 observations of achievement These observations should be performed in **both** the PACU and on the surgical ward

- At least 4 managing pain

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- **1** ME 1.3 Apply knowledge of the anatomy and physiology of acute pain
- 2 **ME 1.4** Perform focused clinical assessments with recommendations that are welldocumented
- **3 ME 1.4** Recognize urgent problems that may need the involvement of more experienced colleagues and seek their assistance
- 4 ME 2.4 Develop and implement management plans for common postoperative problems diagnosed in the post-anesthesia care unit or the surgical ward
- 5 ME 1.3 Apply knowledge of the pharmacology of various groups of analgesics available for management of acute pain
- 6 ME 2.4 Develop plans for the administration and monitoring of analgesia, including opiates, selecting the most appropriate option for the patient's clinical status
- 7 **ME 3.3** Prioritize and advocate for the timely execution of a procedure or therapy, taking into account clinical urgency and available resources
- 8 ME 3.4 Seek assistance as needed when unanticipated findings or changing clinical circumstances are encountered
- 9 ME 4.1 Ensure follow-up on results of investigation and response to treatment
- **10 ME 5.1** Prioritize the initial medical response to adverse events to mitigate further injury
- **11 ME 2.2** Develop and prioritize differential diagnosis
- **12 ME 5.1** Incorporate, as appropriate, into a differential diagnoses, harm from health care delivery
- **13** ME 2.2 Establish the diagnosis of common complications in the postanesthesia care unit or the surgical ward in a timely manner
- **14 ME 2.2** Integrate the patient's medical history, type of surgery and perioperative factors to anticipate which patients are at higher risk for postoperative surgical or medical complications
- **15** ME 5.2 Apply strategies and ensure optimal specific monitoring to prevent complications
- 16 COM 4.1 Explore the perspectives of the patient and others when developing care plans

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**17 COM 5.1** Document clinical encounters to adequately convey clinical reasoning and the rationale for decisions

### **18** COL 1.1 Receive and appropriately respond to input from other health care professionals

- **19 COL 1.2** Negotiate overlapping and shared responsibilities with physicians and other colleagues in the health care professions in episodic and ongoing care
- 20 COL 3.2 Communicate with the attending physician or other appropriate member of the health care team about the patient's condition and care
- 21 COL 3.2 Summarize the patient's issues in the transfer summary, including plans to deal with ongoing issues
- **22 L 1.1** Seek data to inform practice and engage in an iterative process of improvement
- **23 L 4.1** Organize work using strategies that address strengths and identify areas to improve in personal effectiveness
- **24 S 1.2** Identify, record, prioritize and answer learning needs that arise in daily work, scanning the literature or attending formal or informal education sessions
- **25 HA 2.2** Improve clinical practice by identifying patients or populations that are not being optimally treated for pain
- **26 P 2.2** Demonstrate a commitment to patient safety and quality improvement through adherence to institutional policies and procedures
- **27 P 2.2** Monitor institutional and clinical environments and respond to issues that can harm patients or the impact the delivery of health care

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#### Initiating resuscitation and diagnosis of patients with life-threatening conditions in a time-appropriate manner

#### Key Features:

- This EPA focuses on identifying the urgency of the situation, generating relevant differential diagnosis and initiating focused management directed at the presumed etiology.
- This EPA includes recognizing a life threatening situation and beginning basic resuscitation (e.g., assess the ABCs, begin bag mask ventilation, bolus fluids, start pressors/inotropes).
- It also includes recognizing one's limits and asking for assistance in a time appropriate manner.
- This EPA does not require the development of a comprehensive long-term management strategy. It is meant to apply to the first 5-10 min of resuscitation until experienced help arrives.
- This EPA must be observed in a variety of environments such as PACU, surgical/medical wards, ICU, ER or OR.

#### Assessment plan – recommendations:

Direct observation and/or case review and debrief by supervisor

Use Form 1 or local alternative. Form collects information on:

- Location : PACU; surgical ward; medical ward; ICU; ER; OR; other
- Type of condition: respiratory distress; cardiac event; shock; neurologic condition; cardiac arrest; other

Collect at least 3 observations of achievement

- **1** ME 1.4 Recognize urgent problems that may need the involvement of more experienced colleagues and seek their assistance
- 2 ME 1.5 On the basis of patient-centred priorities, seek assistance to prioritize multiple competing tasks that need to be addressed
- **3** ME 2.2 Synthesize patient information to determine diagnosis
- 4 ME 2.4 Develop and implement initial management plans, prioritizing issues to be addressed, in a time appropriate manner
- **5 ME 4.1** Coordinate investigation, treatment, and follow-up plans when multiple physicians and healthcare professionals are involved

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- **6 COM 3.1** Convey the diagnosis, prognosis and plan of care in a clear, compassionate, respectful, and accurate manner to the patient and/or family
- **7 COM 3.1** Use strategies to verify and validate the understanding of the patient and/or family
- **8 COM 5.1** Document clinical encounters to adequately convey clinical reasoning and the rationale for decisions
- 9 COL 1.1 Contribute effectively in interprofessional teams (e.g. nurses, RTs)
- **10 COL 1.3** Communicate appropriately with supervising staff (supervising resident or attending physician) if significant concerns are identified during patient assessment
- **11 COL 1.2** Participate in debriefing, post critical incident
- **12 S 3.4** Incorporate evidence-based medicine into clinical practice
- **13 P 4.2** Report any medical/psychological/substance abuse/fatigue concerns that may limit one's ability to provide optimal patient care
- **14 P 1.1** Accept feedback readily and incorporate suggestions for improvement
- **15** P 4.1 Demonstrate the ability to remain calm and professional in stressful situations
- 16 P 2.2 Pay close attention to the continuing care of the patient beyond the technical execution of resuscitation, reliably and conscientiously

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# Assessing, diagnosing and managing patients with common medical or surgical presentations in acute care settings, and advancing their care plans.

#### Key Features:

- This EPA focuses on assessment and management of acute conditions in settings other than perioperative care.
- This EPA focuses on the care provided to patients throughout the course of a hospital stay. It includes the initial consultation and the process of admitting a patient to hospital. It also includes ongoing reassessment of clinical status and management of the evolving clinical course including further investigations, possible complications, and response to treatment.
- This EPA also includes regular communication with the patient and/or family regarding the results of testing and/or treatment as well as further management plans.
- For the purposes of this EPA, ongoing care includes the transitions from one physician to another as may occur during day to night time transition and/or transfer to another care setting.
- This EPA may include a variety of conditions: surgical condition, chest pain, gastrointestinal bleeding, shortness of breath, acute kidney injury, weakness, nausea and vomiting, fever, altered mental status, toxidromes, delirium, overdose, pain, acute abdominal pain, hemodynamic instability of any cause, etc.
- This is a complex EPA with multiple components for observation: patient assessment and management; communication with patient/family; handover; admission to hospital.
- This EPA may be observed in surgical/medical wards or critical care or in the emergency room (initial medical or surgical consultation). It is not expected that all milestones will be observed in every encounter.

#### <u>Assessment plan – recommendations:</u>

Direct observation and/or case review and debrief by supervisor (staff or senior resident)

Use Form 1 or local alternative. Form collects information on:

- Location: surgical ward; medical ward; coronary care unit; ICU; ER; other
- Type of condition: surgical condition; chest pain; shortness of breath; altered LOC; fever; hemodynamic instability; other
- Observer: staff; senior resident
- Focus of observation: *(select all that apply)* patient assessment and management; communication with patient; handover
- Type of observation: direct; case review

Collect observations from a large breadth of training experience with the expectations not all will be achieved, with a minimum of 8 observations of achievement

- At least 4 observations of achievement for patient assessment, diagnosis and/or management (including at least 1 staff and both medical and surgical conditions)
- At least 2 observations of handover (including 1 staff observation)

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#### Relevant milestones:

- **1 ME 1.3** Apply clinical and biomedical sciences to manage core patient presentations in anesthesiology, internal medicine and surgery
- 2 ME 1.3 Apply knowledge of the pathophysiology and clinical presentations of common medical and/or surgical conditions
- **3** ME 1.4 Perform focused clinical assessments with recommendations that are well-documented
- 4 COM 2.2 Conduct a focused and efficient patient interview, managing the flow of the encounter while being attentive to the patient's cues and responses
- **5 COM 2.3** Seek and synthesize relevant information from other sources, including the patient's family, with the patient's consent
- **6 ME 1.4** Recognize urgent problems that may need the involvement of more experienced colleagues and seek their assistance
- 7 ME 2.2 Synthesize patient information to determine diagnosis
- 8 ME 2.4 Develop and implement initial management plans for common medical or surgical conditions
- **9 ME 4.1** Coordinate investigation, treatment, and follow-up plans when multiple physicians and healthcare professionals are involved

### **10** ME 4.1 Ensure follow-up on results of investigation and response to treatment

- **11 ME 5.2** Use cognitive aids such as procedural checklists, structured communication tools, or care paths, to enhance patient safety
- 12 COM 1.1 Communicate in a way that encourages patient trust and autonomy and is characterized by empathy, respect, and compassion
- **13 COM 1.5** Recognize when personal feelings in an encounter are valuable clues to the patient's emotional state
- 14 COM 3.1 Convey the diagnosis, prognosis and plan of care in a clear, compassionate, respectful, and accurate manner to the patient and/or family
- 15 COM 3.1 Use language free of medical jargon
- **16** COM 4.3 Answer questions from the patient and family

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- 17 COM 5.1 Document information about patients and their medical conditions in focused, clear, coherent, legible progress notes, handover notes, and/or discharge summaries
- 18 COL 1.1 Contribute effectively in interprofessional teams by respecting established rules of their team, eliciting, engaging and valuing input from all healthcare professionals.
- **19 COL 1.2** Describe the roles and scopes of practice of other health care providers related to the discipline: e.g. role of general surgeon when on general surgery rotation
- **20 COL 2.2** Listen to understand and find common ground with collaborators
- **21 COL 3.1** Identify patients requiring handover to other physicians or health care professionals
- 22 COL 3.2 Communicate with physicians or health care professionals during transitions in care, clarifying issues after transfer as needed
- **23 COL 3.2** Summarize the patient's issues in the transfer summary, including plans to deal with the ongoing issues
- 24 COL 3.2 Recognize and act on patient safety issues in the transfer of care
- **25** COL 3.2 Summarize patient issues for concise, prioritized presentation to other team members.
- **26 COL 3.2** Communicate with the patient's primary health care professional about the patient's care
- **27 S 2.4** Demonstrate basic skills in teaching others, including peers
- 28 S 3.4 Incorporate evidence-based medicine into clinical practice
- **29 P 1.1** Independently manage specialty-specific issues surrounding confidentiality, intervening when confidentiality is breached
- **30 P 2.2** Demonstrate a commitment to patient safety and quality improvement through adherence to institutional policies and procedures
- **31 HA 1.3** Work with the patient and family to identify opportunities for disease prevention, health promotion, and health protection

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# Assessing pregnant patients and providing routine obstetric care or initial medical management for acute medical, surgical or obstetric conditions

Key Features:

- This EPA focuses on assessing the pregnant patient, for routine care or for an acute problem, and proposing management plans that incorporate the wellbeing of both baby and mom
- This EPA includes routine prenatal assessments, initial assessments during labour, common problems of pregnancy and acute/emergent medical, surgical or obstetric conditions
- Examples of acute/emergent medical surgical or obstetric conditions include:
  - a. Medical: pneumonia, pulmonary embolus, diabetes, HTN, sepsis
  - b. Surgical: acute cholecystitis, acute appendicitis, perforated viscous
  - c. Obstetric: pre-term labor, pre-eclampsia, antepartum haemorrhage, postpartum haemorrhage, placental abruption, abnormal placentation

#### <u>Assessment plan – recommendations:</u>

Direct observation or chart review and/or case discussion by supervisor

Use Form 1 or local alternative. Form collects information on:

- Issue: routine prenatal; routine initial assessment during labour; acute medical; acute surgical; acute obstetric
- Type of condition: (write in name of condition)
- Setting: prenatal clinic; labour and delivery; other
- Gestational age: (write in)

Collect at least 3 observations of achievement

At least 1 observation of a routine assessment

At least 1 observation of an acute medical, surgical or obstetric condition

#### Relevant milestones:

**1 ME 1.3** Apply clinical and biomedical sciences to manage core patient presentations in the pregnant patient

### 2 ME 1.4 Perform focused clinical assessments with recommendations that are well-documented

- **3 ME 1.4** Recognize urgent problems that may need the involvement of more experienced colleagues and seek their assistance immediately
- 4 ME 2.4 Develop and implement initial management plans for common problems in the pregnant patient

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- **5 ME 2.4** Diagnose and initiate management of common obstetric emergencies such as antepartum haemorrhage, post-partum haemorrhage, placental abruption and placenta previa
- **6 ME 2.4** Diagnose and initiate management of common medical and surgical conditions during pregnancy such as diabetes, hypertension, sepsis, appendicitis or kidney stones
- 7 ME 2.4 Develop management plans that integrate basic fetal physiology, potential fetal effects of acute medical and obstetrical conditions, and basic principles of fetal heart rate monitoring, including intrauterine resuscitation
- 8 **ME 3.2** Describe the indications, contraindications, risks, and alternatives for fluid therapy and for transfusion of blood products in the perioperative or periobstetrical context
- 9 COM 2.1 Conduct a patient-centred interview, gathering all relevant biomedical and psychosocial information for any clinical presentation
- **10** ME 2.2 Synthesize the clinical information for clear and succinct presentation to supervising residents or consultants
- **11 COL 2.2** Manage differences in opinion and conflict situations arising in the interdisciplinary team effectively and constructively
- **12 S 3.4** Incorporate evidence-based medicine into clinical practice
- **13** P 1.1 Demonstrate reliability and conscientiousness in comprehensive patient centered care

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# Assessing and providing labour analgesia for healthy parturients with an uncomplicated pregnancy, including the management of common complications of labour analgesia

Key Features:

- This EPA may include any of the following complications: inadequate control of pain, hypotension, bradycardia, fetal bradycardia and decelerations, respiratory depression, unilateral block, high block and/or inadvertent subarachnoid block.
- The observation of this EPA is divided in 2 parts; assessment, provision and management of labour analgesia; management of common complications.
- This EPA includes direct observation of procedural skills (e.g. epidurals).
- Observations of both parts may be done on the same occasion.

#### <u>Assessment plan – recommendations:</u>

Part A: Assessment, provision and management of labour analgesia Direct observation or case review with debrief by supervisor

Use Form 1 or local alternative. Form collects information on:

- Patient's weight: [write in]
- Patient BMI: [write in]
- Type of analgesia provided: epidural; other
- Type of observation: direct; case review

Collect observations from a large breadth of training experience with the expectations not all will be achieved, with a minimum of 10 observations of achievement

- At least 6 direct observations

Part B: Complications

Direct observation and/or case review with debrief by supervisor

Use Form 1 or local alternative. Form collects information on:

- Type of complications: inadequate control of pain; hypotension; bradycardia; fetal bradycardia and deceleration; respiratory depression; unilateral block; high block; inadvertent subarachnoid block; inadvertent dural puncture; other
- Type of observation: direct; case review

Collect at least 3 observations of achievement

#### Relevant milestones:

Part A: Assessment, provision and management of labour analgesia

- **1 ME 1.3** Apply clinical and biomedical sciences to manage core patient presentations in the pregnant patient
- 2 ME 1.4 Perform focused clinical assessments of a parturient during labor, acknowledge limitations of the assessment in this specific context and demonstrate strategies to overcome those limitations

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- **3 ME 3.1** Describe the indications, contraindications, risks, and alternatives for a given procedure or therapy to provide optimal labour analgesia
- 4 ME 2.4 Integrate all sources of information to develop a labour analgesia management plan that is safe, patient-centred, and considers the risks and benefits of all approaches
- 5 ME 2.2 Analyze fetal heart rate monitoring before and after provision of labour analgesia
- **6 ME 3.2** Obtain and properly document informed consent for commonly performed anesthesia procedures and therapies
- 7 **ME 3.4** Demonstrate effective procedure preparation, including gathering required equipment, patient monitoring and positioning, the use of a pre-procedure timeout or safety checklist as appropriate
- 8 ME 3.4 Perform labour epidural analgesia or other common procedures to provide labour analgesia in a skillful, fluid, and safe manner, including appropriate sterile technique
- 9 ME 4.1 Ensure adequate follow up of the parturient receiving labour analgesia
- **10 ME 3.4** Seek assistance as needed when unanticipated findings or changing clinical circumstances are encountered
- **11** COM 1.2 Optimize the physical environment for patient comfort, privacy, engagement, and safety
- **12 COM 4.1** Communicate with cultural awareness and sensitivity
- 13 COM 5.1 Document all aspects of an anesthesia encounter in an accurate, complete, legible, timely, and accessible manner, in compliance with regulatory and legal requirements
- **14 COL 1.1** Receive and appropriately respond to input from other health care professionals
- **15** COL 1.3 Integrate the patient's perspective and context into the collaborative care plan
- **16 L 4.1** Organize work using strategies that address strengths and identify areas to improve in personal effectiveness
- **17 HA 1.2** Select patient education resources related to obstetrical analgesia and anesthesia
- **18 S 3.3** Interpret study findings, including a critique of their relevance to their practice

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Part B: Complications

- **1** ME 1.4 Recognize urgent problems that may need the involvement of more experienced colleagues and seek their assistance
- 2 ME 1.4 Perform focused clinical assessments of a parturient during labor, acknowledge limitations of the assessment in this specific context and demonstrate strategies to overcome those limitations
- 3 ME 2.4 Develop and implement management plans for common problems in labour analgesia
- 4 ME 3.4 Seek assistance as needed when unanticipated findings, difficulties or changing clinical circumstances are encountered
- 5 COM 4.1 Communicate with cultural awareness and sensitivity
- 6 COM 5.1 Document clinical encounters to adequately convey clinical reasoning and the rationale for decisions
- **7 COL 1.1** Receive and appropriately respond to input from other health care professionals
- 8 L 4.1 Organize work using strategies that address strengths and identify areas to improve in personal effectiveness
- 9 P 2.2 Demonstrate a commitment to patient safety and quality improvement through adhere to infection control and sterility procedures

### **Anesthesiology: Foundation EPA #13**

#### Providing anesthesia for patients undergoing non-complex cesarean section

#### Key Features:

- This EPA is focuses on providing anesthesia for non-complex obstetric patients undergoing cesarean section, regardless whether it is scheduled or not ("urgent" cesarean section where there is no immediate threat of life of woman or fetus, but early delivery is required).
- This EPA does not include "emergent" cesarean section (e.g. "code pink") where there is immediate threat to life of woman or fetus. These cesarean sections are part of the Core EPA on managing any parturient for cesarean section.

#### Assessment plan – recommendations:

Direct observation by supervisor

Use Form 1 or local alternative. Form collects information on:

- Patient weight: [write in]
- Patient BMI: [write in]
- Type of anesthesia: spinal; use of epidural previously inserted for labor analgesia; GA
- Priority of surgery: scheduled; urgent

Collect a minimum of 5 observations of achievement

- **1 ME 1.1** Demonstrate compassion for patients
- 2 ME 1.3 Apply clinical and biomedical sciences to manage core patient presentations in the pregnant patient
- 3 ME 1.4 Perform focused clinical assessment with recommendations that are well documented
- 4 ME 2.4 Develop and implement management plans for cesarean section
- **5 ME 3.2** Obtain and properly document informed consent for commonly performed anesthesia procedures and therapies
- 6 ME 3.4 Perform common procedures in a skillful, fluid, and safe manner with minimal assistance including appropriate infection control measures and using protective equipment
- 7 **ME 3.4** Seek assistance as needed when unanticipated findings or changing clinical circumstances are encountered

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# 8 ME 4.1 Diagnose and initiate management of common neuraxial anesthesia complications such as inadequate anesthesia, high spinals and hypotension

- **9 ME 5.2** Use cognitive aids such as procedural checklists, structured communication tools, or care paths, to enhance patient safety
- **10 COM 1.2** Optimize the physical environment for patient comfort, privacy, engagement, and safety
- **11** COM 4.1 Communicate with cultural awareness and sensitivity
- **12 COM 5.1** Document all aspects of an anesthesia encounter in an accurate, complete, legible, timely, and accessible manner, in compliance with regulatory and legal requirements
- 13 COL 1.1 Respect established rules of their team

# 14 COL 2.2 Manage differences in opinion and conflict situations arising in the interdisciplinary team effectively and constructively

- **15 COL 3.2** Communicate with the receiving physicians or health care professionals during transitions in care, clarifying issues after transfer as needed
- **16 S 1.1** Demonstrate a structured approach to monitoring progress of learning in the clinical setting
- **17 P 2.2** Demonstrate a commitment to patient safety and quality improvement through adherence to institutional policies and procedures

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### Anesthesiology: Foundation EPA #14

# Providing perioperative anesthetic management for non-complex cases in pediatric patients

#### Key Features:

- This EPA includes preoperative assessment, investigation and optimization if needed, as well as informed consent from parents/caregivers, anesthetic management and determination of postoperative disposition.
- This EPA may be observed with a variety of non-complex procedures in various surgical disciplines; done on an ambulatory basis or requiring hospital admission.

#### <u>Assessment plan – recommendations:</u>

Direct observation by supervisor

Use Form 1 or local alternative. Form collects information on:

- Type of surgical procedure: general surgery; ophthalmology; orthopedic surgery; otolaryngology; plastic surgery; urology; other
- Type of anesthesia: general; neuraxial; regional
- Age of patient: [write in]

Collect observations from a large breadth of training experience with the expectations not all will be achieved, with at least 3 observations of achievement

- At least two observations of patients under the age of 10

- **1** ME 1.4 Recognize urgent problems that may need the involvement of more experienced colleagues and seek their assistance
- 2 ME 2.2 Perform a focused history, including a review of electronic medical records, and physical exam including regional areas where invasive procedures may be planned, review investigations, and interpret their results for the purpose of preoperative assessment and optimization of patient prior to surgery
- 3 ME 2.2 Synthesize patient information to determine anesthetic considerations, including considerations relevant to the surgical procedure
- 4 ME 2.4 Develop and implement management plans for common intraoperative problems in pediatric anesthesia
- 5 ME 3.1 Determine the most appropriate anesthetic management in relation to patient's condition and surgical procedure
- 6 ME 3.4 Perform the anesthetic management plan

- 7 ME 3.2 Obtain and properly document informed consent for commonly performed anesthesia procedures and therapies
- 8 COM 3.1 Use language that is clear and avoid medical jargon
- 9 ME 3.4 Perform common procedures in a skillful, fluid, and safe manner including appropriate infection control measures and using protective equipment
- **10 ME 5.1** Incorporate, as appropriate, into a differential diagnoses, harm from health care delivery
- **11 ME 5.2** Use cognitive aids such as procedural checklists, structured communication tools, or care paths, to enhance patient safety
- **12 COM 1.1** Communicate using a patient-centred approach that encourages patient trust and autonomy and is characterized by empathy, respect, and compassion
- **13 COM 1.2** Optimize the physical environment for patient comfort, privacy, engagement, and safety
- **14 COM 2.1** Conduct a patient-centred interview, gathering all relevant biomedical and psychosocial information for any clinical presentation

# **15** COL 3.2 Communicate with physicians or health care professionals during transitions in care, clarifying issues after transfer as needed

- **16 S 1.2** Identify, record, prioritize and answer learning needs that arise in daily work, scanning the literature or attending formal or informal education sessions
- **17 P 1.1** Exhibit appropriate professional behaviours

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### Anesthesiology: Foundation EPA #15

### Managing pediatric patients with common postoperative complications in the post anesthesia care unit or ward

Key Features:

- This EPA may include the following complications: pain, nausea, vomiting, tachycardia, bradycardia, hypotension, hypoxemia, respiratory depression, laryngospasm, post op stridor, postoperative bleeding and delirium.
- This EPA should be observed in both the PACU and on the surgical ward.

#### <u>Assessment plan – recommendations:</u>

Direct observation or case review and debriefing by supervisor

Use Form 1 or local alternative. Form collects information on:

- Type of observation: direct; case review
- Type of complication: pain; nausea; vomiting; tachycardia; bradycardia; hypotension; hypoxemia; respiratory depression; laryngospasm; post op stridor; postoperative bleeding; delirium; other
- Age of patient: [write in]
- Setting: PACU; surgical ward; other

Collect observations from a large breadth of training experience with the expectations not all will be achieved, with a minimum of 3 observations of achievement

- At least two patients under the age of 10
- At least two different settings

- **1 ME 1.3** Apply clinical and biomedical sciences to manage core patient presentations in pediatric patients
- 2 ME 1.4 Perform focused clinical assessments with recommendations that are well-documented
- 3 ME 1.4 Recognize urgent problems that may need the involvement of more experienced colleagues and seek their assistance
- 4 ME 2.4 Develop and implement initial management plans for common postoperative problems in pediatric patients
- **5 ME 3.4** Seek assistance as needed when unanticipated findings or changing clinical circumstances are encountered
- 6 ME 4.1 Ensure follow-up on results of investigation and response to treatment

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- 7 COM 3.1 Convey the diagnosis, prognosis and plan of care in a clear, compassionate, respectful, and accurate manner to the patient and/or family
- 8 COM 3.1 Use strategies to verify and validate the understanding of the patient and/or family
- **9 COM 3.2** Disclose harmful patient safety incidents to patients and their families accurately and appropriately with staff guidance if appropriate
- 10 COM 5.1 Document information about patients and their medical conditions in focused, clear, coherent, legible progress notes, handover notes, and/or discharge summaries
- **11 COM 5.1** Document clinical encounters to adequately convey clinical reasoning and the rationale for decisions
- **12 COL 1.1** Receive and appropriately respond to input from other health care professionals
- **13 COL 2.2** Communicate clearly and directly to promote understanding, manage differences, and resolve conflicts
- 14 COL 3.2 Communicate with the attending physician or other appropriate member of the health care team about the patient's condition and care
- **15 P 2.2** Demonstrate a commitment to patient safety

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### Anesthesiology: Foundation EPA #16

# Assessing and initiating management for pediatric patients with common medical conditions

Key Features:

- This EPA includes the following common medical conditions: upper/lower respiratory tract infections, urinary tract infections, minor injuries and febrile illness.
- This EPA may be observed in the inpatient setting, ambulatory clinic or emergency room.
- This EPA may be observed by senior pediatric residents or staff.

