

# **Pediatric Critical Care Medicine Entrustable Professional Activity Guide**

For a printable Table of Contents, contact [cbd@royalcollege.ca](mailto:cbd@royalcollege.ca).

If you are personally involved in medical education in a Canadian residency program, The Royal College of Physicians and Surgeons of Canada (the “Royal College”) grants you a limited right to view and print a copy of this material provided it will be used for personal, educational, non-commercial purposes connected to the residency training program. You agree not to share the materials with any third party. These materials are the property of the Royal College and are protected by copyright. Written permission from the Royal College is required for all other uses. Contact [cbd@royalcollege.ca](mailto:cbd@royalcollege.ca).

How to cite this document:

Critical Care Specialty Committee. *Pediatric Critical Care Medicine EPA Guide*. Ottawa: Royal College of Physicians and Surgeons of Canada; 2018.

## Origins and Use

This document, commonly known as the Pediatric Critical Care Medicine EPA Guide, was developed by the Royal College's Critical Care Specialty 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
<b>Title</b>	<p>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.</p> <p>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).</p>
<b>EPA name</b>	<p>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.</p>
<b>Key features</b>	<p>The key features section describes the EPA and may include:</p> <ul style="list-style-type: none"><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></ul> <p>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.</p>

<b>Assessment Plan</b>	<p>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).</p> <p>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.</p>
<b>Relevant CanMEDS Milestones</b>	<p>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 <a href="#">CanMEDS Interactive</a>.</p> <p>For example, if the code is <b>ME 1.6</b>.</p> <p><b>-ME</b> 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.</p> <p><b>-1.6</b> refers to the Key and enabling competencies within the aforementioned Role.</p>

Contact us if you have any questions or comments about this document at [cbd@royalcollege.ca](mailto:cbd@royalcollege.ca)

# Entrustable Professional Activities for Pediatric Critical Care Medicine

**2019**  
**VERSION 1.0**

## **Critical Care Medicine: Transition to Discipline EPA #1P**

**Recognizing, assessing, and providing initial management for patients who are critically ill, seeking assistance when appropriate**

### Key Features:

- This EPA focuses on the initial medical care of patients who are critically ill, including assessment, initial diagnosis, and preliminary management. An important feature of this EPA is the timely and appropriate recognition of the need for additional assistance.
- It may include the recognition of clinical deterioration of a patient already in the intensive care unit.
- This EPA may be observed in a variety of clinical settings, including the intensive care unit, emergency room, and on the wards.
- This EPA does not include resuscitation (TTD2), nor developing a fully matured differential diagnosis for complex presentations, or a complete management plan (F1).

### Assessment plan:

Direct observation and/or case review by attending physician or senior trainee

Use Form 1. Form collects information on:

- Observation: direct; indirect

Collect 2 observations of achievement.

- At least 1 direct observation
- At least 2 different observers

### Relevant Milestones:

- 1 ME 1.4 Perform focused clinical assessments that address all relevant issues**
- 2 ME 2.1 Prioritize issues to address in the patient's assessment and management**
- 3 ME 1.4 Recognize urgent problems and one's own limitations, and seek assistance as needed**
- 4 ME 1.6 Identify clinical situations in which complexity, uncertainty, and ambiguity may play a role in decision-making**

*ENTRUSTABLE PROFESSIONAL ACTIVITIES FOR  
PEDIATRIC CRITICAL CARE MEDICINE (2019)*

- 5     **ME 2.3** Ascertain the patient's goals of care and ensure care is aligned with those goals, as the patient's situation evolves
- 6     **ME 2.2** Develop an initial diagnosis relevant to the patient's presentation
- 7     **COM 3.1** Communicate in a clear, compassionate, respectful, and accurate manner to the patient and family
- 8     **COM 5.1 Document relevant information**
- 9     **COL 1.2 Seek and respond to input from other health care professionals**
- 10    **COL 1.3** Communicate clearly and directly to promote understanding in the health care team
- 11    **L 2.1** Consider health care resources and costs when determining the investigation and management plan
- 12    **HA 1.1** Facilitate timely access to limited health care resources

## Critical Care Medicine: Transition to Discipline EPA #2P

### Initiating resuscitation for unstable patients

#### Key Features:

- This EPA focuses on initiating resuscitation for critically ill patients, following the principles of crisis resource management.

#### Assessment plan:

Direct observation by ED physician, senior trainee, or other health care professionals (i.e. code/MET nurse)

Use Form 1. Form collects information on:

- Condition: cardiac arrest; respiratory failure; sepsis; shock; other (*write in*)
- Context: clinical; simulation

Collect 2 observations of achievement.

- At least 2 different observers

#### Relevant Milestones:

- 1 ME 2.2 Provide assessment and initial stabilization of ABCs (Airway, Breathing, and Circulation)**
- 2 ME 1.4 Recognize urgent problems and one's own limitations and seek the assistance**
- 3 L 4.2 Lead the resuscitation team effectively, ensuring clear roles and responsibilities for team members, setting priorities, providing constructive intervention when required, and re-evaluating patient and situation frequently**
- 4 COL 1.3 Communicate with the health care team using clear language, knowledge sharing and summarizing clinical evolution**
- 5 COL 2.2 Communicate orders clearly citing names (or other identification) and using closed loop communication**

## Critical Care Medicine: Transition to Discipline EPA #3P

### Performing the basic procedures of CCM

#### Key Features:

- This EPA includes determining which procedures are necessary and appropriate to the situation.
- Procedures include bag-valve-mask (BVM) ventilation with oropharyngeal airway (OPA)/nasopharyngeal airway (NPA) insertion, chest compressions and defibrillation, intra-osseous placement and lumbar puncture.
- This EPA does not include other commonly performed procedures that are present in the other stages of training (Foundations 3 and Core 4)

#### Assessment plan:

Direct observation by supervisor

Use Form 2. Form collects information on:

- Procedure: bag-mask ventilation with oropharyngeal airway; intra-osseous placement; chest compressions; defibrillation; lumbar puncture
- Setting: clinical; simulation

Collect 6 observations of achievement.

- At least 2 episodes of bag-mask ventilation with OPA insertion (may be observed in simulation)
- At least 1 intra-osseous placement (may be observed in simulation)
- At least 1 observation of chest compressions (may be observed in simulation)
- At least 1 observation of defibrillation (may be observed in simulation)
- At least 1 observation of a lumbar puncture (may be observed in simulation)
- At least 2 observers

#### Relevant Milestones:

- 1 ME 3.1 Preprocedure plan: Gather/assess required information to reach diagnosis and determine correct procedure required**
  - 2 ME 3.4 Case preparation: Patient correctly prepared and positioned, understands approach and required instruments, prepared to deal with probable complications**
  - 3 ME 1.3 Knowledge of specific procedural steps: Understands steps of procedure, potential risks, and means to avoid/overcome them**
  - 4 ME 3.4. Technical performance: Efficiently performs steps, avoiding pitfalls and respecting soft tissues**
  - 5 ME 3.4 Visuospatial skills: 3D spatial orientation and able to position instruments/hardware where intended**
-

*ENTRUSTABLE PROFESSIONAL ACTIVITIES FOR  
PEDIATRIC CRITICAL CARE MEDICINE (2019)*

- 6 ME 3.4 Efficiency and flow: Obvious planned course of procedure with economy of movement and flow**
- 7 ME 3.4 Postprocedure plan: Appropriate complete post procedure plan**
- 8 COL 1.3 Professional and effective communication/utilization of staff**



**Critical Care Medicine: Transition to Discipline EPA #4P**

**Coordinating patient care and supporting team members in the ICU setting**

Key Features:

- This EPA focuses on organizational skills and role modeling.
- It includes coordinating patient care, demonstrating leadership, and supporting junior learners.
- This EPA is not based on the resident leading the entire team through rounds or managing all patients.

