The Neonatal-Perinatal Medicine Fellowship Program
Medical College of Wisconsin
Children’s Hospital of Wisconsin

PEDIATRIC ANESTHESIA ROTATION
2nd and 3rd year Fellows
GOALS AND OBJECTIVES

(6/10)

The goal of this 2 week rotation is to provide further and more intensive experience in pediatric anesthesia and perioperative care. The fellow will be expected to obtain further experience and facility with the perioperative care of neonates, and to increase his/her knowledge of neonatal and pediatric physiology, pathology, disease states. He/she will be exposed to the perioperative care of neonates and infants with more complex disease states or surgical intervention. The fellow is expected to be involved in decision-making regarding patient care, and to assume more direct responsibility for patient management, though always under the direct supervision of the attending and resident anesthesiologist. Since the rotation occurs once during the latter half of your training and the goal is not to demonstrate expertise but familiarity with the anesthetic process, the following objectives are universal for both 2nd and 3rd year NICU fellows.

1. Patient Care
   Fellows must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of neonatal health problems and the promotion of neonatal health. Hence, fellows are expected to:
   a. Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families
   b. Gather essential and accurate information about their patients by:
      • Obtaining a current and past medical patient history, with specific emphasis on the current medical conditions(s) for which the patient is presenting for surgery. Important preoperative information should include:
        1. medications/allergies
        2. past surgeries
        3. past anesthesia and possible problems/complications for the patient or family
        4. appropriate lab data
        5. co-morbidities, including appropriate information from other specialties (i.e. Cardiology, pulmonary, neurology, genetics, etc.)
        6. presence of syndromes
        7. developmental assessment
      • Performing a focused physical examination including:
        1. weight
        2. assessment of physical distress
        3. respiratory distress, cardiovascular stability, level of hydration and consciousness/alertness,
        4. airway assessment – size of chin, dysmorphic features
        5. cardiovascular assessment with particular attention to:
• precordial exam – rate, presence of murmurs
• peripheral perfusion – capillary refill, temperature of extremities

c. Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence and clinical judgment as well as develop and carry out patient management plans by performing the following:

• Integrate the history, physical exam and ancillary studies and information and develop an anesthetic plan including:
  1. plan for minimizing preoperative/induction anxiety
     ▪ premédication?
     ▪ parental presence?
  2. induction and maintenance of anesthesia
  3. pain management intra-and postoperatively
  4. fluid management appropriate to patient weight and procedure
  5. emergence

• Discussing the anesthetic plan with the attending anesthesiologist in a cohesive manner, and revise the plan as needed together

• Actively participate (with the direct guidance of the anesthesia attending) in the induction of anesthesia by demonstrating progressive skill, facility, and safety in:
  1. airway management
  2. use/application of monitoring equipment
  3. selecting and administering induction agents/medication
  4. establishing intravenous access
  5. remain engaged and maintain vigilance throughout the maintenance of the anesthetic
  6. keep abreast of the operative repair
  7. manage fluids appropriately for patient weight and intraoperative fluid losses
  8. manage anesthetic, relaxant, and pain medications appropriately
  9. actively participate in the smooth termination of the anesthetic
  10. terminate the anesthetic agents in a timely manner
  11. reverse muscle relaxants
  12. plan for and smoothly return the patient’s airway to the patient’s control:
     ▪ extubation
     ▪ removal of LMA or oral airway
     ▪ continuous assessment and monitoring

e. Counsel and educate patients and their families
f. Use information technology to support patient care decisions and patient education
g. Perform the following procedures considered essential for the area of anesthesiology

• Demonstrate competency in the management of patients requiring mechanical ventilation and hand ventilation
• Perform common technical procedures required in the OR setting
  1. endotracheal intubation (ETT)
  2. peripheral IV (PIV)
  3. peripheral arterial line placement

h. Provide health care services aimed at preventing health problems or maintaining health by:
   • Actively participating in the safe transition of the patient to the postoperative care unit and monitor the patient until he/she is safe to transfer care to the PACU nurse or ICU team
   • Writing appropriate PACU orders for pain, fluid management, and other specific orders as needed

i. Work with health care professionals including those from other disciplines (pediatric surgery, cardiology, cardiovascular surgery, etc.) to provide patient-focused care

