EPA 5: Emergency Department Management: Manage the Emergency Department to Optimize Patient Care

Supervision Scale for This EPA

1. Trusted to participate only  
2. Trusted to execute with direct supervision and coaching  
3. Trusted to execute with indirect supervision with supervisor immediately available to assist when needed  
4. Trusted to execute with indirect supervision but may require coaching to manage a few complex issues  
5. Trusted to execute without supervision

Description of the Activity

Pediatric emergency medicine physicians must be able to integrate and manage emergency situations within a health system to meet the needs of children and to provide optimal health care.

The specific functions which define this EPA include:

1. Ensuring overall efficient processing of patients from the prehospital setting to ED disposition  
2. Facilitating efficient patient flow through the ED  
3. Ensuring adequate ED preparedness (staffing and resources)  
4. Anticipating and recognizing capabilities and limitations of the ED, hospital, and geographic region  
5. Managing hazardous exposures  
6. Identifying and responding to high patient flow situations (e.g., surge, disaster)  
7. Assessing department capacity, personnel allocation, and utilization of resources to ensure quality care to and safety of patients

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 competencies labeled in the format used on the Pediatric Subspecialty or Emergency Medicine Milestone Projects.**
Context for the EPA

**Rationale:** Pediatric emergency medicine physicians must be able to integrate and manage emergency situations within a health system to meet the needs of children and to provide optimal health care.

**Scope of Practice:** Care of the patient begins in the prehospital setting through online medical direction, during the delivery of management recommendations prior to and during transport of a patient from another hospital, or on arrival of the patient to the ED. PEM physicians must manage emergency situations within a health system for pediatric patients of all ages from the newborn to young adult. Managing a fluctuating patient population and dynamic staffing is core to the practice of PEM.

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

1. **Ensuring overall efficient processing of patients from the prehospital setting to ED disposition**
   - Demonstrates knowledge of components and capabilities of the emergency medical system (EMS)
     - Differentiates EMS provider levels and scopes of practice. Recognizes that these may be dependent on local medical control
     - Demonstrates familiarity with indirect medical control efforts: equipment lists, treatment protocols, criteria for dispatch, the system’s quality and safety programs, and triage
     - Provides direct medical control when necessary. Communicate real-time, online, or on-site with out-of-hospital EMS providers to assist with interventions, triage, and transport decisions
   - In the ED, provides rapid and comprehensive processing of patients from prehospital providers while simultaneously initiating appropriately detailed care for patients to ensure seamless transitions of care

2. **Facilitating efficient patient flow throughout the ED**
   - Prioritizes and implements the evaluation and management of multiple patients in the ED; manages interruptions and switches tasks as necessary
• Initiates care commensurate with acuity. Provides medical intervention in the context of incomplete information of the patient’s presenting history and physical exam findings in appropriate patients such as for those whom
  - Diagnostic testing may be ordered while they are waiting for a complete evaluation by an ED provider.
  - Therapeutic measures may be initiated while they are waiting for a complete evaluation by an ED provider.

• Arranges for and/or facilitates patient admission, discharge, observation, or transfer as appropriate
• Coordinates, educates, or supervises members of the patient management team
• Facilitates and coordinates care delivered by consultants; minimizes delays in care delivery
• Utilizes appropriate hospital resources

3. Ensuring adequate ED preparedness (staffing and resources)

• Ensures adequate ED staffing to match projected patient needs
• Continuously monitors and assesses ED conditions
• Identifies, matches, and allocates emergency resources to optimize patient care. Such resources include:
  - Equipment availability
  - Personnel availability
  - Space capabilities

• Takes into consideration the immediate ED, hospital, and geographic region accessibility of such resources as the situation requires

4. Anticipating and recognizing capabilities and limitations of the ED, hospital, and geographic region

• Plans solutions for ED overcrowding and critical care unit and inpatient unit capacity levels and utilizes potential diversion mechanisms
• Implements a hospital/institutional level incident management plan that integrates with community response agencies
• Implements ongoing communication to monitor and survey existing and changing capabilities and capacity in the ED unit, hospital, and region

5. Managing hazardous exposures

• Identifies agents requiring decontamination
• Recognizes patient exposures and conditions that require hazardous materials isolation
• Plans triage, decontamination, and health care worker protection for exposures

6. Identifying and responding to high patient flow situations (e.g., surge, disaster)

• Employs efficient processes for diagnostic testing and follow-up
• Identifies and addresses communication barriers
Entrustable Professional Activities
EPA 5 for Pediatric Emergency Medicine

- Assesses available resources and demonstrates appropriate resource utilization
- Plans for intake of patients from EMS and those who walk into the ED
- Plans for social support structure; specific to the pediatric population is caregiver issues
  - Keeps children with their caregivers if possible
  - Provides necessary support and/or supervision for unaccompanied minors
- Answers “parent” calls
- Addresses public and media questions

7. Assessing department capacity, personnel allocation, and utilization of resources to ensure quality care to and safety of patients

- Utilizes policies and procedures related to ED operations
- Promotes safety by addressing behavioral and cognitive skills needed to effectively manage all available resources in a crisis situation. Demonstrates effective nontechnical skills such as communication, teamwork, situational awareness, and leadership
  - Acquires and analyzes ED data and operational metrics
  - Integrates the use of a “real-time” ED dashboard
- Identifies issues related to patient safety and medical errors. Utilizes a standardized error reporting system that seeks to understand, categorize, and decrease system failures as opposed to placing blame on individuals
- Applies principles of quality improvement in the development and implementation of initiatives that provide system level changes to ensure safe, effective, patient centered, efficient, timely, and equitable health care for all patients

References

- ACGME Program Requirements for Graduate Medical Education in Pediatric Emergency Medicine.
- ACGME Program Requirements for Graduate Medical Education in 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,
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.
## Project Contributors

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