Assessment plan:

Direct observation by supervisor. Each observation should include multiple days of service.

Use Form 1.

Collect 2 observations of achievement

- At least 2 different observers

Relevant Milestones:

- 1 S 2.3 Assign and prioritize tasks for junior residents**
- 2 S 2.3** Supervise learners to ensure they work within their limitations, ensuring patient safety
- 3 COL 1.2 Identify the roles and scopes of practice of health care providers related to Critical Care Medicine and utilize their expertise appropriately**
- 4 COL 2.1** Actively listen to and engage in interactions with collaborators
- 5 P 2.1 Role-model behaviours that demonstrate accountability to patients, society and the profession**
- 6 P 1.1 Complete assigned responsibilities, including following up with junior residents on tasks that they were assigned**
- 7 ME 5.2** Use cognitive aids such as clinical care paths to enhance patient safety

## Critical Care Medicine: Transition to Discipline EPA #5P

### Transferring clinical information between health care providers at handover

#### Key Features:

- This EPA focuses on the communication required for safe handover within the critical care patient team or as the patient leaves the unit to another health care setting.
- It includes the timely written documentation of the events while in the ICU (including appropriate record-keeping, daily events), as well as verbal handover when going off duty and at the end of call shifts.

#### Assessment plan:

Direct observation and/or review of documentation (chart, handover paperwork, transfer/discharge note) by supervisor and/or physician receiving handover

Use Form 1. Form collects information on:

- Observation (*select all that apply*): direct handover observation; chart review; handover paperwork; transfer/discharge note

Collect 3 observations of achievement.

- At least 2 direct observations
- At least 1 transfer/discharge note
- At least 1 observation by supervisor or senior trainee in CCM
- At least 1 observation by physician from another team receiving handover

#### Relevant Milestones:

- 1 ME 1.5 Prioritize among patients based on clinical acuity**
- 2 ME 4.1 Establish plans for ongoing care, including follow-up on investigations and response to treatment**
- 3 COL 3.2** Describe specific information required for safe and effective handover during transitions in care
- 4 COM 5.1** Organize information systematically within an electronic or written medical record
- 5 COM 5.1** Maintain accurate and up-to-date problem lists
- 6 COM 5.1** Document information about patients and their medical conditions in a manner that enhances intra- and interprofessional care
- 7 COL 3.1** Identify patients requiring handover to other physicians or health care professionals
- 8 COL 3.2 Summarize patient issues, including plans to deal with ongoing concerns**
- 9 COL 3.2 Provide anticipatory guidance for issues that are likely to arise**
- 10 COL 1.3** Communicate clearly and directly to promote understanding in the health care team

**Critical Care Medicine: Transition to Discipline EPA #6P**

**Providing routine updates to patients or families**

Key Features:

- This EPA focuses on the application of medical expertise and communication skills to summarize medical conditions and plans for the day to patients and families in the ICU setting.
- It does not include managing challenging conversations, such as end-of-life discussion or disclosure of adverse events.

Assessment plan:

Direct observation by supervisor

Use Form 1. Form collects information on:

- Condition: (*write in*)

Collect 2 observations of achievement.

- At least 2 observers

Relevant Milestones:

- 1**     **P 1.2** Ensure that the patient and family are informed about the diagnosis and plan of care
  - 2**     **COM 1.1** Introduce oneself and explain one's role in the interprofessional team
  - 3**     **COM 1.1** Communicate using a patient-centered approach that facilitates patient trust and autonomy and that is characterized by empathy, respect, and compassion
  - 4**     **COM 3.1** Convey information about medical course and management plan clearly and accurately
  - 5**     **COM 3.1** Use appropriate language and avoid medical jargon
  - 6**     **COM 1.4** Identify, verify and validate non-verbal cues on the part of the patient and /or family.
  - 7**     **COM 3.1** Use strategies to verify and validate the understanding of the patient and family.
  - 8**     **COM 5.1** Document the clinical encounter to accurately reflect the discussion and decisions
  - 9**     **P 1.1** Respect diversity and difference, including but not limited to the impact of socio-economic background, gender, religion and cultural beliefs on decision making
-

**Critical Care Medicine: Foundations EPA #1P**

**Evaluating, stabilizing, and managing patients presenting with common ICU conditions**

Key Features:

- This EPA focuses on routine ICU care, including evaluating, stabilizing, admitting, and providing day-to-day management for patients with uncomplicated critical illness.
- This includes: diagnosis and management of the presenting problem, management of any underlying conditions, prevention and management of common ICU complications, and attention to and management of nutrition, sedation, and analgesia.
- This EPA does not include patients with complex, poorly differentiated or multi-type shock/organ dysfunction, polypharmacy overdose, multi-system or multicomorbid illness, multi-system trauma, and transplant, nor the critically ill obstetrical patient.

Assessment Plan:

Direct observation and/or review of admission/case discussion by attending physician or senior resident with feedback from bedside RN, charge RN, RRT, and/or junior trainees

Use Form 1. Form collects information on:

- Setting: initial assessment; daily care
- Presentation: surgical; medical
- Primary diagnosis: (*write in*)

Collect 6 observations of achievement.

- At least 3 initial assessment
- At least 3 daily care
- Variety of medical and surgical presentations

Relevant Milestones:

- 1 ME 1.3** Apply knowledge of basic physiology to the management of common ICU conditions
  - 2 ME 1.4** Perform focused clinical assessments that address all relevant issues
  - 3 ME 1.6** Develop a plan that considers the current complexity, uncertainty and ambiguity in a clinical situation
  - 4 ME 2.2** Select and interpret the results of investigations and imaging
  - 5 ME 2.3** Work with the patient and family to establish goals of care
-

*ENTRUSTABLE PROFESSIONAL ACTIVITIES FOR  
PEDIATRIC CRITICAL CARE MEDICINE (2019)*

- 6     **ME 2.4 Develop and implement initial and/or ongoing management plans for patients with common ICU conditions**
- 7     **ME 2.4** Develop plans to monitor the evolution of the clinical course and/or the patient's response to treatment
- 8     **ME 3.1** Integrate planned procedures or therapies into the overall plan of care
- 9     **ME 4.1 Determine the need and timing of consultation with other specialists**
- 10    **ME 5.2** Organize safe intrahospital transport of patient to and from ICU, using all necessary human and equipment resources, recognizing when it may be inappropriate to transport patient
- 11    **COL 1.2** Implement a multidisciplinary approach to the care of ICU patients
- 12    **COL 1.3 Engage in respectful shared decision-making with physicians and colleagues in other health care professions**
- 13    **P 2.2** Demonstrate a commitment to patient safety and quality improvement through adherence to institutional policies and procedures

**Critical Care Medicine: Foundations EPA #2P**

**Evaluating and managing uncomplicated and/or routine patients requiring mechanical ventilation**

Key Features:

- This EPA focuses on applying knowledge of invasive and non-invasive (NIV) mechanical ventilation, its indications and complications.
- It includes the initiation, maintenance, weaning, and discontinuation of mechanical ventilation in the context of common clinical scenarios with respiratory failure due to pulmonary and non-pulmonary reasons.
- This EPA may be observed during clinical assessment, patient rounds, or while teaching other trainees.
- This EPA does not include patients with complicated, severe, refractory disease (e.g., severe hypoxic or hypercapnic respiratory failure, severe airway obstruction, patient/ventilator asynchrony, complicated waveform analysis, etc.).

Assessment Plan:

Direct and indirect observation by attending physician or senior trainee with input from registered respiratory therapist(s) (RRT)

Use Form 1. Form collects information on:

- Ventilation technique: invasive; non-invasive
- Case mix (*select all that apply*): initiation; maintenance; weaning; discontinuation
- Reason for resp support: pulmonary; non-pulmonary

Collect 9 observations of achievement.

