

HOSPITAL: \_\_\_\_\_

### Respiratory Care Services Policy and Procedure Manual

<b>Policy and Procedure:</b>	<b>LockTite™ Protocol</b>
<b>Area: Respiratory Care Services</b>	<b>Performed by: Respiratory Care Practitioners</b>

<b>Policy Number:</b>	<b>Approved by:</b>
	<b>Date:</b>

<b>Current Effective Date</b>	<b>Approved by:</b>
	<b>Date:</b>

<b>Review Date</b>	<b>Approved by:</b>
	<b>Date:</b>

<b>Revised Date</b>	<b>Approved by:</b>
	<b>Date:</b>

#### **POLICY**

This policy assures the standardized use of **LockTite™** for securing the endotracheal tube in the pediatric, adolescent and adult patient.

#### **PURPOSE**

The purpose is to provide an easily implemented protocol to be used by the Respiratory Care Practitioner with effective guidelines and consistent instruction for use and application of the LockTite for securing the endotracheal tube.

#### **DEFINITION**

To ensure patient safety, the patient with a temporary, artificial translaryngeal airway should have the device secured at the earliest appropriate time.

#### **SETTINGS**

The endotracheal tube should be placed and secured in an environment in which the patient can be physiologically monitored and in which emergency equipment and appropriately trained health care providers with airway management skills are immediately available.

#### **EQUIPMENT**

**B&B LockTite™** (includes LockTite, Releasable Cable Tie and Blue Cap), Alcohol Swabs, Bandage Scissors, Skin and Oral Care Supplies, Suction setup with an appropriate size suction catheter, an oral suction attachment. Use of the B&B Universal Bite Block™ or Bite Proof Bite Block™ is recommended with the LockTite.

.VELCRO® brand is a Registered Trademark of VELCRO Industries B.V.

## **PROCEDURE**

### **A: Application Procedure/Preparation**

1. Note endotracheal tube placement at the nare, gum-line or teeth and compare with existing charting as to proper depth. If this is a new endotracheal tube placement, auscultate to assure bilateral breath sounds and a proper reading using an ETCO<sub>2</sub> device. If possible, ascertain tube placement with an X-Ray prior to securing.
2. Clean the face to remove all secretions & moisture from the application areas.
3. The application area for the LockTite is the area of the upper lip, beneath the nose laterally along the face with the Band with the VELCRO Tip going beneath the ear lobes and behind the head. Another position is the area between the lower lip & chin laterally along the cheeks.
4. Place the ET Tube in the appropriate position in the mouth. Positioning must be changed in the mouth from Left side of center to right side of center every change to prevent tissue erosion and to facilitate oral care.
5. Clean the endotracheal tube from point of placement to the endotracheal tube connector fitting to remove all moisture and secretions.

### **B: Application Procedure/Action Steps**

At all times securely hold & stabilize the endotracheal tube until the completion of Step 3.

1. Place the Cable Release Loop (part C) (Figure 1) over the head (connector) of the endotracheal tube and then pass it down the tube to the desired marking. **Do not** include the Pilot Balloon Line in the Loop. Take the soft band (part A) and apply that section on the desired area of the face with the connecting leg of the tab (part B) & the endotracheal tube (Figure 2). The Cable Tie Loop (part C) is centered over the endotracheal tube.
2. Check that the endotracheal tube is at the proper centimeter marking with the appropriate anatomical landmark. With two fingers firmly pull the long leg of the releasable Cable Tie, while securely holding the Cable Release Hub (part D). Pull until secure & there is a slight deflection at the endotracheal tube surface where the point of contact is between the Cable Tie and the endotracheal tube.
3. Pass the Neck band TIP (part A), under the one earlobe & behind the patient's head around the neck, by the other earlobe to the Buckle. Take the VELCRO® brand Tip of the neck band and pass it through the Buckle. Tighten the Neck band so only one finger can be inserted between the neck band & the patient's neck. Take the VELCRO® brand leading edge & fasten it back along the neck band. Smooth the VELCRO® brand section to assure maximal engagement of the VELCRO® brand with the neck band material.
4. Upon ascertaining placement of the endotracheal tube the cable tie may be trimmed to within one inch of the Hub (Part D). Place the Blue Cap over the trimmed, exposed end of the Cable Tie.

### **C: Documentation**

Chart the Time, Date, endotracheal tube size and Cm marking at the appropriate anatomical landmarks on the ventilator flow sheet.

