Neonatal Intensive Care (NICU) – PGY1 Rotation

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Learning Experience Description
The NICU rotation allows the resident to develop the necessary skills to provide pharmaceutical care for neonatal patients. During the PGY1 year, the resident will participate in patient and topic discussions and have an active role in daily patient rounds with other health care practitioners. The rotation will focus on the development of problem-solving skills in order to identify and solve medication-related problems in NICU patients. The PGY1 resident will become familiar with pharmacotherapy for NICU patients, review key protocols and literature, and begin to assume patient care responsibility, transitioning into a more independent practitioner.

The NICU at Monroe Carell Jr. Children’s Hospital at Vanderbilt is a 78 bed, Level IIIC unit, where the resident will encounter a wide range of disease states and pharmaceutical care needs. There are 4 rounding teams in the NICU, and the pharmacy resident will round with 1 of 2 the intern/resident/fellow/attending teams. The NICU service consists of attendings, fellows, residents, interns, medical students, nurse practitioners, nurses, case managers, dietitians, respiratory therapists, social workers, a clinical pharmacist, and pharmacy residents and/or students.

The resident will be expected to prepare for morning rounds by reviewing all patients on their team and collecting/organizing patient information. Rounds with the multidisciplinary team will typically start at 0830 and end at various times depending on the patient census. In the afternoon, the PGY1 resident will meet with the preceptor to discuss/review patients and their medications, participate in/provide teaching for topic discussions, preparing journal club or case presentations, and other activities that may arise during the month. The resident is encouraged to provide feedback to the preceptor throughout the month to improve learning.

Potential Topic Encountered
- Prematurity and the Neonate
- Nutrition, Fluids, Electrolytes
- Apnea of Prematurity
- Sepsis/Meningitis
- Respiratory Issues in the Neonate
  - CLD/BPD
  - RDS
  - Pneumonia
MAS
○ PPHN
- PDA
- Congenital Heart Defects
- Drug Use in Lactation
- Neonatal Drug Withdrawal
- Infant of a Diabetic Mother
- NEC
- Gastrochisis, Omphalocele
- Congenital Diaphragmatic Hernia
- Neonatal Seizures
- Pain and Sedation
- Perinatal Asphyxia / HIE

**Learning Experience Goals**

R1.4: Demonstrate ownership of and responsibility for the welfare of the patient by performing all necessary aspects of the medication-use system.

R1.5: Provide concise, applicable, comprehensive, and timely responses to requests for drug information from patients and healthcare providers.

R2.1: As appropriate, establish collaborative professional relationships with members of the health care team.

R2.2: Place practice priority on the delivery of patient-centered care to patients.

R2.3: As appropriate, establish collaborative professional pharmacist-patient relationships.

R2.4: Collect and analyze patient information.

R2.5: When necessary, make and follow up on patient referrals.

R2.6: Design evidence-based therapeutic regimens.

R2.7: Design evidence-based monitoring plans.

R2.8: Recommend or communicate regimens and monitoring plans.

R2.9: Implement regimens and monitoring plans.

R2.10: Evaluate patients’ progress and redesign regimens and monitoring plans.

R2.11: Communicate ongoing patient information.

R2.12: Document direct patient care activities appropriately.

R3.1: Exhibit essential personal skills of a practice leader.

R6.1: Utilize medical informatics.

E6.1: Identify a core library, including electronic media appropriate for the practice setting.

E2.5: Resolves conflicts through negotiation.

E7.2: Communicates effectively.

E7.3: Balance obligations to one-self, relationships; and work in a way that minimizes stress.

E7.4: Manage time to effectively fulfill practice responsibilities.
Daily Schedule

**Required Hours**
- As patient care requires (but at a minimum 0700-1530 daily) (R 2.2; R3.1)
- Collect, analyze, and monitor patient data related to pharmacotherapy prior to rounds at 0830 (R 2.2, 2.4)

**Required Rounds/Meetings**
- Actively participate in daily NICU teaching rounds (R 2.1, 2.2, 2.3, 2.5, 2.8, 2.9, 2.10)
- Daily meetings with preceptor in the afternoon to discuss patients and NICU topics (R 2.6, 2.7, 2.9; E7.4; E7.3)
- Other meetings/presentations applicable to NICU assigned by preceptor or attended by your team (R 2.1, 2.4)
- Meet briefly with other healthcare professionals to pass along necessary drug information upon patient transfer (R2.11; R2.5; E7.2)
- Effectively use the institution’s technology and automation systems (StarPanel, HEO, HMM, AdminRx) to collect, analyze, and monitor patient data relating to pharmacotherapy (R6.1)

Learning Experience Activities

**Required projects/presentations/teaching**
- Daily patient case presentations (problem lists and pharmacotherapeutic plans) (R 2.6, 2.7, 2.9)
- Journal club/case presentation (if assigned that month) (R 2.4)
- Education of team members regarding drug information (R 2.1)
- Assist with precepting PharmD students as needed
- Others as assigned by preceptor

**Required Readings**
- A CD of topics, clinical trials, and reviews will be provided (E6.1)
- Applicable literature for disease states and patients encountered during the month
- Review protocols found on VUNeo (http://www.vuneo.org)

**Documentation**
- Document all clinical interventions and drug information responses in the established clinical database (R2.12)
- Provide other documentation as needed (i.e. anticoagulation dashboards, kinetics notes) (R2.12; R2.11; R2.8; R2.5)

**Optional:** *(PGY1 Residency Requirements)*
- Drug Therapy Problem Solving with Self Evaluation (R1.2; R1.4; RE 2.5)
Method of Evaluation
Evaluation of residents will be based on the Resident Learning System (RLS). Evaluation will consist of a summative evaluation upon rotation completion, in addition to any criteria-based checklists submitted by the resident. The specific goals and objectives, on which the resident will be evaluated, will be provided at the beginning of the rotation. Residents will be requested to complete a self-evaluation for all evaluations. Residents will also be required to complete a learning experience evaluation and a preceptor evaluation. Evaluations are completed in the evaluation database. All work to be evaluated on rotation must be turned in for review no later than the last day of the rotation.