



# Entrustable Professional Activities

## EPA 1 for Pediatric Emergency Medicine

### EPA 1: Recognize and Provide Care for Acutely Ill and/or Injured Pediatric Patients Presenting to the Emergency Department (ED)

#### 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

PEM physicians care for a wide range of patients with various complaints, disease states, injury, and acuity, often in the setting of time and resource constraints. Care must encompass a comprehensive set of skills to implement careful decision-making/management and demonstrate patient-centeredness, communication, and clinical capabilities.

The specific functions which define this EPA include:

1. Differentiating between “sick” (acutely ill) and “not sick” (less acute) patients
2. Performing age- and developmentally appropriate, focused but detailed history and physical exam
3. Developing a complaint-based and age-appropriate differential diagnosis using evidence-guided reasoning and pattern recognition or illness scripts
4. Developing and initiating a prioritized diagnostic evaluation and therapeutic management plan that is complaint/disease specific, evidence-guided, culturally competent, and cost effective
5. Utilizing documentation habits that ensure accurate reporting of patient encounters
6. Demonstrating family centeredness with informed and/or shared decision-making with patients/families that is developmentally appropriate and within state statute
7. Activating appropriate nonmedical personnel as necessary
8. Developing appropriate patient dispositions
9. Transitioning patient care to other providers

#### 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



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### Competencies Within Each Domain Critical to Entrustment Decisions

*Bolded competencies labeled in the format used on the Pediatric Emergency Medicine Milestone Project*

<b>PC 1:</b>	Gather essential and accurate information about the patient: Abstract current findings in a patient with multiple chronic medical problems and, when appropriate, compare with a prior medical record and identify significant differences between the current presentation and past presentations
<b>PC 3:</b>	Provide transfer of care that ensures seamless transitions
<b>PC 4:</b>	Make informed diagnostic and therapeutic decisions that result in optimal clinical judgment
<b>PC 6:</b>	Diagnostic studies – Apply the results of diagnostic testing based on the probability of disease and the likelihood of test results altering management
<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
<b>ICS 2:</b>	Demonstrate the insight and understanding into emotion and human response to emotion, that allows one to develop and manage human interactions

\* The competencies for EPA 2 are complementary competencies also relevant to EPA 1.

### Context for the EPA

**Rationale:** PEM physicians provide care for a wide range of patients with various complaints, disease states, injury, and acuity, often in the setting of incomplete information and time/resource constraints.

**Scope of Practice:** The PEM physician must be prepared to provide care for any patient presenting with any complaint. Care of the patient begins either in the pre-hospital setting through online medical direction or upon arrival to the ED. Practice sites (academic versus community) may differ in terms of availability of subspecialty support and patient acuity, complexity, and volume. A comprehensive set of skills is required to implement careful decision-making/management and to demonstrate patient centeredness, communication, and clinical capabilities.

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

1. Differentiating between “sick” (acutely ill) and “not sick” (less acute) patients
  - Recognizes spectrum of acuity in which patients present to the ED
  - Identifies and distinguishes unstable and potentially unstable patients
  - Initiates medical intervention to stabilize those critically ill or injured patients in whom a complete medical history is unavailable or obtaining details can be delayed
  - Observes, monitors, and reassesses patients for clinical changes that may alter their ED care plans



