

STANDARDIZED PROCEDURE

TRACHEOSTOMY TUBE REPLACEMENT (Adult, Neonatal, Peds)

I. Definition

Many patients may require tracheostomy placement for congenital or acquired pulmonary problems. Tracheostomy placement may be short-term or long-term depending upon the underlying condition. This procedure will take place when the tracheostomy tube needs to be changed. This may be because the tube is no longer functioning or has been in place for a period of time that warrants changing the tube. The purpose of the procedure is to allow the Advanced Health Practitioner (AHP) to safely remove and, if needed, replace a tracheostomy tube.

II. Background Information

A. Setting:

The setting (inpatient vs outpatient) and population (adults vs pediatrics) for the AHP is determined by the approval of the privileges requested on the AHP Privilege Request Form. If the procedure is being done on a Pediatric patient, make sure Child Life Services is involved and use age appropriate language and age appropriate developmental needs with care of children, as appropriate to the situation.

- B. Supervision:** The necessity of this protocol will be determined by the AHP in collaboration with the supervising physician or his/her designee. Designee is defined as another attending physician who works directly with the supervising physician and is authorized to supervise the AHP.

Direct supervision will not be necessary once competency is determined, as provided for in the protocol. The AHP will notify the physician immediately upon being involved in any emergency or resuscitative events or under the following circumstances:

1. Patient decompensation or intolerance to the procedure
2. Bleeding that is not resolved
3. Unexpected resistance is met during tube withdrawal or replacement.
4. Outcome of the procedure other than expected

C. Indications

1. Postoperative tracheostomy placement by the surgical team.
2. Directed by physician to change the tube
3. Tube is not functioning properly
4. The surgeon or his/her designee has declared that the tube should be removed.

D. Precautions/Contraindications:

1. Patient with coagulopathy, platelets <50,000, respiratory distress
2. The insertion site should be carefully inspected before the tracheostomy tube is removed to identify soft tissue injury, granulation tissue or signs of infection.

III. Materials

1. Appropriate size tracheostomy tube, as well as one size smaller, along with trach ties

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2. Ambu bag
3. Suction equipment

IV. Tracheostomy Tube Replacement

A. Pre-treatment evaluation

The tracheostomy site will be reviewed by the AHP, along with inspection of the insertion site, the trach itself, the patient's specific airway anatomy and the clinical picture. Working collaboratively, the necessity of the procedure will be determined along with the expected outcomes of the procedure and the treatment team. Time-out and evaluation of laboratory parameters will also be done.

B. Set up (if applicable)

1. Gather necessary supplies.
2. Respiratory therapist available at bedside.

C. Patient Preparation

1. Explain procedure to patient and/or family.
2. Physician's order will be obtained for the initial postoperative tracheostomy change
3. Position the patient in a supine position that gives adequate access to the trach site.

D. Procedure

1. For the initial postoperative trach change:
At 5-10 postoperative days, if the patient is clinically stable, the tracheostomy tube will be changed by the AHP. A physician's order will be obtained for a postoperative tracheostomy change.
2. For pediatric patients, the parents will be notified of the tube change and will be invited to be present at the bedside for observation, in preparation for discharge training. Prior to the tube change, they will be given an instructional video and booklet to review.
3. The tube will be changed in the following manner:
 - a. The patient will be positioned in the supine position with a roll under the shoulders to extend the neck.
 - b. The new tracheostomy tube will be removed from the package. If using a trach tube with balloon – complete a balloon test inflation and deflation. The tube should be lubricated with water soluble lubricant. The cloth tie in the package will be threaded through one side of the new tube.
 - c. The old tracheostomy ties will be removed, and sutures attaching the tube to the neck will be removed and the patient will be decannulated (after first deflating current balloon, if balloon tube is in place).

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- d. The tracheostomy stay sutures will be grasped and pulled upward and outward to open the tracheostomy in preparation for recannulation.
- e. The new tube will be inserted, with the obturator in place.
- f. Once inserted, the obturator will be removed and the patient will be connected to a ventilator or mist, as appropriate. Before securing the ties, the respiratory therapist will listen to breathing sounds to confirm proper cannulation of the trachea. If balloon tube is used, inflate balloon and check for airflow through the tube.
- g. The ties will be secured and the roll removed from under the patient's shoulders and the stay sutures will be removed from the skin.
- h. If patient is to stay decannulated, tape 4X4 across site.

E. Post-procedure

Nursing to follow up with any change in respiratory pattern noted
Order stat CXR as indicated

F. Follow-up treatment

Instruct patient/family on wound/trach care as needed, and on the signs and symptoms of infection or airway problems.

G. Termination of treatment:

Inability to recannulate trachea

V. Documentation

A. Documentation is in the electronic medical record

1. Documentation of the pretreatment evaluation and any abnormal physical findings.
2. Record the time out, indication for the procedure, procedure, size of tube used, the outcome, how the patient tolerated the procedure, medications (drug, dose, route, & time) given, complications, and the plan in the note, as well as any teaching and discharge instructions.

B. All abnormal findings are reviewed with supervising physician

VI. Competency Assessment

A. Initial Competence

1. The AHP will be instructed on the efficacy and the indications of this therapy and demonstrate understanding of such.
2. The AHP will demonstrate knowledge of the following:
 - a. Medical indication and contraindications of tracheostomy replacement

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- b. Risks and benefits of the procedure
 - c. Related anatomy and physiology
 - d. Consent process (if applicable)
 - e. Steps in performing the procedure
 - f. Documentation of the procedure
 - g. Ability to interpret results and implications in management.
3. AHP will observe the supervising physician perform each procedure three times and perform the procedure **three** times under direct supervision.
 4. Supervising physician will document AHP's competency prior to performing procedure without direct supervision.
 5. The AHP will ensure the completion of competency sign off documents and provide a copy for filing in their personnel file and a copy to the medical staff office for their credentialing file.

B. Continued proficiency

1. The AHP will demonstrate competence by successful completion of the initial competency.
2. Each candidate will be initially proctored and signed off by an attending physician. AHP must perform this procedure at least **three** times per year. In cases where this minimum is not met, the attending, must again sign off the procedure for the AHP. The AHP will be signed off after demonstrating 100% accuracy in completing the procedure.
3. Demonstration of continued proficiency shall be monitored through the annual evaluation.
4. A clinical practice outcomes log is to be submitted with each renewal of credentials. It will include the number of procedures performed per year and any adverse outcomes. If an adverse outcome occurred, a copy of the procedure note will be submitted.

VII. RESPONSIBILITY

Questions about this procedure should be directed to the Chief Nursing and Patient Care Services Officer at 353-4380.

VIII. HISTORY OF POLICY

Revised Nov 2012 by Subcommittee of the Committee for Interdisciplinary Practice

Reviewed Nov 2012 by the Committee on Interdisciplinary Practice

Prior revision Nov 2008

Approved Nov 2012 by the Executive Medical Board and the Governance Advisory Council.

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