

## **THE CHILD / ADULT WITH A RUNNY NOSE**

- Is the most common cause for procedure cancellations in children
- The average child has 6-7 URTI's / year
- Many recurrent URTI's are associated with the reason for surgery, eg. Grommets, T+A's, sinus procedures and therefore a risk-benefit profile is needed before cancelling the case summarily.

### **Causes of a runny nose:**

- allergic rhinitis
- acute coryza
- viral or bacterial URTI
- foreign bodies
- irritants / rhinitis medicamentosa

### **Why the bother with URTI's?**

URTIs cause increased secretions and airway hyperreactivity, which increase the risk of perioperative respiratory complications significantly. A recent study quantifies the risk for these complications at 2-7x the normal and 11x more if the patient also requires intubation. However, no studies to date have shown any significant longterm sequelae of these perioperative complications.

### **Complications can be mild to severe and include:**

- breath-holding
- desaturation
- laryngospasm
- bronchospasm
- ET tube obstruction
- Post-extubation stridor
- Acute respiratory failure

Airway hyperreactivity persists for 6-8 weeks, based on changes in the M2 muscarinic receptors in the airway mucosa and submucosal smooth muscle. Airway hyperreactivity is clinically significant in most patients for at least 2 weeks.

### **Who is at risk for respiratory complications?**

- Premes / ex-premes (apnoea, history of BPD)
- Children < 5yrs (<1yr = high risk; 1-5yrs = intermediate risk)
- Asthmatics (consider also the children of heavy smokers?)
- Present/recent URTI's or nasal congestion
- Patients requiring intubation
- Surgery involving the airway (ENT/dental/oral/lower airway)
- Other underlying pulmonary disease (TB, cystic fibrosis)

## **What are the clinical risk signs/symptoms?**

- Cough
- Sneezing
- Rhinorrhoea (watery or mucopurulent)
- Pharyngitis
- Laryngitis
- Fever ( $T^{\circ} >38^{\circ}\text{C}$ )

NB! It is important to make a distinction between a runny nose and a URTI, but what is a 'significant URTI' from an anaesthetist's perspective?

General consensus is that a patient with systemic symptoms or signs or more than 2 clinical risk factors indicates a significant RTI and thus increased risk.

It is also important to consider other systemic factors/signs that may make you strongly consider deferment of the operation, eg fever with lethargy, dehydration, tachycardia and/or a new cardiac murmur!

– BEWARE VIRAL MYOCARDITIS

## **THE PRACTICAL APPROACH**

### **1. When to proceed:**

- allergic rhinitis
- watery rhinorrhoea and no systemic symptoms
- emergencies

### **2. When to be cautious:**

- recent RTI (< 2 weeks)
- history of underlying pulmonary disease
- 1 or 2 mild symptoms

### **3. When to cancel:**

- >2 clinical risk factors
- obvious systemic illness
- lung signs clinically

**NB!** It is important to weigh up the risk-benefit ratio for each patient, taking into account school absence, parents taking time from work, distance travelled and expense to patients etc and balancing that with possible respiratory complications. A less conservative approach may be used with patients requiring grommets, T's+A's or sinus procedures because these impact directly on respiratory health.