EPA 3: Diagnosis and Management of Patients with Arrhythmias and Conduction Abnormalities

Supervision Scale for This EPA

1. Trusted to observe only
2. Trusted to diagnose and manage with direct supervision and coaching
3. Trusted to diagnose and manage patients with simple arrhythmias and conduction abnormalities with indirect supervision but may require direct supervision for patients with complex or life-threatening arrhythmias or conduction abnormalities
4. Trusted to diagnose and manage patients with indirect supervision but may require discussion for a few complex cases
5. Trusted to manage patients without supervision

Description of the Activity

Upon completion of a general pediatric cardiology fellowship, the individual must be able to diagnose and treat basic arrhythmias and conduction disorders which can be seen in both the child with congenital heart disease and the child with a structurally normal heart.

The specific functions which define this EPA include:

1. Obtaining essential information and testing
2. Knowing the underlying mechanisms of cardiac electrical conduction/rhythm generation and indications for electrocardiography (ECG), exercise testing, Holter monitoring, and event recording as well as knowing the basics of invasive EP
3. Performing an ECG, Holter recording, exercise test, or event recording
4. Interpreting ECGs, exercise testing, Holter monitoring, and event recording, along with clinical integration of basic invasive EP data and aligning with comprehensive differential diagnoses
5. Treating electrical abnormalities and knowing when to consult EP experts
6. Communicating and documenting treatment options and management plans effectively to patients, families, referring physicians, and health care professionals

Judicious Mapping to Domains of Competence

✓ Patient Care
✓ Medical Knowledge
  Practice-Based Learning and Improvement
✓ Interpersonal and Communication Skills
  Professionalism
**Entrustable Professional Activities**  
**EPA 3 for Pediatric Cardiology**

**Systems-Based Practice**  
✓ Personal and Professional Development

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

| PC 6: | Using optimal clinical judgment |
| PC 7: | Developing management plans |
| MK 1: | Demonstrating knowledge |
| ICS 4: | Working as a member of a health care team |
| ICS 6: | Maintaining medical records |
| PPD 1: | Engaging in help seeking behaviors |

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**Context for the EPA**

**Rationale:** Pediatric electrophysiology (EP), the scope of which is the care of conduction and rhythm abnormalities in pediatric patients and adults with congenital heart abnormalities, is an essential part of being a pediatric cardiologist. It is also important to have an understanding of electrophysiology as it relates to screening for the above abnormalities.

**Scope of Practice:** This includes the knowledge and skill needed in performing, interpreting, and reporting basic noninvasive EP tests (e.g., ECG, Holter recording, event recording, exercise ECG) as well as basic pacing and pacemaker troubleshooting. It also includes the knowledge and skill to manage basic conduction and rhythm abnormalities (e.g., supraventricular tachycardia in a structurally normal heart, perioperative arrhythmia after congenital heart surgery, and fetal arrhythmias). Finally, it also includes the knowledge of indications and limitations of other more invasive EP testing and procedures and when to refer to an EP specialist.

**Setting:** General inpatient, intensive care unit, and outpatient. Consultation may be routine or acute/emergent.

**Patient Population:** Fetus, infant, child, adolescent, and adult.