Welcome to your AIRWAY MANAGEMENT Rotation

The intubation experience during this rotation is a PRIVILEGE and NOT an EXPECTATION. If you do NOT get consent from the patient in the holding area you will NOT intubate.

Contacts

- Dr. Adam Puzio (ICU Resident Anesthesia Rotation Coordinator) – dr.puzio@gmail.com
- Dr. Parul Katyal (Chief of Anesthesia)
- Dr. John Maybee (Anesthesia/ICU Staff)
- Angella McDonald (Anesthesia Assistant & RT/Paramedic Coordinator)
- Diane McRae (Anesthesia Assistant)
- Ann Costain (Anesthesia Secretary) – anncostain@gmail.com

Prior to your scheduled OR day

- As your rotation is spread out over the month, please email Dr. Puzio and Ann Costain each day prior to your scheduled OR day
- Unless otherwise specified, you will meet Dr. Puzio or in his absence Anesthesia Assistants Angella or Diane, Dr. Katyal or Dr. Maybee by 7AM sharp in the OR lounge for an orientation (on your first day) or to identify appropriate airway cases on subsequent OR days.

Airway Rotation Goals

- Airway Assessment for ease of ventilation and intubation
- Proper Bag Mask Ventilation
- Oral Airway Insertion
- Patient Positioning
- LMA Insertion
- Intubation
- Familiarization with the ASA Difficult Airway Algorithm

Locations

- ECT – Procedural Sedation with Airway Management (Bag Mask Ventilation) – Occurs at 7AM every Monday/Wednesday/Friday in the back of the recovery room.
- OR – Elective Surgical Procedures with LMA insertion and Intubation (ORs start at 7:30AM everyday except Thursdays when they start at 8:10AM)

Staff willing to work with residents: (subject to patient consent and clinical appropriateness)

- Dr. Adam Puzio
Expectations

- The staff anesthesiologist will assess the appropriateness of your involvement in the case and if a difficult airway presents itself that isn’t appropriate for you to intubate, the expectation is for you to stick around and learn why and how to manage that particular difficult airway.

- ORs start with the patient in the room promptly at 7:30AM so in order to be appropriately prepared please see your first patient(s) by 7:15AM in the holding area and then proceed to introduce yourself to the anesthesiologist in the room(s). **Please do not arrive at 7:30AM and EXPECT to intubate.**

- You should introduce yourself to and get consent from every patient you will be involved with in the holding area and then proceed with a history/tailored physical exam and finally a detailed airway examination to determine the ease with which the patient will be ventilated and intubated.
  - Airway Exam should included: Mallampati Score, Thyromental Distance, Neck Range of Motion, Mouth Opening, TMJ

- On arrival to the OR, introduce yourself to the anesthesiologist, indicate your experiences to date (ex. 1 vs. 10 intubations), and discuss your airway assessment of the next patient.

- Ensure that you write your name and level of training on the white board in all the rooms so that everyone is aware of who you are for documentation purposes.

- While the anesthesiologist is placing the IV, **take an active role in the case** by helping to place patient monitors (3 or 5 lead ECGs, BP cuff on the opposite arm of the IV, Oxygen Saturation probe on the IV hand). You should also ensure that you have everything you need in order to safely and effectively bag mask ventilate and intubate your patient (ie. laryngoscope, oral airway, appropriately size endotracheal tubes [7-7.5 for females; 8-8.5 for males])
• When there is an intubation opportunity in multiple rooms, you should attempt to prioritize those opportunities, identify if an epidural will be placed that might permit you to go to another room first or let the anesthesiologist in the other room know that you are interested and that you will be back if time permits.

