



# Entrustable Professional Activities

## EPA 4 for Pediatric Emergency Medicine

### EPA 4: Provide Patient Triage, Resuscitation, and Stabilization; Align Care Provided with Severity of Illness

#### Supervision Scale for This EPA

1. Trusted to observe only
2. Trusted to execute with direct supervision and coaching
3. Trusted to execute with indirect supervision for most simple and some complex cases
4. Trusted to execute with indirect supervision but may require discussion for a few complex cases
5. Trusted to execute without supervision

#### Description of the Activity

Pediatric emergency medicine physicians are frontline providers for a spectrum of patient presentations. The PEM physician provides leadership in the recognition, prioritization, and provision of immediate interventions necessary for critically ill or injured patients.

The specific functions which define this EPA include:

1. Demonstrating leadership and oversight of the multidisciplinary resuscitative team
2. Initiating and implementing system response to mass casualty events and disaster management
3. Prioritizing patient care based on the degree of illness and/or injury
4. Initiating immediate stabilization of critically ill and/or injured patients
5. Applying standardized algorithms to the care of critically ill and/or injured patients
6. Recognizing and treating patients with impending deterioration
7. Recognizing indications for cessation of resuscitative efforts
8. Applying post-resuscitative care principles
9. Stabilizing and determining appropriate dispositions for adult patients in the pediatric ED

#### Judicious Mapping to Domains of Competence

- Patient Care
- Medical Knowledge
- Practice-Based Learning and Improvement
- Interpersonal and Communication Skills
- Professionalism
- Systems-Based Practice
- Personal and Professional Development

#### Competencies Within Each Domain Critical to Entrustment Decisions

- *Bolded competencies labeled in the format used on the Pediatric Emergency Medicine Milestone Project.*
- *Nonbolded competency labeled in the format used on the Emergency Medicine Milestone Project.*



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<b>PC 2:</b>	Organize and prioritize responsibilities to provide patient care that is safe, effective, and efficient
<b>PC 4:</b>	Make informed diagnostic and therapeutic decisions that result in optimal clinical judgment
<b>PC 5:</b>	Emergency stabilization – Prioritize critical initial stabilization action and mobilize hospital support services in the resuscitation of a critically ill or injured patient; reassess after stabilizing intervention
<b>PC 7:</b>	Observation and reassessment – Reevaluate patients undergoing ED observation (and monitoring) and using appropriate data and resources, determine the differential diagnosis, treatment plan, and disposition
<b>PC 8:</b>	Disposition – Establish and implement a comprehensive disposition plan that uses appropriate consultation resources; provide patient education regarding diagnosis, treatment plan, medications, and time- and location-specific disposition instructions
<b>MK 1:</b>	Demonstrate sufficient knowledge of the basic and clinically supportive sciences appropriate to pediatric emergency medicine
Emergency Medicine ICS 2:	Not an ACGME required milestone for PEM: Team management – Lead patient-centered care teams, ensuring effective communication and mutual respect among members of the team

### Context for the EPA

**Rationale:** Pediatric emergency medicine physicians are frontline providers for a spectrum of patient presentations including the critically ill or injured child.

**Scope of Practice:** The PEM physician provides leadership in the recognition, prioritization, and provision of immediate interventions necessary for critically ill or injured patients.

### Curricular Components That Support the Functions of the EPA

1. Demonstrating leadership and oversight of the multidisciplinary resuscitative team
  - Supervises and leads members of the resuscitation team in their coordinated efforts for patient resuscitation and post-resuscitation care
  - Models established patient safety and crew/crisis resource management behaviors, including closed-loop communication and shared mental modeling
  - Requests and utilizes appropriate hospital resources in the delivery of resuscitative care
2. Initiating and implementing system response to mass casualty events and disaster management
  - Describes principles of providing emergency care in disasters, multi-casualty events, and mass gatherings
  - Applies principles of field triage in a disaster
  - Describes the purpose for regionalizing specialty-care hospitals, including pediatric trauma, burn, and critical care
  - Reviews indications for ground vs. air transport of ill/injured children
  - Summarizes the components of emergency medical services