2. Medical Knowledge
   Fellows must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to the care of the neonatal patients. Hence, fellows are expected to:
   a. Know and apply the following basic and clinically supportive sciences of anesthesiology
      • Recognize the general principles regarding:
        1. fasting guidelines
        2. age-related dosing and pharmacokinetics and dynamics of inhalation anesthetics
        3. use of opioids, benzodiazepines, muscle relaxants
        4. resuscitation drugs
        5. fluid and electrolyte management for neonates and infants
        6. thermoregulation

3. Practice-Based Learning and Improvement
   Fellows must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices. Hence, fellows are expected to:
   a. Locate, appraise and assimilate evidence from scientific studies related to their patients’ health problems:
      • Seek information as needed and apply this knowledge appropriately using evidence-based problem solving to the care of your patients’ common neonatal health care issues
      • Recognize the techniques to critically appraise the medical literature

4. Communication and Interpersonal Skills
   Fellows must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients’ families, and professional associates. Hence, fellows are expected to:
a. Create and sustain a therapeutic and ethically sound relationship with patients
b. Work effectively with others as a member or leader of a health care team or other professional group:
   - Clearly explain diagnoses, actions and plans using language appropriate to the health care workers’ situation, culture and beliefs
   - Clearly maintain objectivity in settings of conflict
   - Document patient care in the medical record following accepted guidelines in a timely fashion
c. Use effective listening skills and elicit and provide information using effective nonverbal, explanatory, questioning and writing skills:
   - Write and enter clear and accurate orders in a timely fashion
   - Offer and defend opinions in a clear/cogent manner
   - Recognize the limits of one’s own knowledge, skill level and tolerance of stress; knowing when to ask for help, how to contact consultants and where to find basic information
     i. Write and enter clear and accurate orders in a timely fashion
     ii. Offer and defend opinions in a clear/cogent manner during rounds and patient care events
     iii. Recognize the limits of one’s own knowledge, skill level and tolerance of stress; knowing when to ask for help, how to contact consultants and where to find basic information

5. Professionalism
Fellows must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse neonatal patient population. Hence, fellows are expected to:
   a. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest; accountability to patients, society and the profession; and a commitment to excellence and on-going professional development:
      - Maintain integrity and composure in complex situations
      - Seek to exceed expectations and maintain a positive attitude amidst high-acuity and stressful situations
      - Demonstrate accountability for one’s own actions and those of the health care team
      - Advocate for best quality of care possible
      - Accept assigned roles and responsibilities
      - Make effective use of time
   b. Demonstrate sensitivity and responsiveness to patients’ culture, age gender and disabilities by also:
      - Identifying and respect personal issues of families that affect patient care decisions
- Recognizing personal biases that may conflict with those of a patient’s family and how this may impact decision-making and development of treatment plans
- Respecting the input and importance of the family

6. **Systems-Based Practice**

Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value. Hence, fellows are expected to:

a. *Know how to partner with health care managers and health care providers to assess, coordinate, and improve health care and know how these activities can affect system performance:*
   - Work with specialized members of the health care team (surgeons, OR nurses, PACU nurses, ICU team) to optimize health care outcome
   - Learn limits and strengths of relationships with associated medical teams with independent expertise in one or more areas of neonatal medicine (i.e. pediatric surgery consultants)

b. *Advocate for quality patient care and assist patients in dealing with system complexities:*
   - Demonstrate awareness of the unique problems involved in the care of neonates with multiple problems or chronic illness

c. *Practice cost-effective health care and resource allocation that does not compromise quality of care and know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources:*
   - Demonstrate awareness of costs and cost control in the OR as well as the costs of future medical care after discharge

---

**Resource and the designated supervisor during your rotation in Anesthesia is:**

- Susan Staudt, MD

Please do not hesitate to notify any of the above physicians or Dr. Konduri or Dr. Kim with any questions or concerns.