#### <u>Assessment plan – recommendations:</u>

Direct observation or chart review and/or case debriefing by supervisor

Use Form 1 or local alternative. Form collects information on:

- Condition: upper/lower respiratory tract infections; urinary tract infections; minor injuries; febrile illness; other
- Age of patient: [write in]

Collect observations from a large breadth of training experience with the expectations not all will be achieved, with at least 4 observations of achievement

- At least 2 patients under the age of 10

- **1 ME 1.1** Demonstrate compassion for patients
- **2 ME 1.3** Apply clinical and biomedical sciences to manage core patient presentations in pediatric patients
- **3 ME 2.1** Iteratively establish priorities, considering the perspective of the patient and family (including values and preferences) as the patient's situation evolves
- 4 ME 2.2 Elicit a history, perform a physical exam, select appropriate investigations, and interpret their results for the purpose of developing a differential diagnosis and an initial management plan
- **5 ME 2.4** Discuss with the patient and family the degree of uncertainty inherent in all clinical situations
- 6 ME 2.4 Integrate all sources of information to develop and initiate a management plan that is safe, patient-centred, and considers the risks and benefits of all approaches
- **7 ME 3.4** Seek assistance as needed when unanticipated findings or changing clinical circumstances are encountered

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- **8 COM 1.6** Assess patients' decision-making capacity taking into account patient age and developmental stage, include parents and other care-givers in discussion
- **9 COM 2.2** Conduct a focused and efficient patient interview, managing the flow of the encounter while being attentive to the patient's cues and responses
- **10** COM 2.3 Seek and synthesize relevant information from other sources, including the patient's family, with the patient's consent
- **11 COL 1.1** Differentiate between task and relationship issues among health care professionals
- **12 COL 3.1** Identify patients requiring handover to other physicians or health care professionals
- 13 COL 3.2 Communicate with physicians or health care professionals during transitions in care, clarifying issues after transfer as needed
- **14 S 1.2** Identify, record, prioritize and answer learning needs that arise in daily work, scanning the literature or attending formal or informal education sessions
- **15 P 1.1** Exhibit appropriate professional behaviours
- 16 P 1.3 Recognize and respond to ethical issues encountered in practice, including competence, consent, and confidentiality

# Assessing, investigating, optimizing, and formulating anesthetic management plans for patients with complex medical issues

#### Key Features:

- This EPA focuses on the preoperative assessment and its purpose to identify and prioritize anesthetic considerations
- Complex medical issues include but are not limited to cancer, cardiovascular disease, connective tissue disease, diabetes mellitus, end organ disease, endocrine disorders, frailty, significant hematological disorders, infectious diseases, morbid obesity, neurological diseases, neuromuscular and musculoskeletal disease, obstructive sleep apnea (OSA), organ transplantation and advanced significant respiratory disease
- This EPA may be observed in the inpatient or preoperative clinic setting

#### Assessment plan:

Supervisor does assessment based on direct and indirect observation

Use Form 1. Form collects information on:

- Level of complexity: moderate, high
- Type of issue: cancer, cardiovascular disease, connective tissue disease, diabetes mellitus, end organ disease, endocrine disorders, frailty, significant hematological disorders, infectious diseases, morbid obesity, neurological diseases, neuromuscular and musculoskeletal disease, obstructive sleep apnea (OSA), organ transplantation advanced significant respiratory disease
- Type of surgery: cardiac surgery; general surgery; gynecology; neurosurgery; ophthalmology; orthopedic surgery; otolaryngology; plastic surgery; thoracic surgery; urology; vascular surgery
- Type of observation: direct; indirect
- Location: preop clinic; ward, OR

Collect 10 observations of achievement

- At least 10 with high level of complexity
- At least 3 with cardiovascular disease
- At least 2 with respiratory disease
- At least 3 other different issues
- At least 2 direct observations
- At least 3 assessors

#### Relevant milestones:

**1 C ME 1.3** Apply clinical and biomedical sciences to manage perioperative assessment in complex patients, in the breadth of conditions listed in the national curriculum

# 2 C ME 1.4 Perform clinical assessments that address the breadth of issues in each case

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- **3 C ME 1.6** Seek assistance in situations that are complex or new
- 4 C ME 2.1 Consider clinical urgency, feasibility, availability of resources, and comorbidities in determining priorities to be addressed
- 5 C ME 2.1 Identify and resolve conflicting anesthetic priorities for complex patients for any surgical procedure
- 6 C ME 2.2 Select and interpret relevant perioperative investigations/ imaging techniques and integrate the results to assess risk and to appropriately modify perioperative management plan
- 7 C ME 2.2 Synthesize patient information to determine the most appropriate anesthetic management plan
- 8 **C ME 2.2** Focus the clinical encounter, performing it in a time-effective manner, without excluding key elements
- **9 C ME 2.3** Address the impact of the medical condition on the patient's ability to pursue life goals and purposes
- **10 C ME 2.3** Share concerns, in a constructive and respectful manner, with patients and families about goals of care that are not felt to be achievable
- 11 C ME 2.4 Formulate and implement anesthetic management plans that consider all of the patient's health problems and context in collaboration with patients and their families and, when appropriate, the interprofessional team
- **12 C ME 2.4** Assess perioperative risk and apply risk reduction strategies
- **13 C ME 3.1** Integrate all sources of information to develop an anesthetic plan that is safe, patient-centred, and considers the risks and benefits of all approaches
- **14 C ME 3.2** Use shared decision-making in the consent process, taking risk and uncertainty into consideration
- **15 C COM 1.5** Recognize when strong emotions (such as, anger, fear, anxiety, or sadness) are affecting an interaction and respond appropriately
- **16 C COM 1.6** Tailor approaches to decision-making to patient capacity, values, and preferences
- **17** F COM 5.1 Document clinical encounters to adequately convey clinical reasoning and the rationale for decisions
- **18** C COL 1.2 Consult as needed with other health care professionals, including other physicians
- **19 C COL 1.3** Communicate effectively with physicians and other colleagues in the health care professions

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- **20 C COL 1.3** Provide timely and necessary written information to colleagues to enable effective relationship-centered care
- 21 C L 2.1 Use clinical judgment to minimize wasteful practices
- **22 C HA 1.2** Apply the principles of behaviour change during conversations with patients about adopting healthy behaviours including smoking cessation
- **23 C S 1.2** Seek and interpret multiple sources of performance data and feedback, with guidance, to continually improve performance
- 24 **C P 2.1** Demonstrate a commitment to maintaining and enhancing competence

# Managing postoperative patients in collaboration with the surgical team with the goal of improving patient outcomes *(elective)*

#### Key Features:

- The achievement of this EPA is elective
- The observation of this EPA is divided into two parts: patient assessment and management, and the application of a quality improvement approach to patient care
- This EPA can be observed on any clinical experience where postoperative patients are encountered.
- The patient assessment and management aspects of this EPA focus on postoperative patient followup in the days following a surgical procedure and working collaboratively with the surgical team
- The quality improvement aspects of this EPA are applied to individual patient care/follow-up in the context of quality improvement at the systems level to improve relevant patient outcomes. Examples could be pain management, VTE prophylaxis, complications of surgical positioning, nausea and vomiting, etc. Chart reviews, QI projects and case reports may be part of this task.

#### Assessment plan:

Part A: Patient assessment and management Supervisor does assessment based on direct and indirect observation

Use Form 1. Form collects information on:

- Location: ICU; stepdown; surgical ward
- Case complexity: low; medium; high

Collect 5 observations of achievement

- At least 3 moderate or high complexity

Part B: Quality improvement

Supervisor does assessment based on review of submission

Use Form 1

Submission may include any of the following:

- Chart review/chart audit
- Case report
- Presentation at morbidity and mortality rounds
- Quality improvement project

### Relevant milestones (Part A):

**1 C ME 1.1** Demonstrate commitment and accountability for patients in their care

# 2 C ME 1.3 Apply knowledge of the interaction of patient co-morbidity and surgical interventions in producing adverse patient outcomes

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- 3 C ME 2.2 Elicit a history, perform a physical exam, select appropriate investigations, and interpret their results for the purpose of diagnosis and management
- 4 C ME 4.1 Establish plans for ongoing care, taking into consideration the patient's clinical state, circumstances, preferences and actions, as well as available resources, best practices and research evidence
- 5 C COM 3.1 Provide information on diagnosis and prognosis in a clear, compassionate, respectful, and objective manner
- **6 C COM 3.2** Communicate the reasons for unanticipated clinical outcomes to patients and disclose patient safety incidents
- 7 C COL 2.2 Gain consensus among colleagues in resolving conflicts
- 8 C S 2.5 Educate surgical colleagues regarding preoperative optimization and its impact on postoperative outcomes

Relevant Milestones (Part B):

- **1** C ME 1.3 Apply knowledge of the interaction of patient co-morbidity and surgical interventions in producing adverse patient outcomes
- 2 C ME 5.1 Recognize near-misses in real time and respond to correct them, preventing them from reaching the patient
- **3** C ME 5.1 Identify potential improvement opportunities arising from harmful patient safety incidents and near misses
- 4 **C ME 5.1** Participate in an analysis of patient safety incidents
- 5 C L 1.1 Analyze and provide feedback on processes seen in one's own practice, team, organization or system
- **6 C L 1.1** Participate in a patient safety and/or quality improvement initiative
- **7 C L 1.2** Engage patients and their families in the continuous improvement of patient safety
- 8 C L 1.4 Map the flow of information in the care of their patients and suggest changes for quality improvement and patient safety
- 9 C L 1.4 Use data on measures of clinical performance during team discussions and to support team decision-making
- **10 C HA 2.2** Report epidemics or clusters of unusual cases seen in practice, balancing patient confidentiality with the duty to protect the public's health
- **11 C S 2.5** Educate surgical colleagues regarding preoperative optimization and its impact on postoperative outcomes

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# 12 C S 3.1 Generate focused questions that address practice uncertainty and knowledge gaps

- **13 C S 4.4** Apply statistical tools to accurately interpret treatment effects in improving patient outcome
- 14 C P 1.2 Analyze how the system of care supports or jeopardizes excellence

# Assessing, diagnosing and managing acute or potentially life-threatening conditions outside of the perioperative period

#### Key Features:

- This EPA focuses on the diagnosis, investigation and management of all aspects of a patient's care including discussions of prognosis and other required medical interventions, as well as communication with other consultants and thorough documentation.
- Conditions may include but are not limited to respiratory distress, congestive heart failure, shock from any cause, overwhelming sepsis, devastating neurological events, cardiac ischemia and cardiac arrhythmias.
- This EPA is usually observed in the intensive care setting, but may be initially encountered in the ER or on the ward prior to transfer to the ICU.

#### Assessment plan:

Supervisor does assessment based on indirect observation (chart review and debrief)

Use Form 1. Form collects information on:

- Type of condition: cardiac event; neurologic event; respiratory failure; sepsis; shock
- Location: ICU, ward

Collect 7 observations of achievement

- at least one cardiac event
- at least one respiratory failure
- at least one shock of any type except cardiac
- at least 1 on ward
- at least 3 assessors

#### Relevant Milestones:

# 1 C ME 1.6 Adapt care as the complexity, uncertainty, and ambiguity of the patient's clinical situation evolves

2 **C ME 2.1** Consider clinical urgency, feasibility, availability of resources, and comorbidities in determining priorities to be addressed

# **3** C ME 2.2 Focus the clinical encounter, performing it in a time-effective manner, without excluding key elements

**4 C ME 2.3** Address the impact of the medical condition on the patient's ability to pursue life goals and purposes

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# 5 C ME 2.4 Develop, in collaboration with a patient and his or her family, a plan to deal with clinical uncertainty

# 6 C ME 3.1 Integrate planned procedures or therapies into global assessment and management plans

- 7 **C ME 3.2** Use shared decision-making in the consent process, taking risk and uncertainty into consideration
- 8 C ME 3.4 Competently perform a resuscitation protocol
- 9 C ME 4.1 Establish plans for ongoing care, taking into consideration the patient's clinical state, circumstances, preferences, and actions, as well as available resources, best practices, and research evidence
- **10 C ME 5.2** Apply the principles of situational awareness to clinical practice
- 11 C COM 3.1 Convey information related to the patient's health status, care, and needs in a timely, honest, and transparent manner
- **12 C COL 1.3** Communicate effectively with physicians and other colleagues in the health care professions
- **13 C COL 3.2** Organize the handover of care to the most appropriate physician or health care professional
- **14 C L 3.2** Develop a strategy for implementing change in health care resuscitation with physicians and other health care professionals to enhance outcomes
- 15 C L 4.2 Apply the principles of crisis resource management including but not limited to leadership, resource allocation, situational awareness and communication/collaboration
- **16 C L 4.3** Improve personal practice by evaluating a problem, setting priorities, executing a plan, and analyzing the results
- **17 C S 1.2** Seek and interpret multiple sources of performance data and feedback, with guidance, to continually improve performance
- **18 C S 2.3** Balance clinical supervision and graduated responsibility, ensuring the safety of patients and learners

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### Providing comprehensive assessment and ongoing management of complex critically ill patients in an intensive care setting

#### Key Features:

- This EPA focuses on all aspects of ongoing patient care in a critically ill patient, including ongoing reassessment and management of the clinical course, organizing and following up investigations, and performing required invasive procedures
- This also includes thorough documentation, leading family discussions regarding prognosis and treatment decisions, collaborating with required specialists, and demonstrating professional behavior with the entire care team.

#### Assessment plan:

Supervisor does assessment based on direct and/or indirect observation

Use Form 1. Form collects information on:

- Category: cardiac disease; neurologic disease; respiratory disease; sepsis; trauma; shock

Collect 8 observations of achievement

- At least one from each category
- At least 3 assessors

- **1** C ME 1.4 Perform clinical assessments that address the breadth of issues in each case
- 2 C ME 1.6 Adapt care as the complexity, uncertainty, and ambiguity of the patient's clinical situation evolves
- **3** C ME 2.2 Select and interpret appropriate investigations based on a differential diagnosis
- 4 C ME 2.2 Synthesize patient information to determine diagnosis
- **5 C ME 2.3** Address the impact of the medical condition on the patient's ability to pursue life goals and purposes
- **6 C ME 2.3** Share concerns, in a constructive and respectful manner, with patients and their families about their goals of care when they are not felt to be achievable
- **7 C ME 2.4** Select appropriate life-sustaining therapies (e.g. NIPPV, IPPV, dialysis, hemodynamic supports) and implement them in an organized, prioritized and efficient manner

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# 8 C ME 3.1 Integrate planned procedures or therapies into global assessment and management plans

- **9 C ME 3.3** Triage a procedure or therapy, taking into account clinical urgency, potential for deterioration, and available resources
- **10 C ME 3.4** Competently perform discipline-specific procedures
- 11 C ME 4.1 Establish plans for ongoing care, taking into consideration the patient's clinical state, circumstances, preferences, and actions, as well as available resources, best practices, and research evidence
- **12 C ME 4.1** Determine the necessity and appropriate timing of consultation
- 13 C ME 5.2 Apply the principles of situational awareness to clinical practice
- 14 F COM 5.1 Document clinical encounters to adequately convey clinical reasoning and the rationale for decisions
- 15 C COL 3.2 Organize the handover of care to the most appropriate physician or health care professional

### Managing the care of multiple patients with remote consultant support during afterhours coverage in intensive care unit

#### Key Features:

- The observation of this EPA is divided into two parts: patient care and handover
- The patient care aspects of this EPA focuses on managing a critical care unit overnight without direct supervision, provided the consultant is available if needed. This includes prioritizing patient management decisions, demonstrating insight into one's limitations and recognizing when to call for assistance. It is expected however that the Core resident can independently manage emergent situations that may arise until further help is available.
- The handover aspect of this EPA is to be observed as the resident transfers care to the incoming physician/team (i.e., morning after coverage)

#### Assessment plan:

Part A: Patient care

Supervisor does assessment based on indirect observation (chart review, debrief, phone consultation)

Use Form 1. Form collects information on:

- Level of activity on shift: low; medium; high
- Number of patient under resident's care

Collect one observation per call event

- At least 3 assessors

Part B: Handover Supervisor does assessment based on direct observation of a handover event

Use Form 1

Collect 3 observations of achievement

#### Relevant milestones (Part A):

- **1** C ME 1.5 Maintain a duty of care and patient safety while balancing multiple competing responsibilities
- 2 C ME 1.5 Prioritize patients on the basis of acuity of illness
- **3 C ME 1.5** Prioritize issues in each patient on the basis of clinical presentation

# 4 C ME 1.6 Adapt care as the complexity, uncertainty, and ambiguity of the patient's clinical situation evolves

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- **5 C ME 1.6** Seek assistance in situations that are complex and new
- **6 C ME 2.2** Synthesize patient information to determine diagnosis
- 7 C ME 2.4 Formulate and implement management plans that consider all of the patient's health problems and context
- 8 **C ME 3.1** Integrate planned procedures or therapies into global assessment and management plans
- 9 C ME 3.3 Prioritize a procedure or therapy, taking into account clinical urgency, potential for deterioration, and available resources
- **10 C ME 3.4** Competently perform discipline-specific procedures
- **11 C ME 4.1** Determine the necessity and appropriate timing of consultation
- **12 C ME 5.2** Apply the principles of situational awareness to clinical practice
- **13 C COM 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 critical or end of life care, and modify the approach to the patient accordingly
- **14 C COM 1.6** Tailor approaches to decision-making to patient capacity, values, and preferences within the familial, societal, and legal obligations of the profession
- **15 C COM 3.1** Provide information on diagnosis, risks and benefits of diagnostic and therapeutic options, and prognosis in a clear, compassionate, respectful, and objective manner.
- **16 C COM 3.1** Convey information related to the patient's health status, care, and needs in a timely, honest, and transparent manner.

# 17 F COM 5.1 Document clinical encounters to adequately convey clinical reasoning and the rationale for decisions

- **18 F COL 1.1** Establish and maintain healthy relationships with physicians and other colleagues in the health care professions to support relationship-centered collaborative care
- 19 C L 4.2 Apply the principles of crisis resource management including but not limited to leadership, resource allocation, situational awareness and communication/collaboration
- 20 C HA 1.1 Facilitate timely patient access to intensive care resources
- 22 F P 4.1 Demonstrate an ability to regulate attention, emotions, thoughts, and behaviours, mitigating the impact of physical and environmental factors, to ensure the capacity to perform professional tasks on call

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Relevant milestones (Part B):

- **1** C ME 2.2 Synthesize patient information to reflect current clinical condition
- 2 C ME 4.1 Establish plans for ongoing care, taking into consideration the patient's clinical state, circumstances, preferences, and actions, as well as available resources, best practices, and research evidence
- **3 F COM 5.1** Document information about patients and their medical conditions in a manner that enhances intra-and interprofessional care
- **F COL 3.2** Communicate with the receiving physicians or health care professionals during transitions in care, clarifying issues after transfer as needed
- 5 C COL 3.2 Analyze gaps in communication between health care professionals during transitions in care
- 6 F COL 3.2 Summarize the patient's issues in the transfer summary, including plans to deal with the ongoing issues
- 7 F COL 3.2 Recognize and act on patient safety issues in the transfer of care
- 8 C COL 3.2 Demonstrate safe handover of care, using both verbal and written communication, during a patient transition to a different healthcare professional or setting

# Performing as an integral member of the patient care team on daily ICU rounds by recommending management decisions consistent with best practice standards and guidelines (elective)

Key Features:

- The achievement of this EPA is elective
- This EPA focuses on summarizing the patient's active issues and suggesting best medical management and follow up, as well as working effectively with other health care professionals, using their expertise appropriately

<u>Assessment plan:</u> Part A: Daily rounds Supervisor does assessment based on direct observation

Use Form 1. Form collects information on:

- Setting: ICU; NICU; PICU; coronary unit
- Assessor: staff; peer

Collect 5 observations of achievement

- At least 2 settings
- At least 2 staff
- At least 1 peer

#### Part B: Multisource feedback

Multiple observers provide feedback individually, which is then collated to one report.

Use Form 3. Form collects information on

- Observer role: ICU nurses; respiratory therapist; pharmacists; other

Collect feedback on one occasion at the end of a clinical experience of at least 4 weeks in an intensive care unit

- At least one of each observer role
- At least 8 observers

#### Relevant milestones (Part A):

- **1** C ME 1.5 Prioritize issues in each patient on the basis of clinical presentation
- **2 C ME 1.6** Adapt care as the complexity, uncertainty, and ambiguity of the patient's clinical situation evolves
- 3 C ME 2.1 Consider clinical urgency, feasibility, availability of resources, and comorbidities in determining priorities to be addressed
- 4 C ME 2.2 Synthesize patient information to reflect current clinical condition
- 5 C ME 4.1 Implement a patient-centred care plan that supports ongoing care, follow-up on investigations, response to treatment, and further consultation
- **6 C COM 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

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care, and modify the approach to the patient accordingly

- 7 C COL 1.2 Consult as needed with other health care professionals, including other physicians
- 8 C COL 1.3 Engage in respectful shared decision-making with physicians and other colleagues in the health care professions

### 9 C COL 2.2 Gain consensus among colleagues in resolving conflicts

- **10 C L 2.1** Use clinical judgment to minimize wasteful practices
- **11 C HA 1.1** Facilitate timely patient access to services and resources

### 12 C S 2.1 Use strategies for deliberate, positive role-modeling

- **13 C S 2.3** Supervise learners to ensure they work within limitations, seeking guidance and supervision when needed
- **14 C S 2.6** Appropriately assess junior learners

### Relevant Milestones (Part B):

- 1 C COM 1.1 Communicate with patient and family in a manner that encourages trust and autonomy, and is characterized by empathy, respect, and compassion
- 2 F COM 5.2 Write orders clearly and legibly
- **3 F COL 1.1** Establish and maintain healthy relationships with physicians and other colleagues in the health care professions to support relationship-centered collaborative care
- **4 C COL 1.2** Consult as needed with other health care professionals, including other physicians
- 5 C COL 1.3 Communicate effectively with physicians and other colleagues in the health care professions
- **6 C COL 1.3** Provide timely and necessary written information to colleagues to enable effective relationship-centered care
- 7 F COL 2.1 Delegate tasks and responsibilities in an appropriate and respectful manner
- 8 C COL 2.1 Show respect toward collaborators
- **9 C L 1.2** Actively encourage all involved in health care, regardless of their role, to report and respond to unsafe situations
- **10** C L 4.2 Demonstrate appropriate leadership skills in the intensive care environment including during crisis
- 11 F P 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
- 12 F P 1.5 Exhibit professional behaviours in the use of technology-enabled communication

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### Providing care for patients whose goals of care are palliative, including comprehensive pain and perioperative management, and demonstration of appropriate communication skills *(elective)*

#### Key Features:

- The achievement of this EPA is elective
- The observation of this EPAs is divided into two parts:
  - communication around end of life decisions as well as DNR status during surgery
  - pain and anesthetic considerations in patients whose care goals are palliative
- This EPA may be observed in the perioperative or ICU setting

#### Assessment plan:

Part A: Communication Supervisor does assessment based on direct observation

Use Form 1. Form collects information on:

- Type of setting: preoperative; ICU; postoperative
- Type of discussion: do not resuscitate discussion (DNR); plans for palliative care; other (please specify)

Collect 3 observations of achievement

- At least one from preoperative setting
- At least one from ICU

Part B: Pain and anesthetic considerations

Supervisor does assessment based on direct observation, or chart review and/or case discussion

Use Form 1. Form collects information on:

- Focus of care: pain management; anesthetic management

Collect 3 observations of achievement

- At least one pain management
- At least one anesthetic management

#### Relevant milestones (Part A):

1 C ME 2.3 Share concerns, in a constructive and respectful manner, with patients and their families, about their goals of care when they are not felt to be achievable

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- **2 C ME 2.4** Formulate and implement management plans that consider all of the patient's health problems and context, in a timely manner, in collaboration with patients and their families and, when appropriate, the interprofessional team
- **3 C ME 2.4** Develop, in collaboration with a patient and his or her family, a plan to deal with clinical uncertainty

# 4 C ME 3.2 Use shared decision-making in the consent process, taking risk and uncertainty into consideration

- **5 C ME 4.1** Establish plans for ongoing care, taking into consideration the patient's clinical state, circumstances, preferences and actions, as well as available resources, best practices and research evidence
- **6 C COM 1.1** Communicate with patient and family in a manner that encourages trust and autonomy, and is characterized by empathy, respect, and compassion
- 7 **C COM 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
- 8 **C COM 1.5** Recognize when strong emotions (such as anger, fear, anxiety, or sadness) are impacting an interaction and respond appropriately
- 9 C COM 1.6 Tailor approaches to decision-making to patient capacity, values, and preferences
- 10 C COM 2.1 Actively listen and respond to patient cues
- 11 C COM 2.2 Manage the flow of challenging patient encounters, including those with angry, distressed, or excessively talkative individuals
- 12 C COM 3.1 Provide information on diagnosis, risks and benefits of diagnostic and therapeutic options and prognosis in a clear, compassionate, respectful, and objective manner
- 13 F COM 4.3 Answer questions from the patient and family about next steps
- 14 F COM 5.1 Document clinical encounters and care plans (such as DNR forms and discussions) to adequately convey clinical reasoning and the rationale for decisions
- **15 C COL 3.2** Organize the handover of care to the most appropriate physician or health care professional trained in the care of the complex palliative patient
- **16 C HA 1.1** Recognize the role the Anesthesiologist might play in the context of Medical Assistance in Dying
- 17 C P 1.3 Manage ethical issues encountered with patients/families of varied cultural and religious backgrounds during sensitive end-of-life discussions

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Relevant Milestones (Part B):

- 1 C ME 1.4 Perform clinical assessments that address the breadth of issues in each case
- 2 C ME 2.1 Consider appropriateness of clinical intervention in the setting of a palliative patient
- 3 C ME 2.3 Address the impact of the medical condition on the patient's comfort and quality of life and whether it will be impacted by a given medical intervention (e.g. surgery, diagnostic test, etc.)
- 4 C ME 2.4 Formulate and implement management plans that consider all of the patient's health problems and context, in a timely manner, in collaboration with patients and their families and, when appropriate, the interprofessional team
- **5 C ME 2.4** Develop, in collaboration with a patient and his or her family, a plan to deal with clinical uncertainty
- 6 C ME 3.2 Use shared decision-making in the consent process, taking risk and uncertainty into consideration
- 7 C ME 4.1 Establish plans for ongoing care, taking into consideration the patient's clinical state, circumstances, preferences and actions, as well as available resources, best practices and research evidence
- 8 **C COM 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
- **9 C COM 1.5** Recognize when strong emotions (such as anger, fear, anxiety, or sadness) are impacting an interaction and respond appropriately
- 10 F COM 5.1 Document clinical encounters and care plans (such as DNR forms and discussions) to adequately convey clinical reasoning and the rationale for decisions
- **11 C COL 3.2** Organize the handover of care to the most appropriate physician or health care professional trained in the care of the complex palliative patient
- **12 C P 1.3** Manage ethical issues encountered with patients/families of varied cultural and religious backgrounds during sensitive end of life discussions

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# Managing patients presenting with an anticipated difficult airway, including appropriate extubation plans

#### Key Features:

- The resident has been entrusted with discussing plans for anticipated difficult airway in foundations. At Core the task focuses on preparation of full OR equipment and medication including at least 2 additional management options if the initial plan is unsuccessful, consideration of potential side effects and complications, execution of the management plan and thorough documentation.
- The extubation plan must include anticipation of and management strategies to minimize risk of failure, and a postoperative disposition appropriate for the level of care required.

