Clinical Complications of Tracheostomy

Complications of an Inflated Cuff

- An inflated cuff can cause necrosis and trauma to the tracheal wall
- Laryngeal anchoring may interfere with epiglottic inversion and airway protection during swallow
- Reduced airflow to upper airway:
  - Reduces sensation
  - Affects vocal fold closure
  - Reduces smell and taste
  - Results in loss of voice
- Reduced subglottic pressure may negatively affect:
  - Swallowing
  - Coughing
  - Generating Physiologic PEEP
  - Breath holding

Clinical Benefits of the Passy-Muir® Valve

Clinical Benefits

- Improves speech production
- Improves swallowing and may reduce aspiration
- Restores natural positive airway pressure
- Facilitates secretion management
- Improves oxygenation
- Expedites ventilator weaning and decannulation
- Facilitates infection control
- Improves smell, taste and sensation
- Facilitates pediatric speech/language development

Quick Tips for Assessment & Placement

Proper airway assessment, patient education, appropriate therapy and multidisciplinary team approach are keys to successful Passy-Muir® Valve application.

Patient Selection

- Alert, oriented and attempting to communicate
- Medically stable
- Able to tolerate cuff deflation
- Able to manage secretions
- Patent upper airway

Airway Assessment

- Achieve full cuff deflation
- Occlude tube with gloved finger on exhalation
- Ask patient to voice or cough

Passy-Muir® Valve Placement

- Fits on universal 15mm hub of tracheostomy tubes
- Apply with quarter turn clockwise
- Monitor vital signs and work of breathing
- Increase wearing time as tolerated
- May use with humidity (non-medicated heated aerosol)
- Remove valve for medicated aerosol treatment
Quick Tips for Assessment & Treatment

Factors Which May Affect Upper Airway Patency
- Trach tube size or type
- Upper airway obstruction
- Incomplete cuff deflation
- Edema
- Foam-filled cuff (absolute contraindication)
- Secretions
- Tracheal Stenosis

Assessment and Treatment of Common Issues

Inadequate exhalation or breath stacking
- Check for complete cuff deflation
- Suction trach tube and/or oropharynx
- Reposition patient and/or trach tube
- Retrain for normal breathing patterns
- Assess need for downsizing trach tube
- Consider direct visual assessment for airway obstruction

Coughing
- Allow patient time to move secretions
- Suction patient if needed
- For persistent or dry cough remove valve and reassess

Anxiety and/or Depression
- Use oral exhalation exercises
- Solicit family involvement
- Educate and use relaxation techniques
- Consult recreational and psychological therapies

Weak voice
- Glottic closure exercises
- Diaphragmatic breathing exercises
- Expiratory muscle strength training

Therapy Techniques

Activities to Encourage Oral Exhalation
- Bubbles
- Whistles
- Horns
- Kazoos
- Pinwheels
- Straws
- Cotton balls
- Expiratory muscle strength training exercises

Activities to Encourage Voicing and Speech
- Singing
- Humming
- Counting
- Talking on the phone
- Prolonging vowels

Education & Clinical Support

Speech and Respiratory Clinical Specialists are available to answer your questions
1-800-634-5397
info@passy-muir.com

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