Tracheostomy Care

Key Terms

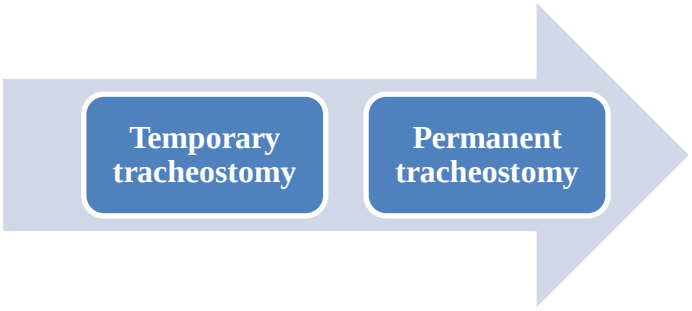
TRACHEOSTOMY CARE

DEFINITION:

Tracheostomy is the formation of an opening into the trachea usually between the second and third rings of cartilage.

Tracheostomy care is the cleaning of area around the stoma and the inner cannula to remove secretions & prevent infection.

TYPES OF TRACHEOSTOMY



TYPES OF TRACHEOSTOMY TUBE:

Tracheostomy tubes have different features depending on their intended use. Shiley (Mallinckrodt) cuffed tracheostomy tubes

A disposable, plastic tube with an introducer and cuff. The Shiley tubes have an inner cannula.

Portex tracheostomy tubes

Portex tubes can be fitted with an inner cannula.

INDICATION:

- Bypass an airway obstruction
- Facilitate removal of secretion
- Permit long term mechanical ventilation

- Permit oral intake and speech in the patient who requires long term mechanical ventilator

EQUIPMENTS NEEDED:

A sterile tray containing:

1 small bowl

Large bowl

1 artery forceps

1 thumb forceps

Gauze swabs

A clean tray containing:

Hydrogen peroxide

NS 100 ml

A pair of sterile glove

A clean kidney tray

Betadine solution

1 precut Gauze piece

Tracheostomy tie. (If old one is soiled)

PROCEDURE:

NURSING ACTION	RATIONALE
Assessment:	
Observe for signs & symptoms of need to perform tracheostomy care (excess peristomal	To know the need for the tracheostomy care

secretions, soiled or damp tracheotomy tie & dressing, diminished airflow through tracheostomy tube, signs & symptoms of airway obstruction requiring suction.)	
Observe for factors that normally influence tracheostomy airway functioning. (Hydration, humidity, infection, nutrition, ability to cough)	To know the indication for the procedure
Check when tracheostomy care was last performed.	**To know the need**
Planning & Implementation:	
Explain the procedure to the patient.	
Position patient comfortably in supine or semi fowler's position.	
Place towel across the client's chest.	
Perform Hand hygiene & apply clean gloves.	
Suction tracheostomy & remove soiled tracheostomy dressing.	
Remove the gloves.	
While client is replenishing oxygen stores, prepare equipments on bedside table.	
Disinfect the hands with alcohol based hand rub.	

Open the outer flap of sterile tray using clean disinfected hand.	

If ASSISTED:

• Don sterile glove on both hands and let the other person handle the clean articles.

If there is NO ASSISTANT, carry out the following steps:

NURSING ACTION	RATIONALE
Don sterile glove only on the dominant hand, and open the other three flaps of dressing tray. (Maintain the dominant hand sterile and other hand clean throughout the procedure.)	
Take betadine using non-dominant hand and pour the required amount in small bowl and NS & hydrogen peroxide in the ratio 1:1 in the large bowl.	
Don sterile glove on the other hand (non-dominant) and remove the ventilator connection. Remove inner cannula with dominant hand & drop it in the bowl of ½ strength hydrogen peroxide. Connect ventilator support back to patient.(use nondominant hand)	

After soaking the inner cannula in hydrogen peroxide for few minutes, hold the inner cannula over the kidney tray & rinse with NS (use non-dominant hand to pour normal saline.)	
Remove ventilator source with non-dominant hand & replace the inner cannula & secure locking mechanism(dominant hand). Reapply ventilator or oxygen sources.	
Hold gauze using the artery & thumb forceps and soak it with betadine.	
Clean exposed outer cannula surfaces and stoma under faceplate extending 5-10 cm (2-4 inches) in all directions from stoma. Clean in circular motion fromstoma site outward using dominant hand.	
Place the pre cut gauze under the secure Tracheostomy face plate.	
Instruct assistant if available, to apply gloves and securely hold tracheostomy tube in place. With assistant holding tracheostomy tube, cut old ties.	
Take prepared tie and insert one end of tie	

through faceplate eyelet, and pull ends even.	
Slide both ends of tie behind the head and around neck to other eyelet, and insert one tie through second eyelet .Pull snugly.	
Tie ends securely in double square knot, allowing space for only one loose or two snug fingers with in tie.	
• Insert fresh precut tracheostomy dressing under the faceplate & clean ties.	

AFTER CARE:

Nursing Action	Rationale
Position the client comfortably & assess respiratory status.	
Replace the oxygen sources	
Remove gloves, face mask & discard in appropriate bins.	
Replace all the reusable solutions & supplies in appropriate place.	
Perform hand hygiene.	

GUIDE LINES FOR TRACHEOSTOMY CARE:

• Cuff pressure should be checked once in each shift (Q8H) and also when there is a leak or alarm. Maintain cuff pressure between 20 and 25 mm of Hg.

• Always use gauze for tracheostomy dressing and not cotton wool.

• Suction the patient 2nd hourly if ventilated, 4th hourly if not ventilated and when required.

• Size 12F suction catheter is recommended for tracheostomy tube sizes 6.0 – 9.0. Ensure that all the emergency equipments are in the bedside. (Tracheostomy tube of same size and one size smaller, suction apparatus in working condition, sterile suction catheter of appropriate size)

Watch out

TRACHEOSTOMY EMERGENCIES AND COMPLICATIONS

Emergencies

- Hemorrhage
- Tracheoinnominate artery fistula
- Tube dislodgement and loss of airway
- Tube obstruction

Complications

- Infection
- Bleeding
- Tracheomalacia
- Skin breakdown
- Tracheoesophageal fistula