- At least 1 non-invasive ventilation for each case mix
- At least 1 invasive ventilation for each case mix for a patient with pulmonary reasons for respiratory support
- At least 6 observations by attending physicians

Relevant Milestones:

- 1 ME 1.3 Apply knowledge of respiratory physiology and cardiopulmonary interactions**
- 2 ME 1.6** Develop a plan that considers the current complexity, uncertainty, and ambiguity in a clinical situation
- 3 ME 2.2 Interpret diagnostic imaging of the respiratory system**
- 4 ME 2.4 Develop and implement an initial management plan for uncomplicated patients requiring non-invasive or invasive ventilation**

*ENTRUSTABLE PROFESSIONAL ACTIVITIES FOR  
PEDIATRIC CRITICAL CARE MEDICINE (2019)*

- 5     **ME 3.2** Ensure that the patient and family are informed about the risks and benefits of each treatment options in the context of best evidence and guidelines
- 6     **ME 5.2** Use cognitive aids such as clinical care paths to enhance patient safety
- 7     **COM 3.1** Use strategies to verify and validate the understanding of the patient and family
- 8     **COM 4.3** Answer questions from the patient and family about next steps
- 9     **COL 1.2** **Seek and respond to input from other health care professionals**

## Critical Care Medicine: Foundations EPA #3P

### Performing the common procedures of CCM

#### Key Features:

- This EPA focuses on determining which procedures are necessary and clinically appropriate, and performing common procedures as outlined below.
- Procedures include airway management skill in uncomplicated patients; arterial line insertion in complicated patients; cardioversion; central venous line insertion; chest tube insertion; This EPA includes using ultrasonography for procedural guidance where appropriate.
- This EPA may be observed in various clinical settings and simulation.

#### Assessment Plan:

Direct observation by attending or consultant physician, or TTP level trainee with input from bedside RN, RRT, NP or PA

Use form 2. Form collects information on:

- Procedure[*select all that apply*]: airway management; intubation; arterial line; cardioversion; central venous line; open chest tube; Seldinger technique chest drain
- Complexity: complicated/urgent; uncomplicated
- Ultrasound guidance: yes; no
- Setting: clinical; simulation
- Site: not applicable; brachial; femoral; jugular; radial; subclavian; other (*write in*)

Collect 17 observations of achievement.

- At least 5 airway management in clinical setting including intubation
- At least 2 physician assessors for airway management
- At least 5 arterial line insertions in clinical setting
- At least 1 arterial line insertion each at femoral and radial site
- At least 5 central line insertions
- At least 1 central line insertion each at jugular, femoral and subclavian site
- At least 1 open chest tube (may be observed in simulation)
- At least 1 Seldinger chest tube

#### Relevant Milestones:

- 1 ME 3.1 Preprocedure plan: Gather/assess required information to reach diagnosis and determine correct procedure required**
- 2 ME 3.4 Case preparation: Patient correctly prepared and positioned, understands approach and required instruments, prepared to deal with probable complications**



*ENTRUSTABLE PROFESSIONAL ACTIVITIES FOR  
PEDIATRIC CRITICAL CARE MEDICINE (2019)*

- 3 ME 1.3 Knowledge of specific procedural steps: Understands steps of procedure, potential risks, and means to avoid/overcome them**
- 4 ME 3.4. Technical performance: Efficiently performs steps, avoiding pitfalls and respecting soft tissues**
- 5 ME 3.4 Visuospatial skills: 3D spatial orientation and able to position instruments/hardware where intended**
- 6 ME 3.4 Efficiency and flow: Obvious planned course of procedure with economy of movement and flow**
- 7 ME 3.4 Postprocedure plan: Appropriate complete post procedure plan**
- 8 COL 1.3 Professional and effective communication/utilization of staff**

## Critical Care Medicine: Foundations EPA #4P

### Teaching and supervising junior physicians and other health care professionals

#### Key Features:

- This EPA focuses on informal/bedside teaching (i.e. teaching a procedure, reviewing a case in person or by phone) and helping junior learners identify their own gaps in knowledge and skill, and to develop a plan for their acquisition.
- This EPA may be completed in a simulation setting.

#### Assessment Plan:

Direct observation by attending physician, senior resident in Critical Care Medicine, or other faculty/consultants with input from junior trainees and/or other health care professionals

Use Form 1. Form collects information on;

- Teaching activity: teaching a procedure; telephone support; other (write in)
- Setting: clinical; simulation

Collect 4 observation of achievement.

- At least 1 teaching a procedure
- At least 1 telephone support

#### Relevant Milestones:

- 1 S 2.1 Use strategies for deliberate, positive role-modelling**
  - 2 S 2.2 Create a positive learning environment**
  - 3 S 2.4 Identify the learning needs and desired learning outcomes of others**
  - 4 COL 1.2 Assign tasks and responsibilities to other team members, commensurate with their skills and patient complexity**
  - 5 COL 2.1 Delegate tasks and responsibilities in a respectful manner**
  - 6 S 2.3 Provide learners with opportunities for appropriate clinical responsibility**
  - 7 S 2.3 Supervise learners to ensure they work within their limitations, ensuring patient safety**
  - 8 S 2.5 Provide feedback to enhance learning and performance**
  - 9 P 1.1 Intervene when behaviours toward colleagues and/or learners undermine a respectful environment**
  - 10 S 2.3 Identify unsafe clinical situations involving learners and manage them appropriately**
-

**Critical Care Medicine: Foundations EPA #5P**

**Developing and implementing learning plans**

Key Features:

- This EPA includes reflecting on performance feedback, knowledge & skill gaps and planning for growth in current practice as well as future practice, including career path.
- This includes selecting appropriate electives and clinical experiences, conferences and other educational opportunities based on identified knowledge or skill gaps and future career path.
- The observation of this EPA may be achieved via interactions with a supervisor/mentor or via guided self-reflection.
- The self-reflection requires submission of written documentation that includes identified learning needs and how the residents has facilitated growth in their domain.

Assessment Plan:

Interaction with supervisor/mentor: Direct and/or indirect observation by academic advisor, mentor, academic supervisor, and/or program director based on ongoing interaction, and supplemented by any written documentation the resident submits (e.g., reflective journal, documentation of learning activities)

Or

Guided self-reflection: Submission to Competence Committee of written documentation and/or reflective journal.

Use Form 4.

Collect 1 observation of achievement.

Relevant Milestones:

- 1**     **S 1.1** Create and implement a learning plan
  - 2**     **S 1.1** Identify learning needs to enhance competence across all CanMEDS roles and generate immediate and longer-term career goals
  - 3**     **S 1.2** Identify opportunities for learning and improvement by reflecting on and assessing performance using various internal and external data sources
  - 4**     **S 3.1** Generate focused questions that address practice uncertainty and knowledge gaps
  - 5**     **S 3.4** Integrate best evidence and clinical expertise into decision-making
-

*ENTRUSTABLE PROFESSIONAL ACTIVITIES FOR  
PEDIATRIC CRITICAL CARE MEDICINE (2019)*

- 6**     **L 4.2** Adjust educational experiences to gain competencies necessary for future independent practice
- 7**     **P 1.2** Demonstrate a commitment to excellence in all aspects of practice
- 8**     **P 2.1** Demonstrate a commitment to maintaining and enhancing competence

**Critical Care Medicine: Core EPA #1P**

**Managing patients with respiratory failure**

Key Features:

- This EPA focuses on applying knowledge of respiratory physiology and pathophysiology for different modes of ventilation, while considering the interactions with other organ systems (e.g., cardiac and neurologic).
- This EPA includes assessment, diagnosis and management of hypoxemia, hypercarbia and mixed respiratory failure, including patients requiring mechanical ventilation to support other organ failure, and patients with complex respiratory failure including severe acute respiratory distress syndrome (ARDS).
- This EPA includes recognizing and managing complications from mechanical ventilation, as well as weaning patients from ventilation, and identifying candidates for tracheostomy.
- This EPA does not include airway management except the management of tracheostomies. It does not include routine indications for mechanical ventilation (i.e. postop facial surgery), nor does it include the chronic technology dependent patient.

