

A. Intern (PGY-1)

1. Professionalism
 - a. Adherence to ethical principles, including honesty and integrity.
 - b. Reliability and responsibility in carrying out assignments and fulfilling duties as outlined in intern responsibilities.
 - c. Respect for and sensitivity to special needs of patients, families, colleagues and healthcare personnel.
 - d. Commitment to excellence and professional development.
 - e. Communication and coordination with multiple services and staff.
2. Practice-Based Learning and Improvement
 - a. Engage in routine assessment of case outcomes and complications. Discuss with attending.
 - b. Self-assessment, reflection and targeted improvement.
 - c. Evaluate and assimilate scientific advances.
 - d. Discuss daily performance and obtain feedback from attending.
 - e. Review literature relating to topics of acute and chronic pain.
3. Communication, Interpersonal skills; System-Based Practice
 - a. Communicate with the primary service regarding the pain management plan.
 - b. Continue coordinated management of the patient with the surgical team postoperatively to optimize the patient's course.
4. Patient Care
 - a. Manage epidural and peripheral nerve catheters in the ICU and on the floor and make the correct decisions regarding dosage, bolusing, and infusion adjustments.
 - b. Recognize when catheter removal is appropriate, and verify that the patient will continue to receive adequate analgesia.
 - c. Identify problems with catheters as they arise and make the proper decision when a catheter needs to be removed and when additional interventions (i.e. radiological exams, neurologic consults) are needed.
 - d. Manage patient controlled analgesia (PCA) with respect to dosing, interval and continuous infusions when appropriate. Be able to convert PCA requirements over a select period of time and convert to equianalgesic oral equivalents.
 - h. Demonstrate rational selection of non-opioid analgesics, including appropriateness, dosing, and potential complications and side effects.
 - i. Identify potential multimodal, non-pharmacologic pain management techniques for comprehensive care
 - j. Recognize potential complications of invasive procedures and catheters including infection, bleeding complication, and/or malfunction of implantable devices.
 - k. Recognize potential interactions and complications related to multimodal management.
5. Medical Knowledge
 - a. Anatomy and physiology of pain transmission, pain fibers, and pain pathways.
 - Anatomy relevant to regional anesthetic blocks (e.g. brachial plexus and surrounding structures).
 - b. Anatomy of vertebral column and spinal canal.
 - c. Understand regional anesthesia equipment.
 - 1) Nerve stimulator.
 - 2) Stimuplex/Contiplex needles
 - 3) Ultrasound.
 - d. Dermatome and osteotome innervations.
 - e. Pharmacology of local anesthetic drugs including chemical properties, protein binding, pKa, lipid solubility, absorption, and duration of action:
 - 1) Cocaine
 - 2) Lidocaine
 - 3) 2-Chloroprocaine
 - 4) Benzocaine
 - 5) Mepivacaine
 - 6) Bupivacaine
 - 7) Ropivacaine
 - f. Pharmacology and practical application of adjuvants used with local anesthetic drugs:
 - 1) Epinephrine
 - 2) Dexamethasone
 - 3) Opioids

- 4) Clonidine
 - 5) Sodium bicarbonate
- g. Factors associated with systemic toxicity:
- h. Site of injection
- 1) Drug selection
 - 2) Dose
 - 3) Speed of injection
 - 4) Vasoconstrictors
 - 5) Co-existing diseases
- i. Pharmacology and practical application of commonly used opioids including onset of action, metabolism and active metabolites, elimination, general and unique side effects for the following:
- 1) Morphine
 - 2) Meperidine
 - 3) Oxycodone
 - 4) Hydromorphone
 - 5) Fentanyl
 - 6) Methadone
- j. Demonstrate safe and effective patient controlled analgesia settings for the following opioids:
- 1) Morphine
 - 2) Hydromorphone
 - 3) Fentanyl
- m. Conversion of intravenous opioids to oral equivalents.
- n. Pharmacology and practical application of commonly used non-opioids for analgesia including onset of action, metabolism and active metabolites, elimination, general and unique side effects for the following classes of medication:
- 1) NSAIDS
 - 2) Cox-2 Inhibitors
 - 3) Acetaminophen
 - 4) Gabapentanoids (Calcium Channel Blockers)
 - 5) Sodium Channel Blockers
 - 6) NMDA antagonist
 - 7) Alpha-2 agonists
- o. Safe and effective dosing and use of opioids, local anesthetics, clonidine and combined solutions for both lumbar and thoracic epidurals.