

## Kimberly Clark

### BALLARD TRACH CARE\* - Closed Suction System for Neonates and Pediatrics

#### Frequently Asked Questions FAQs

Background: Closed suction system designed for pediatric and neonatal critically ill patients. The suction catheter is typically advanced into the bronchial tree through the endotracheal tube and the suction applied as the catheter is withdrawn removing secretions. The closed system has the advantage over historical open suction systems that the respiratory circuit remains intact preserving the PEEP (positive end expiratory pressure) that helps keep the small air sacs (alveoli) in the lungs open. The suction catheter requires direct hands on use at all times.

#### Procedure:

1. How do I choose the proper size suction catheter
  - a. The French size of the catheter must not exceed twice the dimension of the ET tube to allow for space between the catheter and the ET walls for free passage.
    - Example: if the ET is 3mm then select a Trach Care French size 6 or less
    - Example: if the ET is 4.5mm then select an 8 French suction catheter
2. What ventilator mode should be used
  - The closed suction catheter system is compatible with all modes of ventilation. It is up to the clinician to determine the appropriate choice
3. Is there a recommended amount of negative pressure the suction should be set at  
DFU/page 5/point 10:  
10. Use appropriate regulated vacuum levels. Though experts in the neonatal community cannot agree on a set regulated level of suction, some experts recommend you should use no more than -100 mmHg.
4. Why do I feel resistance when I advance the suction catheter in the system
  - The Trach Care suction system has a conical watertight connector that does create mild resistance. It is this connector that allows for optimal cleaning after use.
5. How do I control the depth of suction  
DFU/page 6/: **Controlled Depth Suction:**  
**CAUTION:** Tip placement methods listed below are not precise. Placement may vary. Centimeter markings on endotracheal tubes should be verified.  
**Method 1**
  1. Align any printed depth number on the catheter with the same number printed on the endotracheal tube.
  2. Catheter tip will be within .5 cm to 1 cm of the end of the endotracheal tube.**Method 2**

1. Observe the printed depth number on the endotracheal tube closest to the end of the endotracheal tube adapter.
  2. Add five to this number.
  3. Advance catheter until the cm (depth number plus 5) appears in the area directly across from irrigation port connector. Note the nearest color band.
  4. Catheter tip will be within .5 cm to 1 cm of the end of the endotracheal tube.
  5. Color bands allow easier visualization on subsequent suction procedures.
6. Why does the suction seem less effective than with the open suction system
    - a. You may have this impression because you may not hear the suction sound as well as with the open system. The suction catheter is actually the same as for open suction. It is simply within a sheath and has two side orifices for optimum suction. (Are the orifices new? If so then the words need to reflect the difference).
  7. Can physiological saline vials be used for bronchial lavage
    - a. Yes, however as each hospital is unique please follow your own protocols or physician orders for treatment
  8. Do you provide the physiological saline vials
    - a. Saline vials (are not) provided with the neonates and pediatrics trach care kit. They can be ordered separately in packs of 144 vials (6x24)
  9. How long should the suctioning procedure take
    - a. One of the advantages of the closed suction system is that you can perform a thorough procedure with the ease of mind that the distal air sacs remain open and you do not have to disconnect from the ventilator. That being said, the entire procedure should not take longer than 20 seconds.
    - b. It does take several seconds to obtain full suction power at the end of the catheter. Ensure that you depress the thumb control valve completely and wait 1-2 seconds before starting to withdraw the catheter.
  10. Should I lock the thumb control valve after each suction procedure
    - a. It is recommended that you systematically lock the thumb control valve after each suctioning and cleaning procedure. This will prevent accidental depression of the valve during other care activities.
  11. How often should I perform the suction procedure
    - a. The frequency of suctioning will depend upon the condition of the patient, the volume of secretions and the protocols developed in the critical care unit.

**Changing:**

12. Should I keep the Trach Care connected to the ventilator circuit
  - a. Yes, always. This is the primary advantage to the closed suction system providing better care to the patient, protecting the care provider and saving time as you do not need to disconnect and re-connect the ventilator tubing each time you perform suctioning.
  
13. How often should I change the suction tubing
  - a. You should follow the standard protocols developed for your critical care or respiratory unit.
  
14. How often do I need to clean the Trach Care
  - a. The closed suction catheter should be cleaned after each use to prevent secretions from potentially blocking the tube.
  
15. What is the catheter irrigation procedure
  - DFU/page 6/: **Neonatal/Pediatric Y Family**
  - Use same port for both patient lavage and catheter irrigation
  1. Withdraw the catheter completely. The black marking on the tip of the catheter should be completely visible within the dome.
  2. Introduce fluid slowly into the irrigation port, simultaneously depress the thumb control valve.
  3. Continue irrigation until secretion viewing window is clear.
  4. Close irrigation port. Lift and turn thumb control valve 180 degrees to lock position.