Assessment Plan:

Direct observation and/or case discussion by a supervisor, registered respiratory therapist or respiratory therapy educator

Use Form 1. Form collects information on:

- Etiology: *(write in)*
- ARDS: yes; no
- Case mix *(select all that apply)*: initiation of ventilation; maintenance of ventilation; weaning of ventilation; discontinuation of ventilation
- Mode of ventilation: *(write in)*
- Tracheostomy candidate: yes; no
- Setting: clinical; simulation

Collect 6 observations of achievement

- At least 3 different etiologies of respiratory failure
- At least 1 patient with ARDS
- At least 5 in clinical setting
- At least 3 different assessors

Relevant milestones:

- 1 ME 1.3** Apply knowledge of respiratory physiology and cardiopulmonary interactions
- 2 ME 1.6** Adapt care to address complexity in the patient situation
- 3 ME 1.4** Perform focused clinical assessments that address all relevant issues
- 4 ME 2.2** Integrate information from the clinical assessment to formulate an understanding of the patient's condition

*ENTRUSTABLE PROFESSIONAL ACTIVITIES FOR  
PEDIATRIC CRITICAL CARE MEDICINE (2019)*

- 5     **ME 2.2 Interpret diagnostic imaging of the respiratory system**
- 6     **ME 2.4 Develop and implement management plans for patients requiring non-invasive or invasive ventilation, including weaning from prolonged and/or complicated mechanical ventilation**
- 7     **ME 3.1 Determine the need for and timing of tracheostomy**
- 8     **COL 1.3** Communicate effectively with other physicians and health professionals
- 9     **S 3.4** Integrate best evidence and clinical expertise into decision-making

**Critical Care Medicine: Core EPA #2P**

**Managing patients with multisystem organ dysfunction**

Key Features:

- This EPA includes the management of patients with multisystem organ dysfunction that may arise from any pathophysiology.
- This EPA includes the monitoring of organ dysfunction, managing medications based on the pharmacology and degree of organ dysfunction, and supporting the patient to allow for organ recovery where possible.

Assessment Plan:

Direct observation or case review by supervisor, with input from nursing staff

Use Form 1. Form collects information on:

- Etiology of organ failure (*select all that apply*): cardiogenic shock; distributive shock; hypovolemic shock; obstructive shock; multi-system trauma; multi-system gravid; myocardial infarction; sepsis; polypharmacy overdose; other (*write in*)
- Organ failure (*select all that apply*): brain; heart; kidney; liver; skin; other (*write in*)

Collect 10 observations of achievement.

- At least 2 patients with shock
- At least 4 different types of organ failure
- At least 5 different observers

Relevant milestones:

- 1 ME 1.6** Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice
  - 2 ME 1.4** Perform focused clinical assessments that address all relevant issues
  - 3 ME 2.1** Consider clinical urgency, feasibility, availability of resources, and comorbidities in determining priorities to be addressed
  - 4 ME 2.4** Develop, in collaboration with the patient and family, a plan to deal with clinical uncertainty
  - 5 ME 2.4** Establish a patient-centred management plan that considers all of the patient's health problems
  - 6 ME 2.2** Prescribe and adjust medications in the setting of organ dysfunction
  - 7 ME 3.3** Prioritize a procedure or therapy, considering clinical urgency and potential for deterioration
  - 8 ME 4.1** Implement a patient-centred plan that supports ongoing monitoring of clinical status and response to treatment
-

*ENTRUSTABLE PROFESSIONAL ACTIVITIES FOR  
PEDIATRIC CRITICAL CARE MEDICINE (2019)*

- 9     **ME 4.1** Ensure detailed and complete follow-up and handover of all patients under the resident's care
- 10    **ME 4.1 Determine the need and timing of referral to other specialists**
- 11    **COM 5.1** Document management plans in an accurate, complete, timely and accessible manner
- 12    **COL 1.2** Consult effectively and in a timely manner with other members of the health care team and other services
- 13    **ME 2.1 Identify patients for whom the patient perceived burden of disease modifying therapy or investigations is greater than the clinical benefit**
- 14    **ME 2.3** Recognize and respond to signs that it is time to transition care away from a disease modifying approach
- 15    **L 2.1** Use clinical judgement to make optimal use of limited resources
- 16    **P 1.3** Manage ethical issues encountered in the clinical setting
- 17    **S 3.4** Integrate best evidence and clinical expertise into decision-making



**Critical Care Medicine: Core EPA #3P**

**Managing the resuscitation of critically ill patients**

Key Features:

- This EPA includes the rapid detection and correction of life threatening situations such as hypoxia, end organ hypoperfusion, dysrhythmias and raised intracranial pressure, as well as the management of patients in cardiac arrest.
- It may include patients with a variety of underlying medical comorbidities and in a variety of clinical situations, such as traumatic shock, septic shock, traumatic brain injury, and cardiogenic shock.
- It includes the application of advanced crisis resources management skills to guide the team functioning.

Assessment Plan:

Direct observation by supervisor

Use Form 1. Form collects information on:

- Case mix: cardiac arrest; respiratory failure; sepsis; shock; trauma; other (write in)

Collect 10 observations of achievement

- At least 5 different examples of the case mix
- At least 5 different assessors

Relevant milestones:

- 1 ME 2.2 Provide assessment and initial stabilization of ABCs**
  - 2 ME 2.4 Provide concurrent treatment and ongoing assessment of the patient's clinical condition**
  - 3 ME 2.4 Reassess, re-evaluate and adjust resuscitative and diagnostic efforts as appropriate**
  - 4 ME 5.2 Demonstrate situational awareness, avoid fixation error**
  - 5 ME 4.1 Ask for additional assistance and/or other services when indicated**
  - 6 COL 1.2 Delegate tasks and direct team members to aid in resuscitation**
  - 7 COL 1.3 Use closed loop communication**
  - 8 P 4.1 Maintain capacity for professional clinical performance in stressful situations**
  - 9 ME 1.4 Act decisively and maintain control of crisis situations**
  - 10 ME 2.2 Recognize when ongoing resuscitation efforts are no longer effective and should be discontinued**
-

*ENTRUSTABLE PROFESSIONAL ACTIVITIES FOR  
PEDIATRIC CRITICAL CARE MEDICINE (2019)*

- 11**    **ME 2.4** Manage hemodynamic support and monitoring
- 12**    **ME 2.4** Manage non-invasive and/or invasive ventilation
- 13**    **ME 3.1** Integrate planned procedures or therapies into resuscitative efforts
- 14**    **ME 3.3** Triage a procedure or therapy, taking into account clinical urgency, potential for deterioration, and available resources
- 15**    **L 4.2** Establish clear leadership in resuscitative efforts
- 16**    **COL 1.2** Seek and respond to input from other health care professionals

**Critical Care Medicine: Core EPA #4P**

**Performing the advanced procedures of CCM**

Key Features:

- This EPA focuses on determining which procedures are necessary and appropriate to the patient's condition, and performing the following procedures required for the care of complex or unstable patients, including:
  - o arterial line, central venous line and dialysis line insertion in unstable or complex patients
  - o needle cricothyrotomy
  - o procedural sedation
  - o testing of epicardial pacemaker
  - o transcutaneous pacing
  - o intubation in a patient with a difficult airway/unstable situation
  - o Point-of-Care Ultrasound (PoCUS)
- This EPA includes using ultrasonography for procedural guidance, where appropriate.
- This EPA may be observed in clinical or simulation settings.
- The observation of this EPA is divided into two parts: technical procedures; and POCUS procedures.

