## Curricular Components for Neonatology EPA

<table>
<thead>
<tr>
<th>1. EPA Title</th>
<th>Manage patients with acute, common single system diseases in an inpatient setting</th>
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| 2. Description of the activity | The ability to manage neonates and infants requiring hospitalization for common acute disease processes is a key activity of a neonatologist. This includes performance of all indicated procedures associated with the subspecialty. The critical functions of this activity include:  
  • Gathering essential information through history taking, physical exam, and judicious laboratory evaluation.  
  • Sound clinical reasoning allowing development of a prioritized differential diagnosis to allow the proper diagnostic tests to be performed.  
  • Knowing or acquiring knowledge of the evidence related to the primary problem, taking gestational age into consideration as appropriate.  
  • Applying the evidence to the patient’s care in developing a management plan that addresses the primary problem, the need for hospitalization, plans for nutritional support, discharge criteria, and follow-up plans.  
  • Placing the patient at the center of all management decisions to provide patient and family centered care by engaging in bidirectional communication with caregivers and parents.  
  • Disseminating the therapeutic plan and clinical reasoning in a manner that is transparent to all members of the health care team. |
| 3. Judicious mapping to domains of competence | x  Patient Care  
  _____  Medical Knowledge  
  _____  Practice-based Learning and Improvement  
  x  Interpersonal & Communication Skills  
  _____  Professionalism  
  _____  Systems-based Practice  
  _____  Personal and Professional Development |
| 4. Competencies within each domain critical to entrustment decisions | PC 1: Gather info  
  PC 2: Organize prioritize  
  PC 5: Physical exam  
  PC 6: Clinical judgment  
  PC 7: Management  
  PC 8: Procedures  
  ICS 1: Communicate with patients |
5. Curricular components that support the functions of the EPA (knowledge, skills and attitudes needed to execute this EPA safely):

Rationale: Neonatologists must be able to provide care for neonates and infants who present with a broad range of illnesses, including those that predominantly affect a single organ system. Care of these patients must take into consideration relevant pregnancy and delivery circumstances and the gestational age of the infant. Common, single system diseases can evolve to include multiple systems and greater complexity. The neonatologist must anticipate these potential complications and recognize when they occur. It is beyond the scope of this document to attempt to identify all of the single system diseases for which a neonatologist would be responsible; rather, it includes common, illustrative problems with which a practicing neonatologist will see commonly.

Scope of Practice: Care of newborns and infants with illnesses included in this EPA is provided in a number of different contexts. In some cases, the neonatologist may act as a consultant to a general pediatrician or family physician who is primarily responsible for these babies. In other cases, the neonatologist may be the primary provider.

Curricular components that support the functions of this EPA include:

- Gathering essential information through history taking, physical exam, and judicious laboratory evaluation.
  - Gathers information efficiently, utilizing pattern recognition when appropriate.
  - Recognizes pertinent positives and negatives as well as broad diagnostic categories.
  - Performs, elicits, recognizes and interprets the findings of most physical exam maneuvers correctly. Recognizes the relevance of test results in relation to care of the patient.

- Sound clinical reasoning allowing development of a prioritized differential diagnosis to allow the proper diagnostic tests to be performed.
  - Establishes pattern recognition leading to the ability to identify discriminating features between similar patients and avoids premature closure.
  - Develops a well-organized and comprehensive yet focused management plan based on a prioritized differential diagnosis.
  - Considers cost implications of testing when developing management plan.

- Knowing or acquiring knowledge of the evidence related to the primary problem, taking gestational age into consideration as appropriate.
  - Able to evaluate knowledge/level of evidence and use it appropriately in a given encounter to develop meaningful clinical management plans.
  - Aware of limits. Able to effectively search literature to support decision-making.
  - Learns from experience; analyzes a situation, evaluates what worked well and what did not work well in past.
  - Adapts management plan based on gestational age of the infant and
circumstances of birth.

- Recognizes benefit of and employs established protocols/care pathways in providing care, when appropriate.

**Applying the evidence to the patient’s care in developing a management plan.**

- Incorporates pertinent evidence in establishing management plan.
- Provides care to newborns with a broad spectrum of diseases that primarily affect a single organ system and are of lower complexity and acuity. Examples include (but are not limited to) the following problems:
  - Transient tachypnea of the newborn
  - Congenital pneumonia
  - Pneumothorax
  - Cleft lip and/or palate
  - Isolated airway anomalies
  - Cardiac arrhythmias
  - Gastroesophageal reflux
  - Seizures
  - Stroke
  - Neural tube defects
  - Isolated intracranial hemorrhage
  - Palsies (birth-related or congenital)
  - Urinary tract infection
  - Omphalitis
  - Cellulitis
  - Meningitis
  - Hyperbilirubinemia
  - Hemolytic diseases
  - Hypoglycemia
  - Hypo/hyperthyroidism
  - Individual, low acuity issues associated with moderate prematurity, including:
    - Thermoregulation
    - Feeding difficulties
    - Apnea and bradycardia
- Demonstrates the ability to anticipate and recognize the potential involvement of other organ systems.
- Demonstrates knowledge and skills required to initiate/apply multiple therapies, including:
  - Arterial and venous access
  - Ventilator management, including high frequency ventilation
  - Intravenous fluids and nutrition
  - Antibiotics
  - Vasoactive medications
- Phototherapy
- Exchange transfusion

**Placing the patient at the center of all management decisions**
- Incorporates parents’ assumptions and values into management plans through bidirectional communication with little interference from personal biases.
- Includes family in a shared decision making process.

**Disseminating the therapeutic plan and clinical reasoning in a manner that is transparent to all members of the health care team**
- Establishes and maintains a therapeutic alliance with parents and families.
- Tailors communication appropriately to colleagues, staff and families.
- Identifies and effectively mitigates cultural, social, and psychological barriers to communication.