

ANESTHESIA & PERIOPERATIVE MEDICINE

ELECTIVE - YEAR 4

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A) General Description

Clinical duties in the OR. Learners will be assigned to the supervision of two preceptors for their rotation.

B) Learning Objectives

MEDICAL EXPERT

1. Demonstrate an understanding of the anesthetic considerations for a variety of medical conditions and perform the appropriate/necessary preoperative assessment/preparation of the patient.
 - obtain and record pertinent medical history and perform a focused physical examination including assessment of the airway, the respiratory and cardiovascular system, and other systems as indicated by the clinical situation.
 - interpret basic laboratory data and investigations relevant to the perioperative assessment
 - develop and problem list and assign appropriate physical status
 - recommend appropriate pre-medication (eg. aspiration prophylaxis) and recognize which medications to hold preoperatively (eg. anticoagulants)
 - State recommended preoperative fasting guidelines, list risk factors for perioperative aspiration and describe risk reduction strategies
2. Acquire the knowledge necessary to conduct appropriate fluid and blood component therapy
 - recognize and describe the physiologic and pathologic routes of fluid losses and be able to estimate these losses
 - assess a patient's volume status using history, physical exam and lab investigations
 - demonstrate an understanding of the composition of commonly available intravenous fluids by selecting appropriate perioperative fluid and electrolyte replacement. While taking into account the patient's deficits, maintenance requirements and ongoing losses
 - insert a peripheral intravenous catheter
 - state the indications and complications of the various blood products and describe the factors influencing decision making/thresholds to administer blood product therapy
3. Recognize and describe the main drug classes frequently used in the perioperative period

- describe the main therapeutic effects, side effects and contraindications of the following classes of medications:
 - i. Benzodiazapines - midazolam, lorazepam
 - ii. Anticholinesterase and anticholinergics - neostigmine, glycopyrrolate, atropine sulfate
 - iii. Opioids agonists & antiagonists - fentanyl, sufentanil, remifentanil, alfentanil, morphine sulphate, meperidine, naloxone
 - iv. Induction agents - propofol, sodium thiopental, ketamine, etomidate
 - v. Inhalational agents - desflurane, sevoflurane, isoflurane, nitrous oxide
 - vi. Anxiolytics - midazolam
 - vii. Local anesthetics (lidocaine, bupivacaine - including maximum recommended dosage)
 - viii. Muscle relaxants - succinylcholine, rocuronium, pancuronium bromide, atracurium
 - ix. NSAIDS - ibuprofen, naproxen, celecoxib
 - x. Vasoactive medications - ephedrine sulfate, epinephrine, phenylephrine
 - xi. Antiemetics - dimenhydrinate, ondansetron, prochlorperazine
- recognize the signs and symptoms of local anesthetic toxicity and outline initial management

- 4. Review and describe the principles of acute pain management
 - identify and describe a variety of modalities commonly used for pain control
 - explain the concept of multimodal analgesia

- 5. Demonstrate the ability to manage the airway and ventilation of an unconscious patient
 - label the basic structures of the oropharyngeal and laryngo-tracheal anatomy
 - state the indications and complications of airway management by laryngeal masks, face mask and intubation
 - identify the appropriate sizes of laryngeal masks, face masks, oral and nasal airways, laryngoscope blades and endotracheal tubes
 - independently demonstrate bag-mask ventilation of an unconscious patient
 - recognize upper airway obstruction and independently demonstrate appropriate use of face mask, oral and nasal airways, head positioning, jaw thrust and chin lift maneuvers
 - successfully prepare appropriate equipment for intubation
 - position and intubate a patient with minimal supervisory intervention
 - correctly identify (within 15 seconds) those patients in whom endotracheal intubation was not successful
 - recognize need for intubation/controlled ventilation using a combination of clinical circumstances, physical signs, and lab results

PROFESSIONALISM

1. Demonstrate a commitment to patient care that emphasizes the best interests of the patient.
2. Recognize a patient's right to confidentiality, privacy, and autonomy, and treats patients and families with compassion and respect.
3. Seek assistance appropriate to the needs of the clinical situation while taking into consideration one's own experience and knowledge.
4. Address ethical issues relevant to entry level rotations with direct supervision
5. Accept constructive feedback, but occasionally demonstrate resistance to feedback

COMMUNICATOR

1. Communicate routine information in straightforward circumstances with indirect supervision
2. Communicate effectively with respect for the skills and contributions of other members of the healthcare team.
3. Communicate patient status to supervisors and other providers effectively, including hand offs and transitions in care
4. Present preoperative assessment in a clear, concise and complete format in a timely manner

COLLABORATOR

1. Establish and maintain effective working relationships with colleagues and health care professionals.
2. Consult effectively with physicians and other health care professionals
3. Participate effectively on health care team
4. Understand the high level of collaboration (anesthesia, surgery, nursing, pharmacy, anesthesia assistants, and respiratory therapists) required for the effective management of the patient in the perioperative period

HEALTH ADVOCATE

1. Understand the risk factors that lead to increased perioperative risk and how anesthesiologists can assist in modifying these risks in the perioperative period.

C) Night and Weekend Call

Call is strictly optional and we offer nightly call through our “call buddy” system. Students are assigned to the senior resident on call and will work from end of day until approximately 11:00 pm (at the latest) in order to allow for an appropriate rest period.

D) Evaluation Procedure

Daily evaluations are completed by preceptors and submitted to the site coordinator. The content of these evaluations will be summarized and reported on an End of Rotation form in One45. Students will be able to access their evaluation after they have submitted all forms and completed all rotation evaluations.

F) Number of Students Accepted - **Students are allowed one 2 week elective ONLY**

Victoria Hospital: Anesthesia (2 wks) - 1 student

St. Joseph's Health Centre: Anesthesia (2 wks) - 1 student

University Hospital: Anesthesia (2 wks) - 1 student

G) Other Comments, Regulations or Expectations

Especially useful for those considering surgery, medicine, paediatrics, obstetrics and gynaecology, emergency, and other related areas.