

NICU Rotation – Goals and Objectives

Goals:

- To ensure that fellows obtain a broad-based clinical experience in the admission, evaluation, management, and discharge of patients with routine and complex neonatal diseases
- To assist fellows in the development of effective communication skills when interacting with patients, families and staff
- To instruct fellows how to effectively manage delivery room resuscitation of infants with routine and complex neonatal diseases
- To ensure that fellows effectively identify and manage QI issues in the NICU
- To ensure that, during the course of this rotation, our fellows will obtain a broad-based understanding of neonatal surgical problems, as well as pre and post-operative management

Educational Objectives over 3 years of training:

Patient Care

- Accurately assess patient status
 - **First year:** Recognize acutely ill neonate
 - **Second year:** Anticipate changes in patient status thereby mitigating potential morbidity
 - **Third year:** Manage a wide variety of clinical situations, consistently and independently
- Gather appropriate historical, diagnostic and laboratory information on NICU patients (**First year:** proficient)
- Integrate historical, diagnostic and laboratory information into neonatal management plan (**First year:** routine neonatal patient, **Second year:** complex patients; **Third year:** promotes from others)
- Integrate clinical judgement, scientific evidence and parent information/preferences into decision making (**First year:** emerging; **Second year:** proficient, independent; **Third year:** promotes from others)
- Incorporate health care maintenance into patient management plan (**First year:** proficient)
- Incorporate alternate source material into decision making and parent education (**First year:** IT; **Second year:** other health care professionals; **Third year:** consistently and effectively)
- Track relevant laboratory and clinical studies (**First year:** proficient)
- Effectively triage work lists (**First year:** proficient)
- Communicate effectively with parents/families (**First year:** demonstrating caring and respectful behaviors; **Second year:** effectively conducts management conferences; **Third year:** withhold/withdrawal of care)
- **Third year:**
 - Direct rounds effectively and efficiently
 - Manage neonatal resuscitation independently

Procedure Competency

- Intubation: non-emergent, emergent
- Venipuncture
- Arterial puncture
- Umbilical line placement
- Placement of peripheral arterial lines
- Chest tube placement
- PICC line placement
- Management of High frequency ventilator

Medical Knowledge

- Demonstrate an investigative and analytic approach to clinical situations (**First year:** proficient)
- Demonstrate an appropriate level of clinical and basic science knowledge of fetal and neonatal physiology/pathophysiology:
 - **First year:** basic pathophysiology behind common neonatal diseases such as RDS, sepsis, PPHN, etc., and the basic treatment strategies used
 - **Second year:** basic pathophysiology behind complex neonatal diseases such as BPD, multisystem organ failure, etc., and the basic treatment strategies used

Medical Knowledge (Continued)

- **Third year:** fetal diagnostics/therapeutics, integration of complex disease processes, treatment strategies used
- Demonstrate an expanding assimilation of current literature related to fetal and neonatal physiology/pathophysiology (**Second and Third year**)

Practice-based Learning and Improvement

- Effectively track/enter patient information into perinatal/neonatal database
- Evaluate and succinctly synthesize literature
 - the current “state of the art” regarding the topic clinical literature and relate it back to patients (**First year**)
 - a basic knowledge of study design (**First year**)
 - literature on neonatal/fetal topics, especially regarding controversy in the literature (**Second year**)
 - a basic knowledge of statistical methods (**Second year**)
 - in-depth knowledge of study design and statistical methods and consistently applies them in the evaluation of clinical literature (**Third year**)
- Effectively analyze morbidity/mortality data
- Teach residents about pathophysiology and evaluation/treatment of neonatal diseases, physiology and pathophysiology (**First year:** basic information; **Second year:** proficient, interactive; **Third year:** increased complexity)
- Consistently prepared for Clinical Conferences
 - **First year:** concise, focused presentation
 - **Second year:** consistently incorporate consultants/outside speakers
- Collect, distill, and present current literature in the process of developing a clinical consensus document (**by Third year**)

Professionalism

- **First year**
 - Handle telephone communications with consultant, referring and primary care physicians with professionalism
 - Interact well with other health care professionals within the ICU
 - Regularly demonstrate respect, compassion, and integrity
 - Understand the ethical principles of confidentiality and informed consent
 - Demonstrate sensitivity and responsiveness to cultural, gender, age, and disability-related issues
- **Second year**
 - Display accountability to patients, health care professionals, society
 - Understand the ethical principles of provision vs withholding of patient care
 - Responsive to needs of families and health care team
- **Third year**
 - Display a commitment to excellence and ongoing professional development
 - Understand the ethical principles of business practices in patient care
 - Understand the role of professionalism in interactions with families, health professionals, administration, and society

Interpersonal and Communication Skills

- **First year**
 - Participate in discharge planning, especially decisions regarding post-hospitalization equipment, medication, and parent teaching
 - Demonstrate ability to concisely summarize a complicated patient course, including historical and laboratory information
 - Gives succinct and pertinent sign-out to the on-call team at night

Interpersonal and Communication Skills (Continued)

- **Second year**
 - Consistently communicate clinical information to attendings or consultants in concise and relevant manner
 - Display growing proficiency at hierarchical multitasking
 - Consistently work well with all members of health care team
 - Independently and effectively manage upset or angry family members
 - Teach on rounds and during routine resuscitation
 - Adjust teaching to educational level of trainees, health care professionals, parents
 - Teach in an interactive manner
- **Third year**
 - Communicate effectively with families in a wide variety of situations
 - Effectively manage the health care team in coordinating patient care
 - Effectively and efficiently incorporate interactive teaching in all clinical venues
 - Provide appropriate constructive feedback to residents and medical students
 - Consistently formulate accurate attending-level paperwork (notes, etc.)

Systems-based Practice

- **First year**
 - Understand how their patient care and professional practices impact on the division, department, and hospital
 - Participate in resource allocation/bed utilization decisions
 - Participate in discharge planning, especially decisions regarding post-hospitalization equipment, medication, and parent teaching
- **Second year**
 - Understand impact of health care and insurance organizations on their practices
 - Consistently advocate for quality patient care
 - Anticipate discharge planning, especially decisions regarding post-hospitalization equipment, medication, and parent teaching
- **Third year**
 - Understand impact of regional/national legislation on practice
 - Understand the impact of medical malpractice on practice and vice versa
 - Consistently practice cost-effective health care
 - Effectively and appropriately manage patient census and acuity regarding staffing

Clinical Expectations:

- Participate in daily bed management
- Participate in daily rounds
- Be intimately familiar with problem list, management discussions and clinical literature related to patients on your team
- Be familiar with sick patients on all teams
- Participate in Perinatal consultations
- Supervise residents, PAs, NNPs on all teams
- Participate in the care of any acutely ill patient in the NICU
- Assist in completion of the patient database
- Assist in communications with referring physicians, obstetricians

Additional Expectations for Neonatal Surgery:

- Assist in preparation of daily notes/admit notes with NeoSurg attending
- Serve as a resource person for surgical fellows for routine NICU procedures
- Participate in the daytime transport of high risk surgical neonates
- Observe OR cases in OR as time allows
- Attend all OR cases done in the NICU