

Appendix 1**Survey: Aerosol Delivery to Spontaneously Breathing Pediatric Patients with a Tracheostomy**

Free standing children's hospital? Yes No

Number of beds Under 100 100-299 300-499 500 and over

Are any of the following devices used to deliver inhaled medications to spontaneously breathing pediatric patients with a tracheostomy? More than one option may apply.

Metered dose inhaler

- No
- Valved holding chamber. Brand name _____
- Hyperinflation with resuscitation bag and non-valved spacer. *Hyperinflation is defined as the use of a resuscitation bag or other device in conjunction with aerosolized medications for the purpose of increasing the inhaled tidal volume.*
- Hyperinflation with resuscitation bag and MDI adapter/port. Type _____
- Hyperinflation with other device _____
- Other _____

Updraft nebulizer

- No
- Tracheostomy aerosol mask
- Blow-by
- T-piece attached to trach: capped/uncapped/6 inch corrugated tubing
- Hyperinflation with resuscitation bag
- Hyperinflation with other device _____
- Other _____

Dry powder inhaler

- No
- Yes _____

When hyperinflation technique is used for spontaneously breathing children with a tracheostomy, what type of resuscitation bag is used?

- Not applicable
- Flow inflating bag: with pressure manometer/without manometer
- Self inflating bag: with pressure manometer/without pressure manometer

ONLINE DATA SUPPLEMENT

What types of inhaled medications are administered to spontaneously breathing children with a tracheostomy and which device is used? Some are available in more than one device.

- Inhaled antibiotics NEB only
- Inhaled corticosteroids MDI DPI NEB
- Long acting beta agonists or anticholinergics DPI NEB
- Short acting beta agonists or anticholinergics MDI NEB
- Combination ICS/LABA MDI DPI NEB
- Mucolytics NEB only

When more than one type of delivery device is used for the same medication class, what is the single most important factor used to determine which device is used?

For medications administered by nebulizer, which type and brand is used?

- Breath actuated jet Brand _____
- Breath enhanced jet Brand _____
- Continuous jet Brand _____
- Ultrasonic Brand _____
- Vibrating mesh Brand _____

Rank the following factors (listed in alphabetical order) on a scale of 1-5 which influence the method of aerosol delivery for tracheostomized spontaneously breathing pediatric patients with 5 being the most important and 1 is not important.

- ___ Convenience
- ___ Cost
- ___ Degree of patient cooperation
- ___ Family preference
- ___ Insurance preferred drug list
- ___ Medication availability for specific devices
- ___ Objective measurements
- ___ Patient age
- ___ Physician preference
- ___ Respiratory therapist preference

Which factor would you consider the single most important in determining the method?

Are any objective measurements obtained to help determine the method of aerosol delivery for spontaneously breathing patients with a tracheostomy?

- No
- Yes _____