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Endotracheal Tube Placement Formulated: 04/91	Effective: 11/03/94 Revised: 11/03/14

Endotracheal Tube Placement

Purpose To assure proper placement of endotracheal tubes for maximum ventilation.

Scope It is the policy of Respiratory Care Service to assure proper placement of endotracheal tubes for intubated patients.

Endotracheal tube placement will be monitored and maintained by the Respiratory Care staff. Documentation will be made in Epic regarding tube size, placement, and cuff pressure with each ventilator assessment.

- Equipment Needed**
- 10 cc Syringe
 - 1-inch adhesive tape
 - Benzoin or Mastisol
 - Holister, ties, or tape
 - Allevyn dressing
 - Stethoscope
 - Suction equipment
 - ET CO₂ detector.

Procedure

Step	Action
1	Wash hands.
2	Check patient's chest x-ray for tube placement and presence of CO ₂ per ET CO ₂ detector after any new intubation; auscultate chest for equal breath sounds bilaterally, and adjust E.T. tube for proper placement. Check tube placement with each ventilator assessment. The optimal placement for the endotracheal tube is 2-3cm above the carina in adults.
3	At the beginning of each ventilator check, watch for equal chest movement and listen for equal breath sounds.
4	If repositioning of the endotracheal tube is warranted, suction the tube and then suction the oropharynx.
5	When possible, explain the procedure to the patient.

Procedure

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Continued

Step	Action
6	When possible, elevate head of bed to 45-degree angle.
7	Prepare adhesive tape or Holister tie and have all necessary equipment within reach.
8	Deflate the cuff and move the tube up or down to desired location. Using the minimal occluding volume technique, reinflate the cuff. Listen for equal breath sounds. If needed, suction patient's endotracheal tube again.
9	Retape endotracheal tube, using Benzoin or Mastisol for optimal stabilization, or secure Holister tie, after placing an Allevyn strip on the upper lip <ul style="list-style-type: none"> • If the patient is nasally intubated, use the upper mandible as an anchor for the tape. <u>Do not tape over the bridge of the nose.</u> • If the patient is orally intubated, use the upper lip to anchor the tape.
10	Record in Epic and airway management card the placement number of the proximal end of the endotracheal tube at the patient's gum line/incisor line or nare. Also record the minimal occluding volume and the distance the tube was moved (i.e. new placement).
11	Inform the physician of the repositioning of the tube and ask if he wants to order another chest x-ray.
12	If the endotracheal tube is at the level of the vocal cords, call the physician for repositioning. <u>DO NOT ATTEMPT</u> to advance the tube if it is at the cords. If the patient is showing signs of distress such as cyanosis, increased or decreased heart rate or blood pressure, absence of breath sounds, difficulty bagging, or loss of consciousness, pull the endotracheal tube and ventilate with a mask until the physician arrives for re-intubation.

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Assessment of Outcome

- Positive ETCO₂ detector
- Equal breath sounds and equal chest movement.
- Adequate tube placement via chest x-ray.

Adverse Reactions

- Aspiration
- Bronchospasm
- Advancement of endotracheal tube into right main stem bronchus
- Extubation

Steps to Take if Adverse Reactions Occur

- Aspiration - Suction patient's endotracheal tube. Suggest a chest X-ray and inform the physician of possible aspiration.
- Bronchospasm due to aspiration - Obtain a physician's order for bronchodilator therapy and administer at once.
- Advancement into right main stem bronchus - Pull back endotracheal tube until breath sounds are equal and there is equal chest movement.
- Extubation - Ventilate with a bag and mask and call the physician "STAT" for re-intubation.

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>

References

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