

# Cough, spit, fat & snoring – do any of them ever change?

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## **So what is new & what is old in the airway that you need to know about?**

Ageing lung: With age we eat into our biological reserve and our vulnerability increases leading eventually to frailty, sarcopenia & imminent death. As our population ages Anaesthesia & Geriatrics are increasingly inter-twining specialties and understanding the ageing lung and the resultant mechanical changes in the lung moves centre stage.

COPD: There appears to be an epidemic of COPD though prevalence is very influenced by the diagnostic criteria. We run a risk of increasing over diagnosis as the dividing line between COPD and ageing blurs. COPD sufferers are increasingly co-morbid and that is compounded by the fact they are an increasingly older cohort. They are also vulnerable to a variety of diseases requiring surgical management – how do we assess their peri-operative risk?

In COPD patients having major elective surgery are we able to prognosticate in terms of longevity and functionality accurately and what options are available to minimize their peri-operative risk?

Broader assessment tools such as frailty, functional measures such as modified shuttle tests can identify high risk groups but in complex comorbid patients their interpretation can be challenging and hard evidence for reliable “prognostication” in terms of surgical outcomes is debatable.

BODE, DECAF, B-AE-D etc – prognostic scores for Africa exist but their role in the individual stable patient requiring anaesthesia remains unproven. The other side of prognosis is “uncertainty” and determining when an operative procedure is futile is something we have not been trained to do well. What new therapies are available to influence the anaesthetic risk of the COPD patient undergoing elective surgery? A host of new inhalers have arrived for the treatment of COPD but have they altered the management and do they alter risks?

Bacterial colonization & bronchiectasis – *do they matter?* The respiratory biome – evidence is beginning to accumulate that we have a complex degree of respiratory colonization in the lung in health and with advances in our understanding of innate immunity there is a hint of how those interact to protect us from the billion litres of toxic gas (air) we breathe in a lifetime.

As CT scanners multiply like rabbits and scans follow, we are identifying an increasing burden of bronchiectasis in patients with limited respiratory symptoms, often mild COPD. To what extent does the presence of bronchiectasis alter the risks of anaesthesia and surgery? Should inhalational anaesthesia be avoided if at all possible in such patients?

## **Obesity, snoring & breathing or lack of breathing – is the fog clearing?**

We angst about obstructive sleep apnoea and the epidemiology of sleep disordered breathing steadily looks bleaker and bleaker. It may be a disease of gender and age!

However, we often miss the elephant in the corner which is obesity hypoventilation syndrome (OHS). OHS probably carries a very significantly increased anaesthetic risk but is often missed even after peri-operative problems. What clues moves a fat snorer into a potential patient with obesity hypoventilation?

## **AQUA 2016 – Respiratory pot-pourri**

### **Respiratory infections, anaesthetics and surgery**

Respiratory Biome

Ageing and lung mechanics - implications for anaesthesia?

Cilia and inhalational anaesthetics +/- respiratory mechanics +/- abdominal muscles

Bronchiectasis epidemic

### **Obstructive airways disease, breathing and ageing**

Epidemiology - non-smokers increasingly recognized/ageing lung

Walking co-morbidity?

New treatments?

Pharmacological treatments:

Inhalers for Africa but no great advances;

PDE4 inhibitors (son of theophylline)

Personalised medicine

Pulmonary rehabilitation

Assessing severity in Anaesthetic pre-admit clinics BODE, B-AE-D or B-AE-C etc.

### **Obesity & breathing**

OSA - epidemiology & its implications/who to focus on?

OHS - the elephant in the corner