Tracheostomy Tube Change Protocol

Purpose of procedure:
Properly and safely replace the patient’s current tracheostomy tube (artificial airway) with a new or cleaned / sanitized re-usable tracheostomy tube. Procedure can be performed according to a designated schedule as part of the plan of care or as an emergency procedure if needed to maintain a patent airway.

Clinical considerations:
Scheduled, non-emergent tracheostomy tube changes are performed with two trained caregivers without exception. Frequency of scheduled, non-emergent tracheostomy tube changes will vary according to physician orders, patient tolerance and other factors such as tracheostomy tube size.

Emergency tracheostomy tube changes could be necessary at any time and may be performed by one trained caregiver when necessary.

Assemble supplies:
- Emergency bag available and with patient includes the appropriate type and size, and step-down type and size tracheostomy tube(s) with obturator(s).
- Suction machine with tubing
- Correct size suction catheter
- Resuscitation bag & mask
- Pulse oximeter if available & applicable
- Oxygen if available & applicable
- Clean gloves
- Verified new appropriate type and size tracheostomy tube with obturator
- Leur lock syringe
- H2O soluble lubricant / gel
- Tracheostomy tube holder
- Gauze
- Tape
- Scissors
- Equipment to obtain vital signs

Preparation:
1. Check Physician’s order for detailed instructions specific to the patient.
2. Explain and prepare the patient for the procedure.
3. Prior to performing the procedure, assemble appropriate supplies and plan all actions.
4. Utilize appropriate infection control techniques while preparing, using, and discarding supplies.
5. Apply pulse oximetry if appropriate and available.
6. Communicate with 2nd caregiver if present; delegate role of person #1 and person #2
7. Verify suction setting is appropriate for patient.
8. Obtain vital signs. Eliminate this step in an emergency.
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9. Position patient to optimize ease of procedure. Use shoulder roll or other positioning device under shoulders as appropriate to hyperextend the patient’s neck.
10. Perform tracheostomy care at this time if necessary. Eliminate this step in an emergency.

Procedure:

1. Wash hands or use hand sanitizer as appropriate and apply clean gloves using clean technique.
2. If using new tracheostomy tube, remove new tracheostomy tube from packaging if necessary and place in package or on clean gauze.
3. If re-using a clean, sanitized tracheostomy tube, remove tracheostomy tube from zip lock bag and place on clean gauze.
4. For cuffed tracheostomy tube
   a. Inflate cuff and palpate for intact cuff and check for cuff leak
   b. Deflate the cuff completely using syringe.
   c. For Shiley cuffed tubes, manually pull cuff away from insertion end of tracheostomy tube for minimal obstruction with insertion.
5. Secure velcro ties through trach flange hole(s) (both holes for two-piece ties and one hole for one-piece ties); If this is an emergency trach change, ties will already be attached to tracheostomy tube.
6. Insert the obturator into the tracheostomy tube.
7. Lubricate the tube and obturator tip using a thin layer of H2O soluble lubricant / gel.
8. Swaddle pediatric patient if necessary or have one person hold patient in comfortable, secure position for procedure.
9. Suction orally to remove secretions that might have pooled above the tracheostomy tube cuff if needed. Eliminate this step in an emergency.
10. For cuffed tracheostomy tubes
    a. Using syringe completely deflate the tracheostomy tube cuff currently placed in patient’s trachea.
    b. Suction after cuff deflation if necessary.
11. Cut or unfasten tracheostomy ties.
12. Remove existing tracheostomy tube from patient’s trachea in a smooth motion and set aside.
13. Take new tracheostomy tube in hand, secure obturator with 1 or 2 thumbs for insertion.
    a. If tracheostomy tube cannot be inserted, re-position head/neck and try again up to 3 attempts
    b. If tracheostomy tube still cannot be inserted, insert step down tracheostomy tube and call Clinical Manager or on call Nurse Manager to arrange trip to Emergency Department for re-insertion of regular size tracheostomy tube.
    c. If step-down tracheostomy tube cannot be inserted, occlude stoma with gauze and tape and administer breaths using the resuscitation bag and mask.
    d. Activate EMS and continue to give breaths and assess for circulation; be prepared to administer CPR if necessary.
    e. If bagging is ineffective, re-attempt insertion of step-down tracheostomy tube until help arrives.
    f. Re-attempt to place step-down if patient loses consciousness.
15. Immediately withdraw obturator while securing tracheostomy tube with one hand.
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16. Insert inner cannula if applicable (Re-usable twist lock - line up blue dots; disposable - snap lock both sides of winged neck flange)

17. One person:
   a. Administer breaths with resuscitator bag if needed.
   b. Secure tracheostomy ties.

18. Two person:
   a. Reconnect ventilator
   b. Secure tracheostomy ties.

19. Reconnect ventilator if applicable.

20. Administer oxygen if required.

21. Cuffed tracheostomy tube
   a. Inflate cuff to the prescribed volume using minimal leak technique.

22. Ensure tracheostomy ties are secure with appropriate space allowance between neck and tracheostomy ties: index finger for adults and tip of little finger for pediatrics.

23. Assess vital signs.

24. Properly dispose of or clean all ancillary supplies.

25. Discard tracheostomy tube and obturator if damaged, expired or re-use limit has been reached.


27. Document the procedure, including tolerance, type and size of tracheostomy tube, ease of extubation and insertion, status of stoma, presence of blood, odor, secretions, granulation, oxygen saturations, vital signs prior to and after procedure.