



Assessing and Treating Dysphagia in the Patient with Tracheostomy: Impacting Quality of Life

Potential causes of dysphagia in patients with tracheostomy

- Swallowing complications related to the presence of a tracheostomy tube
 - o Impaired laryngeal elevation
 - o Desensitization of the larynx
 - o Reduced subglottic air pressure
 - o Reduced effectiveness of the cough reflex
 - o Disuse atrophy of larynx
 - o Decreased coordination of breathing and swallowing
 - o Decreased effectiveness to clear secretions from upper airway

Assessment

- Clinical swallowing assessment
 - o Components, considerations, blue dye test, observations, recommendations
- Instrumental swallowing assessment: FEES / VFSS
 - o Assessment should be conducted in the condition in which the patient will eat and drink
 - o Can be performed on vent and non-vent patients
 - o Identifies etiology of dysphagia and guides intervention
 - o Recommendations should be specific

Restoring positive airway pressure with the Passy Muir Speaking Valve may result in:

- Restored normal breathing / swallowing pattern
- Improved secretion management
- Reduced aspiration
- Improved cough effectiveness
- Increased bolus speed and more rapid pharyngeal clearing

Treatment

- Early treatment to prevent disuse atrophy
- Cuff deflation and restoration of a closed aerodigestive system with Passy Muir Valve
- Oral hygiene
- Compensatory and rehabilitative swallowing therapy

Considerations for patients requiring mechanical ventilation

- SLP and RT teamwork
- Candidacy for cuff deflation and in-line PMV use
- Mode of ventilation

Summary

- Early and evidence-based dysphagia intervention is crucial for our patients with tracheostomy
- Cuff deflation and use of the Passy Muir Valve can facilitate improved efficiency and safety of swallowing
- Restoration of po intake is associated with improved quality of life



KEY POINTS/NOTES

Swallow Impairment	Therapeutic Intervention	Adaptation for Trach/Vent Patient
Secretion Management	<ol style="list-style-type: none"> 1. PMV® trials to allow airflow and sensory stimulation to upper airway 2. RMST (Respiratory Muscle Strength Training) 	<ol style="list-style-type: none"> 1. Train inhaling/exhaling through semi-occluded airway (straws) for low level patients 2. Use various IMST/EMST devices on the market to strengthen respiratory system
Low Lung Volumes	<p>IMST (Inspiratory Muscle Strength Training)</p> <p>Supraglottic Swallow</p>	Requires PMV use to engage entire respiratory system, restore subglottic pressure
Weak Cough Strength	<p>Cue patient to cough/clear own secretions</p> <p>EMST (Expiratory Muscle Strength Training)</p>	Requires PMV use to restore subglottic airway pressure
Decreased Vocal Cord Closure	<p>Supraglottic Swallow/Voluntary Breath Hold</p> <p>Adduction Exercises with resistance</p> <p>Sustained phonation</p>	Requires PMV to establish a closed system, restore subglottic pressure
Reduced Laryngeal Elevation	<p>Falsetto Exercises</p> <p>Mendelsohn Maneuver</p>	Requires PMV to establish a closed system, restore subglottic pressure
Reduced Hyolaryngeal Excursion	<p>Super-Supraglottic Swallow</p> <p>Shaker Maneuver</p>	<ol style="list-style-type: none"> 1. Both require restoration of subglottic pressure – place PMV 2. Shaker: Place PMV to restore pressure, do not lay patient completely flat, ensure trach does not displace or occlude
Weak Pharyngeal Wall Constriction	<p>Effortful Swallow</p> <p>Masako</p>	Requires PMV to close system, restore subglottic pressure
Reduced Cricopharyngeal Opening	<p>Shaker Maneuver</p> <p>Mendelsohn Maneuver</p>	<ol style="list-style-type: none"> 1. Shaker: Place PMV to restore pressure, do not lay patient completely flat, ensure trach does not displace or occlude 2. Mendelsohn: Traditional manipulation may not be appropriate; consider using a hard swallow (having patient hold mid-swallow for 3 sec to elevate larynx)