Winnipeg Regional Health Authority / Office régional de la santé de Winnipeg Caring for Health / À l'écoute de notre santé **CLINICAL PRACTICE GUIDELINE**	**Practice Guideline:** *ENDOTRACHEAL TUBE (Adult):* *PART A: APPLICATION OF HOLDER* *PART B: MOVING AND REPOSITIONING*	
	Approval Date: *March 2023*	**Pages:** *1 of 5* **Supercedes:** *N/A*

1. PURPOSE AND INTENT

1.1 To provide guidance and direction in the application of an endotracheal tube (ETT) holder, and the repositioning/moving of an ETT, for the purposes of reducing ETT-related injuries.

1.1.1 Applying an ETT holder may aid in decreasing the incidence of lip ulcers, facial skin tears, and accidental ETT dislodgement, and may aid in ETT repositioning.

1.1.2 Repositioning of the ETT may help to decrease the incidence of pressure related areas on the oral mucosa and surrounding skin.

2. DEFINITIONS

2.1. **Endotracheal tube holder**: A commercially prepared securement device specific to ETT.

2.2. **Health Care Provider (HCP):** An individual educated, trained and experienced in the procedures and considerations associated with a specific area of patient care.

3. GUIDELINES

3.1. The following practice guideline requires a HCP with advanced skill and knowledge related to ETT.

3.2. Application of the ETT holder requires two HCPs. One person shall stabilize the ETT and the other person shall secure the ETT holder.

3.3. The ETT shall be repositioned from one side of the patient's mouth to the other side a minimum of every 12 hours to reduce pressure areas on the lips, tongue, and oral cavity.

3.4. Risk of ETT migration is present with the repositioning or changing of the ETT holder. The ETT depth and placement shall be reconfirmed after any manipulation of the ETT position or after exchange of the ETT holder.

3.5. The ETT holder is assessed every shift to ensure adequate adhesion to the skin. The ETT holder is changed every 7 days or as needed.

4. PROCEDURE

PART A: APPLICATION OF THE ENDOTRACHEAL TUBE HOLDER
PART B: MOVING AND REPOSITIONING OF THE ENDOTRACHEAL TUBE

Equipment

1. ETT holder (for ETT sizes 5-10 mm)
2. Sterile suction catheter or in-line suction device
3. Oral suction device
4. Oral care supplies
5. Tongue depressor (as needed)

6. Flashlight (as needed)
7. Clean gloves
8. Stethoscope

PART A: APPLICATION OF THE ENDOTRACHEAL TUBE HOLDER

PROCEDURE:	SPECIAL CONSIDERATIONS:
1. Verify patient using two identifiers.	
2. Perform hand hygiene before patient contact and don clean gloves.	
3. Verify current ETT depth with previously documented depth.	Using the teeth or gum line as a landmark for ETT depth is recommended as it provides a consistent measurement. Landmarking of ETT depth may be described as: at the teeth, at the gum-line or at the lip, and varies by site.
4. Perform oral care.	In accordance with approved organizational practices for oral care on a ventilated patient.
5. Suction patient's oropharyngeal cavity and per ETT as required.	In accordance with organizational practices for ETT suctioning. Oral care and suctioning can help to reduce the risk of aspirating colonized oral secretions.
6. Have a second HCP stabilize the ETT while removing the old ETT holder and applying the new ETT holder.	
7. Assess skin integrity of cheeks, neck and all oral mucosa including lips, tongue, and oral cavity.	
8. Ensure face and cheeks are clean, dry, and free of oily residue.	Clipping facial hair may be required as skin barrier pads may not be able to anchor effectively to skin with hair. Obtain permission when possible.
9. Apply securement device according to product insert instructions ensuring adhesive components are well adhered to the skin.	If your securement device does not have a built-in protective sleeve (i.e. bite block), one may need to be applied per facility guidelines. Protective sleeve will aid in prevention of biting of the ETT or cuff inflation line. Ensure the ETT pilot balloon and orogastric tube (if applicable) are not pinched.
10. Secure the neck strap (if applicable) for comfort and security.	Allow two fingers width between the neck strap and the back of the patient's head. Adjust as needed to

	accommodate for facial edema. If skin breakdown is noted, consider use of a polyurethane foam dressing between the strap/tie and patient's skin.
11. Confirm ETT depth has remained unchanged. Auscultate the chest bilaterally for air entry.	If concerned that the ETT has migrated, assess patient's oxygenation, ausculate for breath sounds and call respiratory therapist whom may return the ETT to the previous documented depth. Notify physician of findings. Consider a chest xray**.**
12. Remove soiled gloves and perform hand hygiene.	