Assessment Plan:

Part A: Procedures

Direct observation by supervisor with input from other health professionals

Use Form 2. Form collects information on:

- Procedure: arterial line insertion; central line insertion; dialysis line insertion; procedural sedation; intubation; needle cricothyrotomy; transcutaneous pacing; testing of epicardial pacer
- Complex/unstable patient: yes; no
- Site: not applicable; brachial; femoral; jugular; radial; subclavian; other (*write in*)
- Setting: clinical; simulation

Collect 13 observations of achievement.

- At least 2 brachial arterial line insertions
- At least 3 central line insertions in unstable patients
- At least 2 dialysis line insertions
- At least 2 procedural sedation
- At least 1 intubation in a patient with a difficulty airway/unstable situation
- At least 1 needle cricothyrotomy
- At least 1 episode of transcutaneous pacing
- At least 1 testing of epicardial pacer

Part B: PoCUS

Direct observation and/or review of images by supervisor

*ENTRUSTABLE PROFESSIONAL ACTIVITIES FOR  
PEDIATRIC CRITICAL CARE MEDICINE (2019)*

Use Form 2. Form collects information on

- PoCUs procedure: lung; cardiac and volume status; other
- Complex/unstable patient: yes; no

Collect 10 observations of achievement

- At least 5 lung
- At least 5 cardiac and volume status

Relevant milestones:

Part A: Procedures

- 1 ME 3.1 Preprocedure plan: Gather/assess required information to reach diagnosis and determine correct procedure required**
- 2 ME 3.4 Case preparation: Patient correctly prepared and positioned, understands approach and required instruments, prepared to deal with probable complications**
- 3 ME 1.3 Knowledge of specific procedural steps: Understands steps of procedure, potential risks, and means to avoid/overcome them**
- 4 ME 3.4. Technical performance: Efficiently performs steps, avoiding pitfalls and respecting soft tissues**
- 5 ME 3.4 Visuospatial skills: 3D spatial orientation and able to position instruments/hardware where intended**
- 6 ME 3.4 Efficiency and flow: Obvious planned course of procedure with economy of movement and flow**
- 7 ME 3.4 Postprocedure plan: Appropriate complete post procedure plan**
- 8 COL 1.3 Professional and effective communication/utilization of staff**

Part B: PoCUS procedures

- 1 ME 3.4 Adjust instrument settings appropriately to optimize image quality**
- 2 ME 3.4 Obtain standard views**
- 3 ME 2.2 Recognize clinically significant findings in a POCUS examination**

**Critical Care Medicine: Core EPA #5P**

**Caring for patients with chronic and/or organ support-dependent critical illness  
and their primary caregiver(s)**

Key Features:

- This EPA includes the coordination and care for chronic and/or ventilator dependent critically ill patients in the ICU or other settings.
- This EPA requires longitudinal engagement with the patient, family, and multidisciplinary team.
- It includes tasks such as orchestrating family meetings, developing and leading the implementation of care plans including possible homecare, or transfer to community hospital or long-term care facilities.
- It requires the coordination of multidisciplinary teams and advocacy at the patient and system level.

Assessment Plan:

Direct observation and/or case discussion by supervisor with or without input from physiotherapist, social worker, registered respiratory therapist, patient or family.

Use Form 1.

Collect 1 observation of achievement.

Relevant milestones:

- 1 ME 1.6** Adapt care as the complexity, uncertainty, and ambiguity of the patient's clinical situation evolves
  - 2 ME 2.1** Identify patients for whom the patient perceived burden of disease modifying therapy or investigations is greater than the clinical benefit
  - 3 ME 2.3** Recognize and respond to signs that it is time to transition care away from a disease modifying approach
  - 4 COM 2.1** Gather information about the patient's beliefs, values, preferences, context and expectations with regards to their care
  - 5 ME 2.3** Address the impact of the medical condition on the patients' ability to pursue life goals and purposes
  - 6 ME 2.3** **Work with the patient and family to establish goals of care**
  - 7 COM 3.1** Provide information on diagnosis and prognosis in a clear, compassionate, and respectful manner
  - 8 COM 4.3** **Use communication skills and strategies that help the patient and family make informed decisions**
-

*ENTRUSTABLE PROFESSIONAL ACTIVITIES FOR  
PEDIATRIC CRITICAL CARE MEDICINE (2019)*

- 9      **ME 2.2** Select investigations and therapies appropriate to the patient's goals of care
- 10     **ME 2.4** Develop and implement management plans that support achievement of the patient's goals of care
- 11     **ME 4.1** Coordinate ongoing care when multiple physicians and health care professionals are involved
- 12     **HA 1.1** Facilitate timely patient access to services and resources

**Critical Care Medicine: Core EPA # 6P**

**Identifying, assessing, and managing potential organ donors**

Key Features:

- This EPA includes the identification of potential organ donors (by both neurological and circulatory criteria), referral to the local organ donation organization or program, and communicating with families about the opportunity for donation, but does not include obtaining consent for donation.
- This EPA includes the assessment of death by neurological criteria, the physiological management of the potential organ donor, and collaboration with the donation physician, donation coordinator and other members of the donation team.
- The observation of this EPA is divided into two parts: organ donor identification and management; NDD declaration.

Assessment Plan:

Part A: Organ donation

Direct observation and/or case review by supervisor

Use Form 1.

Collect 2 observations of achievement.

Part B: NDD declaration

Direct observation by supervisor

Use Form 1

Collect 2 observations of achievement.

Relevant milestones:

Part A: Organ donation

- 1 ME 2.2 Recognize and respond to clinical features that identify opportunities for organ donation**
- 2 COM 3.1 Convey the option of organ and tissue donation as part of end-of-life discussions with family members**
- 3 HA 1.1 Facilitate access to bereavement support for a patient's family, as appropriate**
- 4 COM 5.1 Document the organ donation assessment and discussion, completing all required documentation**
- 5 ME 2.4 Develop and implement management plans to maintain organ donor homeostasis with appropriate hemodynamic, respiratory, temperature, urine output, fluid, electrolyte, and glucose targets**

- 6 **COL1.2 Work effectively with organ procurement organization personnel, transplant surgeons, and in-hospital diagnostic services to ensure complete evaluation of individual organ/tissue suitability for transplant**
- 7 **ME 4.1** Establish plans for ongoing care of potential organ donors, incorporating considerations of patient comfort and family concerns
- 8 **P 1.3** Manage ethical issues encountered in the clinical setting

Part B: NDD declaration

- 1 **ME 2.2 Exclude reversible causes of coma**
- 2 **ME 2.2 Assess brainstem reflexes and response to pain**
- 3 **ME 2.2 Perform an apnea test**
- 4 **ME 2.2 Use ancillary testing when appropriate**
- 5 **ME 1.3 Apply guidelines for the determination of NDD status**
- 6 **P 3.1** Adhere to regulations regarding NDD declaration



**Critical Care Medicine: Core EPA #7P**

**Recognizing and providing care for patients who are vulnerable**

Key Features:

- This EPA includes providing care for patients who are mentally and/or physically frail, living alone, victims of crime, victims of abuse, unable to manage their own health risks, or who have a detrimental imbalance between care needs and care provided.
- It includes recognizing when a patient is vulnerable, has no next-of-kin, or when police and/or social services need to be engaged, and working with the health care team towards a health care outcome that respects the wishes of the patient.

