Providence HEALTH CARE	**RESPIRATORY SERVICES**	DATE CREATED: September 2004 DATE REVIEWED/REVISED: **June 2017**
CLINICAL GUIDELINE	TITLE: CRTICAL CARE – Subglottic Suction: Continuous Aspiration of Subglottic Secretions (CASS),Hi-Lo Evac ET Tubes Subglottic Suction Regulator (Respiratory Therapy) NUMBER: B-00-12-12052	RELATED DOCUMENTS: Pilot Line Repair Cuff Pressure

SITE APPLICABILITY:

ST. PAUL'S HOSPITAL
MOUNT SAINT JOSEPH HOSPITAL

GENERAL INFORMATION:

Continuous aspiration of subglottic secretions (CASS) has been demonstrated in the literature to contribute to a reduction in the rate of ventilator associated pneumonia (VAP). Use of CASS does NOT reduce/eliminate the need for suctioning of the trachea or oral cavity.

REQUIRED SUPPLIES & EQUIPMENT:

- Hi-Lo Evac endotracheal tube (available sizes 6.0 – 9.0 only)
- PM9100 Subglottic suction regulator
- Suction connecting tubing and canister
- 10 mL syringe
- Stethoscope

PUSH TO CLEAR BUTTON

PATIENT CONNECTION PORT WITH ORANGE FLOW INDICATOR BALL VISIBLE IN THE "FLOW" POSITION

PROCEDURE for INITIATING SUBGLOTTIC SUCTION:

1. Uncap the evacuation lumen port of the Hi-Lo Evac endotracheal tube.

2. Check for lumen patency by injecting a 5 mL bolus of air. If the lumen is not immediately patent, attempt to slowly aspirate secretions using the 10 mL syringe.

   NOTE: Do NOT attempt to initiate subglottic secretion aspiration post-intubation until the endotracheal tube cuff pressure and seal has been checked as per Procedure RTD5046.

3. Once patency of the evacuation lumen is confirmed, turn on the subglottic suction regulator and set the vacuum pressure to 20 mmHg.

   NOTE: The suction canister should be level with the patient. Increase the regulator vacuum setting by 20 mmHg for each 30 cm that the suction canister is located above patient level.

4. Block the bottom port of the regulator to verify that the orange flow indicator ball disappears from view (*No Flow Condition*). With the port still occluded verify the set vacuum pressure is 20 mmHg. Adjust suction level if necessary. This setting should be sufficient to evacuate secretions from the subglottic space.

   NOTE: Suction scale is calibrated for occluded pressures.

5. Attach one end of the subglottic suction connecting tubing to the suction canister and the other end to the evacuation lumen to begin the continuous aspiration of subglottic secretions.

SPECIAL CONSIDERATIONS:

EVACUATION LUMEN:

Capping the Port:

In order to prevent secretions from leaking out of the evacuation lumen and to prevent contaminants from entering, the evacuation lumen port should be capped in the following situations:

- Prone positioning
- Patient transport
- While performing intubation or extubation
- When not connected to subglottic suction regulator

Assessing Patency:

The patency of the evacuation lumen should be assessed and documented every 4 hours by observing the position of the orange flow indicator ball that is located in the clear patient connection end of the subglottic suction regulator connector. If the orange ball is clearly visible in the upper chamber then there is active flow present; if the orange ball is in the lower half of the connector this indicates there is no flow through the evacuation lumen.

Clearing Blockages:

If the evacuation lumen is blocked, depress the **CLEAR TO BLOCK** control on the top of the subglottic suction regulator. If this was not successful, attempt to slowly aspirate secretions using the 10 mL syringe. Document the results of manual aspiration on the Respiratory Services Flowsheet.

NOTE: Do not depress for longer than 5-10 seconds.

PRONE POSITIONING:

Do not initiate subglottic suction for patients that are being prone positioned.

EXTUBATION:

Before extubating a patient that has a Hi-Lo Evac endotracheal tube in place, orally suction them to ensure that all secretions have been cleared from the subglottic space.

DOCUMENTATION, COMMUNICATION, EDUCATION:

Document suction pressure and evac tube patency *visual* assessment a minimum of every 4 hours, and *manual* patency assessment every 12 hours on the Respiratory Services Flowsheet.

Confirmation of patency should be documented as: **EVAC patent** √

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