#### Assessment plan:

Supervisor does assessment based on direct observation

Use Form 1. Form collects information on:

- Location: OR; ICU; ward; ER
- Age
- Type of airway management technique: fiberoptic; direct laryngoscopy; video laryngoscopy; adjunct airway use
- Airway foreign body: yes; no
- Extubation plans: yes; no

Collect 6 observations of achievement

- At least 3 assessors

#### Relevant milestones:

- 1 C ME 1.4 Perform an appropriate history and physical assessment to identify patients with the potential for a difficult airway, including the predictors for difficult mask ventilation
- 2 C ME 2.2 Synthesize patient information to diagnose a potential difficult airway
- **3 C ME 2.2** Identify those patients and disease states which are at higher risk of a difficult airway
- 4 **C ME 2.4** Formulate and implement management plans that consider all of the patient's health problems and context, in a timely manner, in collaboration with patients and their families and, when appropriate, the interprofessional team

# 5 C ME 3.1 Integrate all sources of information to develop a clear plan to safely manage the patient with an anticipated difficult airway

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# 6 C ME 3.4 Competently and safely provide airway management for patients with an anticipated difficult airway

- 7 C ME 3.4 Document procedures accurately
- 8 C ME 3.4 Establish and implement a plan for extubation, post-extubation and post-operative care
- **9 C COM 3.1** Convey information, management plans and rationale accurately and respectfully to the patient in an honest and transparent manner
- **10** F COM 5.1 Document information about the patient with a difficult airway in a manner that enhances patient safety and intra- and inter-professional care

# 11 C COL 1.3 Communicate effectively with physicians and other colleagues in the health professions

- **12 C S 1.2** Keep a log of difficult airway cases and include techniques and airway adjuncts to guide future required learning experiences
- **13 C P 2.1** Demonstrate a commitment to maintaining and enhancing competence

# Managing patients presenting with unanticipated difficult airway, including cannot intubate, cannot oxygenate situation

#### Key Features:

- This EPA requires the demonstration of medical expertise to manage the clinical situation as well as the leadership skills to facilitate teamwork and crisis resource management
- The observation of this EPA should be documented with every encounter of a patient with an unanticipated difficult airway

#### Assessment plan:

Supervisor does assessment based on direct observation

Use Form 1. Form collects information on:

- Age
- Setting: OR; ICU; ER
- Procedure: fiberoptic; direct laryngoscopy; video laryngoscopy; adjunct airway use; tracheostomy; cricothyroidotomy

Collect observations of every unanticipated difficult airway encountered throughout Core

- **1 C ME 1.4** Perform appropriate history and physical assessment to identify patients with potential for a difficult airway, including the predictors for difficult mask ventilation
- 2 **C ME 1.6** Seek assistance in situations that are complex or new
- **3** C ME 1.6 Promptly recognize a complex situation in which the patient is not responding as usual to the management plan
- 4 **C ME 2.2** Promptly synthesize patient information to reassess the airway and diagnose a difficult airway with or without difficult mask ventilation
- **5 C ME 2.2** Identify those patients and disease states which are at higher risk of a difficult airway
- 6 C ME 3.1 Select appropriate airway management techniques under a crisis situation
- 7 C ME 3.4 Establish and implement a plan for extubation, post-extubation and post-operative care
- 8 **C ME 3.4** Document procedures accurately

# 9 C ME 3.4 Competently and safely provide airway management under a crisis situation

# **10** C ME 3.4 Appropriately apply techniques of cricothyroidotomy or tracheotomy

- **11 C ME 4.1** Establish plans for ongoing care, taking into consideration the patient's clinical state, circumstances, preferences, and actions, as well as available resources, best practices, and research evidence
- 12 C ME 5.2 Apply the principles of situational awareness to clinical practice
- **13 C ME 5.2** Adopt strategies that promote patient safety and address human and system factors safety
- 14 C COM 3.2 Communicate the reasons for unanticipated clinical outcomes to patients and disclose patient safety incidents
- **15 C COM 3.2** Apologize appropriately for a harmful patient safety incident

# 16 C COL 1.3 Provide timely and necessary written information to colleagues to enable effective relationship-centered care

- **17 C COL 1.3** Apply closed loop communication in urgent or crisis situations to work effectively with physicians and other colleagues in the health care professions
- **18 F COL 2.1** Delegate tasks and responsibilities in an appropriate and respectful manner during a crisis
- **19** L 4.2 Assume a leadership role during a crisis
- 20 C P 2.1 Demonstrate a commitment to maintaining and enhancing competence
- 21 C P 4.1 Demonstrate the ability to stay calm during a challenging situation

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# Providing perioperative management for patients requiring airway diagnostic and therapeutic procedures

#### Key Features:

- This EPA may be observed in any of the following situations: fiberoptic and rigid bronchoscopy, laser surgery, foreign body removal, airway stents or tracheal resection

#### Assessment plan:

Supervisor does assessment based on direct observation

Use Form 1. Form collects information on:

- Location: clinical; simulation
- Type of airway and/or ventilation management: spontaneously breathing patient; spontaneously breathing with airway adjunct; use of rigid laryngoscopy or bronchoscopy; use of endotracheal tube; use of jet ventilation; other

Collect 5 observations of achievement

- At least one jet ventilation (may be simulated)

- **1 C ME 1.4** Perform clinical assessments that address the breadth of issues in each case
- 2 **C ME 1.6** Seek assistance in situation that are complex or new
- **3 C ME 2.1** Consider clinical urgency, feasibility, availability of resources, and comorbidities in determining priorities to be addressed
- 4 C ME 2.2 Synthesize information from the preoperative workup to prepare for a patient with a complicated airway
- 5 C ME 2.4 Assess risk for, anticipate, and prepare for loss of airway
- 6 C ME 3.1 Integrate all sources of information to develop an anesthetic management plan that is safe, patient-centred, and considers the risks and benefits of all approaches
- 7 C ME 3.4 Provide anesthesia for invasive airway procedures
- 8 C COL 1.1 Anticipate, identify, and respond to patient safety issues related to the function of a team

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# 9 C COL 1.3 Demonstrate efficiency in giving feedback on the patient status to the surgical team during the procedure

# **10** F COL 2.1 Delegate tasks and responsibilities and communicate a clear plan of action to an assistant before a procedure

11 C COL 3.2 Demonstrate safe handover of care

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### Providing perioperative anesthetic management for adult patients with complex medical issues undergoing scheduled or emergent surgical procedures

#### Key Features:

- The observation of this EPA is divided into three parts: perioperative management of individual cases, breadth of experience and collaboration with the interprofessional team
- The perioperative management aspects of this EPA focus on all aspects of care for an individual patient including preoperative assessment, investigation/optimization if needed, informed consent, anesthetic management and determination of postoperative disposition
- This EPA should be observed across a variety of procedures of moderate to high complexity in various surgical subspecialties
- Complex medical issues may include but are not limited to cancer, cardiovascular disease, connective tissue disease, diabetes mellitus, end organ disease, endocrine disorders, frailty, significant hematological disorders, infectious diseases, morbid obesity, neurological diseases, neuromuscular and musculoskeletal disease, obstructive sleep apnea (OSA), organ transplantation, and advanced significant respiratory disease

#### Assessment plan:

Part A: Perioperative management

Supervisor does assessment based on direct observation and review of clinical documentation

Use Form 1. Form must collect information on

- Timing: emergency; elective
- Type of surgery: cardiac surgery general surgery; gynecology; neurosurgery; ophthalmology; orthopedic surgery; otolaryngology; plastic surgery; thoracic surgery; urology; vascular surgery
- Type of anesthesia: general; neuraxial; regional, monitored anesthesia care (MAC)
- Case complexity: low; medium; high
- Patient comorbidities: cancer; cardiovascular disease; connective tissue disease; diabetes mellitus; end organ disease; endocrine disorders; frailty; significant hematological disorders; infectious diseases; morbid obesity; neurological diseases; neuromuscular and musculoskeletal disease; obstructive sleep apnea (OSA); organ transplantation; advanced significant respiratory disease

Collect seventy (70) observations of achievement

- At least 50 observations in elective patients
- At least 20 observations in emergency patients
- Must include broad range of surgeries, patient complexity ratings and co-morbidities
- Observations must be collected across the breadth of the duration of Core stage

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Part B: Logbook

Submit resident logbook demonstrating breadth of technical procedures and anesthetic management

Part C: Multisource feedback

Multiple observers provide feedback individually, which is then collated to one report.

Use Form 3. Form collects information on:

 Observer role: OR nurse; PACU nurse; respiratory therapist or anesthesia assistant; surgeon

Collect feedback on 2 occasions at least 12 months apart

- At least one from each observer role
- At least 10 observers at each time point

#### Relevant milestones (Part A):

- **1 C ME 1.1** Demonstrate commitment and accountability for patients in their care
- **2 C ME 1.3** Apply knowledge of the clinical and biomedical sciences relevant to Anesthesiology
- **3 C ME 1.4** Perform appropriately-timed preoperative clinical assessments with recommendations that are well-organized and properly documented in written and/or oral form
- **4 C ME 1.6** Adapt care as the complexity, uncertainty, and ambiguity of the patient's clinical situation evolves
- **5 C ME 1.6** Seek assistance in situations that are complex or new
- 6 C ME 2.1 Consider clinical urgency, feasibility, availability of resources, and comorbidities in determining priorities to be addressed during preoperative evaluation and determination of timing of surgery
- 7 C ME 2.2 Elicit a history, perform a physical exam and select appropriate investigations, and interpret their results for the purpose of determining prioritized anesthetic considerations and perioperative management plan
- 8 **C ME 2.4** Establish a comprehensive patient-centred perioperative anesthetic management plan, taking into consideration the wishes of the patients and their families, the impact of the patient's co-morbidities, available resources, and the needs and urgency of the surgical or diagnostic procedure
- **9 C ME 3.2** Use shared decision-making in the consent process, taking risk and uncertainty into consideration
- **10 C ME 3.4** Establish and implement a plan for post-anesthesia care

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- 11 C ME 3.4 Perform the anesthetic management and all related technical procedures in a skilful and safe manner, adapting to unanticipated findings or changing clinical circumstances
- **12** C ME 5.2 Apply the principles of situational awareness to clinical practice
- 13 C COM 4.3 Obtain and document informed consent for the planned anesthetic management in a manner that engages the patients and their families using established principles of effective communication
- 14 C COM 5.1 Maintain an anesthetic record and document postoperative orders in a manner consistent with effective written communication
- **15 C COL 1.2** Negotiate overlapping and shared responsibilities with physicians and other colleagues in the health care professions
- **16 C COL 1.3** Engage in respectful shared decision-making with physicians and other colleagues in the health care professions
- **17 C COL 2.2** Implement strategies to promote understanding, manage differences, and resolve conflict in a manner that supports a collaborative culture
- 18 C COL 3.2 Demonstrate safe handover of care, using both verbal and written communication, during a patient transition to a PACU RN, an anesthesiologist, or to a different health care professional
- **19 C L 2.1** Allocate health care resources for optimal patient care
- 20 C L 4.2 Assume a leadership role in managing complex cases in the OR
- **20 C HA 1.2** Work with patients and their families to increase opportunities to adopt healthy behaviours
- **21 C S 3.3** Critically evaluate the integrity, reliability, and applicability of health-related research and literature
- 22 F P 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
- **23 C P 2.1** Demonstrate accountability to patients, society, and the profession by responding to societal expectations of physicians.

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Relevant Milestones (Part C):

- 1 C COM 1.1 Communicate with patient and family in a manner that encourages trust and autonomy and is characterized by empathy, respect, and compassion
- 2 C COM 5.2 Write orders clearly and legibly
- 3 C COL 1.1 Establish and maintain healthy relationships with physicians and other colleagues in the health care professions to support relationshipcentered collaborative care
- 4 F COL 2.1 Delegate tasks and responsibilities in an appropriate and respectful manner
- **5 C COL 2.1** Show respect toward collaborators
- 6 C COL 3.2 Demonstrate safe handover of care, using both verbal and written communication, during a patient transition to a PACU RN, an anesthesiologist, or to a different health care professional.
- 7 C L 4.2 Demonstrate appropriate leadership skills
- 8 **C L 1.2** Actively encourage all involved in health care, regardless of their role, to report and respond to unsafe situations
- 9 F P 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
- **10** F P 1.5 Exhibit professional behaviours in the use of technology-enabled communication

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# Providing perioperative anesthetic management for geriatric patients undergoing scheduled or emergent surgical procedures

Key Features:

- This EPA focuses on the specific risks associated with surgery in the frail elderly patient with special considerations related to risk of surgery, and unique postoperative complications such as delirium and post-operative cognitive dysfunction

#### Assessment plan:

Supervisor does assessment based on direct observation and review of clinical documentation

Use Form 1. Form collects information on:

- Complexity of case: low; moderate; high
- Type of anesthesia: general; neuraxial; regional; monitored anesthesia care (MAC)

Collect 3 observations of achievement

- At least one under general anesthesia
- At least 2 assessors

- 1 C ME 1.4 Perform appropriately-timed preoperative clinical assessments with recommendations that are well-organized and properly documented in written and/or verbal form
- 2 C ME 2.3 Identify the patient's beliefs, values and goals and counsel them appropriately regarding anesthetic choices, treatment options and overall prognosis as part of a preoperative assessment
- **3 C ME 2.4** Establish a comprehensive patient-centred perioperative anesthetic management plan, taking into consideration the wishes of the patients and their families, the impact of the patient's co-morbidities, available resources, and the needs and urgency of the surgical or diagnostic procedure
- 4 C ME 3.1 Integrate all sources of information to develop the most appropriate anesthesia management plan for the patient considering anatomic, physiologic and pharmacologic changes related to the geriatric population, and risks and benefits of all approaches
- **5 C ME 3.2** Use shared decision-making in the consent process, taking risk and uncertainty into consideration

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- 6 C ME 3.4 Establish and implement a plan for post-anesthesia care including anticipation and management of postoperative complications specific to the geriatric population
- 7 C ME 3.4 Perform the anesthetic management and all related technical procedures in a skilful and safe manner, adapting to unanticipated findings or changing clinical circumstances
- 8 C COM 1.6 Tailor approaches to decision-making to patient capacity, values, and preferences
- 9 C COL 1.2 Consult as needed with other health care professionals, including other physicians
- 10 C COL 3.2 Demonstrate safe handover of care, using both verbal and written communication, during a patient transition to a PACU RN, an anesthesiologist, or to a different health care professional

#### Providing perioperative anesthetic management for patients with critical illness

Key Features:

 This EPA focuses on the specific risks associated with surgery in the patient who is critically ill, adapting anesthetic plan to the patient's ongoing medical management as well as the type of surgery

#### Assessment plan:

Supervisor does assessment based on direct observation and review of clinical documentation

Use Form 1. Form collects information on:

- Complexity of case: low; medium; high
- Type of critical life support: circulatory; respiratory; renal; other

Collect 5 observations of achievement

- At least 3 with high complexity
- At least 3 assessors

- **1 C ME 1.1** Demonstrate commitment and accountability for patients in their care
- **2 C ME 1.3** Apply knowledge of advanced life support to optimize and prepare the patient and operating room for surgical intervention in the critically ill patient
- 3 C ME 2.2 Elicit a history, perform a physical exam and select appropriate investigations, and interpret their results for the purpose of determining prioritized anesthetic considerations and perioperative management plan of a patient with critical illness
- 4 C ME 3.1 Integrate all sources of information to develop an anesthetic management plan that is safe, patient-centred, and considers the risks and benefits of all approaches
- **5 C ME 3.4** Establish and implement a plan for post-anesthesia care
- 6 C ME 3.4 Perform the anesthetic management and all related technical procedures in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances
- **7 C ME 5.1** Recognize and respond to harm from health care delivery, including patient safety incidents
- 8 C ME 5.2 Apply the principles of situational awareness to clinical practice

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- **9 C COM 4.3** Obtain and document informed consent for the planned anesthetic management in a manner that engages the patients and their families using established principles of effective communication
- **10 C COM 3.2** Disclose harmful patient safety incidents to patients and their families accurately and appropriately
- 11 C COL 1.3 Engage in respectful shared decision-making with physicians and other colleagues in the health care professions.
- **12 C COL 2.2** Implement strategies to promote understanding, manage differences, and resolve conflicts in a manner that supports a collaborative culture
- 13 C COL 3.2 Demonstrate safe handover of care, using both verbal and written communication, during a patient transition to a PACU RN, an anesthesiologist, or to a different health care professional.
- 14 C L 1.2 Contribute to a culture that promotes patient safety
- **15 C L 2.1** Engage in stewardship of health care resources
- **16 C L 4.3** Implement processes to ensure personal practice improvement
- **17 C HA 1.1** Respond to an individual patient's health needs by advocating with the patient within and beyond the clinical environment
- **18** C P 1.1 Demonstrate a commitment to patients by applying best practices and adhering to high ethical standards

#### Managing serious and life-threatening perioperative complications in a timeappropriate manner

#### Key Features:

- This EPA focuses on the management of the full range of serious and life-threatening complications in a time-appropriate manner, as they factor in complex medical issues inherent in the patient presentation.
- This EPA includes identification of risk factors, strategies to prevent/minimize potential complications, anticipation of further complications, as well as assessing, diagnosing and managing the complication. Leadership, communication and patient advocacy skills must be demonstrated to facilitate a fully functional care team. This may involve additional specialist involvement and consultation.

#### Assessment plan:

Supervisor does assessment based on direct or indirect observation (case review and debrief)

Use Form 1. Form collects information on:

- Type of surgery: cardiac surgery; general surgery; gynecology; neurosurgery; ophthalmology; orthopedic surgery; otolaryngology; plastic surgery; thoracic surgery; urology; vascular surgery
- Category of illness: cardiac; respiratory; neurologic; other
- Timing: intraoperative; postoperative
- Type of anesthesia: general; neuraxial; regional, monitored anesthesia care (MAC)

Collect 7 observations of achievement

- At least 3 different surgical procedures
- At least 2 different categories of illness
- At least 3 intraoperative
- At least 1 postoperative

- **1 C ME 1.5** Maintain a duty of care and patient safety while balancing multiple responsibilities
- 2 C ME 1.6 Adapt care as the complexity, uncertainty, and ambiguity of the patient's clinical situation evolves
- 3 C ME 2.1 Consider clinical urgency, feasibility, availability of resources, and comorbidities in determining priorities to be addressed
- 4 C ME 2.1 Initiate management of urgent situations in a timely manner

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- 5 C ME 2.2 Elicit a history, perform a physical exam, use appropriate information from ongoing monitoring, select appropriate investigations and interpret their results for the purpose of diagnosis and management of an unexpected perioperative event
- **6 C ME 2.4** Formulate and implement management plans that consider all of the patient's health problems and context, in a timely manner, in collaboration with patients and their families and, when appropriate, the interprofessional team
- 7 C ME 3.1 Determine and implement the most appropriate procedures or therapies for the purpose of management of perioperative unexpected events
- 8 C ME 4.1 Implement a patient-centred care plan that supports ongoing care, follow-up on investigations, response to treatment, and further consultation
- 9 C COM 3.1 Share information and explanations that are clear, accurate and timely while checking for patient and family understanding
- 10 C COM 5.1 Document and share written and electronic information about the medical encounter to optimize clinical decision-making, patient safety, confidentiality and privacy
- **11 C COL 1.2** Negotiate overlapping and shared responsibilities with physicians and other colleagues in the health care professions
- 12 C COL 3.2 Demonstrate safe handover of care, using both verbal and written communication, during a patient transition to a different health care professional or setting
- **13 C L 1.2** Actively encourage all involved in health care, regardless of their role, to report and respond to unsafe situations
- **14 C P 2.2** Demonstrate a commitment to patient safety and quality improvement

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# Managing patients with perioperative anesthesia complications, including disclosure (*elective*)

#### Key Features:

- The achievement of this EPA is elective
- This EPA includes diagnosis, further investigations if indicated and management
- Full disclosure to the patient and family is included in this EPA, as well as debriefing and reporting to appropriate authorities if indicated

#### Assessment plan:

Supervisor does assessment based on direct observation

Use Form 1. Form collects information on:

- Event type: common; serious; other

Collect 5 observations of achievement

- At least 2 serious events

#### Relevant milestones:

- **1** C ME 1.3 Apply knowledge of anesthesia complications encountered during the perioperative period to provide peri-operative care
- **2 C ME 1.6** Adapt care as the complexity, uncertainty, and ambiguity of the patient's clinical situation evolves
- **3 C ME 1.6** Seek assistance in situations that are complex or new
- 4 C ME 2.2 Synthesize patient information to determine diagnosis
- **5 C ME 2.4** Establish a patient-centered management plan
- 6 C ME 5.1 Report patient safety incidents to appropriate institutional representatives
- 7 **C ME 5.1** Participate in an analysis of patient safety incidents
- 8 **C ME 5.1** Recognize and respond to harm from health care delivery, including patient safety incidents
- **9** F ME 5.1 Prioritize the initial medical response to adverse events to mitigate further injury
- 10 C COM 2.2 Manage the flow of challenging patient encounters, including those with angry, distressed, or excessively talkative individuals

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# 11 C COM 3.1 Provide information on diagnosis and prognosis in a clear, compassionate, respectful, and objective manner

- **12 C COM 3.1** Convey information related to the patient's health status, care and needs in a timely, honest and transparent manner
- **13 C COM 3.2** Communicate the reasons for unanticipated clinical outcomes to patients and disclose patient safety incidents
- 14 C COM 3.2 Apologize appropriately for a harmful patient safety incident
- **15** C COM 3.2 Disclose patient safety incidents to the patient and family accurately and appropriately
- **16** C COM 3.2 Plan and document follow-up to harmful patient safety incident
- **17 F COM 5.1** Document clinical encounters in an accurate, complete, timely and accessible manner, and in compliance with legal and privacy requirements
- **18 C COL 1.3** Engage in respectful shared decision-making with physician and other colleagues in the health care professions
- **19 C L 1.1** Participate in a patient safety and/or quality improvement initiative
- **20 C HA 2.2** Improve individual and discipline clinical practice by applying a process of continuous quality improvement to prevent complications
- **21 C S 2.3** Balance clinical supervision and graduated responsibility, ensuring the safety of patients and learners
- 22 C P 2.2 Demonstrate a commitment to patient safety and quality improvement
- 23 **C P 3.3** Prepare a morbidity and mortality report or chart review