Assessment Plan:

Case review by supervisor with or without input from other healthcare professionals

Use Form 1.

Collect 2 observations of achievement.

- At least 2 different assessors

Relevant milestones:

- 1**     **ME 2.2** Recognize and respond to clinical features that identify a patient is vulnerable
- 2**     **COM 1.1** Communicate using a patient-centred approach that facilitates patient trust and autonomy and that is characterized by empathy, respect, and compassion
- 3**     **COM 1.6** Assess a patient's decision-making capacity
- 4**     **COM 1.6** Tailor approaches to decision-making to patient capacity, values, and preferences
- 5**     **ME 2.3** Establish goals of care
- 6**     **ME 2.4** Develop and implement management plans that consider all of the patient's health problems, their social context and their expressed wishes in collaboration with the interprofessional team
- 7**     **HA 1.1** Facilitate timely access to resources and/or agencies to address health needs of the patient
- 8**     **HA 1.1** Describe risk factors that may indicate that a patient is the victim of intimate partner violence, child abuse or neglect, youth violence, sexual assault, elder abuse, or human trafficking

*ENTRUSTABLE PROFESSIONAL ACTIVITIES FOR  
PEDIATRIC CRITICAL CARE MEDICINE (2019)*

- 9**     **ME 4.1** Determine the need for referral to spiritual care, psychiatry, social work, or medicine services
- 10**    **COL 1.3** **Work effectively with the patient's primary care physician, and/or community liaisons and services, as needed**
- 11**    **P 3.1** Fulfil the requirements of the physician's duty to report, including communicable disease, and suspected child, domestic or elder abuse

**Critical Care Medicine: Core EPA #8P**

**Managing the transport of patients who are critically ill**

Key Features:

- This EPA focuses on managing the transport of critically ill patients within the hospital as well as between healthcare centres, by ground or by air.
- It may include being physically present during transfer, or providing advice to the transferring centre and transport team.
- This EPA does not include managing discharge nor facilitating the transfer of patients to a chronic care facility.
- This EPA may be observed in a simulated activity.

Assessment Plan:

Direct observation or case review by supervisor

Use Form 1. Form collects information on:

- Transport context: in-hospital; interhospital
- Setting: clinical; simulation
- Complexity: simple; complex

Collect 2 observations of achievement

- At least 1 in-hospital transport of a complex patient
- At least 1 interhospital transport (may be simulation or call line)

Relevant milestones:

- 1 ME 2.2 Interpret clinical information gathered by another health professional, along with the results of investigations, for the purposes of diagnosis and management**
- 2 ME 2.4 Determine the setting of care appropriate for the patient's health needs**
- 3 ME 2.4 Plan the logistics of transfer including stabilization and procedures prior to transfer, equipment and personnel requirements, methods of monitoring and assessment during transport**
- 4 COL 3.2 Demonstrate safe handover of care, using both verbal and written communication, during a patient transition to a different health care professional, setting, or stage of care**
- 5 COM 5.1 Document telephone advice provided and the care provided during transport**

**Critical Care Medicine: Core EPA #9P**

**Identifying and providing care for patients' and their family's needs around the end-of-life**

Key Features:

- This EPA focuses on the application of communication skills to support patients and families. At this stage, it is limited to clinical interactions that are not characterized by conflict.
- This includes breaking bad news and leading goals of care discussions, and building consensus around end-of-life decision making such as withdrawal of life sustaining therapies and potential organ and tissue donation.
- This EPA may be observed in the ICU, in the ER, on the inpatient ward or in a simulated setting.

Assessment Plan:

Direct observation by attending physician with input from TTP level trainee, bedside RN, social worker, family and/or chaplain

Use form 1. Form collects information on:

- Activity observed: family discussion/meeting; note written after meeting; simulated activity; other (write in)

Collect 5 observations of achievement.

- At least 1 family meeting/discussion
- At least 1 review of written documentation of the meeting

Relevant Milestones:

- 1 COM 1.1 Develop trusting and supportive relationships with families in distress**
- 2 COM 3.1** Convey information about diagnosis and prognosis clearly and compassionately
- 3 COM 3.1** Use appropriate language and avoid medical jargon
- 4 COM 3.1** Use strategies to verify and validate the understanding of the patient and/or family.
- 5 ME 2.3** Work with the patient and family to establish goals of care
- 6 ME 2.4** Develop palliative care management plans that align with patient and family goals of care

*ENTRUSTABLE PROFESSIONAL ACTIVITIES FOR  
PEDIATRIC CRITICAL CARE MEDICINE (2019)*

- 7     **COM 1.4** Respond to non-verbal communication and use appropriate non-verbal behaviours to enhance communication
- 8     **COM 1.5** Manage emotionally charged conversations including breaking bad news and end of life conversations
- 9     **COM 1.5** Recognize when personal feelings in an encounter are valuable clues to the patient's emotional state
- 10    **COM 5.1** Document the clinical encounter to accurately reflect discussion and decisions
- 11    **HA 1.1** Facilitate access to bereavement support for a patient's family, as appropriate
- 12    **P 1.3 Recognize and respond to the moral and ethical challenges in end of life care**
- 13    **P 4.1** Exhibit self-awareness, recognizing and managing the impact of end of life care on personal well-being and professional performance

**Critical Care Medicine: Core EPA #10P**

**Co-leading multidisciplinary teams**

Key Features:

- This EPA focuses on the resident's role in leading rounds and the coordination of patient care throughout the clinical day.
- This includes managing time and resources, building consensus, directing discussions, collaborating with consulting services, teaching junior trainees, engaging family members as appropriate, and ensuring clear communication among all team members.
- This EPA does not include the overall responsibility for patient care; that is a responsibility of a later stage, nor making management decisions for individual patients, providing updates to families, and participating in family meetings.

Assessment Plan:

Direct observation by attending physician or senior resident in CCM with input from the interprofessional team, junior trainees, and/or consultants

Use form 1. Form collects information on:

- Acuity within the unit: high; medium; low

Collect 5 observations of achievement.

- At least two observations on days of high acuity level

Relevant Milestones:

- 1 ME 1.5** Prioritize among patients based on clinical acuity
- 2 L 4.1** Manage time and prioritize tasks
- 3 COL 1.2** Make effective use of the scope and expertise of other health care professionals
- 4 COL 2.1** Delegate tasks and responsibilities in a respectful manner
- 5 COL 1.3** Contribute to quality patient care by sharing medical expertise
- 6 COL 1.3** Communicate effectively with other physicians and health professionals
- 7 COL 2.2** Work effectively with other health care professionals to develop plans for clinical care when there are differences in opinion and/or recommendations

*ENTRUSTABLE PROFESSIONAL ACTIVITIES FOR  
PEDIATRIC CRITICAL CARE MEDICINE (2019)*

- 8      L 4.1 Integrate supervisory and teaching responsibilities into the overall management of the clinical service**
- 9      ME 3.1 Integrate planned procedures and therapies into the overall plan of care**
- 10     L 2.1 Allocate health care resources for optimal patient care**
- 11     P 1.1 Demonstrate appropriate professional behaviours**
- 12     P 1.1 Respond punctually to requests from other health care professionals**

**Critical Care Medicine: Core EPA #11P**

**Identifying and addressing patient safety incidents and contributing to a culture of safety**

Key Features:

- This EPA includes recognizing when a patient has experienced an adverse event, classifying it as a patient safety incident, and assessing and managing the patient's condition.
- It includes documenting the incident per local institutional processes for institutional safety monitoring programs.
- It also includes disclosing the event to the patient and/or family, which may be observed in simulation setting.
- The EPA also includes following appropriate protocols, checklists and/or institutional policy in delivering safe patient care, and supporting other team members to do the same.

