NR 33 TRACHEOSTOMY CARE AND SUCTIONING


TRACHEOSTOMY TUBE PARTS

Match the numbers on the diagram with the parts of the tracheostomy:

- Outer cannula
- Inner cannula
- Flange or face plate
- 15mm outer diameter termination
- Valve used for cuff inflation/deflation
- Inflated cuff
- Speaking valve
- Pilot balloon
- Fenestration
- Cuff inflation tube
Match the following terms with the appropriate description related to airway management and types of airway tubes:

1. ___ oral airway  
   a. surgical creation of a stoma from trachea to the underlying skin

2. ___ endotracheal tube  
   b. surgical opening into trachea for airway management

3. ___ intubation  
   c. tube with two cannula

4. ___ extubation  
   d. speaking valve; reduces aspiration and expedites weaning

5. ___ nasal trumpet  
   e. long tube used for clients with long or extra thick necks

6. ___ tracheostomy  
   f. long slender cuffed tube that extends from nose or mouth to the trachea

7. ___ tracheotomy  
   g. ETT or tracheostomy tube with a cuff on the end that seals the airway; used with mechanical ventilation; prevents aspiration

8. ___ tracheostomy tube  
   h. blunt end stylet used to facilitate direction of a tracheostomy tube during insertion or changing

9. ___ single lumen tube  
   i. tube that prevents tongue from obstructing airway

10. ___ double lumen tube  
    j. insertion of tracheostomy or endotracheal tube (ETT)

11. ___ cuffed tube  
    k. tube with precut opening in upper posterior wall; used for weaning and allows client to speak

12. ___ uncuffed tube  
    l. single or double cannula tube inserted into trachea through a stomal opening in the neck

13. ___ fenestrated tube  
    m. single of double lumen metal or plastic tube used for long term airway management of tracheostomized clients who are able to protect themselves from aspiration and who do not need mechanical ventilation

14. ___ passey-muir valve  
    n. removal of ETT or tracheostomy tube

15. ___ obturator  
    o. flexible tube that protects the airway from repeated trauma with upper airway suctioning
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**Tracheostomy Purpose and Indication:**

Circle the statements that are correct:

1. Tracheostomies may be temporary or permanent

2. In order to manage the client on a mechanical ventilator, it is necessary to perform a tracheostomy

3. Tracheostomy is indicated when oral or nasal intubation is insufficient to manage acute airway obstruction

4. Tracheostomy is performed for airway protection after major head and neck surgery or when the client is unable to maintain adequate oxygenation

5. A client who has copious tenacious secretions requires a tracheostomy

Match the following columns to the correct answer:

Assessment for Complications:

1. ___tube obstruction a. blood streaked mucus, bleeding around the stoma

2. ___tube dislodgement b. food particles in tracheal aspirate, loss of cuff seal, client coughs more when eating and drinking, crackles

3. ___subcutaneous emphysema c. dyspnea, stridor, difficulty advancing suction catheter, thick secretions, high peak airway pressure

4. ___infection d. dyspnea, hypoxemia

5. ___hemorrhage e. fever, change in sputum color and odor

6. ___tracheoesophageal fistula f. bulging of skin around the stoma with crackling felt on palpation
Identify the Prevention (P)/Management (M) Strategies for each of the following conditions and record the letter that represents them in the space provided:

1. ___tube obstruction  
   a. P. inspect secretions and stoma site during suctioning and trach stoma care for continued oozing. Encourage high fluid intake and humidified oxygen. Limit suction passes if possible. Moisten stoma dressings with sterile NS before removing.  
   M. if oozing continues, notify MD. Have trach tray and new trach tube at bedside.

2. ___tube dislodgement  
   b. P.& M. maintain cuff pressure, progress to deflated cuff or cuffless tube ASAP. Ensure that tracheostomy tube is maintained in mid line position. Ensure that trach collar or ventilator tubings are not pulling the trach against the tracheal wall. Soft diet, no food boluses, gastrostomy tube or PEG if prolonged trach indicated.

