SKILL 49 Tracheostomy Suctioning

EQUIPMENT

Appropriately sized resuscitation equipment (mask, valve, bag)
Oxygen and humidity delivery source
Suction source, canister, and connecting tubing
Gloves, mask, goggles, gown (as appropriate)
Spare tracheostomy tubes (see note below)
Spare tracheostomy tube holder
Appropriately sized suction catheter pack (#8 to #10 French for children, #5 to #8 French for infants)
Normal saline and container
Moisture-resistant disposable bag

NOTE: For a new tracheostomy, spare tracheostomy tubes should include same size and $^1/_2$ size smaller. For an established tracheostomy, spare tracheostomy tubes should be same size.

SAFETY

1. Be gentle in all aspects of care. *Clients should not feel any discomfort or unpleasant feelings at the site.*
2. Be prepared to maintain airway and initiate resuscitation measures should child exhibit progressive signs of respiratory or cardiac distress.
3. Initiate "Code Blue" and provide resuscitation if child experiences respiratory or cardiac failure.

NOTE: Suction only after careful assessment indicates the need to do so. Coordinate suctioning with other pulmonary hygiene interventions, e.g., inhaled bronchodilators, chest physiotherapy. Provide adequate hydration to minimize mucosal drying and promote ciliary action.

PROCEDURE

1. Gather equipment. *Improves organization and effectiveness.*
2. Assemble suction canister and connecting tubing to suction source. Set suction levels as follows: 80–100 mm Hg for infants and children under 10–12 years, 100–120 mm Hg for older children. Ensure appropriate resuscitation equipment (mask, valve, bag) is at bedside.
3. Turn on oxygen source attached to the resuscitation bag to inflate the reservoir bag.
4. Wash hands. *Reduces transmission of microorganisms.*
5. Identify an assistant to help position, hold, and comfort child as necessary.
6. Prepare child and family. Consider having someone support or comfort the child. *Enhances cooperation and parental participation and reduces anxiety and fear.*
7. Perform baseline respiratory assessment.
8. Open and prepare suction pack and normal saline container, maintaining clean technique.
9. Place head of the bed at a 30° angle. Use least restrictive immobilizing techniques (use assistant as necessary).
10. Don mask, gloves, goggles, and gown (as needed). Observe standard and droplet precautions according to policy.
11. Using dominant hand, remove protective covering, pick up suction catheter, and connect it to the suction tubing with nondominant hand. Check suction pressures once catheter is connected. Place distal end of catheter in a cup of sterile saline to test the suction.
12. With nondominant hand, remove humidity source from the tracheostomy tube. Oxygenate the child before suctioning, using resuscitation bag in your nondominant hand. Give several breaths. (Figure 32A)

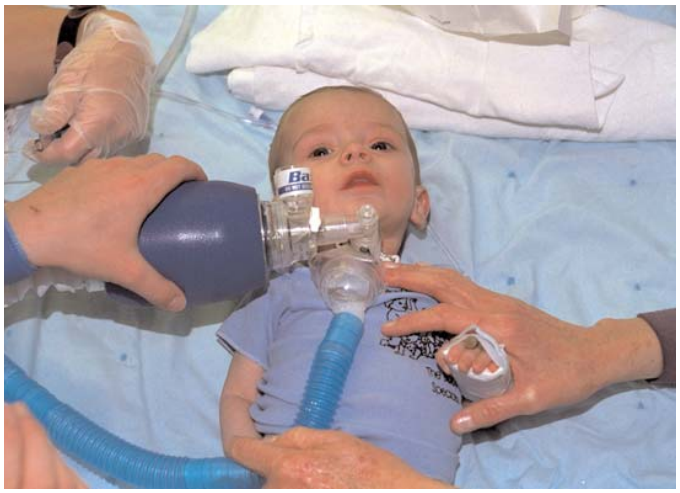

FIGURE 32A Oxygenating child prior to suctioning.