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- Applies the principles of disaster and mass casualty management including preparedness, triage, mitigation, response, and recovery
  - Assesses available resources and demonstrates appropriate resource utilization in times of surge capacity or resource-limited situations
3. Prioritizing patient care based on the degree of illness and/or injury
- Assesses and determines patient acuity
    - Critical – patient with symptoms of life-threatening illness or injury with high probability of mortality if immediate intervention is not undertaken to prevent further airway, respiratory, hemodynamic, and/or neurologic instability
    - Emergent – patient with symptoms of an illness or injury that may progress in severity or result in complications with a high probability of morbidity if treatment is not promptly initiated
    - Lower acuity – patient with symptoms of an illness or injury that have a low probability of progression to more serious disease or development of complications
  - Utilizes a standard triage system to prioritize incoming ED patients and identify those who require immediate medical attention. Adjusts triage system to address resources available at time of triage
  - Aims to provide timely care for all patients as ED conditions allow
  - Prioritizes and implements the evaluation and management of multiple patients in the ED (manages interruptions and switches tasks as necessary) to optimize patient care
  - Integrates use of plans to address advanced directives and palliative care
4. Initiating immediate stabilization of critically ill and/or injured patients
- Conducts a rapid and thorough primary and secondary survey of critically ill or injured patients
  - Recognizes signs and symptoms of respiratory or cardiopulmonary failure and arrest
  - Initiates immediate interventions for stabilization, including but not limited to airway, ventilatory, and hemodynamic support
  - Performs effective cardiopulmonary resuscitation (CPR) in efforts to achieve return of spontaneous circulation (ROSC) in patients with cardiopulmonary failure
5. Applying standardized algorithms to the care of critically ill and/or injured patients
- Attains training and maintains certification in relevant advanced life support as per institutional policy
  - Applies life support algorithms to the care of critically ill and/or injured patients including administration of appropriate medications and performance of necessary procedures
6. Recognizing and treating patients with impending deterioration
- Differentiates by age, etiologies of respiratory and circulatory failure and arrest for pediatric patients
  - Discusses pathophysiology of cardiogenic, hypovolemic, neurogenic, and distributive shock
  - Demonstrates knowledge of the pathophysiology related to progression from cardiopulmonary failure to arrest
  - Provides timely and appropriate treatment to patients with impending deterioration



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### 7. Recognizing indications for cessation of resuscitative efforts

- Recognizes signs of futility and ceases resuscitative efforts
- Ceases resuscitative efforts when ROSC is not achieved after well-executed measures, including definitive airway management, effective chest compressions, intraosseous or intravenous access, and administration of necessary medications
- Recognizes that prolonged resuscitation efforts without ROSC are usually futile unless other treatable problems exist (e.g., hypothermia, drug overdose, cardiac arrhythmias)
- Does not begin resuscitative efforts in appropriate instances

### 8. Applying post-resuscitative care principles

- Demonstrates understanding of goal-directed post-arrest management
- Plans and implements anticipated pharmacologic interventions during post-arrest period
- Plans and implements mechanical interventions during post-arrest period
- Transports patient to appropriate inpatient unit for further care
- Describes indications and procedures for transport to a higher-level facility and when indicated, arranges transport to outside facility
- Integrates use of plans to address issues such as bereavement measures, postmortem care, survivor follow-up, request for autopsy, and request for organ donation

### 9. Stabilizing and determining appropriate dispositions for adult patients in the pediatric ED

- Applies principles of advanced life support to provide stabilizing measures for critically ill or injured adult patients
- Manages precipitous deliveries
- Transfers stabilized adult patients to facilities best suited to provide ongoing care
- Recognizes signs of futility and ceases resuscitative efforts
- Ceases resuscitative efforts when ROSC is not achieved after well-executed resuscitative measures
- Does not initiate resuscitative efforts in appropriate instances

## References

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- American Board of Emergency Medicine Core Content Task Force II. 2013 Model of the Clinical Practice of Emergency Medicine. <https://www.abem.org/public/publications/em-model/reference>
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- Hockberger R, La Duca A, Orr N, Reinhart M, and Sklar D. Creating the model of a clinical practice: the case of emergency medicine. Acad emerg med. 10(2) 2003. 161-168
- Fleisher & Ludwig's Textbook of Pediatric Emergency Medicine 7<sup>th</sup> edition. Wolters Kluwer 2016
- Pediatric Emergency Medicine 3<sup>rd</sup> edition. Strange, et al. McGraw-Hill 2009
- ACGME Program Requirements for Graduate Medical Education in Pediatric Emergency Medicine.
- ACGME Program Requirements for Graduate Medical Education in Emergency Medicine.



# Entrustable Professional Activities

## EPA 4 for Pediatric Emergency Medicine

Pediatric Emergency Medicine Subspecialty Specific  
Entrustable Professional Activities (EPAs)  
March 2016

### Identification of PEM EPAs conducted by:

Hsu D, Nypaver M, Kou M,  
Dahl-Grove D, House J, Klasner A, Santen S, Stankovic C, Titus MO

### Descriptions of PEM EPAs developed by:

Hsu D, Nypaver M, Kou M,  
Chang T, Chapman J, Eldridge C, Fein DM, Heffner V, Herman B, Kennedy C,  
Langhan M, Lumba-Brown A, Madhok M, McAneney C, Nagler J,  
Ramirez J, Reynolds S, Roskind C, Zaveri P, Zuckerbraun N

### Competencies mapped to PEM EPAs by:

Hsu D, Chang T, Dahl-Grove D, Fein DM, Jacobs E, Klasner A, Kou M, Langhan M,  
Lumba-Brown A, Madhok M, McAneney C, Mittiga M, Nagler J, Nypaver M,  
Ramirez J, Reynolds S, Stankovic C, Thompson T, Zaveri P, Zuckerbraun N

### Curricular components written by:

Hsu D, Chang T, Chapman J, Dahl-Grove D, Fein DM, Klasner A,  
Kou M, Langhan M, McAneney C, Mittiga M, Nagler J,  
Nypaver M, Ramirez J, Reynolds S, Roskind C, Zuckerbraun N

### Pediatric emergency medicine subspecialty representatives to ABP EPAs for Subspecialties Meeting, March 2013:

Deborah Hsu, Chris Kennedy, and Richard Bachur

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