

TROUBLESHOOTING GUIDE

Article courtesy of Inhealth Technologies.

The following recommendations are provided by Eric D. Blom, Ph.D.

Leakage through Prosthesis

Causes

Duckbill tip contact against posterior esophageal wall

Valve deterioration

Candida deposits on/in valve mechanism

Solutions

Replace with low pressure type prosthesis

Replace prosthesis

Nystatin Suspension swish and swallow 1 tspn. b.i.d.

Leakage around Prosthesis

Causes

Prosthesis is too long resulting in piston movement/track dilation

Insufficient tracheoesophageal party wall thickness

Irradiated tissue

Solutions

Resize to a shorter prosthesis

Reconstruct tracheoesophageal party wall with muscle flap

Flap reconstruction

Microstoma

Causes

Stenosis

Solutions

- a. Fenestrated silicone tracheostoma vent
- b. Surgical revision of tracheostoma (enlargement)

Macrostoma

Causes

Natural trachea size/tracheomalacia

Solutions

Surgical revision of tracheostoma (reduction)

Granulation Tissue Formation

Causes

Irritation, inflammation, tissue thickness (circumferential "donut") associated with presence of foreign body

Solutions

Surgical removal of tissue (circumferential "donut")

Immediate post-fitting aphonia/dysphonia

Causes

Prosthesis valved tip is stuck due to increased saliva viscosity

Forceful stoma occlusion

Pharyngeal constrictor spasm

Solutions

Flush prosthesis in situ with water filled pipet.

Light finger contact

- Assess voicing through open puncture.
- Transtracheal insufflation via 18FR catheter*
- Insufflation under fluoroscopy*
- Pharyngeal plexus nerve block*

*Pharyngeal constrictor myotomy if fluent voicing can't be achieved

Delayed post-fitting aphonia/dysphonia

Causes

Prosthesis valved tip is stuck

Puncture tract closure due to inadequate prosthesis length

Failure to fully insert prosthesis

Solutions

Remove prosthesis and inspect valve

Dilate and re-insert longer prosthesis

Dilate and re-insert prosthesis

Insufficient Tracheostoma Valve Tape Seal Duration

Causes

Excessive system "backpressure"

Failure to cleanse skin prior to valve placement

Failure to allow adhesive to dry

Careless application, use

Solutions

- Assess intertracheal pressure during connected speech with pressure meter
- Alter prosthesis type/diameter
- Increase prosthesis diameter to 20FR.
- Reduce speech loudness

Cleanse skin oil and/or adhesive solvent from skin surface with alcohol

Wait 3-4 minutes before applying tape housing to adhesive coated skin

- Reinstruct in method of application
- Remove valve prior to coughing
- Eliminate excess mucus accumulation at stoma