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#### Determining indications for, establishing, and managing invasive and non-invasive monitoring for patients perioperatively and for those who are critically ill

#### Key Features:

- This EPA focuses on the appropriate indications for monitoring as well as using monitoring information to adapt patient management

#### Assessment plan:

Supervisor does assessment based on direct observation and review of clinical documentation

Use Form 1. Form collects information on:

- Setting: OR; ICU
- Type of monitor used: CVP monitoring; non-invasive cardiac output monitors; invasive cardiac output monitors; depth of anesthesia monitors; evoked potential monitors; cerebral oximetry; ICP monitoring; electromyographic monitoring; other

Collect 8 observations of achievement

- At least two in each setting
- At least five different monitors
- At least three assessors

#### Relevant milestones:

- **1 C ME 1.6** Adapt care as the complexity, uncertainty, and ambiguity of the patient's clinical situation evolves
- 2 C ME 2.2 Synthesize patient information to determine indications for invasive and non-invasive monitoring
- **3** C ME 2.2 Interpret patient information provided by invasive and noninvasive monitors, for the purposes of diagnosis and management
- 4 C ME 2.2 Identify and respond appropriately when invasive or non-invasive monitors provide erroneous information
- 5 C ME 2.4 Adapt management plans as the clinical situation evolves
- **6 C ME 3.1** Integrate all sources of information to develop a procedural or therapeutic plan that is safe, patient-centred, and considers the risks and benefits of all approaches

# 7 C ME 3.2 Obtain and document informed consent, explaining the risks and benefits of, and the rationale for, a proposed procedure or therapy

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- 8 **C ME 3.3** Triage a procedure or therapy, taking into account clinical urgency, potential for deterioration, and available resources
- 9 C ME 3.4 Perform a procedure in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances
- **10 C ME 5.1** Recognize and respond to harm from health care delivery, including patient safety incidents
- **11 C COM 3.1** Share health care information and plans with patients and their families
- 12 C COM 5.1 Document clinical encounters in an accurate, complete, timely, and accessible manner, in compliance with regulatory and legal requirements
- **13 C L 2.1** Engage in stewardship of health care resources

#### Providing resuscitation and comprehensive management, including crisis resource management, for patients presenting with a life-threatening emergency, across the spectrum of age

#### Key Features:

- This EPA may be observed in a variety of clinical situations (cardiac arrest, malignant arrhythmias, trauma, massive transfusion, burns, drowning, intoxication) in various populations (adult, pediatric, obstetrical)

#### Assessment plan:

Supervisor does assessment based on direct or indirect observation (case review and debrief)

Use Form 1. Form collects information on:

- Type of patient: adult; pediatric; obstetrical
- Setting: OR; ER; ICU; ward; PACU
- Type of event: burns; cardiac arrest; drowning; intoxication; malignant arrhythmia; massive hemorrhage; shock; trauma; other

Collect 6 observations of achievement

- At least 2 different settings
- At least 3 different types of events

#### Relevant milestones:

- **1 C ME 1.5** Maintain a duty of care and patient safety while balancing multiple responsibilities
- 2 **C ME 1.6** Seek assistance in situations that are complex or new
- **3 C ME 1.6** Concurrently diagnose and manage life threatening emergencies by adapting care as the complexity, uncertainty, and ambiguity of the patient's clinical situation evolves
- 4 **C ME 2.1** Identify the patient in need of resuscitation and initiate appropriate resuscitative measures in an evidence-based, patient-centred manner
- 5 C ME 2.2 Focus the clinical encounter, performing it in a time-effective manner in the appropriate clinical setting by utilizing recognized clinical guidelines (i.e., ACLS, ATLS, etc.)
- 6 C ME 2.3 Recognize when ongoing resuscitation efforts are no longer effective and should be discontinued

#### 7 C ME 3.4 Competently perform resuscitation protocols

- 8 **C ME 5.2** Apply the principles of situational awareness to clinical practice
- 9 C COM 3.1 Convey information related to resuscitative efforts in a clear, compassionate, honest and transparent manner
- **10** F COM 5.1 Document clinical encounters to adequately convey clinical reasoning and the rationale for decisions
- 11 C COL 1.3 Apply closed loop communication in urgent or crisis situations to work effectively with physicians and other colleagues in the health care professions
- **F COL 2.1** Delegate tasks and responsibilities in an appropriate and respectful manner
- **13 C COL 3.2** Organize the handover of care to the most appropriate physician or health care professional
- 14 C L 4.2 Establish clear leadership, either by recognizing the team leader or assuming the leadership role as appropriate
- **15 C S 3.4** Identify new evidence appropriate to their scope of professional practice through quality-appraised evidence-alerting services
- **16 C P 4.1** Integrate skills that support adaption and recovery in challenging situations
- 17 F P 4.1 Demonstrate an ability to regulate attention, emotions, thoughts, and behaviours while maintaining capacity to perform professional tasks

#### Providing perioperative management for patients with major polytraumatic injury

Key Features:

- This EPA focuses on intraoperative resuscitation, urgent procedures and anesthetic management and may also include assessment of patient in the initial setting

#### Assessment plan:

Supervisor does assessment based on direct observation and review of clinical documentation

Use Form 1. Form collects information on:

- Hemodynamic stability: yes/no
- Massive transfusion protocol: yes/no
- Site of trauma: brain; thoracic; abdominal; orthopedic; multiple
- Type of trauma: blunt; penetrating

Collect 5 observations of achievement

- At least 2 with hemodynamic instability
- At least one massive transfusion protocol
- At least 3 assessors

- 1 C ME 1.4 Perform a structured clinical assessment in a time-effective manner that address the breadth of issues in each case without excluding key elements
- **2 C ME 1.5** Maintain a duty of care and patient safety while balancing multiple responsibilities
- **3 C ME 1.6** Adapt care as the complexity, uncertainty, and ambiguity of the patient's clinical situation evolves
- 4 **C ME 1.6** Seek assistance in situations that are complex or new
- 5 C ME 2.2 Select and interpret appropriate investigations based on differential diagnosis, urgency of the situation and resource availability
- 6 C ME 2.2 Synthesize patient information to determine diagnosis
- **7 C ME 2.4** Formulate and implement management plans that consider all of the patient's health problems and context, in a timely manner, in collaboration with patients and their families and, when appropriate, the interprofessional team

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- 8 **C ME 2.4** Adapt management plans as the clinical situation evolves
- 9 C ME 3.3 Triage a procedure or therapy, taking into account clinical urgency, potential for deterioration, and available resources
- **10** C ME 3.4 Competently perform discipline-specific procedures
- 11 C ME 4.1 Establish plans for ongoing and postoperative care if relevant, taking into consideration the patient's clinical state, circumstances, preferences, and actions, as well as available resources, best practices, and research evidence
- **12 C ME 5.2** Apply the principles of situational awareness to clinical practice
- **13 F COM 5.1** Document clinical encounters to adequately convey clinical reasoning and the rationale for decisions
- **14 F COL 2.1** Delegate tasks and responsibilities in an appropriate and respectful manner
- 15 C COL 3.2 Organize the handover of care to the most appropriate physician or health care professional
- 16 C L 4.2 Establish clear leadership, either by recognizing the team leader or assuming the leadership role as appropriate
- **17 C S 1.2** Seek and interpret multiple sources of performance data and feedback, with guidance, to continually improve performance

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# Providing anesthetic management for patients undergoing procedures outside the usual environment of the operating room

#### Key Features:

- This EPA includes pre procedural assessment and post procedural disposition
- This EPA may be observed in MRI, interventional cardiology, interventional radiology, brachytherapy, electroconvulsive therapy (ECT) and invasive pediatric procedures such as intrathecal chemotherapy or bone marrow aspiration

#### Assessment plan:

Supervisor does assessment based on direct observation and review of clinical documentation

Use Form 1. Form collects information on:

- Location: MRI; interventional cardiology; interventional radiology; brachytherapy; ECT; invasive procedures
- Complexity of case: low; moderate; high
- Type of anesthesia: general; regional; monitored anesthesia care (MAC); other

Collect 3 observations of achievement

- At least three with moderate or high complexity
- At least two different types of anesthesia
- At least 2 assessors

- **1 C ME 1.1** Demonstrate commitment and accountability for patients in their care
- 2 C ME 1.4 Perform appropriately-timed preoperative clinical assessments with recommendations that are well-organized and properly documented in written and/or oral form
- **3 C ME 1.6** Adapt care as the complexity, uncertainty, and ambiguity of the patient's clinical situation evolves
- 4 C ME 2.4 Formulate and implement management plans that consider all of the patient's health problems and context, in a timely manner, in collaboration with patients and their families and, when appropriate, the interprofessional team
- 5 C ME 2.4 Develop anesthetic management plans that acknowledge and mitigate the added risk of managing anesthetics in remote locations

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- 6 C ME 3.1 Integrate all sources of information to develop a procedural or therapeutic plan that is safe, patient-centred, and considers the risks and benefits of all approaches
- 7 C ME 3.1 Ensure standard monitors are immediately available in the environment as outlined in the CAS guidelines
- 8 **C ME 3.4** Competently perform discipline specific procedures
- 9 C ME 4.1 Establish plans for ongoing post procedure care, taking into consideration the patient's clinical state, circumstances, preferences, and actions, as well as available resources, best practices, and research evidence
- **10 C COL 1.1** Anticipate, identify, and respond to patient safety issues related to the function of a team
- 11 C COL 1.3 Communicate effectively with physicians and other colleagues in the health care professions
- **12 C COL 2.2** Analyze team dynamics
- **13 C COL 2.2** Gain consensus among colleagues in resolving conflicts
- 14 C COL 3.2 Organize the handover of care to the most appropriate physician or health care professional
- **15 C COL 3.2** Recognize and act on patient safety issues in the transfer of care
- **16 C L 2.2** Optimize practice patterns for cost-effectiveness and cost control
- **17 C P 1.1** Intervene when behaviours toward colleagues and learners undermine a respectful environment

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# Providing labour analgesia and peripartum anesthetic management for high-risk parturients having a non-surgical delivery

Key Features:

- This EPA includes patient assessment, identification of contraindications to various modalities, discussion of risks and benefits, informed patient consent, required monitoring and full documentation. It includes a consideration of changes in patient status particularly during the second phase of labour.
- The observation of this EPA is divided into two parts: patient management and collaboration with the interprofessional team

#### Assessment plan:

Part A: Patient Management Supervisor does assessment based on indirect observation (chart review and/or discussion)

Use Form 1. Form collects information on:

- Type of anesthesia: neuraxial; other
- Pre-existing comorbidity: none; cardiac; obesity; other
- Pregnancy related comorbidity: yes; no

Collect 6 observations of achievement

- At least one other type of anesthesia
- At least 2 with pre-existing comorbidity
- At least 2 with pregnancy related comorbidity

Part B: Multisource feedback

Multiple observers provide feedback individually, which is then collated to one report.

Use Form 3. Form collects information on:

- Observer role: OB nurse; obstetrician

Collect feedback on one occasion from at least 10 observers

- At least one of each observer role
- At least 10 observers

Relevant milestones (Part A):

- **1 C ME 1.3** Apply knowledge of the physiological changes associated with pregnancy
- 2 C ME 1.4 Perform clinical assessments of the high-risk parturient that address the breadth of issues in relation to pre-existing comorbidities, as well as pregnancy induced disease states
- **3** C ME 3.1 Integrate all sources of information to develop a labour analgesic and peripartum anesthetic plan that is safe, patient-centred, and considers

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the risks and benefits of all approaches, while also considering the wellbeing of the fetus

- 4 C ME 3.2 Obtain and document informed consent, explaining the risks and benefits of, and the rationale for, a proposed management plan
- 5 C ME 3.4 Provide obstetrical analgesia in a skilful and safe manner, adapting to unanticipated findings or changing clinical circumstances
- 6 C ME 4.1 Establish plans for ongoing care, taking into consideration the patient's clinical state, circumstances, preferences, and actions, as well as available resources, best practices, and research evidence
- **7 C COM 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

# 8 C COM 3.1 Share information and explanations that are clear, accurate, and timely while checking for patient and family understanding

- **9 F COM 5.1** Document clinical encounters in an accurate, complete, timely and accessible manner, and in compliance with legal and privacy requirements
- 10 C COL 1.1 Anticipate, identify, and respond to patient safety issues related to the function of a team
- 11 C COL 1.3 Communicate effectively with physicians and other colleagues in the health care professions
- **12 C L 4.3** Improve personal practice by evaluating a problem, setting priorities, executing a plan, and analyzing the results
- **13 C S 2.3** Balance clinical supervision and graduated responsibility, ensuring the safety of patients and learners
- **14 C P 2.1** Demonstrate a commitment to maintaining and enhancing competence
- **15 C P 4.1** Integrate skills that support adaption and recovery in challenging situations

#### Relevant Milestones (Part B):

- 1 C COM 1.2 Optimize the physical environment for patient comfort, dignity, privacy, engagement, and safety
- 2 C COM 4.1 Facilitate discussions with the patient and family in a way that is respectful, non-judgmental, and culturally safe

#### **3** F COM 5.1 Document clinical encounters in an accurate, complete, timely and accessible manner, and in compliance with legal and privacy requirements

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- 4 C COL 1.1 Establish and maintain healthy relationships with physician and other colleagues in the health care professions to support relationshipcentered collaborative care
- 5 F COL 2.1 Delegate tasks and responsibilities in an appropriate and respectful manner
- 6 C COL 2.2 Implement strategies to promote understanding, manage differences, and resolve conflicts in a manner that supports a collaborative culture
- 7 C COL 3.2 Demonstrate safe handover of care, using both verbal and written communication, during patient transitions to a different healthcare professional or setting
- 8 C L 4.2 Demonstrate appropriate leadership skills
- 9 F P 1.1 Exhibit appropriate professional behaviours and relationships in all aspects of practice, reflecting honesty, integrity, humility, dedication, compassion, respect, altruism, respect for diversity, and maintenance of confidentiality
- **10** F P 1.5 Exhibit professional behaviours in the use of technology-enabled communication

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# Providing perioperative anesthetic management for parturients (low and high risk), with or without significant comorbidities, for scheduled, urgent or emergent cesarean section

#### Assessment plan:

Supervisor does assessment based on direct observation

Use Form 1. Form collects information on:

- Pre-existing comorbidity: none; cardiac; obesity; other
- Pregnancy related comorbidity: hemorrhage; pre-eclampsia; pre-term; other
- Urgent: yes/no
- Type of anesthesia: spinal; epidural; combined spinal/epidural; general

Collect 6 observations of achievement

- At least three with pre-existing comorbidities or pregnancy related comorbidity
- At least one urgent with epidural previously inserted for labour
- At least one under general anesthesia

- **1** C ME 1.6 Adapt care as the complexity, uncertainty, and ambiguity of the patient's clinical situation evolves
- 2 C ME 2.1 Consider clinical urgency, feasibility, availability of resources, comorbidities and the second patient (fetus) in determining priorities to be addressed
- 3 C ME 2.2 Elicit a history, perform a physical exam and select appropriate investigations, and interpret their results for the purpose of determining prioritized anesthetic considerations and perioperative management plan
- 4 C ME 2.4 Formulate and implement management plans that consider all of the patient's health problems and context, in a timely manner, in collaboration with patients and their families and, when appropriate, the interprofessional team
- **5 C ME 3.1** Integrate all sources of information to develop an anesthetic management plan that is safe, patient-centred, and considers the risks and benefits of all approaches
- **6 C ME 3.4** Document procedures accurately
- 7 C ME 3.4 Perform the anesthetic management and all related technical procedures in a skilful and safe manner, adapting to unanticipated findings or changing clinical circumstances

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8 **C ME 4.1** Establish plans for ongoing care, taking into consideration the patient's clinical state, circumstances, preferences, and actions, as well as available resources, best practices, and research evidence

#### 9 C ME 5.2 Apply the principles of situational awareness to clinical practice

- **10 C COM 1.4** Respond to patients' non-verbal communication and use appropriate non-verbal behaviours to enhance communication with patients
- **11 C COM 1.5** Recognize when strong emotions (such as anger, fear, anxiety, or sadness) are impacting an interaction and respond appropriately
- 12 C COL 1.3 Communicate effectively with physicians and other colleagues in the health care professions
- 13 C COL 2.2 Establish consensus among colleagues in resolving conflicts, while maintaining patient wellbeing as the primary objective

#### Providing peripartum anesthetic management and resuscitation of parturients (including intra-uterine resuscitation) presenting with serious and life-threatening obstetrical complications

#### Key Features:

- This EPA focuses on managing serious and life-threatening complications
- This includes but is not limited to patients presenting with prepartum hemorrhage; postpartum hemorrhage, embolic event, ruptured uterus, pre-eclampsia and HELLP syndrome.

#### Assessment plan:

Supervisor does assessment based on direct or indirect observation

Use Form 1. Form collects information on:

- Type of complications: prepartum hemorrhage; postpartum hemorrhage, embolic event, ruptured uterus, pre-eclampsia; HELLP syndrome.

Collect 6 observations of achievement

- At least two hemorrhage
- At least one severe pre-eclampsia
- At least 3 assessors

- **1 C ME 1.6** Adapt care as the complexity, uncertainty, and ambiguity of the patient's clinical situation evolves
- 2 C ME 2.1 Consider clinical urgency, feasibility, availability of resources, comorbidities and the second patient (fetus) in determining priorities to be addressed
- **3 C ME 2.1 Initiate management of urgent situations in a timely manner**
- 4 C ME 2.2 Focus the clinical encounter, performing the clinical assessment in a time-effective manner, without excluding key elements
- 5 C ME 2.4 Formulate and implement management plans that consider all of the patient's health problems and context, in a timely manner, in collaboration with patients and their families and, when appropriate, the interprofessional team
- 6 C ME 3.1 Integrate appropriate monitoring including monitoring of the fetus into global assessment and management plans

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# 7 C ME 3.4 Competently perform resuscitation protocol including intra-uterine resuscitation

- 8 **C ME 3.4** Establish and implement a plan for post-procedure care
- **9 C ME 3.4** Perform the anesthetic management and all related technical procedures in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances
- **10 C ME 4.1** Establish plans for ongoing care, taking into consideration the patient's clinical state, circumstances, preferences, and actions, as well as available resources, best practices, and research evidence
- **11 C ME 5.2** Apply the principles of situational awareness to clinical practice

# 12 C COM 3.1 Share information and explanations that are clear, accurate and timely while checking for patient and family understanding

- **13 C COL 1.1** Anticipate, identify, and respond to patient safety issues related to the function of a team
- **14 C COL 1.3** Communicate effectively with physicians and other colleagues in the health care professions
- **15 F COL 2.1** Delegate tasks and responsibilities in an appropriate and respectful manner
- **16 C COL 3.2** Demonstrate safe handover of care, using both verbal and written communication, during a patient transition to a PACU RN, an anesthesiologist, or to a different health care professional
- 17 C L 4.2 Apply the principles of crisis resource management including, but not limited to, leadership, resource allocation, situational awareness, and communication/collaboration
- **18** F P 4.1 Demonstrate an ability to regulate attention, emotions, thoughts, and behaviours while maintaining capacity to perform professional tasks

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# Providing perioperative anesthetic management for pregnant patients undergoing non-obstetric surgery

#### Assessment plan:

Supervisor does assessment based on direct observation and review of clinical documentation

Use Form 1. Form collects information on:

- Complexity of case: low; moderate; high
- Trimester: first; second; third
- Type of anesthesia: general; neuraxial; regional; monitored anesthesia care (MAC)

Collect 5 observations of achievement

- At least one in each trimester
- At least 2 under general anesthesia
- At least 2 assessors

- **1 C ME 1.1** Demonstrate commitment and accountability for patients in their care
- 2 C ME 1.4 Perform appropriately-timed preoperative clinical assessments with recommendations that are well- organized and properly documented in written and/or oral form
- **3 C ME 1.6** Adapt care as the complexity, uncertainty, and ambiguity of the patient's clinical situation evolves
- 4 C ME 2.1 Consider clinical urgency, feasibility, availability of resources, comorbidities and the second patient (fetus) in determining priorities to be addressed
- 5 C ME 2.3 Address the impact of the medical condition on the patient's ability to pursue life goals and purposes including issues in relation with the fetus (including risk of teratogenicity of medications)
- 6 C ME 3.1 Integrate all sources of information to develop an anesthetic management plan that is safe and patient-centred, use optimal monitoring tool including appropriate use of fetal monitoring, and considers the risks and benefits of all approaches
- 7 **C ME 3.1** Integrate all anesthetic considerations into global assessment and management plans for all type of surgical procedures including trauma and proceed in a timely manner

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- 8 **C ME 3.2** Use shared decision-making in the consent process, taking risk and uncertainty into consideration
- 9 C ME 3.4 Perform the anesthetic management and all related technical procedures in a skilful and safe manner, adapting to unanticipated findings or changing clinical circumstances
- **10 C COM 1.5** Recognize when strong emotions (such as anger, fear, anxiety, or sadness) are impacting an interaction and respond appropriately
- 11 C COM 4.1 Facilitate discussions with the patient and family in a way that is respectful, non-judgmental, and culturally safe
- **12 F COM 5.1** Document clinical encounters to adequately convey clinical reasoning and the rationale for decisions
- 13 C COL 1.2 Consult as needed with other health care professionals, including other physicians
- **14 C L 4.3** Improve personal practice by evaluating a problem, setting priorities, executing a plan, and analyzing the results
- **15 C P 1.2** Analyze how the system of care supports or jeopardizes excellence
- 16 C P 1.3 Manage ethical issues encountered in the clinical setting including conflicts between maternal and fetal interests, and issues related to fetal development and current limits of viability

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#### Performing neonatal resuscitation

Key Features:

- The observation of this EPA is divided into two parts: neonatal resuscitation and communication with the family
- This EPA will most likely be observed in the postpartum period in labour and delivery suite or OR, but may also be observed in the NICU

#### Assessment plan:

Part A: Neonatal resuscitation Supervisor does assessment based on direct observation

Use Form 1. Form collects information on:

- Setting: labour and delivery; OR; NICU

Collect 5 observations of achievement

Part B: Communication with family Supervisor does assessment based on direct observation

Use Form 2

Collect 2 observations of achievement

#### Relevant milestones (Part A):

- **1 C ME 1.1** Demonstrate commitment and accountability for patients in their care
- **2 C ME 1.6** Adapt care as the complexity, uncertainty, and ambiguity of the patient's clinical situation evolves
- **3 C ME 2.2** Synthesize patient information to determine diagnosis

# 4 C ME 2.2 Focus the clinical encounter, performing the clinical assessment in a time-effective manner, without excluding key elements

- **5 C ME 2.4** Formulate and implement management plans that consider all of the patient's health problems and context, in a timely manner, in collaboration with patients and their families and, when appropriate, the interprofessional team
- **6 C ME 3.1** Integrate all sources of information to develop a management plan that is safe, patient-centred, and considers the risks and benefits of all approaches

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# 7 C ME 3.1 Integrate appropriate monitoring into global assessment and management plans

- 8 C ME 3.4 Competently perform neonatal resuscitation as per current guidelines
- 9 C ME 3.4 Establish and implement a plan for post-procedure care
- **10 C ME 4.1** Determine the necessity and appropriate timing of consultation
- **11 C COM 3.1** Provide information on diagnosis and prognosis in a clear, compassionate, respectful, and objective manner.

