

Education Sheet

Tracheobronchomalacia (TBM)

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Tracheobronchomalacia (TBM) is an unusual condition characterized by the softening of the airway with subsequent airway narrowing during expiration. The cause of this condition is unknown but is frequently associated with common conditions such as chronic obstructive pulmonary disease (COPD), asthma, and gastroesophageal reflux disease (GERD). The narrowing of the airway produces such symptoms as cough, shortness of breath, wheezing, inability to clear secretions and recurrent respiratory infections. Patients are instructed to be acutely aware of any respiratory issues and if he/she feels any symptoms are developing they should be seen as soon as possible by local pulmonologist/primary care physician as TBM can cause upper respiratory tract infection to linger and will require quick escalation of care.

The following routine care is recommended:

- Hand hygiene/avoid sick contacts
- Yearly flu vaccination/pneumococcal vaccination
- Purse lip breathing to prevent/control coughing attacks
- Flutter valve (Accapella) for congestion twice a day and as needed
- Daily expectorants such as Guaifenesin to thin secretions
- Early antibiotics for upper respiratory infections that do not improve with conservative measures to prevent the development of pneumonia

In the setting of respiratory distress:

- NIPPV (Non-invasive positive pressure ventilation) can help control excessive coughing or dyspnea
- Nebulized Lidocaine 1% for uncontrolled cough
- Acute exacerbations can be triggered by common respiratory conditions. Identification and treatment of underlying trigger should be considered



Bringing Breaths to the Breathless.

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Recommendations for anesthesia:

- Patients with TBM can tolerate general anesthesia if needed.
- Patients will need to be weaned with NIPPV, as the majority will not tolerate immediate post-procedure extubation due to expiratory airway collapse.
- Patient should be instructed to bring their own NIPPV device to the procedure.
- Aggressive pulmonary toileting with flutter/acapella valve, chest percussion, etc. to clear secretions after the procedure.



Figure 1. CT scan of a patient with TBM. A. Trachea during inspiration; B. Expiratory collapse of the trachea.