Assessment Plan:

Direct observation and/or document or report review, or case discussion by supervisor, QI leader, unit manager, or unit director

Use Form 1. Form collects information on:

- Setting: clinical; simulation
- Disclosure observed: yes; no

Collect 2 observations of achievement.

- At least 1 disclosure (may be simulation)

Relevant milestones:

- 1 ME 5.1 Identify a patient safety incident in a timely manner**
  - 2 ME 5.1** Identify the clinical circumstances contributing to an adverse event
  - 3 ME 5.1 Mitigate further injury from adverse events, as appropriate**
  - 4 ME 2.4** Develop and implement initial management plans
  - 5 COM 3.2 Communicate the reasons for unanticipated clinical outcomes and disclose patient safety incidents**
  - 6 COM 3.2** Apologize appropriately for a harmful patient safety incident
  - 7 COM 4.3** Answer questions from the patient and family about next steps
  - 8 ME 5.1 Document harmful patient safety incidents as per institutional processes**
  - 9 ME 5.1** Identify changes in practice/clinical care to prevent similar events
  - 10 P 4.1 Apply strategies to mitigate the personal impact of patient safety events**
-



**Critical Care Medicine: Core EPA #12P**

**Supervising, assessing, and coaching junior colleagues**

Key Features:

- This EPA focuses on providing constructive feedback in a manner aligned with coaching and/or performance improvement and recognizing the need for potential remediation.
- This includes assisting learners (rotating residents/students) in difficulty.

Assessment Plan:

Direct observation by supervisor with input from learner(s)

Use Form 1.

Collect 3 observations of achievement.

- At least 3 different observers

Relevant milestones:

- |          |  |
|----------|--|
| <b>1</b> | <b>P 1.1 Complete learner assessments in a timely fashion</b>                                  |
| <b>2</b> | <b>S 2.5 Identify learner behaviors to support / continue as well as those for improvement</b> |
| <b>3</b> | <b>S 2.5 Provide specific suggestions for improvement of performance</b>                       |
| <b>4</b> | <b>S 2.5 Provide narrative comments that support coaching / assessment</b>                     |

**Critical Care Medicine: Core EPA #13P**

**Participating in and/or contributing to scholarly activity**

Key Features:

- This EPA includes a literature review, knowledge about ethics applications, any needed regulatory module(s), understanding assessment and critique methods, data collection, critical appraisal of literature, and contribution to a knowledge translation activity.
- Scholarly activities include clinical, basic science, education, or health systems research, and patient safety and quality improvement.
- This EPA does not include completion of a formal scholarly project (TTP), independent trial design, grant writing, specific teaching, nor an independent QI project.

Assessment Plan:

Review of status of current scholarly project by supervisor, mentor, or research coordinator

Use Form 1.

Collect 1 observation of achievement.

Relevant milestones:

- 1 S 4.4 Generate a focused question for scholarly investigation**
- 2 S 3.3** Critically evaluate the integrity, reliability, and applicability of health-related research and literature
- 3 S 4.3** Secure a supervisor's commitment for a scholarly project
- 4 S 4.5 Summarize the findings of a literature review**
- 5 S 4.4 Select appropriate methods of addressing a given scholarly question**
- 6 S 4.2** Apply ethical principles in research, quality improvement or other scholarly work
- 7 S 4.4 Collect data for a scholarly project**
- 8 P 1.2** Demonstrate a commitment to excellence in all aspects of practice

## Critical Care Medicine: Transition to Practice EPA #1P

### Leading daily clinical rounds

#### Key Features:

- This EPA focuses on leading the daily care for all patients in the ICU.
- This includes leading team discussions and developing management plans for all patients (complex and routine), guiding junior residents through their tasks, conducting investigations, communicating and engaging other health professionals as part of the interprofessional team, and seeking and providing appropriate consults to other services.
- It includes transfer and discharge planning, as well as communication with patients and families during rounds.
- This EPA requires time management skills to balance patient care with teaching responsibilities, consideration of bed management issues, triaging of consults outside the ICU, and the management of disruptions.
- This EPA does not include the safety competencies, end of life discussions nor formal family meetings.

#### Assessment Plan: Adult

Direct observation by supervisor, with input from other health care professionals

Use form 1. Form collects information on:

- ICU location: *(write in)*

Collect 5 observations of achievement

- At least 2 different ICU locations
- At least 3 observers

#### Assessment Plan: Pediatrics

Direct observation by supervisor, with input from other health care professionals

Use form 1.

Collect 5 observations of achievement.

- At least 3 observers

#### Relevant milestones:

- 1 ME 1.3** Apply a broad base and depth of knowledge in clinical and biomedical sciences to manage the breadth of patient presentations in the ICU
- 2 ME 1.4** Perform focused clinical assessments that address all relevant issues
- 3 ME 1.5** Prioritize among patients based on clinical acuity
- 4 ME 1.5** Carry out professional duties in the face of multiple, competing demands

*ENTRUSTABLE PROFESSIONAL ACTIVITIES FOR  
PEDIATRIC CRITICAL CARE MEDICINE (2019)*

- 5     **ME 1.6** Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice
- 6     **ME 2.4** Establish patient centered management plans
- 7     **L 4.1** Integrate supervisory and teaching responsibilities into the overall management of the clinical service
- 8     **P 4.1** Manage the mental and physical challenges that impact physician wellness and/or performance in demanding or stressful clinical settings
- 9     **COL 2.1** Delegate tasks and responsibilities in a respectful manner
- 10    **L 2.1** Allocate health care resources for optimal patient care
- 11    **L 4.1** Manage time and prioritize tasks
- 12    **S 2.4** Demonstrate basic skills in teaching others
- 13    **S 3.4** Integrate best evidence and clinical expertise into decision-making

**Critical Care Medicine: Transition to Practice EPA #2P**

**Communicating with patients and families in complicated/complex situations**

Key Features:

- This EPA focuses on the application of advanced communication and conflict resolution skills to address difficult situations that may involve patients, families, and/or members of the health care team.
- This EPA may be observed in any scenario that is emotionally charged (e.g., anger, aggression or grieving). Examples include: breaking bad news; dealing with a patient complaint; difference of opinion with another care provider; request for an autopsy.

Assessment:

Direct observation by supervisor

Use form 1. Form collects information on:

- Scenario: patient/family; other health care professional(s)

Collect 3 observations of achievement

- At least one with patient/family

Relevant Milestones:

- 1**     **COM 1.5** Recognize when strong emotions (such as anger, fear, anxiety, or sadness) are impacting an interaction and respond appropriately
- 2**     **COM 1.4** Respond to non-verbal communication and use appropriate non-verbal behaviours to enhance communication
- 3**     **COM 3.1** Share information and explanations that are clear and accurate while checking for understanding
- 4**     **COM 1.5** Establish boundaries as needed in emotional situations
- 5**     **COM 4.1** Communicate in a manner that is respectful, non-judgmental and culturally aware
- 6**     **COM 4.3** Answer questions regarding care delivery, treatment decisions and/or prognosis in a respectful manner
- 7**     **COL 2.2.** Listen to understand and find common ground
- 8**     **COL 2.2** Manage differences and resolve conflicts
- 9**     **P 1.1** Intervene when behaviours toward colleagues and/or learners undermine a respectful environment

**Critical Care Medicine: Transition to Practice EPA #3P**

**Coordinating the delivery of resources and care for patients who are critically ill**

Key Features:

- This EPA focuses on managing the flow through the ICU: triaging referrals, managing discharges, surge and epidemic planning, delegation of responsibilities, collaborating with other health professionals and demonstrating judicious use of resources.
- This EPA may be observed in and out of the ICU, including remote sites.
- The observation of this EPA must be based on a block of time of at least a day, and preferably a week.
- The observation of this EPA is not based on running rounds or providing care for individual patients, but rather the management of the unit as a whole.