PART B: REPOSITIONING OF THE ENDOTRACHEAL TUBE

PROCEDURE:	**SPECIAL CONSIDERATIONS:**
1. Perform hand hygiene before patient contact and don clean gloves.	
2. Verify current ETT depth with previously documented depth.	Using the teeth or gum line as a landmark for ETT depth is recommended as it provides a consistent measurement. Landmarking of ETT depth may be described as: at the teeth, at the gum-line or at the lip, and varies by site.
3. Perform oral care.	In accordance with approved organizational practices for oral care on a ventilated patient and suctioning.
4. Suction patient's oropharyngeal secretions and per ETT as required.	Oral care and suctioning can help to reduce the risk of aspirating colonized oral secretions.
5. Ask patient to open mouth (if able).	
6. Move tube side to side in the mouth according to product insert instructions.	When repositioning the ETT, avoid applying excessive pressure to either corner of the mouth to reduce risk of ulceration or discomfort.
7. Check inside the mouth to ensure the entire ETT is moved to the other side (not just the proximal portion of the ETT).	A flashlight may be used to assess ETT positioning. A tongue depressor or hard tonsil suction may be used to guide the ETT to the other side of the mouth.
8. Confirm ETT depth has remained unchanged. Auscultate the chest bilaterally for air entry.	If concerned that the ETT has migrated, assess patient's oxygenation, ausculate for breath sounds and call respiratory therapist whom may return the ETT to the

previous documented depth. Notify physician of findings. Consider a chest xray.

9. Remove soiled gloves and perform hand hygiene.

5. DOCUMENTATION:

Document the following information and times in the Integrated Progress Notes, Ventilator Flow Sheet or Electronic Patient Care Record, as applicable:

- Depth of ETT and landmark used (at the teeth (ATT), at the gumline (ATG) or at the lips (ATL))
- ETT position (i.e. location in mouth – left, right, or centre)
- Patient response
- Condition of oral cavity, surrounding tissues and the skin beneath the neck strap. Provide wound assessment if abnormal findings noted.
- Assessment of chest sounds including bilateral air entry and adventitious sounds

6. REFERENCES:

Amrani, G. Gefen A., (2020). Which endotracheal tube location minimises the device-related pressure ulcer risk : The centre or a corner of the mouth? *Int Wound J. 17 :*268-276.

Gomaa, D., & Branson, R. D. (2015). Endotracheal tube holders and the prone position: A cause for concern. *Respiratory Care, 60*(2), e41-e42.

Goodrich, C. (2017). Procedure 3: Endotracheal Intubation (Assist). In Wiegand, Debra L. (Ed.), AACN Procedure Manual for High Acuity, Progressive, and Critical Care, 7th edition, (pp. 23-31). St. Louis: Elsevier.

Hollister: Product Information (2020). Anchorfast Oral Endotracheal Tube Fastener: 9799.

Hollister: Product Information (2020). Anchorfast Oral Endotracheal Tube Fastener: 9800.

Nursing Skills Online (April 2021). Endotracheal Tube: Skin and Oral Care- CE. St. Louis, MO: Elsevier. Retrieved from www.mosbysskills.com.

Landsperger, J., Byram, J., Lloyd, B., Rice, T. (2019) The effect of adhesive tape versus endotracheal tube fastener in critically ill adults: the endotracheal tube securement (ETTs) randomized control trial. *Critical Care 23*:161.

St. Boniface Hospital. (2017). Endotracheal Tube (ETT): Part A: Application of Holder Part B: Moving and repositioning. St Boniface Hospital (Winnipeg), Nursing Specialty Procedure Manual, No. 110.410. C.02.04, 1-5.

Vollman, K. (2017). Procedure: 4: Endotracheal Tube Care and Oral Care Practices for Ventilated and Non-ventilated Patients. In Wiegand, Debra L. (Ed.), AACN Procedure Manual for High Acuity, Progressive, and Critical Care, 7th edition, (pp. 32-39). St. Louis: Elsevier.

WRHA Critical Care Outcomes Improvement Team. (2021). Ventilator Management Orderset. WRHA Critical Care Program.

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