Care of Endotracheal/Nasotracheal/Tracheostomy Tubes

Purpose

To standardize the care of endotracheal/nasotracheal and tracheostomy tubes.

Scope

To maintain patency of artificial airways: Decrease potential trauma to the trachea, prevent aspiration of secretions, and provide general guidelines and procedures for airway care.

Guideline

It is the role of the department of Respiratory Care Services to maintain/monitor the patency of artificial airways of intubated patients.

All artificial airways will be stabilized.

- The tracheostomy tube will be secured with Velcro trach ties or cloth ties at either side of the neck except neurosurgery patients. . When changing the ties, the tracheostomy tube must be held in place to prevent extubation. Ties must always be double "bow tied".
- The endotracheal tube will be firmly secured by a Hollister.
- Endotracheal tube must be repositioned every 6 hours and documented in Epic.

Except in emergencies, generally the physician is the only one who changes the tracheostomy tube until patient family teaching begins. At that time a nurse or respiratory therapist may instruct on changing the tube.

A patient with an oral endotracheal tube may have an oral airway or bite block in place that should be changed <u>at least</u> every 24 hours.

A ventilator, T-tube, or trach collar will provide constant humidification. Corrugated tubing should be emptied by disconnecting the tubing and draining into an appropriate receptacle.

T-tube or ventilator tubing will be supported to prevent trauma to the nose, mouth, or trachea.

An extra tracheostomy tube of the same size is to be kept at the bedside at all times.

- The obturator (enclosed in plastic) must be taped to the head of the bed or the patient's chart at all times.

Breath sounds will be auscultated before and after treatment and the patient will be assessed for any adverse signs and symptoms.

Always use sterile technique when working with a tracheotomy.

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Guidelines Continued

Sterile disposable catheters and sterile gloves are to be used for each suctioning. All patients requiring an artificial airway will have a manual resuscitator and mask attached to O_2 flow meter at wall 100% FiO_2 set at 10 lpm at the bedside at all times.

Patients requiring continuous ventilatory support will have tracheotomy cuff inflated unless specifically ordered otherwise or the patient has a pediatric uncuffed trach.

- In the event a patient has a Bivona style foam cuffed tracheotomy tube, the pilot balloon is left open to ambient pressure unless specifically ordered by the physician. If ordered, full documentation must be made in Epic - and the Clinical Specialist and/or Supervisor notified. Close monitoring of the patient must be maintained.

Respiratory Care Practitioners will be responsible for monitoring cuff pressures

Care of a tracheotomy is primarily a nursing responsibility. The Respiratory Care Practitioner will be responsible for monitoring airway cuff pressures and patency of airway.

Perform minimal occluding volume technique per departmental policy and procedure.

Equipment

- Oral Care Kit
- Manual Resuscitator
- Mask

Procedure

Step	Action
1	Explain procedure to the patient and position the patient.
2	Have manual resuscitator and mask at bedside on at 10 lpm. Have adhesive tape prepared and all other supplies ready.
3	Suction the endotracheal tube and the oral cavity. Remove the oral airway or bite block. Clean the oral cavity. Swab mouth with toothette that has been dipped in mouthwash.

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Procedure Continued

Step	Action
4	Care for the oral endotracheal tube. Change position of the oral endotracheal tube with a Hollister from one side of mouth to the other by moving the clip.
Note:	The condition of nares and skin integrity if nasal endotracheal tube is in place should be noted.
5	Replace oral airway or bite block. If using an airway, place sideways into mouth and rotate airway towards chin as inserting over tongue and into pharynx.
6	Secure endotracheal tube and airway or block. Firmly secure in place. Use the upper lip to anchor the tape. Do not tape over the bridge of the nose if nasal endotracheal tube is in place.
7	Check position of endotracheal tube. Auscultate the lungs to ensure bilateral breath sounds.
8	Ensure comfort of patient. Suction endotracheal tube if any secretions are obstructing airways. Check for pressure spots where taped.
9	Chart the procedure. Note condition of mouth and skin around nares; character of secretions, placement of the tube and how patient tolerated procedure.

Adverse Reactions

Cuff Leaks

- Ventilation and oxygenation must be maintained while preparation is being made for replacement of a tube with a faulty cuff.
- In the case of a tracheostomy tube, it may be necessary to support ventilation by bag and mask from above.

Inadvertent Extubation

- Replacement of the endotracheal tube or tracheostomy tube should be attempted, but if it cannot be accomplished immediately, the tube should be completely removed.

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Adverse Reactions Continued

- Ventilation and oxygenation must be established by any means available. Simple bag mask ventilation with occlusion of the tracheostomy stoma.

Obstruction - There are five common causes that must be immediately thought of:

- The tube may kink - slight manipulation of the head, neck, and tube will often correct the circumstances.
- The cuff can slip or herniate over the end of the tube, causing complete occlusion - immediately relieved by deflation of the cuff.
- Plugs within the lumen of the artificial airway causing partial or complete obstruction. Saline lavage and suction will often correct this problem.
- The tube may collapse or kink - this is most common with nasotracheal tubes that are impinged on by a deviated septum. Notifying physician and a recommendation for an oral endotracheal tube is best.
- The bevel of the tube may impinge upon the carina, the wall of the trachea, or bronchus - simple repositioning or manipulation of the tube often relieves this.

Infection Control

Follow procedures outlined in Healthcare Epidemiology Policies and Procedures #2.24; Respiratory Care Services.
http://www.utmb.edu/policy/hcepidem/search/02-24.pdf

Correspond-ing Policies

RCS Policy and Procedure Manual, Endotracheal Tube Placement, # 7.3.36.

RCS Policy and Procedure Manual, Suction of the Patient With an Artificial Airway, # 7.3.47.

References

AARC Clinical Practice Guidelines, Endotracheal Suctioning of Mechanically Ventilated Adults and Children with Artificial Airways; Respiratory Care, 1993; 38:500-504.

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