Assessment Plan:

Direct and/or indirect observation by physician, nurse clinician or charge nurse

Use Form 1.

Collect 4 observations of achievement.

- At least 2 direct observations by nurse
- At least 2 direct or indirect observations by physician
- At least 4 separate encounters

Relevant milestones:

- 1 ME 1.1** Demonstrate responsibility and accountability for decisions regarding patient care
- 2 ME 1.5** Prioritize among patients based on clinical acuity
- 3 ME 1.5** Carry out professional duties in the face of multiple, competing demands
- 4 L 2.1** Allocate health care resources for optimal patient care
- 5 S 3.4** Integrate best evidence and clinical expertise into decision-making
- 6 ME 4.1** Coordinate the involvement of consulting services in patient care
- 7 COL 2.2** Work effectively with other health care professionals to develop plans for clinical care when there are differences in opinion and/or recommendations
- 8 L 4.1** Manage time and prioritize tasks

*ENTRUSTABLE PROFESSIONAL ACTIVITIES FOR  
PEDIATRIC CRITICAL CARE MEDICINE (2019)*

- 9     **L 4.1** Integrate supervisory and teaching responsibilities into the overall management of the clinical service
- 10    **P 4.1** Manage the mental and physical challenges that impact physician wellness and/or performance in demanding or stressful clinical settings

**Critical Care Medicine: Transition to Practice EPA #4P**

**Debriefing resuscitations and other critical events**

Key Features:

- This EPA includes leading the healthcare team in the immediate debriefing post critical event to identify opportunities for future improvement in patient care.
- It includes developing an environment in which team members' views are encouraged and respected.
- This EPA also includes providing, and/or identifying resources for emotional and psychological support for the health care team.
- This EPA does not include systems-level review, such as those that would be conducted for sentinel events or other patient safety concerns.

Assessment:

Direct observation by supervisor and/or other health professional

Use Form 1.

Collect 2 observations of achievement.

- At least one observation by physician
- Ideally one observation by other health professional
- At least two separate debriefing events

Relevant milestones:

- 1 L 1.2 Establish a safe environment for debriefing critical events**
- 2 COL 1.3** Convey the purpose of debriefing an event to the health care team
- 3 COL 1.3 Facilitate discussions within the health care team, ensuring everyone has the opportunity to participate**
- 4 S 2.5 Role model self-assessment and feedback seeking behaviour**
- 5 L 1.2 Encourage all members of the team to identify opportunities to improve patient care**
- 6 L 1.1 Summarize debriefing discussions, identifying potential improvements in health care delivery**
- 7 P 4.3** Recognize, support and respond effectively to colleagues in need



**Critical Care Medicine: Transition to Practice EPA #5P**

**Contributing to continuous quality improvement initiatives that address system-level safety or quality concerns**

Key Features:

- This EPA includes the review and analysis of a set of events, data or outcomes to ascertain the quality of healthcare delivery.
- It focuses on an analysis of the reasons for any gap in desired outcomes, and may include suggestions for potential improvement.
- The observation of this EPA requires that the resident complete the analysis but it is not necessary for the resident to implement or participate in the implementation of any changes.
- Examples may include quality assurance of outcome measures in the intensive care unit, an analysis of a patient safety event, or a review of a series of patient outcomes.
- This EPA may be observed via presentation of findings (e.g., at rounds or to a committee) or via submission of a report.

Assessment Plan:

Direct and/or indirect observation by supervisor and/or QI lead

Use Form 1.

Collect 1 observation of achievement.

Relevant Milestones:

- 1 L 1.1 Gather information for the purposes of quality assurance or improvement**
- 2 S 4.4 Perform data analysis**
- 3 L 1.1** Integrate existing standards for health care delivery with findings of data collection
- 4 L 1.1 Identify potential improvement opportunities**
- 5 L 1.1 Identify the impact of human and system factors on health care delivery**
- 6 L 3.1** Demonstrate an understanding of the operations of the intensive care unit
- 7 L 3.2** Facilitate change in health care to enhance services and outcomes
- 8 S 3.4** Integrate best evidence and clinical expertise into decision-making
- 9 P 2.2** Demonstrate a commitment to patient safety and quality improvement initiatives within their own practice environment

**Critical Care Medicine: Transition to Practice EPA #6P**

**Demonstrating self-directed personal and professional development**

Key Features:

- The EPA focuses on integrating professional, personal and family priorities in a sustainable manner.
- It involves developing a personal learning plan for future practice and ongoing professional development.
- It also includes developing a strategy for managing finances, insurance, medical legal responsibilities and other issues related to the clinical practice environment.
- The observation of this EPA is based on the resident submitting their plan for ongoing learning to the Competence Committee, and meeting regularly with their faculty advisor, mentor or program director to discuss their wellness and professional development.

Assessment Plan:

Part A: Learning plan

Competence Committee reviews the resident's submission of a learning plan geared to progression of competence.

Part B: Mentorship discussions

Direct observation by faculty advisor, mentor or program director

Use Form 1

Collect 1 observation of achievement.

Relevant milestones:

Part B: Mentorship discussions

- 1 P 2.1** Demonstrate a commitment to maintaining and enhancing competence
- 2 ME 1.4** Demonstrate an awareness of the context of practice, including what is required to practice safely and effectively
- 3 S 1.2** Identify opportunities for learning and improvement by reflecting on and assessing performance using various internal and external data sources
- 4 S 1.1** Identify learning needs to enhance competence across all CanMEDS roles and generate immediate and longer-term career goals
- 5 HA 2.3** Identify and respond to unmet health care needs within one's practice

*ENTRUSTABLE PROFESSIONAL ACTIVITIES FOR  
PEDIATRIC CRITICAL CARE MEDICINE (2019)*

- 6 S 3.1 Generate focused questions to address practice uncertainty and knowledge gaps**
- 7 L 4.2 Reconcile expectations for practice with job opportunities and workforce needs**
- 8 S 1.1 Create and implement a learning plan**
- 9 L 4.2 Choose educational experiences to gain competencies necessary for future unsupervised practice**
- 10 P 4.2 Develop a strategy to manage personal and professional demands for a sustainable independent practice**
- 11 P 3.1 Fulfil professional standards of practice by participating in programs that record continuing professional development (e.g., Royal College Maintenance of Certification Program)**

**Critical Care Medicine: Transition to Practice EPA #7P**

**Conducting scholarly work**

Key Features:

- This EPA includes all aspects of performing scholarly work: identification of a question for investigation, literature review, data gathering, data analysis, reflective critique and dissemination.
- This may include scholarly research, quality assurance, or educational projects.
- The assessment of this EPA is based on the submission of a completed scholarly project, and may also include observation of the presentation of the scholarly work.

Assessment Plan:

Supervisor review of resident scholarly work

Use Form 1

Collect one observation of achievement.

Relevant Milestones:

- 1 L 4.1 Organize work to manage clinical, scholarly and other responsibilities**
- 2 S 4.4 Identify, consult and collaborate with content experts and others in the conduct of scholarly work**
- 3 S 4.4** Generate a focused question for scholarly investigation
- 4 S 3.3** Critically evaluate the integrity, reliability, and applicability of health-related research and literature
- 5 S 4.5** Summarize the findings of a literature review
- 6 S 4.4** Select appropriate methods of addressing a given scholarly question
- 7 S 4.2** Apply ethical principles in research, quality improvement or other scholarly work
- 8 S 4.4** Collect data for a scholarly project
- 9 S 4.4 Perform data analysis**
- 10 S 4.4 Integrate existing literature and findings of data collection**
- 11 S 4.4** Identify areas for further investigation
- 12 S 4.5 Summarize and communicate the findings of research and scholarly inquiry**