# 12 F COM 5.1 Document clinical encounters to adequately convey clinical reasoning and the rationale for decisions

**13 C COL 1.3** Communicate effectively with physicians and other colleagues in the health care professions

# 14 F COL 2.1 Delegate tasks and responsibilities in an appropriate and respectful manner

- **15 C COL 3.2** Demonstrate safe handover of care, using both verbal and written communication, during a patient transition to a different health care professional or setting
- 16 C L 4.2 Apply the principles of crisis resource management including, but not limited to, leadership, resource allocation, situational awareness, and communication/collaboration
- 17 F P 4.1 Demonstrate an ability to regulate attention, emotions, thoughts, and behaviours while maintaining capacity to perform professional tasks

#### Relevant Milestones (Part B):

- **1 C ME 2.4** Formulate and implement management plans that consider all of the patient's health problems and context, in a timely manner, in collaboration with patients and their families and, when appropriate, the interprofessional team
- 2 C COM 1.1 Communicate with patient and family in a manner that that encourages trust and autonomy and is characterized by empathy, respect, and compassion
- **3** C COM 1.5 Recognize when strong emotions (such as anger, fear, anxiety, or sadness) are impacting an interaction and respond appropriately
- 4 C COM 1.5 Establish boundaries as needed in emotional situations
- 5 C COM 2.2 Manage the flow of challenging patient encounters, including those with angry, distressed, or excessively talkative individuals

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- 6 C COM 3.1 Provide information on diagnosis and prognosis in a clear, compassionate, respectful, and objective manner
- 7 C COM 3.1 Convey information related to the patient's health status, care, and needs in a timely, honest, and transparent manner
- 8 C COM 5.1 Document clinical encounters in an accurate, complete, timely, and accessible manner, in compliance with regulatory and legal requirements

#### Assessing, investigating, optimizing and formulating anesthetic management plans for pediatric ASA 1-3 patients (above the age of one year) with coexisting conditions

Key Features:

- This EPA focuses on preoperative assessment and its use in identifying and prioritizing anesthetic considerations, as well as the optimization and preparation of the patient for surgery
- This EPA includes comprehensive documentation in the medical record

#### Assessment plan:

Supervisor does assessment based on direct or indirect observation, and review of clinical documentation

Use Form 1. Form collects information on:

- Type of observation: direct; indirect
- Type of comorbidity: cardiovascular disease; endocrine disorder; hematological disorder; infectious disease; neurological disease; neuromuscular or musculoskeletal disease; obstructive sleep apnea (OSA); respiratory disease
- Type of surgery: dental surgery; general surgery; neurosurgery; ophthalmology; orthopedic surgery; otolaryngology; plastic surgery; urology; other
- Patient age
- Location: preop clinic; ward; OR

Collect 6 observations of achievement

- At least 4 different comorbidities
- At least 3 different type of surgeries
- At least three patients under the age of 3
- At least 1 in preop clinic

#### Relevant milestones:

- **1 C ME 1.3** Apply clinical and biomedical sciences to manage perioperative assessment in complex patients in the breadth of conditions listed in the national curriculum
- **2 C ME 1.4** Perform clinical assessments that address the breadth of issues in each case.
- 3 C ME 2.1 Consider clinical urgency, feasibility, availability of resources, and comorbidities in determining priorities to be addressed
- 4 **C ME 2.2** Select and interpret appropriate investigations based on a differential diagnosis

# 5 C ME 2.2 Synthesize patient information to determine the most appropriate anesthetic management plan

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- 6 C ME 2.2 Focus the clinical encounter, performing it in a time-effective manner, without excluding key elements
- 7 C ME 2.2 Elicit a history, perform a physical exam and select appropriate investigations, and interpret their results for the purpose of determining prioritized anesthetic considerations and perioperative management plan
- 8 **C ME 2.3** Share concerns, in a constructive and respectful manner, with patients and their families about their goals of care when they are not felt to be achievable
- **9 C ME 2.4** Develop, in collaboration with a patient and his or her family, a plan to deal with clinical uncertainty
- **10 C ME 2.4** Assess perioperative risk and apply risk reduction strategies
- 11 C ME 3.2 Obtain and document informed consent, explaining the risks and benefits of, and the rationale for, a proposed procedure or therapy
- **12 C ME 4.1** Determine the necessity and appropriate timing of preoperative consultation
- 13 C COM 1.1 Communicate with patient and family in a manner that encourages trust and autonomy and is characterized by empathy, respect, and compassion
- **14 C COM 1.4** Respond to patients' non-verbal communication and use appropriate non-verbal behaviours to enhance communication with patients
- **15 C COM 1.5** Recognize when strong emotions (such as anger, fear, anxiety, or sadness) are impacting an interaction and respond appropriately
- **16 C COM 2.1** Actively listen and respond to patient cues
- **17 C COM 2.2** Manage the flow of challenging patient encounters, including those with angry, anxious, or distressed pediatric patients or parents
- **18 C COM 5.1** Document clinical encounters to adequately convey clinical reasoning and the rationale for decisions
- **19** C COM 5.1 Adapt record keeping to the specific guidelines of anesthesiology and the clinical context
- 20 C COL 1.2 Consult as needed with other health care professionals, including other physicians
- 21 C L 2.1 Use clinical judgment to minimize wasteful practices
- **22 C HA 1.2** Apply the principles of behaviour change during conversations with patients about adopting healthy behaviours

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#### Providing perioperative anesthetic management of pediatric ASA 1-3 patients (above the age of one year) undergoing scheduled or urgent/emergent procedures of low to moderate complexity

#### Key Features:

- This EPA focuses on the management of all aspects of care including preoperative assessment, investigation/optimization if needed, informed consent with patient and family, anesthetic management and determination of postoperative disposition
- This EPA may be observed in any of the following type of procedures of low to moderate complexity: general surgery, dental, ear nose and throat, ophthalmologic, orthopedic, plastic surgery, urologic, or procedures in remote locations

#### Assessment plan:

Part A: Perioperative management Supervisor does assessment based on direct observation and review of clinical documentation

Use Form 1. Form collects information on:

- Timing: emergency; elective
- Type of surgery: dental surgery; general surgery; neurosurgery; ophthalmology; orthopedic surgery; otolaryngology; plastic surgery; urology; other
- Case complexity: low; medium; high
- Patient comorbidity: cardiovascular disease; endocrine disorder; hematological disorder; infectious disease; neurological disease; neuromuscular or musculoskeletal disease; obstructive sleep apnea (OSA); respiratory disease
- Type of anesthesia; general; neuraxial; regional; monitored anesthesia care (MAC)
- Patient age

Collect 10 observations of achievement

- At least 3 emergency surgery
- At least 5 different types of surgery
- At least 3 medium or high case complexity
- At least 4 patients under the age of three

#### Part B: Logbook

Submit resident logbook demonstrating breadth of technical procedures and anesthetic management

#### Relevant milestones:

- **1 C ME 1.1** Demonstrate commitment and accountability for patients and families in their care.
- **2 C ME 1.3** Apply knowledge of the clinical and biomedical sciences relevant to pediatric Anesthesiology
- **3 C ME 1.6** Adapt care as the complexity, uncertainty, and ambiguity of the patient's clinical situation evolves

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- 4 **C ME 1.6** Seek assistance in situations that are complex or new
- 5 C ME 2.2 Elicit a history, perform a physical exam and select appropriate investigations, and interpret their results for the purpose of determining prioritized anesthetic considerations and perioperative management plan
- 6 C ME 2.4 Establish a comprehensive patient-centered and family-centered perioperative anesthetic management plan, taking into consideration the wishes of the patients and their families, the impact of the patient's comorbidities, available resources, and the needs and urgency of the surgical or diagnostic procedure
- **7 C ME 3.2** Use shared decision-making in the consent process, taking risk and uncertainty into consideration
- 8 **C ME 3.2** Obtain and document informed consent for the planned anesthetic management in a manner that engages the patients and their families using established principles of effective communication
- 9 C ME 3.4 Establish and implement a plan for post-anesthesia care
- 10 C ME 3.4 Perform the anesthetic management and all related technical procedures in a skilful and safe manner, adapting to unanticipated findings or changing clinical circumstances
- **11** C ME 5.2 Apply the principles of situational awareness to clinical practice
- 12 C COM 5.1 Maintain an anesthetic record and document postoperative orders in a manner consistent with effective written communication
- **13 C COL 1.2** Negotiate overlapping and shared responsibilities with physicians and other colleagues in the health care professions
- **14 C COL 1.3** Engage in respectful shared decision-making with physicians and other colleagues in the health care professions.
- **15 C COL 2.2** Implement strategies to promote understanding, manage differences, and resolve conflict in a manner that supports a collaborative culture
- 16 C COL 3.2 Demonstrate safe handover of care, using both verbal and written communication, during a patient transition to a PACU RN, an anesthesiologist, or to a different health care professional
- **17 C L 2.1** Allocate health care resources for optimal patient care.
- **18 C HA 1.2** Work with patients and their families to increase opportunities to adopt healthy behaviours
- **19 C S 3.3** Critically evaluate the integrity, reliability, and applicability of health-related research and literature
- 20 F P 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
- **21 C P 2.1** Demonstrate accountability to patients, their families, society, and the profession by responding to societal expectations of physicians

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# Providing resuscitation and comprehensive management for the pediatric patient (over the age of one year) presenting with a serious or life-threatening emergency *(elective)*

#### Key Features:

- The achievement of this EPA is elective
- This EPA may be observed in a variety of clinical situations such as in the OR, perioperatively, ER trauma bay or other setting.
- Comprehensive management assumes being an integral member of a team, involving (in most cases) a trauma team leader, surgeon, pediatrician or intensivist.

#### Assessment plan:

Supervisor does assessment based on direct or indirect observation (case review and debrief)

Use Form 1. Form collects information on:

- Age of patient
- Setting: OR; ER; PICU; ward; PACU
- Type of event: cardiac arrest; serious respiratory event; shock; malignant arrhythmia; trauma; burns; drowning; intoxication; hemorrhage; other

Collect 3 observations of achievement

- At least 1 patient under the age of 5
- At least 2 different settings

#### Relevant milestones:

- **1 C ME 1.6** Adapt care as the complexity, uncertainty, and ambiguity of the patient's clinical situation evolves
- 2 C ME 2.1 Consider clinical urgency, feasibility, availability of resources, and comorbidities in determining priorities to be addressed
- **3 C ME 2.1 Initiate management of urgent situations in a timely manner**
- 4 **C ME 2.2** Select and interpret appropriate investigations based on a differential diagnosis
- **5 C ME 2.2** Synthesize patient information to determine diagnosis
- 6 C ME 2.2 Focus the clinical encounter, performing the clinical assessment in a time-effective manner, without excluding key element

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#### 7 C ME 3.1 Integrate all sources of information to develop a management plan that is safe, patient-centred, and considers the risks and benefits of all approaches

- 8 **C ME 3.3** Triage a procedure or therapy, taking into account clinical urgency, potential for deterioration, and available resources
- 9 C ME 3.4 Establish and implement a plan for post-procedure care
- 10 C ME 3.4 Perform the management and all related technical procedures in a skilful and safe manner, adapting to unanticipated findings or changing clinical circumstances
- **11 C COM 3.1** Provide information on diagnosis and prognosis to families in a clear, compassionate, respectful, and objective manner

### 12 C COL 1.3 Communicate effectively with physicians and other colleagues in the health care professions

- **13 F COL 2.1** Delegate tasks and responsibilities in an appropriate and respectful manner
- 14 C L 4.2 Apply the principles of crisis resource management including, but not limited to, leadership, resource allocation, situational awareness, and communication/collaboration
- 15 F P 4.1 Demonstrate an ability to regulate attention, emotions, thoughts, and behaviours while maintaining capacity to perform professional tasks
# Establishing and managing difficult intravenous access and invasive monitoring for pediatric patients (above the age of one year)

#### Assessment plan:

Supervisor does assessment based on direct observation

Use Form 2. Form collects information on:

- Age of patient
- Procedure: peripheral intravenous access; central venous line; arterial line

Collect 6 observations of achievement

- At least one arterial line in patient under age 3
- At least two different procedures

- **1 C ME 1.6** Adapt care as the complexity, uncertainty, and ambiguity of the patient's clinical situation evolves
- 2 C ME 3.3 Advocate for a patient's procedure or therapy on the basis of urgency and available resources
- **3** C ME 3.4 Document procedures accurately
- 4 C ME 3.4 Perform a procedure in a skilful and safe manner, adapting to unanticipated findings or changing clinical circumstances
- 5 C ME 3.4 Demonstrate effective procedure preparation, including gathering required equipment and optimal positioning of the patient
- 6 C COM 1.2 Optimize the physical environment for patient comfort, dignity, privacy, engagement, and safety
- 7 C COM 1.5 Recognize when strong emotions (such as anger, frustration, fear, anxiety, or sadness) are impacting an interaction and respond appropriately
- 8 C L 2.2 Optimize practice patterns for cost-effectiveness and cost control
- 9 F P 2.2 Demonstrate a commitment to patient safety and quality improvement through adherence to institutional policies and procedures (e.g. Infection control and sterility procedures)
- **10** F P 4.1 Demonstrate an ability to regulate attention, emotions, thoughts, and behaviours while maintaining capacity to perform professional tasks

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# Managing patients with common, serious or life-threatening complications of regional anesthesia *(elective)*

#### Key Features:

- The achievement of this EPA is elective
- This EPA focuses on diagnosis, treatment, disclosure to patients and families, follow up, referral, debriefing, and reporting to the appropriate authorities
- This includes the complications that are specific to regional anesthetic techniques; examples may be failed or partial regional block; block related hematoma or abscess; post-procedure neuropathy; local anesthetic toxicity

#### Assessment plan:

Supervisor does assessment based on direct or indirect observation (case review and debrief)

Use Form 1. Form collects information on:

- Type of regional anesthesia: neuraxial; upper limb nerve block; lower limb nerve block; Bier block
- Category of event: cardiac; respiratory; neurologic; other
- Timing of event: intraoperative; postoperative

Collect 3 observations of achievement

- at least one neuraxial
- at least one limb nerve block
- at least one neurologic events

- **1 C ME 1.1** Demonstrate commitment and accountability for patients in their care
- 2 **C ME 1.6** Seek assistance in situations that are complex or new
- 3 C ME 2.2 Elicit a history, perform a physical exam, use appropriate information from ongoing monitoring, select appropriate investigations and interpret their results for the purpose of diagnosis and management of an unexpected perioperative event
- 4 **C ME 2.2** Identify and diagnose anesthesia complications encountered during the perioperative period
- 5 C ME 2.4 Manage the encountered complications of regional anesthesia and consider the risk factors, presentation, diagnosis and treatment of, but not limited to, the following: failed block, intravascular injection of local anesthetic, local anesthetic toxicity, epidural hematoma/abscess, post dural puncture headache (PDPH), post-operative neuropathy

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- **6 C ME 3.1** Determine and implement the most appropriate procedures or therapies for the purpose of management of unexpected perioperative events
- 7 **C ME 3.4** Competently perform resuscitation protocols

# 8 C ME 3.4 Establish and implement a plan for post-anesthesia care following anesthesia complication

**9 C ME 3.4** Perform the management and all related technical procedures in a skilful and safe manner, adapting to unanticipated findings or changing clinical circumstances

# **10** C ME 4.1 Implement a patient-centred care plan that supports ongoing care, follow-up on investigations, response to treatment, and further consultation

# **11** C ME 5.1 Report patient safety incidents to appropriate institutional representatives

- **12 C ME 5.1** Recognize near-misses in real time and respond to correct them, preventing them from reaching the patient
- **13 C ME 5.1** Identify potential improvement opportunities arising from harmful patient safety incidents and near misses
- **14 C ME 5.1** Participate in an analysis of patient safety incidents
- **15 C ME 5.2** Apply the principles of situational awareness to clinical practice
- **16 C COM 3.1** Share information and explanations that are clear, accurate and timely while checking for patient and family understanding

# 17 C COM 3.2 Communicate the reasons for unanticipated clinical outcomes to patients and disclose patient safety incidents

- **18 C COM 3.2** Apologize appropriately for a harmful patient safety incident
- **19** C COM 5.1 Document clinical encounters in an accurate, complete, timely, and accessible manner, in compliance with regulatory and legal requirements
- **20 C COL 1.1** Anticipate, identify, and respond to patient safety issues related to the function of a team
- **21 C COL 1.3** Communicate effectively with physicians and other colleagues in the health care professions
- **22 C COL 1.3** Engage in respectful shared decision-making with physician and other colleagues in the health care professions

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- **23 F COL 2.1** Delegate tasks and responsibilities in an appropriate and respectful manner
- **24 C L 1.2** Actively encourage all involved in health care, regardless of their role, to report and respond to unsafe situations
- **25 C L 4.2** Apply the principles of crisis resource management including, but not limited to, leadership, resource allocation, situational awareness, and communication/collaboration

# 26 C P 2.2 Demonstrate a commitment to patient safety and quality improvement

**27 C P 3.1** Describe how to respond to, cope with, and constructively learn from a complaint or legal action

#### Providing perioperative anesthetic management for adults with a peripheral nerve block regional anesthesia technique appropriate for the planned surgical procedure

#### Key Features:

- This EPA focuses on the management of all aspects of care including preoperative assessment, investigation/optimization if needed, appropriate patient selection, determination of surgical procedure compatibility, selection of anesthesia technique, discussion of risks and benefits (informed consent), performance of the regional anesthetic technique and monitoring of the patient throughout the procedure.
- This EPA includes postoperative disposition and ensuring adequate follow-up.
- The observation of this EPA is divided into two parts: patient management, including selection of appropriate technique, and performing a range of regional anesthesia techniques
- The assessment of this EPA also includes review of the resident's logbook

#### Assessment plan:

Part A: Patient management Supervisor does assessment based on direct observation

Use Form 1. Form collects information on:

- Location of block: upper limb; lower limb
- Regional anesthesia appropriate for case: yes; no

Collect 6 observations of achievement

- At least 2 upper limb
- At least 2 lower limb
- At least 1 patient assessment for whom regional anesthesia was appropriately identified as not indicated

Part B: Procedure

Supervisor does assessment based on direct observation

Use Form 2. Form collects information on:

- Location of block: upper limb; lower limb
- Type of block: interscalenic; supra-clavicular; infra-clavicular; axillary; peripheral block; transversus abdominis plane block; sciatic nerve; femoral nerve; popliteal sciatic; ankle block

Collect 12 observations of achievement

- At least 6 upper limb with at least three different types of block
- At least 6 lower limb with at least two different types of block
- At least 3 assessors

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Part C: Logbook

Submit resident logbook demonstrating breadth of regional anesthesia experience

#### Relevant milestones (Part A):

- 1 C ME 1.3 Apply knowledge of the pharmacology of local anesthetics with respect to mechanism of action, toxicity, kinetics and adjuvants, to the selection of appropriate pharmacologic agents
- 2 C ME 2.2 Synthesize patient information to determine the most appropriate anesthetic management plan (e.g. general, neuraxial, peripheral nerve block, MAC)
- 3 C ME 2.2 Elicit a history, perform a physical exam and select appropriate investigations, and interpret their results for the purpose of determining prioritized anesthetic considerations and perioperative management plan
- 4 C ME 3.1 Select the most appropriate regional anesthesia technique in the context of local guidelines, the patient, the procedure and the surgeon
- 5 C ME 3.2 Obtain and document informed consent, explaining the risks and benefits of, and the rationale for the proposed procedure
- 6 **C ME 3.4** Establish and implement a plan for post-anesthesia care
- 7 **C ME 3.4** Perform the anesthetic management and all related technical procedures in a skilful and safe manner, adapting to unanticipated findings or changing clinical circumstances
- 8 C COM 5.1 Maintain an anesthetic record and document postoperative orders in a manner consistent with effective written communication
- 9 C COL 1.3 Engage in respectful shared decision-making with the surgeon and other colleagues in the health care professions
- **10 C HA 1.2** Educate the patient with the use of information booklets, websites, and other communication technologies to improve their understanding of the planned regional technique and post procedure care
- **11 C S 1.1** Use technology or personal documentation to record, monitor, and report on your procedural log
- 12 C P 2.2 Demonstrate a commitment to patient safety and quality improvement through adherence to institutional policies, procedures and best practice guidelines (ASRA)

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Relevant Milestones (Part B):

- **1** C ME 1.3 Apply knowledge of anatomy to regional anesthesia technique
- 2 TTD ME 3.1 Apply appropriate monitors correctly for the planned procedure
- **3 C ME 3.2** Obtain and document informed consent, explaining the risks and benefits of, and the rationale for the proposed procedure
- 4 **C ME 3.4** Competently perform ultrasound guided peripheral nerve block
- 5 TTD ME 3.4 Demonstrate effective procedure preparation, including gathering required equipment and optimal positioning of the patient
- 6 C ME 3.4 Perform peripheral nerve block regional anesthesia and all related technical procedures in a skilful and safe manner, adapting to unanticipated findings or changing clinical circumstances
- 7 C COM 1.2 Optimize the physical environment for patient comfort, dignity, privacy, engagement, and safety
- 8 F COM 5.2 Appropriately document anesthetic care and technique in an accurate, complete, timely, and accessible manner
- 9 C S 1.1 Use technology or personal documentation to record, monitor, and report on your procedural log
- 10 C P 2.2 Demonstrate a commitment to patient safety and quality improvement through adherence to institutional policies, procedures and best practice guidelines (ASRA)

# Participating in the provision of perioperative anesthetic management for patients with significant cardiac disease who are undergoing scheduled, common cardiac surgery

#### Key Features:

- This EPA focuses on preoperative assessment, identification of anesthetic considerations, establishment of invasive monitoring and postoperative management
- It does not include management of anesthesia during cardiac surgery; this is expected to be done with assistance of the anesthesiologist.
- Training experiences that support the acquisition of competence related to this EPA would be done mainly in the OR; some can be attained in the intensive care unit (e.g. cardiac surgery complications etc.)
- The observation of this EPA is divided into two parts: anesthetic management as described above and central line insertion
- This EPA will be observed principally by the attending anesthesiologist in the OR

#### Assessment plan:

Part A: Anesthetic management Supervisor does assessment based on direct observation

Use Form 1

Form collects information on:

- Type of surgery: procedures for coronary disease; procedures for valvular disease; other

Collect 6 observations of achievement

- At least one of each type of surgery
- At least 3 assessors

Part B: Central line insertion

Supervisor does assessment based on direct observation

Use Form 2

Form collects information on:

- Location of line: internal jugular; subclavian; femoral
- Ultrasound guided: yes/no

Collect 3 observations of achievement

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#### Relevant Milestones (Part A):

- 1 C ME 1.3 Apply knowledge of the clinical and biomedical sciences relevant to anatomy, physiology, pharmacology and embryology of the cardiovascular system
- 2 C ME 1.3 Apply knowledge of blood transfusion and blood conservation strategies during cardiac surgery
- **3 C ME 2.2** Interpret the summary reports of advanced cardiac investigations and appropriately use the data in the anesthetic management
- **4 C ME 2.2** Synthesize patient information to determine indications for invasive and non-invasive monitoring
- 5 C ME 2.2 Elicit a history, perform a physical exam and select appropriate investigations, and interpret their results for the purpose of determining prioritized anesthetic considerations and perioperative management plan
- 6 C ME 3.1 Integrate all sources of information to develop an anesthetic induction plan that is safe with specific hemodynamic goals adapted to the pre-existing cardiac disease
- **7 C ME 3.4** Establish invasive monitoring in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances
- 8 C ME 3.4 Competently manage complications after cardiac surgery including but not limited to: bleeding, graft occlusion, early and late arrhythmia, post CPB cardiogenic shock, stroke, tamponade and neuro-cognitive dysfunction
- 9 C ME 4.1 Establish plans for ongoing and postoperative care, if relevant, taking into consideration the patient's clinical state, circumstances, preferences, and actions, as well as available resources, best practices, and research evidence
- **10** C ME 5.2 Apply the principles of situational awareness to clinical practice
- **11 C COM 5.1** Document clinical encounters in an accurate, complete, timely, and accessible manner, in compliance with regulatory and legal requirements
- **12 C COL 1.1** Establish and maintain positive relationships with physicians and other colleagues in the health care professions to support relationship-centered collaborative care
- **13 C COL 1.3** Convey the anesthetic plan to the interprofessional team
- 14 C COL 3.2 Demonstrate safe handover of care, using both verbal and written communication, during a patient transition to a different health care professional or setting

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- **15 C L 2.1** Use clinical judgment to minimize wasteful practices
- **16 C P 1.2** Demonstrate a commitment to excellence in all aspects of practice and to active participation in collaborative care

Relevant Milestones (Part B):

- **1** C ME 1.3 Apply knowledge of anatomy to central line insertion technique
- 2 **TTD ME 3.1** Apply appropriate monitors correctly for the planned procedure
- **3 F ME 3.3** Consider urgency, and potential for deterioration, in advocating for the timely execution of a procedure or therapy
- 4 TTD ME 3.4 Demonstrate effective procedure preparation, including gathering required equipment and optimal positioning of the patient
- 5 C ME 3.4 Perform central line insertion in a skilful and safe manner, adapting to unanticipated findings or changing clinical circumstances
- 6 F ME 5.1 Prioritize the initial medical response to adverse events to mitigate further injury
- **7 C COM 1.2** Optimize the physical environment for patient comfort, dignity, privacy, engagement, and safety
- 8 F COM 5.2 Appropriately document anesthetic care and technique in an accurate, complete, timely, and accessible manner
- **9 C S 1.1** Use technology or personal documentation to record, monitor, and report on your procedural log
- **10** F P 2.2 Demonstrate a commitment to patient safety and quality improvement through adherence to institutional policies and procedures (e.g. infection control and sterility procedures)
- 11 F P 4.1 Demonstrate an ability to regulate attention, emotions, thoughts, and behaviours while maintaining capacity to perform professional tasks

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# Providing perioperative anesthetic management for patients undergoing scheduled, urgent/emergent major aortic surgery, carotid surgery, or peripheral vascular surgery

#### Key Features:

This EPA focuses on preoperative assessment, investigation/optimization if needed, informed consent, anesthetic management, invasive monitoring if required and determination of postoperative disposition.

