

Discuss & Know:

Physiology

- Physiological effects of smoking – cardiovascular, respiratory, wound healing and concerns for the anaesthetist.

Read this tutorial for more information from Anaesthesia Tutorial of the Week (ATOW):

<http://www.frca.co.uk/Documents/221%20Smoking%20and%20Anaesthesia.pdf>

- What is pre-operative functional assessment – e.g. exercise testing/CPET/shuttle walk is used? Is it useful in thoracic patients?
- Pre-operative lung function:
 - What is FVC, why is it important?
 - What is FEV₁? why is it important?
 - What is the transfer factor or TLCO, how is transfer co-efficient different (KCO)?
- What associated, or “paraneoplastic”, syndromes in lung cancer patients must an anaesthetist be aware of and why?

Anatomy

- What is the gross anatomy of the lungs and airways:
 - How many lobes of the lung are there?
 - What are the main branches of the conducting airways?
 - What’s special about the right upper lobe?

Anaesthetic and Surgical Conduct

- Understand the terms:
 - Pneumonectomy
 - Lobectomy
 - Wedge resection
 - VATS – what does it stand for?
 - Pleurodesis
- How do we predict post-operative (ppo) lung function using pre-operative lung function testing?
Ppo = pre – op value x (5-number of lobes resected)/5
- What values for post-operative lung function would be of concern and why?
- Analgesia options for thoractomy:
 - Understand broadly the difference between paravertebral block (single shot) versus thoracic epidural
Read this article on “care of the epidural”
<https://www.ucl.ac.uk/anaesthesia/StudentsandTrainees/Epidural.pdf>
- What is one lung ventilation (OLV)?
 - What is shunt?
 - What is dead space?
 - What is V/Q mis-matching?
- What happens to a patient’s physiology with OLV – oxygenation, ventilation, cardiac?
- What is a double lumen tube? Compare a double lumen tube with a single lumen, standard endotracheal tube.
- What is a bronchial blocker?
- How would you treat an emergency pneumothorax?
- What is the difference between a Seldinger chest drain and a Surgical Chest Drain?

See

- How to set up a chest drain “underwater” seal.
- How a chest drain is put on suction, how does this differ to suction routinely used to clear respiratory secretions?
- What an arterial line is used for.
- What a Central Venous Pressure (CVP) line is used for and why? Where can they be sited?
- How drug infusions are drawn up by the nursing staff on ITU.
 - What drugs are patients commonly given as infusions in critical care. – e.g. Analgesia, Sedation, Cardiovascular Support – “inotropes”, “vasopressors”, Electrolytes (other than Sodium and Potassium).
 - Broadly how do these drugs work?

This booklet is a trial, to accompany the ‘Perioperative Procedures’ guide, to help your learning, particularly in a new “Week” of the SSC Module. We welcome your feedback. It is by no means a “compulsory” curriculum, more a handy series of conversation starters!

Remember: the more you ask/discuss/do the better you’ll be as an F1!

Where to find more information

During your Anaesthesia/Perioperative tutorials

UCL Anaesthesia medical student site:

www.ucl.ac.uk/anaesthesia/StudentsandTrainees/students

Your teaching booklet downloadable from the website

Our Youtube site: www.youtube.com/user/Centreforanaesthesia

Discussion with Anaesthetists and other medical staff

Other Contacts

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Year 6 SSC

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“Week C”

Topics to see, discuss and know