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2. Performing age- and developmentally appropriate, focused but detailed history and physical exam, with consideration of the anatomic, physiologic, developmental, and psychological differences of children as compared to adults
  - Gathers essential and accurate patient information
  - Demonstrates thorough and efficient data gathering
  - Organizes and synthesizes data for real-time development of differential diagnoses
3. Developing a complaint-based and age-appropriate differential diagnosis using evidence-guided reasoning and pattern recognition or illness scripts
  - Applies established and evolving evidence and principles in biomedical, clinical, epidemiological, and social-behavioral sciences pertaining to the practice of PEM
  - Evaluates patients with undifferentiated chief complaints and discriminates between medical, surgical, psychiatric, and/or social etiologies of that complaint
  - Explains pathophysiology of likely etiologies
  - Recognizes patterns/illness scripts and applies key evidence for development of differential diagnoses (DDx) based on signs and symptoms
    - Demonstrates ability to develop clinical questions; uses PICO (Patient problem or population, Intervention, Comparison, and Outcome) format when applicable
    - Searches, appraises, and interprets the literature for evidence focusing on the highest-grade evidence available
    - Applies the evidence to DDx development in the context of the individual patient
4. Developing and initiating a prioritized diagnostic evaluation and therapeutic management plan that is complaint/disease specific, evidence-guided, culturally competent, and cost effective
  - Identifies and applies key evidence-based guidelines for development of patient care plans
    - Orders diagnostic testing based on the probability of disease and likelihood of test results altering or supporting management
    - Develops clinical questions, searches the medical literature, and applies evidence to the development of individualized patient care plans
  - Optimizes patient care with use of information technology
  - Acknowledges and addresses culturally or socially related matters that may affect patient care delivery
  - Ensures diagnostic testing and medication orders are timely and accurately written
  - Accurately interprets diagnostic test results
  - Selects appropriate medications and therapeutic interventions to address immediate and ongoing patient needs
  - Performs procedures for emergent and urgent conditions (see Pediatric Emergency Medicine EPA 3 for details)
  - Communicates effectively with and facilitates care delivered by consultants to optimize patient care
  - Coordinates a multidisciplinary team to implement management plans



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5. Utilizing documentation habits that ensure accurate reporting of patient encounter
  - Documents a complete ED encounter, including history, physical exam, medical decision-making, ED course, and plan of care
  - Ensures complete documentation of procedures performed in the ED, including obtaining informed consent or assent, supervising or performing procedures, and documenting outcomes including any complications
  - Efficiently communicates patient care information in a concise and appropriate manner to facilitate quality care and comply with regulatory agencies and third-party requirements
6. Demonstrating family centeredness with informed and/or shared decision-making with patients/families that is developmentally appropriate and within state statute
  - Displays responsiveness to the needs of patients and their families
  - Displays responsiveness to ED staff concerns and recommendations for patient care
  - Recognizes that governmental privacy laws vary by age, custodial, and emancipation status
  - Explains medical decision-making processes and plans of care to patients and family; allows opportunity for them to voice their concerns and share in the decision-making of the care plan
  - Encourages family presence and input to the degree desired by each family
  - Delivers difficult news effectively
  - Counsels patients and their caregivers to ensure their understanding of all instructions; addresses language, socioeconomic, religious, and cultural barriers when needed
  - Displays humanism, compassion, integrity, and respect for others
7. Activating appropriate nonmedical personnel (e.g., law enforcement, social work, crisis management, financial counseling, pastoral services) as necessary
  - Utilizes resources available within the system to optimize care delivery
  - Activates resources when needed, taking into account particular contexts for individual patients
  - Coordinates care such that patients' social determinants of health are assessed and addressed
8. Developing appropriate patient dispositions
  - Uses sound judgment to determine when problems require hospitalization for further management
    - Determines the most appropriate inpatient level of care based on patient needs and institutional protocols and resources
    - Determines the most appropriate service (medical vs. surgical vs. psychiatric) to assume care of patients during their hospitalization
  - Uses sound judgment to determine when problems can be managed at home and coordinates discharge with appropriate follow up
    - Discusses and considers the home environment in making decisions about readiness for discharge
    - Asks direct questions about concerns that caregivers have about the patient's care
    - Gauges family understanding of health problems



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- Ensures adequate outpatient follow-up plans
- Ensures prescriptions are written accurately with weight and standard dosing recommendations
- Provides and reviews written discharge instructions inviting questions from the family
- Delivers instructions in the patients' language of preference

