Rotation Goals and Expectations

The UCSD Airway Rotation is a 4 weeklong rotation in the MOR. During the 4-week rotation, emphasis is placed on intubation techniques that can be used during difficult airway scenarios. We believe depth and breath of experience is important, because of the versatility of the fiberoptic bronchoscope (FOB) much emphasis is placed on use of the fiberoptic bronchoscope as the cornerstone of managing a difficult airway. Our goal is to have you very comfortable using the fiberoptic bronchoscope on normal airways with a number of different intubating conduits so that when the time comes, you will be comfortable using it during the management of a difficult airway. We shy away from teaching 40 different airway techniques with 40 different pieces of equipment, we much prefer you become expert with a few basic techniques.

The rotation will begin with a two-hour airway workshop. During the workshop we will practice all the procedures on a mannequin with the same equipment used in the OR. This will be done several days prior to starting the rotation. You will be contacted during the week prior to starting the rotation to schedule your airway workshop.

During the remaining 4 weeks of the rotation, our expectation is that you have all airway equipment needed prior to starting the case prepped and ready for use so as to not slow up the normal flow of the operating room. All other aspects of doing cases in the MOR still apply (careful vigilance intra-op, knowing your patients co-morbidities, speaking to patients preoperatively, etc.).

Airway Workshop Outline

1. Airway Anatomy and dimensions
2. Bronchoscopy / Handling the Fiberscope
   a. 2 types of movements
   b. Center Target
   c. Small movements, small errors require small corrections, large errors require large corrections
   d. If you are lost, retreat until you find a recognizable landmark
3. Bronchial Anatomy- see attached handout
4. FOB Intubation
   • Patil mask
   • Pink Airway
   • LMA’s
   • Awake FOB Intubation
     1. Psychological Buy in
     2. Glyco
     3. Topicalization vs blocks
5. Lung Isolation
   a. Double Lumen Tubes
   b. Bronchial Blockers
      • Univent
      • Fogerty
      • ARNDT (Wire Guided Endobronchial blocker, aka WEB)

6. Combitube
   a. EMT, OB, ASA Difficult airway algorithm
   b. Place with DL, stay midline and posterior, two holes opposite larynx needed
   c. Paralysis, well lubricated
   d. Titrate cuff to 50 mL difference on ventilator, usually 60-80 ml in orophar
cuff
   e. Line markings on tube encompass 95-98% of population, if not working its
usually because it is placed too deep.

7. Transtracheal JET Ventialtion

8. Retrograde Wire Intubaltion

Procedure Log

Most procedures done during the airway rotation can be logged in the ACGME website
resident case log system as procedures that you keep track of during residency. When
you are done with residencies, many employers will want to see records of what and how
many procedures you have done. On the airway rotation, you likely will get more
fiberoptic intubations than during the rest of your residency combined.

Intraop lecture topics

The following is a limited list of topics covered in the operating room. This list is not
exhaustive and likely will grow in the near future.

   a. Airway Workshop
   b. Lung Isolation and One Lung Ventilation
   c. Bronchopleural Fistula and chest tubes
   d. Tracheostomy tubes
   e. Intra and Extra thoracic obstructions
   f. Airway Innervation and Airway blocks
   g. Vocal Cord Pathologies
   h. Capnography
   i. Pulse Oximetry
   j. Fick Equation
   k. Whole Lung Lavage
   l. Airway resistance
m. Differences in the Pediatric Airway
n. Clinical Scenarios / Oral Board Scenarios
   i. NGT and small bowel obstruction
   ii. Infiltrated IV at induction
   iii. Awake Craniotomy
   iv. Difficult Airway scenarios
   v. Cuff Leak

**Suggested Reading / websites**


http://www.thoracic-anesthesia.com/

http://www.airwaycam.com/