I. PURPOSE
   1. To keep area clean and free from excessive amounts of secretions.
   2. To keep tracheostomy open and prevent obstruction of the air passage and protect the airway from aspiration due to impaired cough and gag reflex.

II. SCOPE
   Nursing

III. POLICY
   GENERAL DIRECTION AND/OR PRECAUTIONS:
   1. Tracheostomy tubes are changed by a physician or RN.
   2. Tracheostomy care can be done by RN or LPN.
   3. NEVER provide any type of trach care if inexperienced unless being supervised/assisted by a nurse with experience.
   4. Tracheostomy care is completed every shift and PRN.
   5. Signs that patient may require suctioning:
      a) Rattling mucus sounds from the trach.
      b) Fast breathing.
      c) Bubbles of mucus in trach opening.
      d) Dry rasping breathing or whistling noise from trach.
      e) Retractions (pulling in of the skin between ribs and below breast bone, above collar bones or in the hollow of neck.
      f) Restlessness
      g) Flared nostrils
   6. Inner cannula (if present) is cleaned every shift and PRN.
   7. Trach ties or Velcro straps are changed weekly and PRN.
   8. A tracheostomy tube of the same size and type as well as a tube that is one size smaller and an obturator must be kept (taped to the wall) in a visible area in the medicine room.
   9. Disposable suction containers are changed weekly or PRN.
   10. Trach tubes that become dislodged can be reinstated by RN. If completely out, insert a new trach. If none available use same trach tube. Use obturator to reinsert dislodged trach. If partially out, carefully push back in.
   11. Inner Cannula (if present) is to be removed prior to suctioning unless using closed suction catheters.
   12. Suction tracheostomy before trach care, allowing patient to replenish oxygen supply prior to performing trach care.
   13. Sterile catheter and glove must be used when tracheostomy is suctioned.
   14. The suction catheter can be inserted into the tracheostomy tube the distance from the external end of the tracheostomy tube, 4 to 5 inches to the tracheal bifurcation (camia).
   15. Be careful to avoid vigorous suctioning, as this may injure the lining of the airway.
   16. Two people must be present when changing trach ties or Velcro straps if patient’s condition warrants, i.e., combative, excessive coughing.
17. There should be enough space between neck and ties to admit one finger.
18. **NEVER** use Vaseline or petrolatum as a lubricant on any trach equipment.
19. Powder should **NOT** be used in patient’s room.
20. Complications to watch for and report to physician:
   a) Bleeding – oozing.
   b) Signs of infection.
   c) Subcutaneous emphysema.
   d) Obstruction of tube.
   e) Difficulty breathing.
   f) Asymmetrical chest expansion

**EQUIPMENT:**
1. Same size trach tube with obturator
2. Size smaller trach tube with obturator for emergency use
3. Trach ties or Velcro Straps
4. Sterile water soluble lubricant (KY-jelly)
5. Hydrogen Peroxide
6. Sterile Normal Saline or sterile water
7. Tracheostomy Care Kit
8. Drain Sponge Dressing (sterile pre-cut)
9. Gloves & small biohazard bag
10. Suction catheter and sterile gloves
11. Suction machine and connecting tubing
12. Oxygen source

**PERFORMING TRACHEOSTOMY SUCTIONING:**
1. Wash hands
2. Explain the procedure to patient.
3. Assess lung sounds.
4. Turn suction on (Adult: 80-120 mmhg)
5. Open sterile suction catheter.
6. Remove sterile container and fill with sterile normal saline or sterile water.
7. Put on sterile gloves and remove catheter from package.
8. Determine that suction equipment is working properly by suctioning small amount of sterile solution through the catheter.
9. Open sterile 4 x 4 gauze. Remove inner cannula, if present, and place on the 4 x 4. If using closed suction catheter, you do not need to remove inner cannula.
10. Squirt 3-4 cc’s (unit dose vials can be used) saline or sterile water solution into tracheostomy tube only if secretions are thick and tenacious. Excessive use of saline is not recommended.
11. Have patient cough before suctioning.
12. Insert catheter 4-5 inches into tracheostomy tube, or until the patient coughs (until resistance is met), with control valve open. (View Figure 55 Suctioning Tracheostomy Tube on page 4.)
13. Put thumb over control valve to create suction and using a circular motion (twirl catheter between thumb and index finger) while withdrawing the catheter for no more than 10 seconds.
14. Draw saline from cup through catheter to clear catheter and tubing.
15. Repeat suctioning procedure as necessary. Have patient breathe deeply for 1 minute between suctioning procedures.
16. Wipe inner cannula off with sterile 4 x 4 if secretions present and reinsert.
17. Assess lung sounds.
18. Wash hands.

