

Family Medicine Residency
Neonatal Intensive Care Rotation

Rotation Goal

This rotation is conducted in a Level 2c intensive care nursery. During the rotation, residents actively participate in the evaluation and care of newborns. Residents become acquainted with neonatal assessment, pathophysiology, resuscitation, and intensive care. Residents are primarily precepted by attending neonatologists and neonatal nurse practitioners.

At the conclusion of this rotation, the resident should:

1. Perform an initial assessment and evaluation of a newborn infant and determine the need for resuscitation.
2. Demonstrate competence in neonatal resuscitation and related skills

Weekly Schedule

Monday:

8:30-12:00: Patient Care

Noon: Family Practice Conference

PM: NICU for deliveries, transports, teaching

Tuesday:

8:30-12:00 Patient Care

Noon: Family Practice Conference

PM: Patient Care in NICU Follow-up Clinic (3 South)

Wednesday

8:30- 12:00 Patient Care

Noon: Family Practice Conference

PM: NICU for deliveries, transports, teaching

Thursday:

8:30-12:00: Patient Care

Noon: Family Practice Conference

PM: NICU for deliveries, transports, teaching

Friday:

AM & PM: Family Practice Clinic

Residents will participate in Family Medicine call and observe work-hour requirements.

Required Monthly Meetings

- Second Monday- Perinatology/Neonatology Meeting
- Last Friday (usually) – NICU Grand Rounds

Supervision

All activities on the NICU Rotation will be supervised by a member of the Department of Neonatology. The physician on the service will be readily available. Supervising physicians include Donna-Jean Walker, MD, Jose Go, MD, Scott Gutherie, MD, Debbie Stubblefield, NNP, Mary Lou Adams, NNP, and Lisa Cashion, NNP.

Rotation Objectives

By the end of the Neonatal Intensive Care rotation, PGY II & III residents are expected to expand and cultivate skills and knowledge learned during previous training and to achieve the following objectives based on the six general competencies. The resident should exhibit an increasing level of responsibility and independency as he or she progresses throughout the year.

Competency	Required Skill(s)	Teaching Method(s)	Formative Evaluation Method(s)	Frequency of Evaluation
Patient Care	SPECIALTY SPECIFIC OBJECTIVES			
	Perform an initial assessment and evaluation of a newborn infant and determine the need for resuscitation.	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
	Demonstrate competence in neonatal resuscitation and related skills	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
	Formulate assessments and plans for patients	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
	Accompany the neonatal transport team when appropriate and time permits	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
	Under direct supervision perform the following procedures relevant to the care of neonates in the intensive care unit: 1. Attended deliveries (minimum 3) 2. Bag-Mask Resuscitations (1) 3. PIV Insertions (3) 4. Arterial punctures (2) 5. Umbilical catheters (1) 6. Intubation attempts (1) 7. Lumbar punctures (1) 8. Transport (encouraged) 9. Tube thoracostomy (encouraged)	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
	Perform evaluations of neonates including the calculation of APGAR scores	NICU Grand Rounds Daily Rounds	Direct Feedback Global Evaluation	Daily Monthly

		Self Directed Learning	360 Degree Evaluation Case Discussion	Monthly End of rotation
	Evaluate laboratory test results and correlate them to disease pathophysiology	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
Medical Knowledge	SPECIALTY SPECIFIC OBJECTIVES			
	Demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social-behavioral sciences, as well as the application of this knowledge to the care of premature infants and former premature infants with chronic medical problems	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
	Develop and apply knowledge of the pathophysiology, recognize physical findings to patient care, and demonstrate appropriate management of common neonatal pathological conditions such as <ul style="list-style-type: none"> a. Meconium-stained amniotic fluid b. Perinatal asphyxia c. Respiratory distress d. Cyanosis e. Apnea f. Seizures g. Hypoglycemia h. Evaluations of possible sepsis i. Developmental dysplastic hip j. Birth-related injuries k. Anemia l. Rh and blood type incompatibility m. Polycythemia n. Jaundice o. Premature and post-date gestations p. Maternal infections (HIV, Hepatitis, etc.) 	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
	Develop knowledge and skills of neonatal resuscitation and participate in neonatal resuscitation and management including the following: <ul style="list-style-type: none"> a. Positioning and tactile stimulation; b. Thermal regulation; 	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation

	<ul style="list-style-type: none"> c. Airway management (suctioning, endotracheal intubation, gastric tube insertion); d. Ventilation with a bag valve mask device and/or anesthesia bag; e. Establish vascular access including UVC line placement; and f. External chest compressions. 			
	<p>Develop the knowledge of the following relevant to the care of neonates:</p> <ol style="list-style-type: none"> 1. Stabilization of critically ill neonates 2. Performance of procedures on neonates. 3. Neonatology ethics 	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
	Demonstrate an understanding of the pathophysiology and physical findings associated with prematurity and learn the principles of detailed management of such conditions and the physiology and recognize physical findings of the normal perinatal transition.	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
	Integrate the basic principles of precise fluid, electrolyte, and nutrition management into patient care	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
	Analyze the pharmacologic agents (or categories thereof) used in the management of critically ill neonates	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
	Summarize mechanical ventilation in the neonate and the various modes of ventilation used in the neonates	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
	Observe complex neonatal care and learn the risk factors leading to such care and the appropriate convalescent management	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
Practice Based Learning and Improvement	SPECIALTY SPECIFIC OBJECTIVES			
	See General Family Medicine Objectives for a comprehensive list.			

	Develop tools to help meet the needs of patients and families.	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
	Recognize own level of competence in handling rheumatology problems and the need for further consultation as appropriate.	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
	Facilitate learning of medical students, residents and other health care professionals to encourage quality improvement in patient care	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
Interpersonal and Communication Skills	SPECIALTY SPECIFIC OBJECTIVES			
	See General Family Medicine Objectives for a comprehensive list.			
	Communicate effectively with families while in the presence of their daily preceptor.	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
	Educate families about community resources and common disorders/diseases found in neonates	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
	Provide families psychosocial support and counseling as indicated	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
	Convey information in a clear and concise manner to patients, families, and other health professionals (i.e., use appropriate vocabulary choice, realistic outcomes, and working with difficult patients and family)	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
Professionalism	SPECIALTY SPECIFIC OBJECTIVES			
	See General Family Medicine Objectives for a comprehensive list.			
	Provide compassionate and high quality care to all patients regardless of gender, age, culture, race, religion, disabilities, sexual orientation or socioeconomic class	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation	Daily Monthly Monthly

			Case Discussion	End of rotation
	Behave in a professional manner when interacting with patients or other health care providers (i.e., integrity, respect, accountability, punctual)	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
Systems-Based Practice	SPECIALTY SPECIFIC OBJECTIVES			
	See General Family Medicine Objectives for a comprehensive list.			
	Incorporate considerations of cost awareness and risk-benefit analysis in patient care	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
	Advocate for quality patient care and optimal patient care systems	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
	Describe the role of various ancillary modalities of patient care that are available including physical therapy, occupational therapy, respiratory therapy, nutrition services and social services	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
	Develop an understanding of coding and billing relevant to neonatal intensive care.	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation
	Utilize community resources that are available to assist physicians in their care of neonates.	NICU Grand Rounds Daily Rounds Self Directed Learning	Direct Feedback Global Evaluation 360 Degree Evaluation Case Discussion	Daily Monthly Monthly End of rotation

Educational Resources

You will receive these textbooks to read during your rotation. Please return them at the end of the rotation in the condition that you receive them. You will not receive credit for this rotation until these books are returned.

1. Neonatal Resuscitation Textbook- review the entire text
2. Manual of Neonatal Care- Read the chapters below and any pertaining to your patients.
 - Chap. 2- Maternal Conditions that Affect the Fetus
 - Chap. 3- Assessment of the Newborn

Chap. 4- Resuscitation in the Delivery Room

Chap. 5- Nursery Care of the Well Newborn

Chap. 15- Follow-up of Very-Low-Birth-Weight Infants

Chap 18- Neonatal Hyperbilirubinemia

Chap 24- Respiratory Distress Syndrome (p329-336)

3. UpToDate.com