OR Lists
• The OR list on the door of the OR lounge will serve as your master list for intubation opportunities and Dr. Puzio will check off all cases where as intubation may take place.
• On days when RT and/or Paramedic students are also scheduled in the OR, opportunities will be split equally and rooms will be divided as fairly as possible
• **Intubations**: Rooms 10 and 11 (General Surgery – lap procedures, large bowel cases), Room 3 (plastic Surgery), Room 8 (ENT – adult only), Room 17 (Thoracic - Bronchoscopy & Mediastinoscopy, Nissen Fundoplication)
• **LMAs**: Rooms 12 and 15 (Ortho – knee arthroscopies); Room 9 and 14 (Gyne); Room 10 and 11 (General Surgery – Breast / Hernias)

ECTs
• ECTs are conducted every Monday, Wednesday, and Friday from 7 – 8am in the back room of the PACU.
• ECTs are great opportunities to learn and practice procedural sedation and bag mask ventilation
• The expectation is for the resident to attend ECTs especially if no intubations are planned for 7:30AM. If there is an intubation at 7:30 it is still expected that the resident be present at 7AM for at least one to two ECTs.

Feedback
• It is important to give feedback throughout the rotation. Please ensure that you touch base with Dr. Puzio to ensure that you are getting the optimal experience.
• Please fill out your log book and return to your ICU preceptor to include in your final evaluation.

**ENJOY YOUR ROTATION!!**
1. Assess the likelihood and clinical impact of basic management problems:
   A. Difficult Ventilation
   B. Difficult Intubation
   C. Difficulty with Patient Cooperation or Consent
   D. Difficult Tracheostomy

2. Actively pursue opportunities to deliver supplemental oxygen throughout the process of difficult airway management.

3. Consider the relative merits and feasibility of basic management choices:
   A. Awake Intubation vs. Intubation Attempts After Induction of General Anesthesia
   B. Non-Invasive Technique for Initial Approach to Intubation vs. Invasive Technique for Initial Approach to Intubation
   C. Preservation of Spontaneous Ventilation vs. Ablation of Spontaneous Ventilation

4. Develop primary and alternative strategies:

A. **Awake Intubation**
   - Airway Approached by Non-Invasive Intubation
     - Succeeded
     - Cancel Case
     - Consider Feasibility of Other Options
   - Invasive Airway Access

B. **Intubation Attempts After Induction of General Anesthesia**
   - Initial Intubation Attempts Successful
     - From This Point Onwards Consider:
       1. Calling for Help
       2. Returning to Spontaneous Ventilation
       3. Awakening the Patient
   - Initial Intubation Attempts UNSUCCESSFUL

C. **Face Mask Ventilation Adequate**
   - Non-Emergency Pathway: Ventilation Adequate, Intubation Unsuccessful
     - Alternative Approaches to Intubation
     - Successful Intubation
   - Failure After Multiple Attempts
   - Invasive Airway Access

D. **Face Mask Ventilation Not Adequate**
   - Consider / Attempt LMA
     - LMA ADEQUATE
     - LMA NOT ADEQUATE OR NOT FEASIBLE
     - Emergency Pathway: Ventilation Not Adequate, Intubation Unsuccessful
       - Call for Help
       - Emergency Non-Invasive Airway Ventilation
       - Successful Ventilation
       - Awaken Patient
     - Invasive Airway Access

* Confirm ventilation, tracheal intubation, or LMA placement with exhaled CO₂

a. Other options include (but are not limited to): surgery utilizing face mask or LMA anesthesia, local anesthesia infiltration or regional nerve blockade. Pursuit of these options usually implies that mask ventilation will not be problematic. Therefore, these options may be of limited value if this step in the algorithm has been reached via the Emergency Pathway.
b. Invasive airway access includes surgical or percutaneous tracheostomy or cricothyrotomy.
c. Alternative non-invasive approaches to difficult intubation include (but are not limited to): use of different laryngoscope blades, LMA as an intubation conduit (with or without fiberoptic guidance), fiberoptic intubation, intubating stylet or tube changer, light wand, retrograde intubation, and blind oral or nasal intubation.
d. Consider re-preparation of the patient for awake intubation or canceling surgery.
e. Options for emergency non-invasive airway ventilation include (but are not limited to): rigid bronchoscope, esophageal-Trachéal Combitube ventilation, or transtracheal jet ventilation.
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