#### Assessment plan:

Supervisor does assessment based on direct observation

Use Form 1. Form collects information on:

- Type of procedure: aortic surgery; carotid surgery; peripheral vascular surgery
- Timing: elective; emergency
- Type of anesthetic: general; regional

Collect 6 observations of achievement

- At least 1 of each type of procedure
- At least 2 emergency procedures

#### Relevant milestones:

# 1 C ME 1.3 Apply clinical knowledge of indications and specific surgical considerations for vascular surgery

- **2 C ME 2.2** Use appropriate information from ongoing monitoring, and interpret their results for the purpose of diagnosis and management
- **3 C ME 2.2** Synthesize patient information to determine indications for invasive and non-invasive monitoring
- 4 C ME 2.2 Elicit a history, perform a physical exam and select appropriate investigations, and interpret their results for the purpose of determining prioritized anesthetic considerations and perioperative management plan
- 5 C ME 2.4 Develop a plan to optimize the patient's medical condition preoperatively
- 6 C ME 3.1 Integrate all sources of information to develop an anesthetic management plan that is safe, patient-centred, and considers the risks and benefits of all approaches
- **7 C ME 3.2** Obtain and document informed consent, explaining the risks and benefits of, and the rationale for the proposed anesthesia plan

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- 8 C ME 3.4 Perform the anesthetic management and all related technical procedures in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances
- 9 C ME 3.4 Establish and implement a plan for post-anesthesia care
- 10 C ME 3.4 Competently manage hemodynamics and complications during aortic surgery depending on the level of clamping on the aorta including but not limited to hemodynamic instability, spinal ischemia, bleeding and renal dysfunction
- **11 C COM 5.1** Document clinical encounter in an accurate, complete, timely, and accessible manner, in compliance with regulatory and legal requirements
- **12 C COL 1.3** Convey the anesthetic plan to the interprofessional team
- 13 C COL 3.2 Demonstrate safe handover of care, using both verbal and written communication, during a patient transition to a different health care professional or setting

# Providing perioperative anesthetic management for patients with or without increased intracranial pressure undergoing scheduled, urgent or emergent intracranial procedures

#### Key Features:

- This EPA includes preoperative assessment, investigation/optimization if needed, informed consent, anesthetic management, invasive monitoring if required and determination of postoperative disposition

#### Assessment plan:

Supervisor does assessment based on direct observation

#### Use Form 1

Form collects information on:

- Type of neurosurgical procedure: tumour; pituitary tumour; vascular intracranial surgery; functional neurosurgery; other
- Increased intracranial pressure: yes; no
- Timing of surgery: elective; emergency

Collect 6 observations of achievement

- At least one tumour surgery
- At least one pituitary tumour surgery
- At least one vascular intracranial surgery
- At least two patient with increased intracranial pressure
- At least one emergency procedure

- 1 C ME 1.3 Apply knowledge of neurophysiology relevant to optimal anesthetic agents choice, management of increased intracranial pressure and basic principles of neuroprotection
- 2 C ME 2.1 Consider clinical urgency, feasibility, availability of resources, and comorbidities in determining priorities to be addressed during preoperative evaluation and determination of timing of surgery
- **3** C ME 2.2 Use appropriate information from ongoing monitoring, and interpret their results for the purpose of diagnosis and management
- **4 C ME 2.2** Synthesize patient information to determine indications for invasive and non-invasive monitoring
- 5 C ME 2.2 Elicit a history, perform a physical exam and select appropriate investigations, and interpret their results for the purpose of determining prioritized anesthetic considerations and perioperative management plan

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- **6 C ME 3.1** Integrate all sources of information to develop an anesthetic management plan that is safe, patient-centred, and considers the risks and benefits of all approaches
- 7 C ME 3.4 Perform the anesthetic management and all related technical procedures in a skilful and safe manner, adapting to unanticipated findings or changing clinical circumstances
- 8 C ME 3.4 Establish and implement a plan for post-anesthesia care including but not limited to early assessment of neurologic status, adequate management of hemodynamic parameters and optimal pain management
- 9 C ME 3.4 Optimize the patient and surgical conditions throughout the procedure, and anticipate, prevent and treat complications in relation with the specific procedure
- **10 C COM 1.5** Recognize when strong emotions (such as anger, fear, anxiety, or sadness) are impacting an interaction and respond appropriately
- **11 C COM 4.3** Obtain and document informed consent for the planned anesthetic management in a manner that engages the patients and their families using established principles of effective communication.
- **12 C COL 3.2** Organize the handover of care to the most appropriate physician or health care professional
- **13 C L 1.2** Actively encourage all involved in health care, regardless of their role, to report and respond to unsafe situations
- 14 C L 4.2 Assume a leadership role in managing complex cases in the OR

### Providing perioperative anesthetic management for patients undergoing scheduled or emergent spinal procedures

Key Features:

- This EPA includes preoperative assessment, investigation/optimization if needed, informed consent, anesthetic management, invasive monitoring if required and determination of postoperative disposition

#### Assessment plan:

Supervisor does assessment based on direct observation

Use Form 1. Form collects information on:

- Type of surgery: scoliosis surgery; unstable cervical spine surgery; other
- Spinal cord injury: yes; no
- Neurologic monitoring: yes; no
- Timing: elective; emergency

Collect 6 observations of achievement

- At least one scoliosis surgery
- At least one unstable cervical spine surgery
- At least one with spinal cord injury
- At least one with neurologic monitoring
- At least 2 emergency

- **1 C ME 1.1** Apply knowledge of the clinical and biomedical sciences relevant but not limited to anesthesia for spinal diseases and injury, and neurological monitoring
- 2 C ME 2.1 Consider clinical urgency, feasibility, availability of resources, and comorbidities in determining priorities to be addressed during preoperative evaluation and determination of timing for surgery
- **3** C ME 2.2 Use appropriate information from ongoing monitoring, and interpret their results for the purpose of diagnosis and management
- 4 C ME 2.2 Elicit a history, perform a physical exam and select appropriate investigations, and interpret their results for the purpose of determining prioritized anesthetic considerations and perioperative management plan
- **5 C ME 3.1** Integrate all sources of information to develop an anesthetic management plan that is safe, patient-centred, and considers the risks and benefits of all approaches
- **6 C ME 3.2** Obtain and document informed consent, explaining the risks and benefits of, and the rationale for, a proposed procedure or therapy

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- 7 C ME 3.4 Perform the anesthetic management and all related technical procedures in a skilful and safe manner, adapting to unanticipated findings or changing clinical circumstances
- 8 **C ME 3.4** Document procedures accurately
- 9 C ME 3.4 Establish and implement a plan for post-anesthesia care
- **10** C ME 3.4 Competently manage perioperative fluid delivery including blood replacement strategies
- **11** C ME 3.4 Competently manage the airway of a patient with an unstable cspine presenting for a surgical procedure
- **12 C ME 5.2** Apply the principles of situational awareness to clinical practice
- **13 C COM 5.1** Adapt record keeping to the specific guidelines of anesthesiology and the clinical context
- 14 C COL 1.1 Anticipate, identify, and respond to patient safety issues related to the function of a team particularly during prone positioning of a patient for spinal surgery
- **15 C COL 3.2** Organize the handover of care to the most appropriate physician or health care professional
- **16 C L 4.2** Assume a leadership role in managing complex cases in the OR
- **17 C S 3.1** Generate focused questions that address practice uncertainty and knowledge gaps

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# Providing perioperative anesthetic management for patients undergoing thoracic surgery via thoracotomy or thoracoscopy, including pulmonary resection surgery

#### Key Features:

- This EPA includes preoperative assessment, investigation/optimization if needed, informed consent, anesthetic management, invasive monitoring if required and determination of postoperative disposition
- The observation of this EPA is divided into two parts: perioperative management and management of lung isolation

#### Assessment plan:

Part A: Perioperative management Supervisor does assessment based on direct observation

Use Form 1. Form collects information on:

- Type of surgery: thoracotomy; thoracoscopy
- Pneumonectomy: yes; no
- Timing: elective; emergency

Collect 6 observations of achievement

- At least one of each type of surgery
- At least one pneumonectomy
- At least one emergency

Part B: Management of lung isolation Supervisor does assessment based on direct observation

Use Form 2. Form collects information on:

- Technique used: double lumen tube; bronchial block; other

Collect 6 observations of achievement

- At least 3 double lumen tube
- At least one bronchial block

Relevant milestones (Part A): Perioperative Management

- **1 C ME 1.1** Demonstrate commitment and accountability for patients in their care
- 2 C ME 1.4 Perform appropriately-timed preoperative clinical assessments with recommendations that are well-organized and properly documented in written and/or oral form
- **3 C ME 2.1** Consider clinical urgency, feasibility, availability of resources, and comorbidities in determining priorities to be addressed

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- **4 C ME 2.2** Select and interpret appropriate preoperative investigations based on the planned procedure and patient's comorbidities
- 5 C ME 3.1 Integrate all sources of information to develop an anesthetic management plan that is safe, patient-centred, and considers the risks and benefits of all approaches
- **6 C ME 3.1** Integrate planned procedures or therapies into global assessment and management plans
- 7 C ME 3.4 Perform the anesthetic management and all related technical procedures in a skilful and safe manner, adapting to unanticipated findings or changing clinical circumstances
- 8 **C ME 3.4** Establish and implement a plan for post-anesthesia care
- 9 C ME 3.4 Optimize patient and surgical conditions throughout the procedure and anticipate, prevent and treat complications in relation with the specific procedure
- **10 C COM 1.5** Recognize when strong emotions (such as anger, fear, anxiety, or sadness) are impacting an interaction and respond appropriately
- **11 C COM 1.6** Obtain and document informed consent for the planned anesthetic management in a manner that engages the patients and their families using established principles of effective communication
- 12 C COM 5.1 Document clinical encounters to adequately convey clinical reasoning and the rationale for decisions
- **13 C COM 5.1** Adapt record keeping to the specific guidelines of anesthesiology and the clinical context
- 14 C COL 1.3 Communicate effectively with physicians and other colleagues in the health care professions, in particular with pre-op consultants and per-operatively with surgeon
- **15** C COL 3.2 Organize the handover of care to the most appropriate physician or health care professional in the PACU or ICU
- **16 C L 4.2** Assume a leadership role in managing complex cases in the OR
- 17 C HA 1.2 Apply the principles of behaviour change during conversations with patients about adopting healthy behaviours such as smoking cessation
- **18 C S 3.4** Identify new evidence appropriate to their scope of professional practice through quality-appraised evidence-alerting services
- **19 C P 2.1** Demonstrate a commitment to maintaining and enhancing competence

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Relevant Milestones (Part B): Management of lung isolation

- **1** C ME 1.3 Apply knowledge of anatomy to lung isolation technique
- 2 C ME 3.1 Integrate all sources of information to develop a plan for lung isolation that is safe, patient-centred, and considers the risks and benefits of all approaches
- **3 TTD ME 3.1** Apply appropriate monitors correctly for the planned procedure
- 4 F ME 3.3 Consider urgency, and potential for deterioration, in advocating for the timely execution of a procedure or therapy
- 5 TTD ME 3.4 Demonstrate effective procedure preparation, including gathering required equipment and optimal positioning of the patient
- 6 C ME 3.4 Perform lung isolation techniques in a skilful and safe manner, adapting to unanticipated findings or changing clinical circumstances
- 7 F ME 5.1 Prioritize the initial medical response to adverse events to mitigate further injury
- 8 F COM 5.2 Appropriately document anesthetic care and technique in an accurate, complete, timely, and accessible manner
- 9 C COL 1.3 Communicate effectively with physicians and other colleagues in the health care professions while performing a technical skill
- **10 F P 2.2** Demonstrate a commitment to patient safety and quality improvement through adherence to institutional policies and procedures (e.g. infection control and sterility procedures)
- **11 F P 4.1** Demonstrate an ability to regulate attention, emotions, thoughts, and behaviours while maintaining capacity to perform professional tasks

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# Providing perioperative anesthetic management for patients undergoing mediastinal and esophageal surgery, including management of mediastinal masses

#### Key Features:

- This EPA includes preoperative assessment, investigation/optimization if needed, informed consent, anesthetic management, invasive monitoring if required and determination of postoperative disposition

#### Assessment plan:

Supervisor does assessment based on direct observation

Use Form 1. Form collects information on:

 Type of procedure: mediastinoscopy; anterior mediastinal mass; esophageal surgery; other

Collect 6 observations of achievement

- At least two mediastinoscopy
- At least two anterior mediastinal mass
- At least two esophageal surgery

- 1 C ME 1.4 Perform appropriately timed preoperative clinical assessments with recommendations that are well-organized and properly documented in written and/or oral form
- 2 C ME 1.6 Adapt care as the complexity, uncertainty, and ambiguity of the patient's clinical situation evolves, including anticipation of intense but brief intraoperative stimulation
- **3** C ME 2.2 Select and interpret appropriate preoperative investigations based on the planned procedure and the patient's comorbidities
- **4 C ME 2.2** Synthesize patient information to determine anesthetic considerations and to plan appropriate anesthetic management
- 5 C ME 3.1 Integrate all sources of information to develop an anesthetic management plan that is safe, patient-centred, and considers the risks and benefits of all approaches
- 6 C ME 3.4 Perform the anesthetic management and all related technical procedures in a skilful and safe manner, adapting to unanticipated findings or changing clinical circumstances

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- 7 C ME 3.4 Establish and implement a plan for post-anesthesia care
- 8 C ME 3.4 Anticipate potential intraoperative and postoperative complications and implement appropriate management strategies (including but not limited to hemorrhage, recurrent laryngeal nerve damage, pneumothorax, air embolism)
- **9 F COM 5.1** Document clinical encounters to adequately convey clinical reasoning and the rationale for decisions
- **10 C COL 1.1** Anticipate, identify, and respond to patient safety issues related to the function of a team
- **11 C COL 1.2** Consult as needed with other health care professionals, including other physicians to ensure optimal preoperative medical condition and optimal postoperative follow up
- **12 C COL 1.3** Communicate effectively with physicians and other colleagues in the health care professions
- 13 C COL 3.2 Organize the handover of care to the most appropriate physician or health care professional
- **14 C S 1.2** Seek and interpret multiple sources of performance data and feedback, with guidance, to continually improve performance
- **15 C P 1.1** Manage complex issues while preserving confidentiality

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# Providing perioperative anesthetic management for organ retrieval surgery including perioperative anesthetic management of the donor, and determination of neurologic death

#### Key Features:

- Intraoperative management of organ retrieval will be observed mainly in the operating room by the anesthesiologist
- Observation of the declaration of neurologic death should be done in ICU

#### Assessment plan:

Part A: Perioperative management of organ donor Supervisor does assessment based on direct or indirect observation (case review with debrief)

Use Form 1. Form collects information on:

- Timing of involvement: intraoperative; preoperative/ICU

#### Collect 3 observations of achievement

- At least one of each timing

Part B: Declaration of neurologic death Supervisor does assessment based on direct observation

Use Form 2

Collect 2 observations of achievement

- at least 2 assessors

Relevant milestones (Part A): Perioperative management of organ donor

- 1 C ME 1.3 Apply knowledge of the clinical and biomedical sciences relevant but not limited to the brain death, end-stage organ disease and donor organ protection
- 2 C ME 1.4 Perform appropriately-timed preoperative clinical assessments with recommendations that are well-organized and properly documented in written and/or oral form
- **3 C ME 1.6** Adapt care as the complexity, uncertainty, and ambiguity of the patient's clinical situation evolves.
- 4 C ME 2.1 Consider clinical urgency, feasibility, availability of resources, and comorbidities in determining priorities to be addressed

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- **5 C ME 2.2** Select and interpret appropriate preoperative investigations based on the planned procedure and patient's comorbidities
- **6 C ME 2.2** Use appropriate information from ongoing monitoring, and interpret their results for the purpose of diagnosis and management.
- 7 **C ME 2.2** Focus the clinical encounter, performing it in a time-effective manner, without excluding key elements
- 8 **C ME 3.1** Integrate all sources of information to develop a management plan that is safe, patient-centred, and considers the risks and benefits of all approaches
- **9 C ME 3.2** Obtain and document informed consent, explaining the risks and benefits of, and the rationale for a proposed procedure
- 10 C ME 3.4 Perform the management and all related technical procedures in a skilful and safe manner, adapting to unanticipated findings or changing clinical circumstances
- **11** C ME 3.4 Optimize patient conditions throughout the perioperative period and anticipate, prevent and treat complications
- 12 C ME 3.4 Competently monitor and manage the pathophysiologic changes occurring with brain death to ensure perioperative hemodynamic stability
- **13 C ME 5.2** Apply the principles of situational awareness to clinical practice
- **14 F COM 5.1** Document clinical encounters to adequately convey clinical reasoning and the rationale for decisions

### 15 C COL 1.2 Negotiate overlapping and shared responsibilities with physicians and other colleagues in the health care professions

- **16 C COL 1.2** Demonstrate knowledge of the different roles of the team members in an organ transplantation organization and work efficiently with each member
- **17 C COL 2.2** Gather the information and resources needed to manage differences and resolve conflicts among collaborators
- **18 C HA 2.3** Demonstrate knowledge of organ procurement as a highly organized process on a national level and recognize that optimal outcomes are based on integration of local resources into this structure
- **19** C P 1.3 Manage ethical issues encountered in the clinical and academic setting

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Relevant Milestones (Part B): Declaration of neurologic death

- **1** C ME 2.2 Synthesize patient information to determine diagnosis
- 2 C ME 3.4 Competently perform the process of declaration of brain death
- 3 C COM 1.1 Communicate with patient and family in a manner that encourages trust and autonomy and is characterized by empathy, respect, and compassion
- 4 C COM 1.5 Establish boundaries as needed in emotional situations
- 5 C COM 2.2 Manage the flow of challenging patient encounters, including those with angry, distressed, or excessively talkative individuals
- 6 C COM 3.1 Provide information on diagnosis and prognosis in a clear, compassionate, respectful, and objective manner
- 7 F COM 5.1 Document clinical encounters to adequately convey clinical reasoning and the rationale for decisions
- 8 C P 1.3 Manage ethical issues encountered in the clinical and academic setting

# Providing comprehensive multi-modal management of acute and acute on chronic pain conditions

#### Key Features:

- This EPA includes pain management in the immediate post-operative period (i.e., providing an initial postoperative pain management) as well as assessments and management of acute pain in other clinical situations and management of acute pain in patients already treated by a pain consultant expert
- This EPA may be observed across a variety of clinical situations including medical, surgical and trauma patients
- This EPA may be observed across a variety of medical conditions including but not limited to the opioid tolerant patient, the opioid addicted patient, the patient with obstructive sleep apnea, the medically compromised patient, the pediatric patient and the elderly patient

#### Assessment plan:

Supervisor does assessment based on direct or indirect observation (case review and debrief)

Use Form 1. Form collects information on:

- Type of issue: initial management; followup care; acute pain crisis/complication; acute on chronic pain
- Patient category: post-operative; trauma; medical
- Complications of pain management: yes; no
- Complexity of case: low; medium; high

Collect 6 observations of achievement

- At least 1 patient for each type of issue
- At least one patient from two different categories
- At least one complication of pain management
- At least 3 assessors

- 1 C ME 1.3 Apply knowledge of the anatomy and physiology of acute pain in the development of a pain management strategy
- 2 C ME 1.3 Apply knowledge in pharmacology of various analgesics and analgesic adjuvants to develop a multimodal approach to acute pain management
- **3** C ME 2.4 Diagnose and manage the complications of various acute pain management strategies

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- 4 C ME 2.2 Elicit a history, perform a physical exam and select appropriate investigations, and interpret their results for the purpose of diagnosis and management of a patient with acute pain
- 5 C ME 3.1 Integrate all sources of information to develop a procedural or therapeutic plan that is safe, patient-centred, and considers the risks and benefits of all approaches
- 6 C ME 3.4 Perform the pain management and all related technical procedures in a skilful and safe manner, adapting to unanticipated findings or changing clinical circumstances
- **7 C COM 2.2** Manage the flow of challenging patient encounters, including those with angry, distressed, or excessively talkative individuals
- 8 F COM 5.1 Document clinical encounters to adequately convey clinical reasoning and the rationale for decisions
- **9 C COL 1.3** Communicate effectively with physicians and other colleagues in the health care professions

# Assessing, diagnosing and managing patients with common chronic pain disorders, including both medical and basic interventional treatments, using a collaborative, multidisciplinary approach

Key Features:

- This EPA focuses on chronic pain management but does not include the complexity of chronic pain and the breadth of interventional pain management practiced by pain specialists
- The observation of this EPA is divided into two parts: pain management and communication with the patient

Assessment plan:

Part A: Pain management

Supervisor does assessment based on direct or indirect observation (case review and debrief)

Use Form 1. Form collects information on:

- Type of pain: back; neuropathic; phantom limb; complex regional pain syndromes (CRPS); cancer; other

Collect 8 observations of achievement

- At least 4 types of pain

Part B: Patient interview Supervisor does assessment based on direct observation

Use Form 1

Collect 3 observations of achievement

Relevant milestones (Part A): Pain Management

- **1 C ME 1.3** Apply knowledge of the clinical sciences relevant to pain medicine
- 2 **C ME 1.3** Apply knowledge in pharmacology of various analgesics and analgesic adjuvants to develop a multimodal approach to chronic pain management
- **3 C ME 2.1** Consider clinical urgency, feasibility, availability of resources, and comorbidities in determining priorities to be addressed
- 4 **C ME 2.2** Focus the clinical encounter, performing it in a time-effective manner, without excluding key elements

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- 5 C ME 2.2 Elicit a history, perform a physical exam and select appropriate investigations, and interpret their results for the purpose of diagnosis the chronic pain syndrome. This includes determination of the character and severity of pain, use of the appropriate pain scale and assessment of the impact on function
- 6 C ME 2.4 Formulate and implement management plans that consider all of the patient's health problems and context, in a timely manner, in collaboration with patients and their families and, when appropriate, the interprofessional team
- 7 C ME 3.4 Competently perform discipline-specific procedures
- 8 **C ME 3.4** Demonstrate optimal and safe use of fluoroscopy and ultrasound equipment
- 9 C ME 4.1 Diagnose and manage the complications of various chronic pain management strategies
- **10** C ME 4.1 Diagnose emergencies in the context of chronic pain, and manage and refer patient appropriately
- 11 C COL 1.2 Consult as needed with other health care professionals, including other physicians
- 12 C COL 1.3 Provide timely and necessary written information to colleagues to enable effective relationship-centered care
- **13** C HA 1.1 Facilitate timely patient access to disability or other insurance benefits

Relevant Milestones (Part B): Patient interview

- 1 C ME 2.2 Focus the clinical encounter, performing it in a time-effective manner, without excluding key elements
- 2 C ME 2.3 Address the impact of the medical condition on the patient's ability to pursue life goals and purposes
- **3** C COM 1.5 Recognize when strong emotions (such as anger, fear, anxiety, or sadness) are impacting an interaction and respond appropriately
- 4 C COM 2.1 Actively listen and respond to patient cues
- 5 C COM 2.1 Integrate, summarize, and present the biopsychosocial information obtained from a patient-centred interview

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- 6 C COM 2.2 Manage the flow of challenging patient encounters, including those with angry, distressed, or excessively talkative individuals
- 7 C COM 4.1 Use communication skills and strategies that help patients and their families make informed decisions regarding their health
- 8 F COM 5.1 Document clinical encounters to adequately convey clinical reasoning and the rationale for decisions

#### Executing scholarly projects

Key Features:

- Individual programs may have requirements concerning the type of project; projects will need approval of the program director
- This EPA includes:
  - Elaboration of a scientific question from a clinical problem
  - Development of a protocol to answer the question
  - Communication of the results

#### Assessment plan:

Supervisor does assessment based on review of the resident's submission of a completed scholarly project

Use Form 1 with mandatory comments. Form collects information on:

- Type of scholarly project: research; quality improvement; educational; other
- Format: presentation; abstract; poster; paper; other

Collect 1 observation of achievement

- 1 C L 4.1 Ensure optimal time management in daily activities in order to meet all deadlines
- 2 C S 3.1 Generate focused questions that address practice uncertainty and knowledge gaps
- **3** C S 3.2 Summarize the state of knowledge on a research topic or research question
- 4 C S 3.3 Evaluate the applicability (external validity or generalizability) of evidence from a resource
- 5 C S 3.3 Describe study results in both quantitative and qualitative terms
- **6 C S 4.1** Contribute to a scholarly investigation and to the dissemination of research findings in anesthesiology or related discipline
- **7 C S 4.1** Demonstrate an understanding of the scientific principles of research and scholarly inquiry, and the role of research evidence in health care
- 8 C S 4.2 Identify ethical principles for research and incorporate them into obtaining informed consent, considering harm and benefits, and considering vulnerable populations

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- **9 C S 4.3** Actively participate as a research team member, balancing the roles and responsibilities of a researcher with the clinical roles and responsibilities of a physician
- **10 F S 4.4** Describe and compare the common methodologies used for scholarly inquiry in anesthesiology
- **11** C S 4.4 Select appropriate methods of addressing a given scholarly question
- **12 C S 4.4** Pose medically and scientifically relevant and appropriately constructed questions or hypothesis amenable to scholarly investigation
- 13 C S 4.5 Summarize and communicate to professional and lay audiences, including patients and their families, the findings of applicable research and scholarly inquiry
- **14 C S 4.5** Prepare a manuscript suitable for publication in a peer-reviewed journal
- **15 C P 1.3** Manage ethical issues encountered in the clinical and academic setting
- **16 C P 1.4** Proactively resolve real, potential, or perceived conflicts of interest transparently and in accordance with ethical, legal, and moral obligations

# Recognizing and managing ethical dilemmas that arise in the course of patient care

Key Features:

- This EPA focuses on the resident recognizing that an ethical issue may arise in the course of a patient's care and includes the ability to identify the issue and related ethical concepts and address the issue with the patient, family and/or health care providers while managing personal beliefs and/or values
- Examples of patient scenarios that involve this EPA may include a patient arriving to OR for a palliative operative procedure, a patient who identifies as Jehovah's witness; a patient with severe comorbidity arriving for an elective procedure
- The observation of this EPA is divided into two parts: patient management and reflective critique of a clinical case that posed an ethical issue

#### Assessment plan:

Part A: Patient management Supervisor does assessment based on direct or indirect observation (case review and

debrief)

Use Form 1. Form collects information on:

- Name the ethical dilemma: (write in)
- Location: OR; ICU; emergency room; other
- Level of complexity: low; medium; high

Collect 4 observations of achievement

- two different clinical scenarios
- at least 1 in the OR
- at least 1 in the ICU

#### Part B: Reflective critique

Supervisor does assessment based on review of resident submission of a brief critique (max 2 pages) that identifies the clinical issue, the relevant ethical concepts, any relevant legal, professional or institutional statements and the outcome.

