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For a printable Table of Contents, contact cbd@royalcollege.ca.

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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
Title	<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>
EPA name	<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>

Key features

**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

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.
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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

ENTRUSTABLE PROFESSIONAL ACTIVITIES FOR
PEDIATRIC CRITICAL CARE MEDICINE (2019)



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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**

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ENTRUSTABLE PROFESSIONAL ACTIVITIES FOR
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ENTRUSTABLE PROFESSIONAL ACTIVITIES FOR
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- 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.

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**
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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**

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PEDIATRIC CRITICAL CARE MEDICINE (2019)

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 inte8 0 7-20..4(a)2.60712 nuni

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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 tE a M 2 r0-1.9(e)s1-2.4(u)-14.7(s1-3.4(c6-3.4()0.7(t))17.9(1)2.3(t5-2.8(0-2.7(o)5-2.8**

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

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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**
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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

ENTRUSTABLE PROFESSIONAL ACTIVITIES FOR
PEDIATRIC CRITICAL CARE MEDICINE (2019)

- 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 against rasu5u-9.7(i)e15re8 Bs**

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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.

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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.
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Critical Care Medicine: Core EPA #11P

Identifying and addressing

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Critical Care Medicine: Core EPA #13P

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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 pharmacologic and non-pharmacologic patient presentation and (d) 66155(9)-18.5((p)15.3(T)3.2(b)-4ens5(

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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

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PEDIATRIC CRITICAL CARE MEDICINE (2019)

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 indivi

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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