3. ___subcutaneous emphysema  
   c. P. Secure tube in place, inspect secure device q shift.  
   **Ensure that a tracheostomy tube of the same type and size (or one size smaller) including obturator is at the bedside at all times. Tracheostomy tray at the bedside for first 72hrs when trach is new.  
   M. If trach more than 72 hrs old, extend client’s neck to open stoma tissues, insert obturator, replace tracheostomy tube and remove obturator. Establish patency and auscultated bilateral breath sounds. New trach, notify MD

4. ___infection  
   d. P. & M. Assess hourly for tube patency, encourage activity, high fluid intake, deep breathing and coughing, antibiotics and mucolytics as prescribed, humidified oxygen, suctioning, inner cannula changes, tracheostomy tube replacement by MD if cuff is stretched over lumen

5. ___hemorrhage  
   e. P. & M. Use sterile technique during suctioning and trach care. Assess stoma site q shift for redness, swelling, pain, purulent drainage. Perform trach stoma care q shift. Assess tracheal secretions with each suctioning and or client expectoration. Administer antibiotics as prescribed. Frequent oral care.

6. ___tracheoesophageal fistula  
   f. P. Inspect and palpate for air under the skin around a new tracheostomy q 4 hrs or as per facility policy.  
   M. Ventilate manually. Notify MD
Circle the statements that are true with regard to care of the client with an intubated airway:

1. The extended length of the endotracheal tube (ETT) ensures that aspiration will not occur.
2. Dual lumen ETT’s permit continuous removal of subglottic secretions in order to prevent aspiration pneumonia.
3. When an ETT is inserted orotracheally, an oral airway or bite block is necessary to prevent biting on the ETT.
4. Orotracheal intubation is preferred over nasotracheal intubation.
5. To prevent tracheal tissue damage after cuff inflation, the nurse ensures an adequate seal by hearing a hissing sound during auscultation over the suprasternal notch at peak inspiration. Cuff pressure is checked q shift.
6. The nurse ensures that the tracheal/ETT cuff is inflated at all times in the mechanically ventilated client.
7. In order to provide the set tidal volume to the ventilated client, it is necessary to inflate the cuff to a pressure of 25-50mmHg.
8. The nurse needs a physician’s order to suction an intubated client.
9. The nurse assesses the need for wrist restraints in the intubated client, initiates restraints if indicated, and follows facility policy for continuation.
10. To prevent build up of secretions that could block the tracheal/ETT, the nurse routinely instills sterile normal saline into the tube prior to suctioning.
11. The client should be hyperoxygenated prior to and after suctioning passes.
12. The closed in-line suction catheter system can be reused for a 24 hrs period and sterile gloves are not necessary during tracheal/ETT suctioning.
13. Clients who consume nutrition orally are at greater risk of aspiration than enterally tube fed intubated clients.
14. Prior to meals consumed orally, the cuff on the client’s trach tube should be inflated.
15. Clients with chronic trach tubes should have the tube changed monthly.
16. If a tracheostomy tube dislodges, the nurse should immediately reinsert the tube or a new tube of the same or smaller size, unless the trach is less than 72 hrs in place.
17. When the physician places an order for a cuffed trach tube to be capped with a one-way (Passey-Muir) speaking valve, the cuff must be deflated before applying this device, and must remain deflated while the cap is in place.
18. As the client is better able to tolerate the speaking valve without experiencing hypoxic episodes, the goal is to keep it in place 24 hrs/day.
19. When the client is ready to use the speaking valve, it is preferable and safer to switch to an uncuffed, fenestrated trach tube if possible.
20. Successful weaning from a tracheostomy is ensured when the client demonstrates ability to manage secretions with a deflated cuff, breathe around the tube, use the upper airway, manage breathing with extended periods of capping with decreasing tube size, and is ready emotionally to wean.