Use Form 1 with mandatory narrative

Collect 1 observation of achievement

#### Relevant milestones (Part A): Patient Management

- **1 C ME 1.1** Demonstrate commitment and accountability for patients in their care
- **2 C ME 1.6** Adapt care as the complexity, uncertainty, and ambiguity of the patient's clinical situation evolves

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- 3 C ME 2.3 Share concerns, in a constructive and respectful manner, with patients and their families about their goals of care when they are not felt to be achievable
- 4 C ME 2.4 Formulate and implement management plans that consider all of the patient's health problems and context, in a timely manner, in collaboration with patients and their families and, when appropriate, the interprofessional team
- **5 C ME 2.4** Develop, in collaboration with a patient and his or her family, a plan to deal with clinical uncertainty in the perioperative context
- 6 C ME 2.4 Ensure treatment plans align with the patient's expressed goals of care
- **7 C ME 2.4** Develop plans of care that offer non-surgical options for improving quality of life
- 8 **C ME 4.1** Establish plans for ongoing care, taking into consideration the patient's clinical state, circumstances, preferences, and actions, as well as available resources, best practices, and research evidence
- 9 C ME 3.3 Advocate for timely access for palliative surgical procedures
- 10 C COM 1.1 Communicate with patient and family in a manner that encourages trust and autonomy and is characterized by empathy, respect, and compassion
- **11 C COM 1.2** Optimize the physical environment for patient comfort, dignity, privacy, engagement, and safety
- **12 C COM 3.1** Provide information on diagnosis and prognosis in a clear, compassionate, respectful, and objective manner
- 13 C COM 3.1 Discuss end of life care planning as it relates to anesthetic care when appropriate
- 14 C P 1.3 Manage ethical issues encountered in the clinical and academic setting
- 15 C P 1.3 Consider the impact of his/her own values, attitudes, beliefs, context and biases when dealing with ethical challenges and counselling patients

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- 16 C P 3.1 Describe and apply the relevant codes, policies, standards, and laws governing physicians and the profession relevant to Anesthesiology and Critical Care Medicine including but not limited to:
  - Capacity
  - Substitute Decision Makers, Guardianship, Next of Kin
  - Living Wills, Legal Directives
  - End of Life Care
  - Spectrum & Implications of Do Not Resuscitate Orders
  - Withdrawal of Care
  - Euthanasia
- **17 C P 3.2** Recognize and respond to unprofessional and unethical behaviours in physicians and other colleagues in the health care profession

Relevant Milestones (Part B): Reflective critique

- **1 C P 1.3 Recognize and respond to ethical issues encountered in practice**
- 2 C P 3.1 Describe and apply the relevant codes, policies, standards, and laws governing physicians and the profession relevant to Anesthesiology and Critical Care Medicine including but not limited to:
  - Capacity
  - Substitute Decision Makers, Guardianship, Next of Kin
  - Living Wills, Legal Directives
  - End of Life Care
  - Spectrum & Implications of Do Not Resuscitate Orders
  - Withdrawal of Care
  - Euthanasia
- **3** C P 3.2 Recognize and respond to unprofessional and unethical behaviours in physicians and other colleagues in the health care profession.

# Formal teaching, and teaching junior learners in the clinical setting *(elective)*

#### Key Features:

- The achievement of this EPA is elective
- This EPA includes both small and large group formal teaching, as well as informal bedside teaching to junior learners
- The observation of this EPA is divided into three parts: observation of formal teaching, observation of clinical teaching and learner feedback

#### Assessment plan:

Part A: Formal teaching

Three supervisors do assessment based on direct observation (at least one is expert in the field being discussed)

Use Form 1. Form collects information on:

- Type of activity: journal club; grand rounds; problem based discussion; other
- Information on supervisor: expert in the field being discussed /yes or no

Collect observations of achievement from three supervisors on 2 different teaching events - At least one grand rounds

Part B: Clinical teaching

Supervisor does assessment based on direct observation

Use Form 1. Form collects information on:

- Location: : OR; ICU; ward

Collect 3 observations of achievement

- At least two different locations

Part C: Learner feedback

Competence Committee reviews collated learner feedback

Use Form 1. Form collects information on:

- Level of learner: medical student; junior resident
- Type of teaching: OR; ICU; ward; formal

Collect observations of achievement at 3 teaching events

- No more than two formal

### Relevant milestones (Part A): Formal Teaching

- **1 C ME 1.3** Apply knowledge of the clinical and biomedical sciences relevant to Anesthesiology
- 2 C S 2.4 Identify the learning needs of a learner
- 3 C S 2.4 Plan, prepare and deliver a learning activity
- 4 **C S 2.4** Describe how to formally plan a medical education session
- **5 C S 2.4** Describe sources of information used to assess learning needs
- 6 C S 2.4 Define specific learning objectives for a teaching activity
- 7 **C S 2.4** Describe clinical teaching strategies relevant to Anesthesiology
- 8 C S 2.4 Adapt and plan learning activities appropriate to the level of the learner
- **9 C S 3.2** Identify, select, and navigate pre-appraised resources
- **10 C S 3.3** Evaluate the applicability (external validity or generalizability) of evidence from a resource
- **11 F S 3.3 Interpret study findings, including a critique of their relevance to their practice**
- 12 F S 3.3 Determine the validity and risk of bias in a source of evidence
- **13 C S 3.3** Describe study results in both quantitative and qualitative terms
- 14 C S 3.3 Critically evaluate the integrity, reliability, and applicability of health-related research and literature
- **15 C S 3.4** Identify new evidence appropriate to their scope of professional practice through quality-appraised evidence-alerting services
- 16 C S 3.4 Summarize the scientific knowledge on a topic or a clinical question and integrate evidence into decision-making in clinical practice
- 17 F S 3.4 Describe how various sources of information, including studies, expert opinion, and practice audits, contribute to the evidence base of medical practice

#### Relevant Milestones (Part B): Clinical teaching

**1 C ME 1.3** Apply knowledge of the clinical and biomedical sciences relevant to Anesthesiology

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- 2 F S 2.4 Identify the learning needs of a learner
- 3 C S 2.1 Use strategies for deliberate, positive role-modelling
- **F S 2.1** Identify behaviours associated with positive and negative role-modelling
- **5 C S 2.2** Promote a safe learning environment
- 6 C S 2.3 Supervise learners to ensure they work within limitations, seeking guidance and supervision when needed
- 7 C S 2.3 Balance clinical supervision and graduated responsibility, ensuring the safety of patients and learners
- 8 C S 2.3 Ensure patient safety is maintained when learners are involved
- 9 C S 2.4 Describe and demonstrate clinical teaching strategies relevant to Anesthesiology
- **10** C S 2.4 Adapt and plan learning activities appropriate to the level of the learner
- **11** C S 2.5 Provide feedback to enhance learning and performance
- **12 C S 2.6** Appropriately assess junior learners

### Relevant Milestones (Part C): Learner feedback

- 1 C ME 1.3 Apply knowledge of the clinical and biomedical sciences relevant to Anesthesiology
- 2 F S 2.4 Identify the learning needs of a learner
- 3 C S 2.1 Use strategies for deliberate, positive role-modelling
- 4 C S 2.2 Promote a safe learning environment
- 5 C S 2.3 Balance clinical supervision and graduated responsibility, ensuring the safety of patients and learners
- 6 F S 2.4 Demonstrate basic skills in teaching others
- 7 C S 2.4 Adapt and plan learning activities appropriate to the level of the learner
- 8 C S 2.5 Provide feedback to enhance learning and performance

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### Anesthesiology: Core EPA #43

### Developing a personal learning plan for the transition to practice stage

### Key Features:

- The personal learning plan must include a summary of all feedback and assessments received throughout residency and must highlight areas of personal strength as well as areas for improvement.
- The plan must be clear, concrete and feasible, focusing on areas for improvement and must include the appropriate choice of clinical experiences for the next stage and use of appropriate academic resources (journals, textbooks, conference)
- The plan should be SMART(specific, measureable, assessable, realistic, timely)
- The plan may also include:
  - Additional areas of interest
  - Preparation plan for the Royal College examination
  - A possible career plan with specific steps toward achievement
- The plan must be reviewed a second time with supervisor during transition to practice stage to reassess its implementation (part of assessment plan of EPA TTP 11)
- Academic advisors (if implemented), Competence Committee members and/or program directors may offer a unique perspective to review and assess the learning plan

### Assessment plan:

Resident submits learning plan geared to progression of competence Supervisor does assessment based on review of resident's submission

Use Form 1 with mandatory comments

Collect 1 observation of satisfactory achievement

### Relevant milestones:

- **1 C ME 5.1** Identify potential improvement opportunities arising from harmful patient safety incidents and near misses
- 2 **CL 1.1** Analyze and provide feedback on processes seen in one's own practice, team, organization, or system
- **3 C L 4.1** Set priorities and manage time to integrate practice and personal life
- 4 **C L 4.2** Reconcile expectations for practice with job opportunities and workforce needs

## 5 C L 4.2 Adjust educational experiences to gain competencies for future independent practice

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## 6 C L 4.3 Improve personal practice by evaluating an area in need of improvement, setting priorities, executing a plan, and analyzing the results

- **7 C HA 2.1** Analyze current policy or policy developments that affect the communities or populations they serve
- 8 C S 1.1 Develop, implement, monitor, and revise a personal learning plan to enhance professional practice

## 9 C S 1.2 Seek and interpret multiple sources of performance data and feedback, with guidance, to continually improve performance

**10 C S 1.3** Engage in collaborative learning to continuously improve personal practice and contribute to collective improvements in practice

## 11 C S 3.1 Generate focused questions that address practice uncertainty and knowledge gaps

- **12 C S 3.3** Evaluate the applicability (external validity or generalizability) of evidence from a resource
- **13 C S 3.4** Identify new evidence appropriate to their scope of professional practice through quality-appraised evidence-alerting services
- **14 C P 1.2** Analyze how the system of care supports or jeopardizes excellence

## **15 C P 2.1 Demonstrate a commitment to maintaining and enhancing competence**

- **16 C P 2.1** Demonstrate accountability to patients, society, and the profession by recognizing and responding to societal expectations of the profession
- **17 C P 3.1** Describe the relevant codes, policies, standards, and laws governing physicians and the profession including standard-setting and disciplinary and credentialing procedures
- **18 C P 4.1** Exhibit self-awareness and effectively integrate skills that support adaption and recovering in challenging situations
- **19 C P 4.2** Manage competing personal and professional priorities
- 20 C P 4.2 Develop a strategy to manage personal and professional demands for a sustainable independent practice
- 21 C P 4.2 Develop a personal plan for managing stress and maintaining physical and mental well-being

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### Anesthesiology: Core EPA #44

### Using ultrasound to assist in diagnosis and management of hemodynamically unstable or critically ill patients

### Assessment plan:

Supervisor does assessment based on direct or indirect (review of images) observation

Use Form 2. Form collects information on:

- Type of exam: cardiac; pulmonary; cardiopulmonary; other
- Location: preoperative; intraoperative; ICU; emergency room
- Type of patient: stable; unstable
- Type of observation: direct; indirect

Collect 25 observations of achievement

- At least 4 pulmonary
- At least 5 unstable patients
- At least 10 direct observations

### Relevant milestones:

- 1 C ME 1.3 Apply clinical and theoretical knowledge of echography to anesthesiology and critical care practice
- 2 C ME 2.2 Competently interpret focused transthoracic echocardiography exam for common pathologies including but not limited to hypovolemia, left and right ventricular failure and pericardial effusion and tamponade
- 3 C ME 3.1 Integrate all sources of information to develop a management plan that is safe, patient-centred, and considers the risks and benefits of all approaches
- 4 **C ME 3.2** Use shared decision-making in the consent process, taking risk and uncertainty into consideration
- 5 C ME 3.4 Competently acquire images of focused transthoracic echocardiography exam, pulmonary echographic exam and/or abdominal echographic exam

### 6 C ME 3.4 Document procedures accurately

- 7 **C ME 4.1** Determine the necessity and appropriate timing of consultation
- 8 C COM 1.2 Optimize the physical environment for patient comfort, dignity, privacy, engagement, and safety
- 9 C COM 2.1 Actively listen and respond to patient cues

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# **10** F COM 5.1 Document clinical encounters to adequately convey clinical reasoning and the rationale for decisions

- **11 C COM 5.2** Adapt use of the health record to the patient's health literacy and the clinical context
- **12 C P 2.1** Demonstrate a commitment to maintaining and enhancing competence

### Managing all aspects of care for patients presenting to a preoperative clinic, including organizational aspects of the daily workload in terms of time management, advocacy and allocation of resources

### Key Features:

- This EPA includes preoperative assessment for any patient presenting to the preoperative clinic and management of the daily workload of an anesthesiologist
- This EPA focuses on clinical care as well as time management, advocacy and allocation of resources
- The observation of this EPA is divided into two parts: overall clinic management and individual patient care

### Assessment plan:

Part A: Clinic management Supervisor does assessment based on direct and indirect observation of one clinic day

Use Form 2. Form collects information on:

- Total number of patient assessments that day
- Type of surgical procedure (check all that apply): general surgery; gynecology; neurosurgery; ophthalmology; orthopedic surgery; otolaryngology; plastic surgery; spinal surgery; thoracic surgery; urology; vascular surgery
- Level of complexity of cases on average: low; medium; high

Collect 3 observations of achievement (i.e., 3 different clinic days)

- At least two different assessors

Part B: Individual patient management Supervisor does chart audit of at least 5 charts

Use Form 2

Collect one observation of achievement

### Relevant milestones (Part A): Clinic Management

- 1 TP ME 1.4 Perform appropriately-timed clinical assessments and casemanagements addressing the breadth of anesthesiology, with recommendations that are well-organized and properly documented in written and/or oral form
- **2 TP ME 1.5** Carry out professional duties in the face of multiple, competing demands, such as optimal care for the individual patient, the need to see all the patients who require a preoperative consultation in a given day, and teaching/supervising duties to trainees

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## **3** C ME 2.1 Identify and resolve conflicting anesthesia priorities for complex patients for any surgical procedure

# 4 C ME 2.2 Focus the clinical encounter, performing it in a time-effective manner, without excluding key element

- **5 TP ME 2.4** Establish a plan for optimal management of the proposed procedure in a surgical or obstetrical patient, including but not limited to appropriate investigation, request for consultation with other specialist(s), preoperative medical optimization and/or modification of intraoperative or postoperative care
- **6 TP ME 5.2** Identify strategies to mitigate perioperative complications for individual patients
- 7 **TP COM 4.3** Use communication skills and strategies that help the patient and family make informed decisions regarding their perioperative anesthetic management
- **8. TP COM 5.2** Communicate effectively using a written health record, electronic medical record, or other digital technology
- 9 F COL 1.1 Establish and maintain healthy and collegial relationships with physicians and other colleagues in the health care professions to support relationship-centered collaborative care
- **10 TP COL 1.3 Identify complex or controversial issues that require direct** verbal communication with colleague anesthesiologists or other physicians and convey that information effectively
- **11 TP COL 2.2** Implement strategies to promote understanding, manage differences, and resolve conflicts in a manner that supports a collaborative culture
- **12 TP L 2.2** Apply evidence and management processes to achieve cost-appropriate care
- **13 TP HA 1.2** Work with the patient and family to increase opportunities to adopt healthy behaviours as they pertain to the perioperative setting (eg. smoking cessation)
- **14 TP S 1.2** Identify opportunities for learning and improvement by regularly reflecting on and assessing their performance using various internal and external data sources
- **15 TP S 3.4 Integrate best evidence and clinical expertise into decision-making** in their practice
- 16 F P 1.1 Exhibit appropriate professional behaviours and relationships in all aspects of practice, reflecting honesty, integrity, humility, dedication, compassion, respect, altruism, respect for diversity, and maintenance of confidentiality

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Relevant Milestones (Part B): Individual patient management

1 C ME 1.4 Perform clinical assessments that address the breadth of issues in each case

## 2 C ME 2.1 Identify and resolve conflicting anesthesia priorities for complex patients for any surgical procedure

- **3 TP ME 2.4** Establish a plan for optimal management of the proposed procedure in a surgical or obstetrical patient, including but not limited to appropriate investigation, request for consultation with other specialist(s), preoperative medical optimization and/or modification of intraoperative or postoperative care
- **4 TP ME 5.1** Identify strategies to mitigate perioperative complications for individual patients
- **5 TP COM 4.3** Use communication skills and strategies that help the patient and family make informed decisions regarding their perioperative anesthetic management
- **6 TP COM 5.2** Communicate effectively using a written health record, electronic medical record or other digital technology
- 7 TP COL 1.3 Identify complex and/or controversial issues that require verbal communication with colleague anesthesiologists or other physicians and convey that information effectively
- 8 TP L 2.2 Apply evidence and management processes to achieve costappropriate care
- 9 TP S 3.4 Integrate best evidence and clinical expertise into decision-making in their practice

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### Managing all aspects of care for admitted patients referred for consultation to the Anesthesiology service

### Key Features:

- This EPA focuses on the assessment and management of any patient requiring consultation to the anesthesiology service
- In addition to clinical care, this EPA includes time management, prioritization of tasks and allocation of resources
- This EPA will primarily be observed during an on call period

### Assessment plan:

Supervisor does assessment based on indirect observation (review of case)

Use Form 2. Form collects information on:

- Purpose of consultation: respiratory/airway issue management; pain management; hemodynamic management; iv access; preoperative assessment; other
- Emergency: yes; no

Collect 4 observations of achievement

- At least two emergencies

- 1 TP ME 1.4 Perform appropriately-timed clinical assessments and casemanagements addressing the breadth of anesthesiology, with recommendations that are well-organized and properly documented in written and/or oral form
- **2 TP ME 1.5** Carry out professional duties in the face of multiple, competing demands and prioritize patient care including triaging of urgent/emergent patient care
- **3 TP ME 2.1 Prioritize tasks taking into account clinical urgency, potential for deterioration, and available resources**
- 4 TP ME 2.1 Elicit all relevant information for the purpose of triaging and coordinating comprehensive anesthetic care of complex patients including urgent and emergent cases
- 5 C ME 2.2 Focus the clinical encounter, performing it in a time-effective manner, without excluding key elements
- **6 TP ME 2.4** Establish patient-centred management plans for all patients in a practice

- **7 C ME 5.2** Adopt strategies that promote quality patient care and address human and system factors
- 8 **TP COM 1.5** Manage disagreements and emotionally charged conversations
- **9 TP COM 3.1** Communicate clearly with patients and others in the setting of ethical dilemmas
- **10 TP COM 5.2 Communicate effectively using a written health record, electronic medical record, or other digital technology**
- **11 F COL 1.1** Establish and maintain healthy relationships with physician and other colleagues in the health care professions to support relationship-centered collaborative care

## 12 C COL 1.3 Engage in respectful shared decision-making with physician and other colleagues in the health care professions

- **13 TP COL 1.3** Use referral and consultation as opportunities to improve quality of care and patient safety by sharing expertise
- 14 TP COL 1.3 Identify complex or controversial issues that require direct verbal communication with colleague anesthesiologists or other physicians and convey that information effectively
- **15 TP COL 3.1** Determine when care should be transferred to another physician or health care professional
- **16 TP L 1.2** Contribute to a culture that promotes quality patient care and respectful, effective team management and resource allocation
- **17 TP HA 2.3** Work within the constraints of systems limitation to advocate for patients' best interests and provide optimal patient care
- **18** TP S 3.4 Integrate best evidence and clinical expertise into decision-making in their practice
- **19 C P 2.1** Demonstrate accountability to patients, society, and the profession by recognizing and responding to societal expectations of the profession
- **20 C P 3.2** Recognize and respond to unprofessional and unethical behaviours in physicians and other colleagues in the health care professions

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# Managing all aspects of patient care for a scheduled day list, including the organizational aspects related to the management of the operating room case load

### Key Features:

- This EPA focuses on the provision of anesthesia care for all patients on a scheduled day list
- This EPA includes managing the organizational aspect of the day list especially as it relates to time management
- It is expected that this would involve a variety of procedures of low to high complexity, in various surgical specialties and subspecialties, in all patients including those with complex medical issues
- The observation of this EPA is divided into two parts: supervisor observation of a day list and episodic multisource feedback from the interprofessional team

### Assessment plan:

Part A: Supervisor assessment Supervisor does assessment based on direct observation of a scheduled day list

Use Form 2. Form collects information on:

- Type of procedure: general surgery; gynecology; neurosurgery; ophthalmology; orthopedic surgery; otolaryngology; plastic surgery; spinal surgery; thoracic surgery; urology; vascular surgery
- Complexity of cases: low; medium; high
- Number of cases: low; medium; high

Collect 5 observations of achievement

- At least 5 different types of procedures
- At least 5 assessors

### Part B: MSF

Multiple observers provide feedback individually on one occasion, which is then collated to one report

Use Form 3. Form collects information on

- role of observer: surgeon; OR nurse, PACU nurse; anesthesia assistant/respiratory therapist
- did you work with this person afterhours: yes; no

Collect feedback from 8 observers

- At least 2 surgeons
- At least 2 OR nurses
- At least 2 PACU nurses
- At least 2 anesthesia assistant/respiratory therapist

### Relevant milestones (Part A): Supervisor assessment

- **TD ME 1.1** Demonstrate a commitment to high-quality care of their patients
- 2 TP ME 1.4 Perform appropriately-timed clinical assessments and casemanagements addressing the breadth of anesthesiology, with recommendations that are well-organized and properly documented in written and/or oral form
- **3 TP ME 1.6** Recognize and respond to the complexity, uncertainty, and ambiguity inherent in anesthesiology practice
- **4 TP ME 2.4** Establish a comprehensive patient-centred perioperative anesthetic management plan, taking into consideration the wishes of the patients and their families, the impact of the patient's co-morbidities, available resources, and the needs and urgency of the surgical or diagnostic procedure
- 5 C ME 3.2 Obtain and document informed consent, explaining the risks and benefits of, and the rationale for, a proposed procedure or therapy
- 6 TP ME 3.4 Perform the anesthetic management and all related technical procedures in a skillful, efficient and safe manner, adapting to unanticipated findings or changing clinical circumstances
- 7 C ME 3.4 Establish and implement a plan for post-anesthesia care
- 8 C ME 5.2 Apply the principles of situational awareness to clinical practice
- **9 C ME 5.2** Adopt strategies that promote patient safety and address human and system factors

## **10 TP COM 1.6 Adapt to the unique needs and preferences of each patient, and to his or her clinical condition and circumstances**

**11 C COM 4.1** Facilitate discussions with the patient and family in a way that is respectful, non-judgmental, and culturally safe

## **12 TP COM 5.2 Communicate effectively using a written health record, electronic medical record, or other digital technology**

- **13 F COL 1.1** Establish and maintain healthy relationships with physician and other colleagues in the health care professions to support relationship-centered collaborative care
- **14 TP COL 2.2** Implement strategies to promote understanding, manage differences, and resolve conflicts in a manner that supports a collaborative culture

### 15 TP COL 3.2 Demonstrate safe handover of care, both verbal and written, during patient transitions to a different healthcare professional, setting or stage in care

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- **16 TP L 2.1** Apply leadership and time management skills to ensure appropriate use of resources
- **17 TP L 2.2** Apply evidence and management processes to achieve cost-appropriate care

### **18** C L 4.2 Assume a leadership role in managing complex cases in the OR

- **19 TP L 4.2** Demonstrate the ability to run an operating room efficiently, safely, and effectively
- **20 TP S 1.2** Identify opportunities for learning and improvement by regularly reflecting on and assessing their performance using various internal and external data
- **21 TP S 3.4** Integrate best evidence and clinical expertise into decision-making in their practice
- **22 F P 1.1** Exhibit appropriate professional behaviours and relationships in all aspects of practice, reflecting honesty, integrity, humility, dedication, compassion, respect, altruism, respect for diversity, and maintenance of confidentiality
- **23 TP P 1.2** Demonstrate a commitment to excellence in all aspects of practice

### Relevant Milestones (Part B): MSF

- **1** TP COM 1.1 Communicate with the patient and family in a manner that encourages trust and autonomy and is characterized by empathy, respect, and compassion
- 2 **TP COM 5.2** Communicate effectively using a written health record, electronic medical record, or other digital technology
- 3 TP COL 1.1 Establish and maintain healthy and collegial relationships with physicians and other colleagues in the health care professions to support relationship-centered collaborative care
- 4 C COL 1.3 Engage in respectful shared decision-making with physician and other colleagues in the health care professions
- 5 TP COL 2.1 Show respect toward collaborators
- 6 F COL 2.1 Delegate tasks and responsibilities in an appropriate and respectful manner
- 7 TP COL 2.2.1 Implement strategies to promote understanding, manage differences, and resolve conflicts in a manner that supports a collaborative culture
- **8 TP COL 3.2** Demonstrate safe handover of care, both verbal and written, during patient transitions to a different healthcare professional, setting or stage in care

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**9 TP L 1.2** Actively encourage all involved in health care, regardless of their role, to report and respond to unsafe situations

### 10 C L 4.2 Demonstrate appropriate leadership skills

- 11 F P 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
- **12 F P 1.5** Exhibit professional behaviours in the use of technology-enabled communication

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### Managing all aspects of patient care for an afterhours list (overnight, weekend), including postanesthesia care unit management and the organizational aspects related to the management of the operating room case load

### Key Features:

- This EPA includes anesthesia care for all patients as well as the organizational aspects related to the on call duties especially regarding time management, prioritization of tasks and when needed, conflict management
- It is expected that this would involve a variety of procedures of low to high complexity in various surgical subspecialties in all patients including those with complex medical issues.