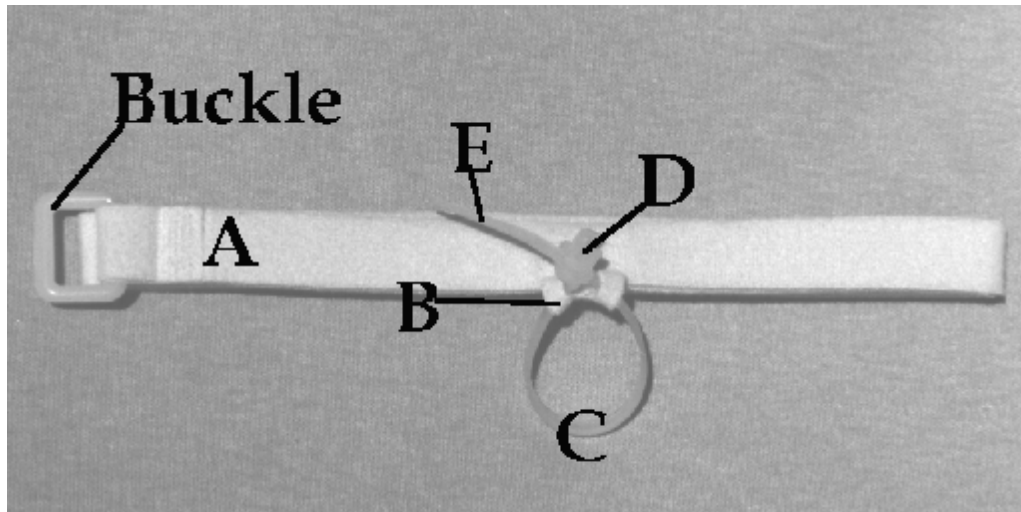


Figure 1

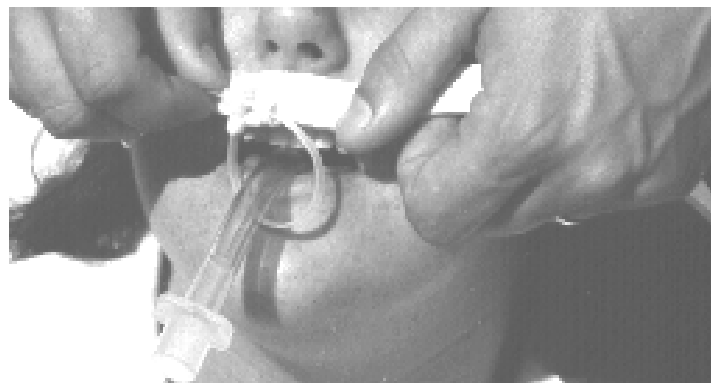
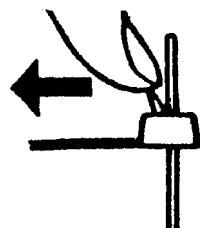


Figure 2

#### D: Adjusting and changing the LockTite™ Endotracheal Tube Holder

1. To adjust the depth of the endotracheal tube, release the endotracheal tube Cable Tie as shown in Figure 3. Adjust the endotracheal tube position & retighten. For release, push down to deflect the Cable Tie Release. Catch and push the excess tab all the way back through the hub and remove. Hold the endotracheal tube once the Cable Tie is loosened to prevent accidental extubation.



Cable release

Figure 3

2. To adjust the tightness of the Neckband or provide skin care, release the VELCRO® brand section of the Neckband & adjust to appropriate tightness.
3. To completely remove the Neckband, pass the VELCRO® brand tip back through the Buckle.
4. Pass the Neckband back around the patient's head & remove from the patient's face.
5. Wash and provide the patient's face and neck with the appropriate skin care.

#### **D: Precautions and Adverse Effects**

1. Possible Adverse effects are tube slippage and possible inadvertent extubation.
2. Periodically inspect the LockTite™ Endotracheal Tube Holder and patient Q-shift or more frequently in case of events of diaphoresis or copious oral secretions. A spare is recommended at the bedside.
3. Periodically inspect the space between the neck band and the patient's neck. It should be snug enough to only allow one finger to be inserted and no more. If it is too tight, adjust the neck band immediately.
4. Periodically inspect the skin area under the LockTite to prevent injury to the underlying tissue due to unrelieved pressure.
5. Do not pull the Cable Tie tight with any other device except two fingers. If pulled too tight the endotracheal tube may hourglass and alter the inner diameter of the endotracheal tube. This can be noted by a significant dip in the endotracheal tube surface on either side of the Cable Tie.
6. Do not wrap the endotracheal tube Pilot Balloon Line in with the endotracheal tube.
7. Support the ventilator tubing to reduce pressure on the endotracheal tube.
8. The LockTite is intended for single patient use.

#### **REFERENCES**

1. AARC Clinical Practice Guideline/Management of Airway Emergencies  
Respir Care 1995; 40(7):749-760
2. AARC Clinical Practice Guideline/Removal of the Endotracheal Tube  
Respir Care 1999; 44(1):85-90
3. 2005 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. Part 7.1: Adjuncts for Airway Control and Ventilation.  
Circulation 2005; 112: IV-51-IV-57.