**PROCEDURE FOR CLEANING TRACH WITH INNER CANNULA:**
1. Wash hands.
2. Explain procedure to patient.
3. Make sure suction equipment and additional tracheal tubes are available. Suction patient before cleaning.
4. Open tracheostomy care kit using sterile technique.
5. Wearing clean glove, remove and place tracheostomy dressing from the patient in opened biohazard bag.
6. Put a sterile glove on one hand.
7. Separate basins with gloved hand.
8. Pour $H_2O_2$ in one basin, and saline or sterile water in the other basin. (with ungloved hand)
9. Put a sterile glove on other hand.
10. Turn inner cannula counter-clockwise and remove by pulling down and out. (If metal trach, turn latch counter clockwise about 90° to unlock cannula). Secure outer cannula at neck plate with left index finger and thumb.
11. Gently pull the inner cannula slightly upward and out toward you.
12. Immerse cannula in $H_2O_2$ solution. To remove secretions, use the brush/pipe cleaner.
13. Rinse cannula in the sterile saline or water for approximately 10 seconds.
14. Dry inside of the cannula by using two pipe cleaners twisted together. Place cannula on sterile 4x4 gauze and dry thoroughly.
15. Suction the outer cannula.
16. Insert cannula keeping curved portion down; hold outer plate firmly to help prevent coughing out cannula.
17. Lock cannula in place by turning clockwise (if metal, turn latch).
18. Clean trach plate and around tracheostomy with 4 x 4 gauze moistened with $H_2O_2$ then rinse with 4 x 4 gauze moistened with saline or water.
19. Slide pre-cut dressing in place around trach tube with opening toward chin.
20. Wash hands.

**PROCEDURE FOR CHANGING TRACH TIES:**
1. Wash hands and put on gloves.
2. Knot one end of each tie to prevent fraying.
3. Have the second person hold trach plate steady while removing ties, if necessary, to prevent patient from “coughing out” trach tube.
4. Slip the one end of the twill tie that isn’t knotted through the trach plate slot from the bottom and feed it through the slit, gently pull it taut; repeat other side.
5. Tie both twills together on the side of the patient’s neck in a double knot. Tie so one finger can be inserted between tie on each side.
6. Wash hands.

**PROCEDURE FOR CHANGING VELCRO STRAPS:**
1. Wash hands and put on gloves.
2. Remove Velcro straps from the patient’s neck.
3. Have second person hold trach steady while removing the straps, if necessary, to prevent patient from “coughing out” the trach tube.
4. Replace the Velcro straps on each side of trach plate.
5. Velcro straps together at side of neck or back of neck. Velcro so only one finger can be inserted between strap on each side.
6. Wash hands.

**PROCEDURE FOR CHANGING TRACHEOSTOMY DRESSING:**
1. Wash hands and put on gloves.
2. Wash skin, stoma site and flanges of tube with moistened $H_2O_2$ 4 x 4 gauze (or cotton-tipped swabs) being careful not to get too much liquid near the stoma.
3. Rinse area with moistened sterile saline or water 4 x 4 gauze (or cotton-tipped swabs) and dry with sterile gauze.
4. Slide pre-cut dressing in place around tube with opening toward chin.
5. Wash hands.

**PROCEDURE:**

**MAJOR STEPS**
1. Changing of trach tube

**KEYPOINTS**
1. Done every 4 weeks or as ordered by physician.
2. May be done by physician or a trained RN.
3. Obtain new trach tube (same size and one that is one size smaller) and suction equipment.
4. Suction using sterile technique.
5. Remove inner cannula of trach
6. Remove outer cannula of trach.
7. Insert new trach with obturator
8. Remove obturator.
9. Suction
10. Insert inner cannula
11. Follow procedure for securing with velcro strap or trach ties.

DOCUMENTATION:
1. Document procedure, how patient tolerated procedure, color, odor, amount and consistency of secretions, and assessment of trach site in Progress notes.

REFERENCES:
Figure 55: Suctioning Tracheostomy Tube

a. Insertion of suction catheter to proper depth; suction port remains open

b. Suctioning airway in circular motion as catheter is removed; suction port closed