### 9. Transitioning patient care to other providers

- Appreciates the high-risk nature of transitions and the potential for convergence of cognitive biases that occur at the time of handoffs
- Uses a handover process that is standardized across the patient care unit or health system
- Transmits synthesized clinical information, avoiding errors of omission or commission
- Anticipates and discusses potential issues in patient care with the receiver of the handoff
- Engages in closed-loop communication that allows for deliberative inquiry, check-backs (provider), and clarifying questions (receiver)

## References

- American Board of Pediatrics Subboard of Pediatric Emergency Medicine. Content Outline Pediatric Emergency Medicine Subspecialty In-training, Certification, and Maintenance of Certification Examinations. <https://www.abp.org/content/content-outlines-subspecialties>
- 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>
- American Board of Emergency Medicine Initial Certification Task Force. KSAs and Standards 2015.
- 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 1 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

The authors of this work would like to thank the American Academy of Pediatrics Section on Emergency Medicine (AAP SOEM) Executive Committee for their support of this project as well as all members of the AAP SOEM Fellowship Subcommittee for their input and review of this project.



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### Project Contributors

Deborah Hsu, MD MEd Project Leader Baylor College of Medicine Texas Children's Hospital Houston, TX	Michele M. Nypaver, MD Project Co-Leader University of Michigan Ann Arbor, MI	Maybelle Kou, MD Project Co-Leader Inova Children's Hospital Falls Church, VA
Todd P Chang, MD, MAcM University of Southern California Children's Hospital of Los Angeles Los Angeles, CA	Jennifer Chapman, MD Children's National Medical Center Washington, DC	Deanna Dahl-Grove, MD Rainbow Babies and Children's Hospital Cleveland, OH
Charles Eldridge, MD Washington University in St. Louis St Louis Children's Hospital St. Louis, MO	Daniel M. Fein, MD Albert Einstein College of Medicine Children's Hospital at Montefiore Bronx, NY	Viday Heffner, MD Children's Hospital of Wisconsin Wauwatosa, WI
Bruce Herman, MD University of Utah Primary Children's Hospital Salt Lake City, UT	Joseph B. House, MD University of Michigan Ann Arbor, MI	Elizabeth Jacobs, MD Rhode Island Hospital/Hasbro Children's Hospital Alpert Medical School of Brown University Providence, RI
Ann Klasner, MD, MPH University of Alabama Birmingham, AL	Chris Kennedy, MD Children's Mercy Hospital Kansas City, MO	Melissa Langan, MD, MHS Yale University School of Medicine New Haven, CT
Angela Lumba-Brown, MD Washington University in St. Louis St. Louis Children's Hospital St. Louis, MO	Manu Madhok, MD MPH Children's Hospitals and Clinics of Minnesota/Health Partners Institute of Education and Research Minneapolis, MN	Constance McAnaney, MD Cincinnati Children's Hospital Medical Center Cincinnati, OH
Matthew Mittiga, MD Cincinnati Children's Hospital Medical Center Cincinnati, OH	Joshua Nagler, MD, MHPEd Boston Children's Hospital Boston, MA	Jose Ramirez, MD Arnold Palmer Hospital for Children Orlando Health Program Orlando, FL
Stacy Reynolds, MD Carolinas Medical Center Levine Children's Hospital Charlotte, NC	Cindy Ganis Roskind, MD Columbia University Medical Center Children's Hospital of New York- Presbyterian New York, NY	Sally Santen, MD, PhD University of Michigan Ann Arbor, MI
Curt Stankovic, MD Children's Hospital of Michigan Detroit, MI	M. Olivia Titus, MD Medical University of South Carolina Charleston, SC	Tonya Thompson, MD, MA University of Arkansas for Medical Sciences Arkansas Children's Hospital Little Rock, AK
Pavan Zaveri, MD, MEd Children's National Medical Center Washington, DC	Noel Zuckerbraun, MD, MPH Children's Hospital of Pittsburgh Pittsburgh, PA	