13. Remove the resuscitation bag. Using dominant hand, place the suction catheter into the tube, making sure no suction is applied. Advance the catheter no farther than $^1/_4$ to $^1/_2$ inch below the edge of the tracheostomy tube.

continued

SKILL 49 Tracheostomy Suctioning *continued*

NOTE: To assist in judging how far to insert the catheter, place an appropriately sized catheter into an extra artificial airway of the same size. Verify appropriate depth for suctioning and mark suction catheter to the appropriate depth with tape. (Figure 32B)

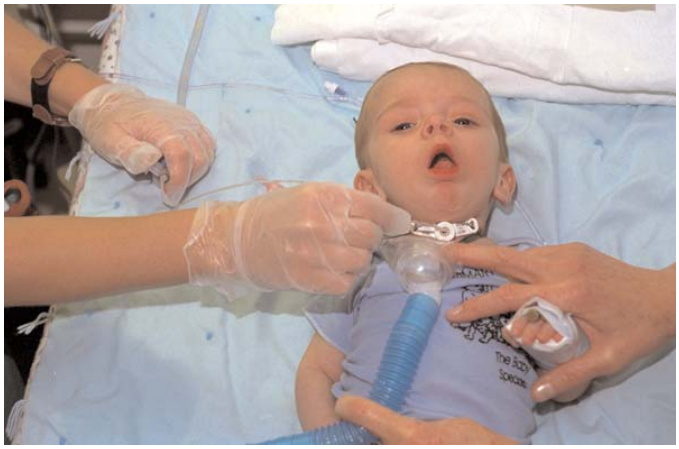

FIGURE 32B Using dominant hand, place the suction catheter into the tube.

14. Apply intermittent suctioning by covering the suction control hole with thumb. Gently rotate the catheter while withdrawing the catheter. Limit continuous suction within the airway to no more than 5 (infants)–15 (child) seconds. (Figure 32C)

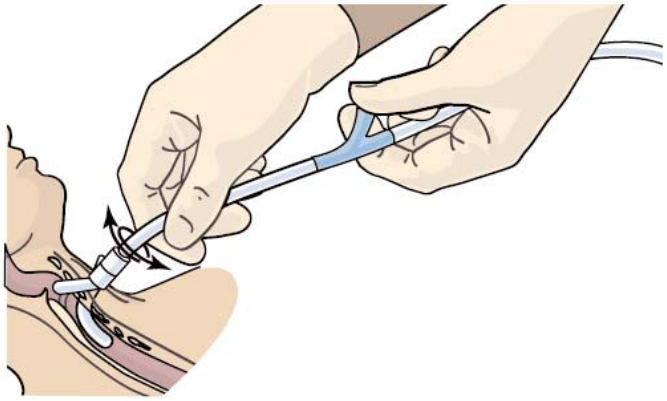

FIGURE 32C Gently rotate the catheter while withdrawing the catheter.

15. Remove the catheter and flush with sterile saline.

NOTE: The use of normal saline to irrigate the tracheostomy tube remains controversial. Follow policy, keeping the following guidelines in mind: 3–5 drops for an infant, 0.5 ml for a child, up to 1–3 ml for an adolescent.

16. Oxygenate child. If necessary, repeat steps 13–15, being sure to oxygenate (or hyperoxygenate) between suctioning. Allow 20–30 second intervals between each episode of suctioning. Limit suctioning to a total of 5 minutes.
17. Assess respiratory status, including respiratory rate, color, and effort. Auscultate breath sounds.
18. Comfort child.

DOCUMENTATION

Assess and document the following prior to and following the procedure.

1. Child's general condition prior to and immediately after suctioning. Note how well the procedure was tolerated and if any difficulties occurred during the procedure.
2. Client assessment prior to and immediately following suctioning. Note oxygen requirements, oxygen saturation, respiratory rate, effort, color, breath sounds, and heart rate. Particularly note periods of desaturation.
3. Color, consistency, and amount of secretions.
4. Note any complications that occurred.
5. Note notification of physician regarding complications or unexpected responses that occurred.
6. Client cardiorespiratory assessment every 4 hours, or more frequently if needed, type and flow rate of oxygen on follow-up visits.