TRACHEOSTOMY SUCTIONING

PURPOSE
To maintain a patent airway.
To facilitate air exchange by removing secretions from the trachea.
To minimize tracheal trauma.

APPLIES TO
- Registered Nurses
- Licensed Practical/Vocational Nurses
- Therapists
- Other (Identify): ________________________

EQUIPMENT/SUPPLIES
- Suction machine and connector tubing.
- One pair of disposable gloves.*
- Suction catheter (size 12-16 Fr. for adult; 6-12 Fr. for child).*
- Normal saline or tap water.*
- Water-soluble lubricant.*
- Basin.*
- Oxygen, if needed by client (Clean technique is used unless otherwise indicated).

*Note: If suctioning is to be done with sterile technique, these items must be sterile. A newly formed tracheostomy requires sterile technique until the incision heals and the stoma is well-developed in order to prevent the introduction of microorganisms.
PROCEDURE

1. Wash hands. Refer to the Hand Washing procedure.

2. Assess: status of tracheostomy, type of tracheostomy tube (metal, plastic, cuffed) breath sounds and quality of respirations, type of secretions and appearance of skin around tracheostomy site.

3. Place the client in high-Fowler’s position, if appropriate. Cover chest with a small towel.

4. Prepare suction equipment and turn the machine on. Set the vacuum regulator to appropriate negative pressure, if the machine is variable. Elevated pressure settings increase risk of trauma to the tracheal mucosa.

5. Open catheter and supplies. Don gloves, and gown and mask as indicated. Pour water or normal saline into basin.
   a. Sterile Technique: Use sterile technique with sterile gloves and supplies as noted above.
   b. Clean Technique: Use clean technique with clean gloves and supplies as noted above.

6. Attach the catheter to tubing. Suction a small amount of water from the basin.

7. Lubricate the catheter tip with water-soluble lubricant.

8. With your thumb off the control, insert the catheter approximately five inches into tracheostomy. This minimizes the risk of mucosal damage and hypoxia and positions the catheter correctly.

9. Apply intermittent suction (10-12 sec.) by placing and removing the thumb over the control as you gently withdraw the catheter while rotating it back and forth between the thumb and index finger.
   a. Encourage the client to cough.
   b. Intermittent suction and rotation of catheter minimizes hypoxia and injury to mucosa.
   c. Coughing helps with the removal of secretions.

10. If secretions are difficult to remove, you may instill 3-5 ml of sterile normal saline into the tracheostomy.

11. Place the catheter into water or normal saline. Apply suction to rinse the catheter and connecting tubing.

12. Allow for a rest period (one to three minutes between passes) and repeat procedure until the airway is cleared.
a. Limit suction time to three to five minutes. Reapply oxygen as needed.

b. Rest periods allow for rest and reoxygenation.

c. Repeated passes with the suction catheter help to clear the airway of excessive secretions and promote oxygenation.

13. Perform nasal and oral pharyngeal suctioning after tracheal suctioning is completed. This removes upper airway secretions and prevents additional introduction of microorganisms into the respiratory tract.

14. Remove gloves and dispose of equipment according to the Agency Waste Disposal Policy.

15. Reassess the client’s respiratory status.

16. If clean technique is used, catheters may be reused. Clean in warm, soapy water. Rinse with water and dry thoroughly. Store in a clean, dry area.

17. Suction catheters are discarded after 24 hours or cleaned with 50% hydrogen peroxide solution and boiled for 10 minutes - air dried and stored in a plastic bag. Suction bottle is emptied and cleaned with hot soapy water every 24 hours. Suction tubing is cleaned with soap and water and air dried.

**DOCUMENTATION GUIDELINES**

1. Document in the clinical record:
   a. Respiratory status quality and rate of respirations.
   b. The client’s tolerance of suctioning procedure.
   c. Color, amount, consistency and odor of secretions.
   d. Replacement of oxygen therapy as indicated.

**RELATED PROCEDURES**

None.