

Off-Service Neonatal Intensive Care Unit Rotation Objectives

The goal of the Neonatal Intensive Care Unit (NICU) rotation for trainees in anesthesia is development of an understanding of the common neonatal illnesses, their treatment, and their implications for anesthetic management. In addition, experience in umbilical cord blood gas interpretation and neonatal resuscitation will be stressed.

Medical Expert/Clinical Decision Maker:

KNOWLEDGE

The resident will be able to

- Identify neonates requiring resuscitation
- Describe standards for neonatal resuscitation
- Recognize common neonatal surgical emergencies, their epidemiology and presentation
- Propose appropriate perioperative and anesthetic management of common neonatal surgical emergencies
- Identify common neonatal critical care problems (eg. temperature control, respiratory compromise, fluid and electrolyte disturbances, glucose management and circulatory problems)
- Propose appropriate management plans in both the NICU and the OR for these common neonatal critical care problems
- Recognize possible complications associated with management of underlying patient conditions

SKILLS

The resident will be able to

- Complete a history and physical assessment pertinent to the neonate requiring critical care intervention
- Present a stratified differential diagnosis of the neonate's illness
- Prescribe initial management of the neonate's condition
- Demonstrate the ability to perform peripheral intravenous access
- Demonstrate the ability to perform umbilical artery/vein cannulation
- Demonstrate the ability to perform neonatal airway management, including suctioning, bag and mask ventilation and intubation
- Provide neonatal resuscitation as well as provide a leadership role in neonatal resuscitation by a team
- Interpret common laboratory evaluations in neonatal critical care medicine including umbilical cord blood gases, complete blood count and differential, chest x-ray, etc.

Communicator:

The resident will be able to

- Obtain and document the relevant medical history and physical exam thoroughly and efficiently

- Develop communication skills with other members of the health care team to benefit the patient
- Describe patient information and outline neonatal management plans to the attending neonatologist in a professional and intelligent manner
- Explain neonatal procedures (intubation, umbilical artery/vein cannulation, etc.) to parents or caregivers in a clear and compassionate manner

Collaborator:

The resident will be able to

- Be aware of the role of the neonatology consultant in peripartum management of the neonate
- Be aware of the role of the neonatology consultant in perioperative management of the neonate
- Participate in team neonatal resuscitation
- Describe the importance of the role of each of the members of the neonatal resuscitation team and support them in fulfilling their duties
- Be aware of the contribution of each team member in the team approach to patient care in the NICU
- Describe neonatal conditions warranting preoperative consultation with other team members (eg. anesthesiologist)
- Review management plans and courses of action with the neonatologist or neonatology fellow at all times

Manager:

The resident will be able to

- Be aware of ethical issues faced by neonatologists as they balance individual patient care requirements with limited global resources
- Acknowledge the difficulties and decision-making involved in utilization and allocation of finite health care resources

Health Advocate:

The resident will be able to

- Understand the complex emotional atmosphere surrounding delivery of a newborn and be able to act as an advocate for the family in the medical environment
- Provide appropriate education to ensure parents or caregivers are well informed regarding neonatal care management plans

Scholar:

The resident will be able to

- Teach medical students, under supervision of staff, about clinical problems

- Demonstrate critical enquiry of a clinical question that they have raised or that has appeared during teaching discussions

Professional:

The resident will be able to

- Demonstrate integrity and honesty when interacting with neonates, families, and other health care professionals
- Be punctual, efficient, and respectful at all times
- Be empathetic with families of neonates with critical illnesses

Evaluation:

- There will be daily direct consultant or neonatal fellow supervision of the resident with immediate ongoing feedback regarding both knowledge and skills acquisition
- Input from nursing and allied health professionals regarding the anesthesia resident's performance (attitudes, interaction with staff, parents, etc.) is invited
- An end-of-rotation written "off-service" in-training evaluation will be completed and discussed with the resident and signed by both the resident and the preceptor