

7. PEM Subspecialty Resident Rotation in Neonatal Intensive Care

Goals: To train the fellow to care for newborns in the delivery room and neonatal intensive care unit.

Objectives:

After completing this rotation, the fellow will demonstrate the ability to:

Patient Care

1. Perform the initial stabilization of all newborns regardless of gestational age including delivery room resuscitation of babies born in distress.
2. Manage premature babies with skull to recognize pulmonary, cardiovascular, GI and CNS problems related to prematurity.
3. Carry out a gestational age exam, identify congenital defects and to manage common problems of the newborn including, but not limited to, hypoglycemia, hyperbilirubinemia and feeding problems.
4. Recognize serious newborn conditions such as sepsis, respiratory distress, NEC, intracranial bleeds and congenital heart disease.
5. Manage critically ill infants with assisted ventilation, blood pressure support, parenteral nutrition and other ICU treatments.
6. Obtain the crucial elements of the prenatal history and interpret maternal labs and their relationship to newborn problems.
7. Perform a complete newborn physical exam.
8. Perform the following procedures:
 - a. Arterial Puncture
 - b. Umbilical Line Placement
 - c. Laryngoscopy and Intubation
 - d. Surfactant Replacement
 - e. Bag and Mask Ventilation
 - f. Lumbar Puncture
 - g. Thoracentesis
9. Apply concepts in preventative health care maintenance for the newborn.
10. Work as part of a health care team.

Medical Knowledge

1. Discuss basic newborn medicine for both term and preterm infants to include, but not limited to:
 - a. Hypoglycemia
 - b. Polycythemia
 - c. Hyperbilirubinemia
 - d. Early Onset and Nosocomial Infections
 - e. Respiratory Distress in Term and Pre-term Infants
 - f. Seizures
 - g. Intracranial Bleeds
 - h. Complications of Prematurity
 - i. Neonatal Outcome
 - j. Ventilatory Technologies and CPAP
 - k. Neonatal and Parenteral and Enteral Nutrition
2. Apply his or her knowledge in a clinical setting.

3. Utilize printed material, web-based material and other resources in self-directed acquisition of knowledge.
4. Attend all teaching conferences.

Practice-based Learning and Improvement

1. Develop skills to evaluate their care and learn through their experience.
2. Apply basic principles of evidence based medicine to their practice.
3. Utilize educational materials and their preceptors to continually enhance knowledge and procedural skills.
4. Identify areas of weakness to trigger and organized plan with their preceptor or Program Director to grow and improve in those areas.
5. Attend mandatory monthly Journal Club.
6. Participate in QI activities.

Interpersonal and Communication Skills

1. Develop clear and effective communication with their parents and families, staff, preceptors and consultants.
2. Listen effectively to patients, families, preceptors and staff.
3. Present cases in a well-organized and complete manner.
4. Participate in multidisciplinary care conferences with families to begin to develop skills in the delivery of bad news and end of life discussions.

Professionalism

1. Maintain confidentiality of patient information according to hospital and HIPAA regulations.
2. Demonstrate sensitivity, compassion and respect for families, staff and other colleagues.
3. Present him or herself in a dignified fashion.
4. Adhere to principles of ethics and obtain informed consent for all procedures.
5. Respect gender and cultural sensitivity.
6. Respond to pages and messages promptly.
7. Be punctual and respectful of others' time.

Systems-based Practice

1. Participate with the care team in multi-disciplinary rounds.
2. Access and utilize community resources.
3. Provide cost-effective health care and resource allocation.
4. Assist patients and families in negotiating the complexities of the health care system.

Policies on Duty Hours, Call Schedule, Supervision, Back-up Call, On-Call Activities and Expectations during Neonatal Intensive Care Unit

Duty Hours and Call Schedule: The PEM fellows are on call in-house an average every 4th night. During in-house call fellows are provided with a sleep room, shower, and lounge and food facilities. Distribution of time during this month is 100% clinical.

- a. Duty hours are defined as all clinical and academic activities related to the residency program, i.e., patient care (inpatient and outpatient), administrative duties related to patient care, the provision for transfer of patient care, time spent in-house during call activities and scheduled academic activities such as conferences. Duty hours do not include reading and preparation time spent away from the duty site.
- b. Duty hours must be limited to 80 hours per week, averaged over a four-week period, inclusive of all in-house call activities.

- c. Residents must be provided with 1 day in 7 free from all educational and clinical responsibilities, averaged over a 4-week period, inclusive of call. One day is defined as one continuous 24-hour period free from all clinical, educational and administrative activities.
- d. Adequate time for rest and personal activities must be provided. This should consist of a 10-hour time period provided between all daily duty periods and after in-house call.

Supervision: PEM fellows will be under the supervision of the neonatology attendings or senior fellows for clinical decision making and the performance of procedures. All attending physicians are subspecialty board certified or board eligible in Neonatology.

Evaluation: Neonatology faculty are responsible for supplying the program director with a written evaluation of the fellow's rotation and informing the fellow and program director of any problems or issues which may arise during the month.

Back-up Call: In the event of excessive clinical activity during a call night, the back-up for additional assistance is with the attending on call. In an unexpected absence, calls are expected to be taken over by other fellows or residents in the call pool of the fellow who is absent. In the event that the fellows and residents cannot arrive at satisfactory sharing of this responsibility, the program director will assign back-up call duties.

On-Call Activities: The objective of on-call activities is to provide fellows with continuity of patient care experiences throughout a 24-hour period. **"In-house call"** is defined as "those duty hours beyond the normal workday when residents are required to be immediately available in the assigned institution."

Expectations: As a member of the neonatal intensive care team, PEM fellows are expected to help the general pediatric residents and neonatology fellows in the care of the NICU patients, and assist with the daily progress notes. They are also expected to contribute to discussions of patients during daily rounds. At any given time the PEM fellow should be familiar with all of the patients in the NICU. While on call, the PEM fellow is responsible for the care of the existing NICU patients as well as new admissions to the NICU. After 17:00 the neonatology attending is available by phone, but comes to the hospital in person to assist in the care of extremely ill or unstable patients. Procedures must be documented in the procedure log.