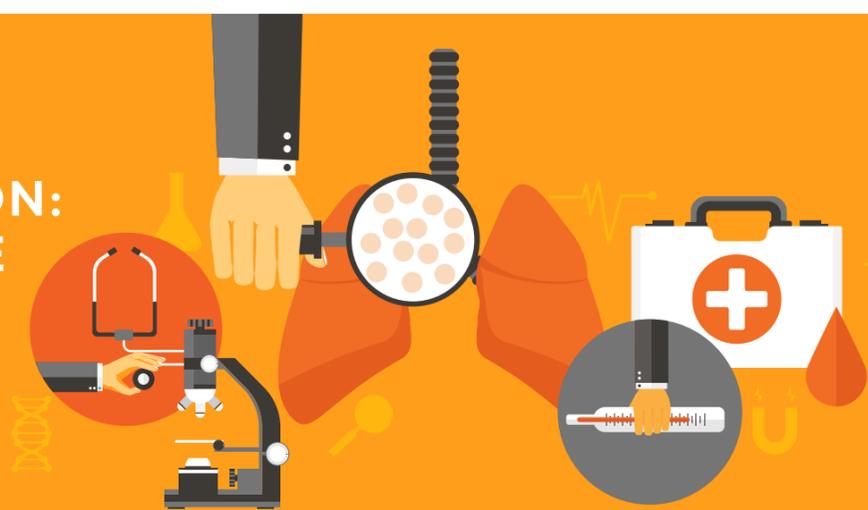


# MICROASPIRATION: A CRITICAL ISSUE FOR AIRWAY MANAGEMENT



- Microaspiration of contaminated oropharyngeal and gastric secretions is the major route of entry for bacteria into the lower respiratory tract.<sup>1</sup>
- In mechanically ventilated patients, microaspiration can result in ventilator-associated events (VAE).<sup>2</sup>

**88%** Up to **88%** of intubated critically ill patients suffer from microaspiration<sup>1</sup>

- Leakage of fluid that may occur around the cuff of the endotracheal tube, into the airway is potentially a serious form of microaspiration<sup>3</sup>
- Complications due to microaspiration include:<sup>3</sup>

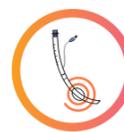
Hypoxia    
 Pneumonitis    
 Respiratory infections

## Risks to Consider

- Some **patient-related risk factors** influencing risk of microaspiration in mechanically ventilated patients include<sup>1</sup>

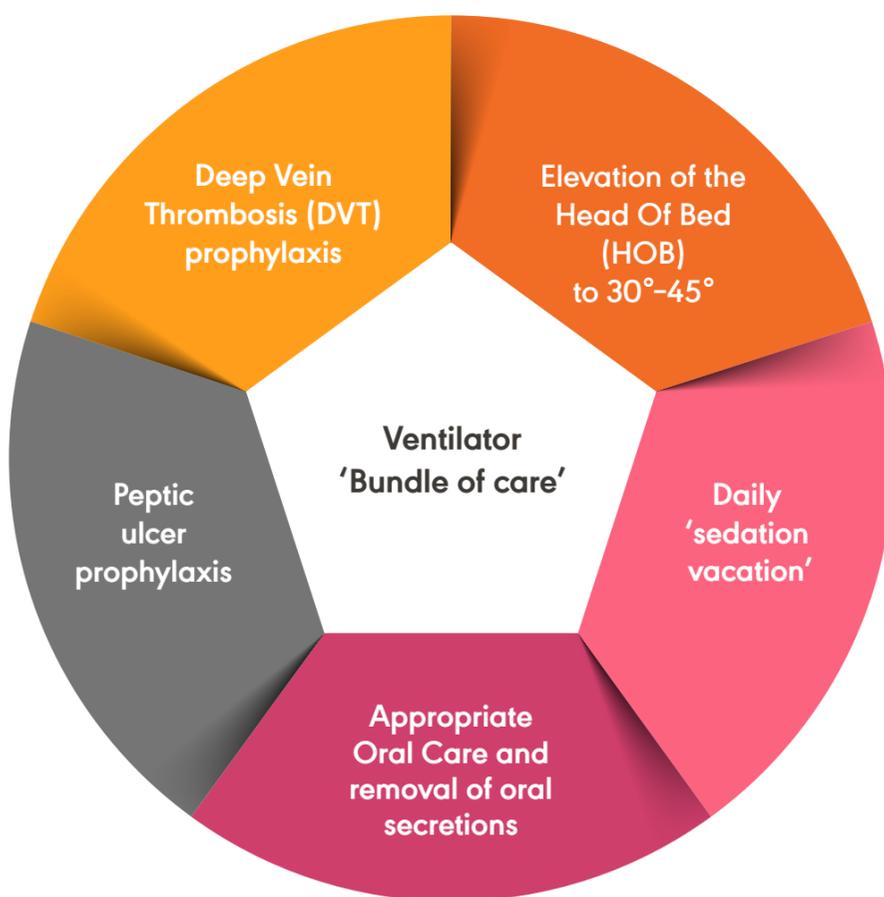
Sedation    
 Supine position  
 Coma    
 Hyperglycemia

- Some **tracheal tube-related risk factors** such as longitudinal folds in HVLP tracheal cuff may also allow the leakage of fluid and lead to microaspiration.<sup>1</sup>



## Managing Microaspirations

- Improvement in the performance of tracheal tubes can help reduce microaspiration and prevent VAE<sup>2,4</sup>
- To improve outcomes and prevent complications in all patients on mechanical ventilation, standard practices are followed that constitute the ventilator **'bundle of care'**:<sup>5,6</sup>



## OUR SOLUTION

The Avanos Adult MICROCUFF\* Tube features the breakthrough technology of an advanced microthin polyurethane (PU) cuff material, designed to reduce microaspiration



Provides a **better seal** due to advanced microthin polyurethane (PU) cuff that 'seals' channels to reduce leakage



**High volume low pressure cuff (HVLP)** to minimize fluid that can pass through



**Cylindrical shape** maximizes surface contact with the trachea

References:

1. Jaille E, Martin-Loeches I, Artigas A, Nseir S. Optimal care and design of the tracheal cuff in the critically ill patient. *Ann Intensive Care*. 2014; 4(1):7. 2. Gentile G, Quinones A. Determining Aspiration of Oral Secretions and the Potential Impact on Evaluation of Dysphagia and VAP in Patients With Tracheostomies Using an Automated Intermittent Subglottic Aspiration System. In: *Respiratory Care*. Chest Annual Meeting; 2016 Oct 22-26; Los Angeles: Elsevier; 2016. 3. Hamilton VA, Grap MJ. The role of the endotracheal tube cuff in microaspiration. *Heart & Lung: The Journal of Acute and Critical Care*. 2012; 41(2):167-72. 4. Rouzé A, Jaille E, Poissy J, et al. Tracheal tube design and ventilator-associated pneumonia. *Respir Care*. 2017; 62(10):1316-23. 5. Neuville M, Mourvillier B, Bouadma L, Timsit JF. Bundle of care decreased ventilator-associated events—implications for ventilator-associated pneumonia prevention. *J Thorac Dis*. 2017; 9(3):430. 6. Munro N, Ruggiero M. Ventilator-associated pneumonia bundle: reconstruction for best care. *AACN Adv Crit Care*. 2014; 25(2):163-75.