### Assessment plan:

Supervisor does assessment based on direct observation of an afterhours list

Use Form 2. Form collects information on:

- Type of procedure: general surgery; gynecology; neurosurgery; ophthalmology; orthopedic surgery; otolaryngology; plastic surgery; spinal surgery; thoracic surgery; urology; vascular surgery
- Complexity of cases: low; medium; high
- Number of cases: low; medium; high
- A Case: yes; no
- Type of shift: week night; weekend day; weekend night
- Obstetric emergencies: yes; no

Collect 3 observations of achievement

- At least 3 assessors

- **TP ME 1.1** Demonstrate a commitment to high quality care of their patients
- 2 **TP ME 1.2** Integrate the CanMEDS Intrinsic Roles into their practice of Anesthesiology
- **3 TP ME 1.3** Apply a broad base and depth of knowledge in clinical and biomedical sciences to manage the breadth of patient presentations in anesthesiology practice
- **4 TP ME 1.5** Carry out professional duties in the face of multiple, competing demands and prioritize various tasks optimally
- 5 TP ME 1.6 Recognize and respond to the complexity, uncertainty, and ambiguity inherent in providing care for emergency cases

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- 6 TP ME 2.1 Prioritize which issues need to be addressed in a timely manner during the perioperative period
- 7 TP ME 2.4 Establish a comprehensive patient-centred perioperative anesthetic management plan, taking into consideration the wishes of the patients and their families, the impact of the patient's co-morbidities, available resources, and the needs and urgency of the surgical or diagnostic procedure.
- 8 **C ME 3.2** Obtain and document informed consent, explaining the risks and benefits of, and the rationale for, a proposed procedure or therapy
- 9 TP ME 3.3 Prioritize among surgical cases taking into account clinical urgency, potential for deterioration, and available resources
- **10** TP ME 3.4 Perform the anesthetic management and all related technical procedures in a skillful, efficient and safe manner, adapting to unanticipated findings or changing clinical circumstances
- **11 C ME 3.4** Establish and implement a plan for post-anesthesia care
- **12 TP ME 5.2** Adopt strategies that promote patient safety and address human and system factors safety
- 13 C ME 5.2 Apply the principles of situational awareness to clinical practice
- **14 TP COM 1.5** Manage disagreements and emotionally charged conversations
- **15 TP COM 1.6 Adapt to the unique needs and preferences of each patient and to his or her clinical condition and circumstances**
- **16 F COM 5.1** Document clinical encounters in an accurate, complete, timely and accessible manner, and in compliance with legal and privacy requirements
- **17 TP COL 1.1** Establish and maintain healthy and collegial relationships with physicians and other colleagues in the health care professions to support relationship-centered collaborative care
- **18 F COL 1.2** Negotiate overlapping and shared care responsibilities with physicians and other colleagues in the health care professions in episodic and ongoing care
- **19 C COL 1.3** Engage in respectful shared decision-making with physician and other colleagues in the health care professions
- 20 TP COL 2.2 Implement strategies to promote understanding, manage differences, and resolve conflicts in a manner that supports a collaborative culture
- **21 TP COL 3.2** Demonstrate safe handover of care, both verbal and written, during patient transitions to a different healthcare professional, setting, or stage in care

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- 22 C L 2.1 Allocate health care resources for optimal patient care
- **23 C L 4.2** Assume a leadership role in managing complex cases in the OR
- 24 TP S 2.3 Ensure patient safety is maintained when learners are involved
- **25 TP S 3.4** Integrate best evidence and clinical expertise into decision-making when managing patients for emergency care
- **26 F P 1.1** Exhibit appropriate professional behaviours and relationships in all aspects of practice, reflecting honesty, integrity, humility, dedication, compassion, respect, altruism, respect for diversity, and maintenance of confidentiality
- **27 C P 3.2** Recognize and respond to unprofessional and unethical behaviours in physicians and other colleagues in the health care professions
- **28 TP P 4.1** Exhibit self-awareness and effectively manage influences on personal wellbeing and professional performance
- **29 C P 4.1** Integrate skills that support adaption and recovery in challenging situations including skills to perform under stress requiring quick decision-making and procedures

# Managing all aspects of anesthetic patient care for procedures outside the operating suite, including the organizational aspects related to the provision of anesthesia and patient safety issues

### Key Features:

- This EPA includes anesthesia care for the patients, and management of the organizational aspect of the case including the considerations related to the specific environment.

### Assessment plan:

Supervisor does assessment based on direct observation of a case

Use Form 2. Form collects information on:

- Location: MRI; interventional cardiology; interventional radiology; brachytherapy; ECT; invasive procedures
- Complexity of case: low; moderate; high
- Type of anesthesia: general; monitored anesthesia care (MAC); other

Collect 3 observations of achievement

- At least three different locations
- At least one MAC

- **TP ME 1.1** Demonstrate a commitment to high-quality care of their patients
- **2 TP ME 1.3** Apply a broad base and depth of knowledge in clinical and biomedical sciences to manage the breadth of patient presentations in anesthesia
- 3 TP ME 2.4 Establish a comprehensive patient-centred perioperative anesthetic management plan, taking into consideration the wishes of the patients and their families, the impact of the patient's co-morbidities, available resources, and the needs and urgency of the surgical or diagnostic procedure
- 4 C ME 2.4 Develop anesthetic management plans that acknowledge and mitigate the added risk of managing anesthetics for procedures outside the operating suite
- 5 C ME 3.1 Ensure standard monitors are immediately available in the environment as outlined in the CAS guidelines

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- 6 TP ME 3.4 Perform the anesthetic management and all related technical procedures in a skillful, efficient and safe manner, adapting to unanticipated findings or changing clinical circumstances
- 7 C ME 3.4 Establish and implement a plan for post-anesthesia care
- **8 TP ME 5.1** Recognize and respond to harm from health care delivery, including patient safety incidents
- 9 TP ME 5.2 Adopt strategies that promote patient safety and address human and system factors
- **10** C ME 5.2 Apply the principles of situational awareness to clinical practice
- **11 TP COM 1.6** Adapt to the unique needs and preferences of each patient and to his or her clinical condition and circumstances
- **12 F COM 5.1** Document clinical encounters in an accurate, complete, timely and accessible manner, and in compliance with legal and privacy requirements
- **13 C COL 1.3** Engage in respectful shared decision-making with physician and other colleagues in the health care professions
- 14 TP COL 3.2 Demonstrate safe handover of care, both verbal and written, during patient transitions to a different healthcare professional, setting, or stage in care
- **15 C L 1.2** Contribute to a culture that promotes patient safety
- **16 TP P 1.2** Demonstrate a commitment to excellence in all aspects of practice
- **17 TP P 2.2** Demonstrate a commitment to patient safety and quality improvement initiatives within their own practice environment

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### Managing all aspects of anesthetic patient care for obstetrical patients, including the organizational aspects related to the management of the obstetric ward

### Key Features:

- This EPA includes the anesthesia care and follow up for any patient as well as the management of the organizational aspects of the work especially regarding time management, prioritization of tasks and allocation of resources

### Assessment plan:

Supervisor does assessment based on direct and indirect observation of a day of being the anesthesiologist in charge of obstetrical anesthesia care

Use Form 2. Form collects information on:

- Number of patients: (write in)
- Level of complexity: low; medium; high

Collect 3 observations of achievement

- At least two different assessors

- **1 TP ME 1.3** Apply a broad base and depth of knowledge in clinical and biomedical sciences to manage the breadth of patient presentations in obstetric anesthesiology
- 2 TP ME 1.5 Carry out professional duties in the face of multiple, competing demands and prioritize various tasks optimally
- **3** TP ME 2.4 Establish patient-centred anesthesiology management plans for all patients in the peripartum period
- 4 **C ME 3.2** Obtain and document informed consent, explaining the risks and benefits of, and the rationale for, a proposed procedure or therapy
- 5 TP ME 3.3 Prioritize the provision of obstetric anesthesiology services, taking into account clinical urgency, potential for deterioration, and available resources
- 6 TP ME 3.4 Perform the anesthetic management and all related technical procedures in a skillful, efficient and safe manner, adapting to unanticipated findings or changing clinical circumstances
- **7 TP COM 1.6** Adapt to the unique needs and preferences of each patient and to his or her clinical condition and circumstances

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- 8 TP COM 4.1 Facilitate discussions with the patient and family in a way that is respectful, non-judgmental, and culturally safe
- 9 TP COL 1.1 Establish and maintain healthy and collegial relationships with physicians and other colleagues in the health care professions to support relationship-centered collaborative care
- **10 C COL 1.3** Engage in respectful shared decision-making with physicians and other colleagues in the health care professions
- 11 TP COL 2.2 Implement strategies to promote understanding, manage differences, and resolve conflicts in a manner that supports a collaborative culture
- **12 TP COL 3.2** Demonstrate safe handover of care, both verbal and written, during patient transitions to a different healthcare professional, setting, or stage in care
- **13 C L 2.1** Allocate health care resources for optimal patient care
- **14 TP S 1.2** Identify opportunities for learning and improvement by regularly reflecting on and assessing their performance using various internal and external data sources
- **15 TP S 2.5** Role-model regular self-assessment and feedback-seeking behaviour
- **16 F P 1.1** Exhibit appropriate professional behaviours and relationships in all aspects of practice, reflecting honesty, integrity, humility, dedication, compassion, respect, altruism, respect for diversity, and maintenance of confidentiality
- **17 TP P 1.2** Demonstrate a commitment to excellence in all aspects of practice
- 18 C P 4.1 Integrate skills that support adaption and recovery in challenging situations including skills to perform under stress requiring quick decision-making and procedures

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# Managing all aspects of care for a scheduled routine pediatric list, including the organizational aspects related to the management of the operating room case load

### Key Features:

 This EPA includes the anesthesia care for all patients above the age of one year having a procedure of low to moderate complexity, as well as the organizational aspects of the day list especially regarding time management.

### Assessment plan:

Supervisor does assessment based on direct observation of a scheduled day list

Use Form 2. Form collects information on:

- Type of procedure: general surgery; ophthalmology; orthopedic surgery; otolaryngology; plastic surgery; urology
- Complexity of cases: low; medium; high
- Number of cases: low; medium; high
- Range of patient age:

Collect 3 observations of achievement

- At least 3 assessors
- At least one otolaryngology list

- **1** TP ME 1.4 Perform appropriately-timed clinical assessments addressing the breadth of pediatric anesthesiology, with recommendations that are well-organized and properly documented in written and/or oral form
- 2 **TP ME 1.5** Carry out professional duties in the face of multiple, competing demands
- 3 TP ME 2.4 Establish patient-centred management plans for the full range of pediatric patients in a general anesthetic practice recognizing appropriate limits of own skills set
- 4 C ME 3.2 Obtain and document informed consent, explaining the risks and benefits of, and the rationale for, a proposed procedure or therapy and incorporating the child's developmental stage and capacity to consent
- 5 TP ME 3.4 Perform the anesthetic management and all related technical procedures in a skillful, efficient and safe manner, adapting to unanticipated findings or changing clinical circumstances

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**6 TP ME 4.1** Implement a patient-centred care plan that supports ongoing care, follow-up on investigations, response to treatment, and further consultation

# 7 TP COM 1.6 Adapt to the unique needs and preferences of each patient and to his or her clinical condition and circumstances

- **8 TP COM 3.1** Communicate clearly with patients and others in the setting of ethical dilemmas
- 9 TP COM 4.3 Use communication skills and strategies that help the patient and family make informed decisions regarding their perioperative anesthetic management
- **10 TP COM 5.3** Share information with patients and others in a manner that respects patient privacy and confidentiality and enhances understanding
- **11 TP COL 1.3** Use referral and consultation as opportunities to improve quality of care and patient safety by sharing expertise
- 12 TP COL 3.2 Demonstrate safe handover of care, both verbal and written, during patient transitions to a different healthcare professional, setting, or stage in care
- **13 TP L 3.1** Demonstrate leadership skills to enhance health care.
- 14 TP L 4.2 Demonstrate the ability to run an operating room efficiently, safely, independently and effectively
- **15 TP P 2.2** Demonstrate a commitment to patient safety and quality improvement initiatives within their own practice environment

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# Managing and coordinating the workday delivery of anesthesia services at a hospital level, i.e., fulfilling the role of operating room manager *(elective)*

Key Features:

- The achievement of this EPA is elective
- This EPA focuses on the organizational aspects of the operating theatre (daily work assignments, dealing with emergencies occurring during daytime, prioritization issues).
- For this EPA, the supervisor is the physician manager of the OR for that day: this may be an anesthesiologist or a surgeon

### Assessment plan:

Supervisor (physician manager) does assessment based on direct and indirect observation

Use Form 2. Form collects information on:

- Scheduling complexity: low; medium; high

Collect 3 observations of achievement

- At least two different assessors

- 1 TP ME 1.5 Carry out professional duties in the face of multiple, competing demands and prioritize patient care including triaging of urgent/emergent patient care
- 2 TP ME 2.1 Elicit all relevant information for the purpose of triaging and coordinating comprehensive anesthetic care of complex patients, including urgent and emergent cases
- **3 TP COL 1.1** Establish and maintain healthy relationships with physician and other colleagues in the health care professions to support relationship-centered collaborative care
- 4 F COL 1.2 Negotiate overlapping and shared care responsibilities with physicians and other colleagues in the health care professions in episodic and ongoing care
- 5 C COL 1.3 Engage in respectful shared decision-making with physicians and other colleagues in the health care professions
- 6 TP COL 2.2 Implement strategies to promote understanding, manage differences, and resolve conflicts in a manner that supports a collaborative culture

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- 7 **C L 1.2** Contribute to a culture that promotes patient safety
- 8 C L 2.1 Allocate health care resources for optimal patient care
- 9 TP L 2.1 Apply leadership and time-management skills to ensure appropriate use of resources
- **10** TP L 2.2 Apply evidence and management processes to achieve costappropriate care
- **11 F P 1.1** Exhibit appropriate professional behaviours and relationships in all aspects of practice, reflecting honesty, integrity, humility, dedication, compassion, respect, altruism, respect for diversity, and maintenance of confidentiality
- **12 TP P 1.3** Recognize and respond to ethical issues encountered in independent practice
- **13 C P 2.1** Demonstrate accountability to patients, society, and the profession by recognizing and responding to societal expectations of the profession
- **14 C P 3.2** Recognize and respond to unprofessional and unethical behaviours in physicians and other colleagues in the health care professions

### Providing and coordinating the care of patients with simple and complex acute pain conditions referred to and managed by the pain service

### Key Features:

 This EPA focuses on the medical care provided to patients referred to the pain service, including dealing with simple and complex acute pain conditions and managing the daily workload

### Assessment plan:

Supervisor does daily assessment based on direct and indirect observation (case review)

Use Form 2. Form collects information on:

- Complexity of cases: low; medium; high
- Number of cases: low; medium; high

Collect 5 observations of achievement

- At least 3 different assessors

- 1 TP ME 1.4 Perform appropriately-timed clinical assessments addressing the breadth of postoperative and post-trauma acute pain, with recommendations that are well-organized and properly documented in written and/or oral form
- **2 TP ME 1.5** Carry out professional duties in the face of multiple, competing demands and prioritize patient care including triaging of urgent/emergent patient care
- **3 TP ME 1.6 Recognize and respond to the complexity, uncertainty, and ambiguity inherent in the acute pain service**
- 4 TP ME 2.1 Prioritize which issues need to be addressed during future visits or with other health care practitioners
- **5 TP ME 2.4** Establish patient-centred management plans for all patients in a practice
- 6 TP ME 3.1 Determine the most appropriate procedures or therapies for the purpose of management of simple and complex acute pain
- 7 TP ME 4.1 Implement a patient-centred care plan that supports ongoing care, follow-up on investigations, response to treatment, and further consultation

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- **8 TP COM 1.6** Adapt to the unique needs and preferences of each patient and to his or her clinical condition and circumstances
- 9 **TP COM 2.1 Use patient-centred interviewing skills to effectively gather** relevant biomedical and psychosocial information
- **10** F COM 5.1 Document clinical encounters in an accurate, complete, timely and accessible manner, and in compliance with legal and privacy requirements
- **11 TP COM 5.2** Communicate effectively using a written health record, electronic medical record, or other digital technology
- **12 TP COM 5.3** Share information with patients and others in a manner that respects patient privacy and confidentiality and enhances understanding
- **13 F COL 1.2** Negotiate overlapping and shared care responsibilities with physicians and other colleagues in the health care professions in episodic and ongoing care
- **14 TP COL 1.3** Use referral and consultation as opportunities to improve quality of care and patient safety by sharing expertise
- **15 TP L 2.1** Apply leadership and time-management skills to ensure appropriate use of resources
- **16** TP L 4.2 Demonstrate the ability to run the acute pain service efficiently, safely, independently and effectively
- **17 TP HA 1.2** Work with the patient and family to increase opportunities to adopt healthy behaviours

### Developing an ongoing personal career and learning plan

Key Features:

- This EPA includes reviewing the current learning plan developed in Core and developing a plan for the first 3-5 years of practice
- The personal learning plan must include a summary of all feedback and assessments received throughout residency and must highlight areas of personal strength as well as areas for improvement.
- The plan should include the resident's scope of practice for the coming years (new centre, new role, new fellowship etc) and the implications on their professional development needs
- The plan should be SMART(specific, measureable, assessable, realistic, timely)
- The plan may include:
  - Plan to address areas for improvement through CME
  - Plans for CME in early practice; must be in line with future practice
  - Goals for developing new skills or improving current skills
  - New areas of interest
  - Practice improvement the new graduate can bring to his/her future work community
- Academic advisors (if implemented), Competence Committee members and/or program directors may offer a unique perspective to review and assess the learning plan

### Assessment plan:

Part A: Review of Core learning plan Resident submits reflective critique of personal learning plan developed in Core and its current status. Supervisor does assessment based on review of resident's submission

Use Form 4

Collect 1 observation of achievement

Part B:

Resident submits learning plan geared to plan for practice and progression of competence. Supervisor does assessment based on resident's submission

Use Form 1 with mandatory comments.

Collect 1 observation of achievement

Relevant milestones (Part A): Review of Core learning plan

# 1 C L 4.2 Adjust educational experiences to gain competencies necessary for future independent practice

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- 2 C S 1.1 Develop, implement, monitor, and revise a personal learning plan to enhance professional practice
- **3** C S 1.2 Seek and interpret multiple sources of performance data and feedback, with guidance, to continually improve performance
- 4 C P 2.1 Demonstrate a commitment to maintaining and enhancing competence

### Relevant Milestones (Part B):

- **1 TP ME 1.4** Demonstrate an awareness of the context of practice, including what is required to practice safely and effectively in a community practice, and exercise the ability to adapt to that context
- **2 TP ME 5.2** Adopt strategies that promote patient safety and address human and system factors safety
- **3** TP L 4.1 Set priorities and manage time to integrate practice and personal life
- 4 **TP L 4.2** Manage a career and practice
- 5 C L 4.2 Reconcile expectations for practice with job opportunities and workforce needs
- 6 C L 4.2 Adjust educational experiences to gain competencies necessary for future independent practice
- 7 **C L 4.3** Implement processes to ensure personal practice improvement

## 8 C S 1.1 Develop, implement, monitor, and revise a personal learning plan to enhance professional practice

- **9 TP S 1.2** Identify opportunities for learning and improvement by regularly reflecting on and assessing their performance using various internal and external data sources
- **10 TP S 1.3** Engage in collaborative learning to continuously improve personal practice and contribute to collective improvements in practice
- **11** TP S 2.5 Role-model regular self-assessment and feedback-seeking behavior
- 12 C S 3.1 Generate focused questions to address practice uncertainty and knowledge gaps
- **13 C S 3.3** Critically evaluate the integrity, reliability, and applicability of health-related research and literature
- **14 TP S 3.4** Integrate best evidence and expertise into decision-making in their practice

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- **15 TP P 1.2** Demonstrate a commitment to excellence in all aspects of practice
- **16 C P 2.1** Demonstrate accountability to patients, society, and the profession by recognizing and responding to societal expectations of the profession

## **17 C P 2.1 Demonstrate a commitment to maintaining and enhancing competence**

**18 C P 3.1** Describe the relevant codes, policies, standards, and laws governing physicians and the profession including standard-setting and disciplinary and credentialing procedures

## **19 TP P 4.1** Develop a personal plan for managing stress and maintaining physical and mental well-being during independent practice

**20 C P 4.2** Develop a strategy to manage personal and professional demands for a sustainable independent practice

### Leading initiatives to enhance the system of patient care

Key Features:

- The observation of this EPA is based on the review of a case or a series of cases or incidents, and presentation of the analysis during morbidity and mortality rounds, quality improvement rounds or any other similar patient safety initiatives.
- This EPA includes an analysis of the reasons for the gap in desired outcomes, and may include suggestions for processes to improve health care delivery

### Assessment plan:

Supervisor does assessment based on direct observation of a case presentation or review of a written submission

Use Form 1 with mandatory comments

Collect 1 observation of achievement

- **1 TP ME 1.1 Demonstrate a commitment to high-quality care of their patients**
- **2 TP ME 1.3** Apply a broad base and depth of knowledge in clinical and biomedical sciences to manage the breadth of patient presentations in anesthesiology practice
- **3 TP ME 5.1 Recognize and respond to harm from health care delivery, including patient safety incidents**
- 4 **C ME 5.1** Participate in an analysis of patient safety incidents
- 5 TP ME 5.2 Adopt strategies that promote patient safety and address human and system factors
- **6 F ME 5.2** Describe strategies to address human and system factors in clinical practice
- **7 C COL 1.1** Anticipate, identify, and respond to patient safety issues related to the function of a team
- **8 TP L 1.1** Apply the science of quality improvement to contribute to improving systems of patient care
- 9 C L 1.1 Analyze and provide feedback on processes seen in one's own practice, team, organization, or system
- **10 TP L 1.1** Apply a system-based approach to address QI and patient safety issues

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- **11 TP L 1.1** Apply QI tools to identify gaps in patient care and develop possible solutions
- **12 C L 1.2** Contribute to a culture that promotes patient safety
- 13 C L 1.2 Model a just culture to promote openness and increased reporting
- **14 TP L 1.3 Analyze harmful patient safety incidents and near misses to enhance systems of care**
- **15 TP L 1.4** Use health informatics to improve the quality of patient care and optimize patient safety
- 16 C L 1.4 Map the flow of information in the care of anesthesiology patients and suggest changes for quality improvement and patient safety
- **17 TP L 3.1** Demonstrate leadership skills to enhance health care
- **18 TP L 3.2** Facilitate change in health care to enhance services and outcomes
- **19 TP P 1.2** Demonstrate a commitment to excellence in all aspects of practice
- 20 **C P 1.2** Analyze how the system of care supports or jeopardizes excellence
- **21 C P 2.1** Demonstrate accountability to patients, society, and the profession by recognizing and responding to societal expectations of the profession
- **22 TP P 2.2** Demonstrate a commitment to patient safety and quality improvement initiatives within their own practice environment
- **23 F P 2.2** Monitor institutional and clinical environments and respond to issues that can harm patients or the delivery of health care

## 24 C P 3.3 Participate in the review of practice, standard setting and quality improvement activities

25 **C P 3.3** Prepare a morbidity and mortality report or chart review

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### Leading a post crisis debriefing and feedback session (elective)

### Key Features:

- The achievement of this EPA is elective
- The resident is expected to debrief an incident or a critical event with care team members including the anesthesiologist
- The focus of this EPA is identification of the key points of the event and a clear take home message for improvement in a future similar situation, and communication with the team

### Assessment plan:

Supervisor does assessment based on direct observation

Use Form 2 with assessment anchors at the beginning and then milestones Form collects information on:

- short description of the situation being debriefed: *(text box)* 

Collect 1 observation of achievement

- **1** C ME 5.1 Identify potential improvement opportunities arising from harmful patient safety incidents and near misses
- 2 C COL 1.1 Anticipate, identify, and respond to patient safety issues related to the function of a team
- **3** C COL 1.3 Communicate effectively with physicians and other colleagues in the health care professions
- 4 TP COL 2.1 Show respect toward collaborators
- 5 TP COL 2.2 Implement strategies to promote understanding, manage differences, and resolve conflicts in a manner that supports a collaborative culture
- 6 **C L 1.2** Model a just culture to promote openness and increased reporting
- 7 **TP L 3.1** Demonstrate leadership skills to enhance health care
- **8 TP S 1.3** Engage in collaborative learning to continuously improve personal practice and contribute to collective improvements in practice
- **9 TP S 2.5** Role-model regular self-assessment and feedback-seeking behaviour

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- **10 F P 1.1** Exhibit appropriate professional behaviours and relationships in all aspects of practice, reflecting honesty, integrity, humility, dedication, compassion, respect, altruism, respect for diversity, and maintenance of confidentiality
- **11 TP P 2.2** Demonstrate a commitment to patient safety and quality improvement initiatives within their own practice environment
- 12 C P 4.1 Integrate skills that support adaptation and recovery in challenging situations
- **TP P 4.3 Promote a culture that recognizes, supports, and responds effectively to colleagues in need**
- 14 C P 4.3 Support others in challenging situations