**PERFORMANCE EVALUATION**  NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**TRACHEOSTOMY TUBES** DATE:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**SPEAKING & DECANNULATION** INSTRUCTOR:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*\_\_\_\_*\_\_\_\_\_

**Grade: PASS FAIL**

**PERFORMANCE EVALUATION SCORING** *(PE = 15 min)*

|  |  |
| --- | --- |
| Points |  |
| 3  | Describes and/or performs objectives perfectly without prompting and in appropriate time interval. |
| 2  | Describes and/or performs objectives satisfactorily with minimal prompting or assistance/or completes step slower than expected. |
| 1  | Describes and/or performs objectives with assistance or prompting. Appears unsure of task. |
| 0  | Unable to or fails to perform objective adequately  |
| NA | Objective not appropriate or unnecessary.  |

**SCENARIO:** Spontaneous breathing patient on \_\_\_\_\_\_% Trach Collar.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **DEMONSTRATE THE CUFF LEAK TEST** | **0** | **1** | **2** | **3** | **NA** |
| 1. Assess the patient for readiness to decannulate.
	1. Has original indication for TT been resolved?
	2. Adequate ventilation?
	3. Low oxygen needs?
	4. Airway control - *Passed “Cuff leak Test”? (no obstruction, swelling…)*
	5. Airway protection - *Adequate LOC, cough, gag and swallow?*
	6. Airway clearance - *Acceptable amount of secretions?*
 |  |  |  |  |  |
| 1. Perform **“*cuff leak test*”.** (After suctioning, ask patient to cough while deflating the artificial airway cuff. Place finger over ET opening or give an assisted breath. Ensure adequate flow around tube.)
 |  |  |  |  |  |
| 1. If cuff leak test fails, follow proper procedure. If cuff leak test is successful – continue with decannulation process.
 |  |  |  |  |  |
| 1. List the methods for removal of a tracheostomy tube: *(instructor will select one for student)*
	1. Remove the TT
	2. Replace the TT with a smaller cuffed TT
	3. Replace the TT with a smaller uncuffed TT
	4. Replace the TT with a fenestrated TT
		1. Cap
		2. Plug
		3. Speaking valve
 |  |  |  |  |  |

**PERFORM THE FOLLOWING**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **0** | **1** | **2** | **3** | **NA** |
| 1. Gather the appropriate equipment and supplies for procedure (or make sure it is present in room):
	1. PPE
	2. Stethoscope
	3. Suction & supplies
	4. Resuscitation bag & mask
	5. Emergency airway equipment close by (CPR cart)
	6. Spare tracheostomy tube and lubricant
	7. 10 mL syringe
	8. Blue pad
	9. Sterile gauze, tape and ointment
	10. Sterile saline
	11. Oxygen equipment & pulse oximeter
	12. Small volume nebulizer, flowmeter & alpha agent
 |  |  |  |  |  |
| 1. Perform initial contact (pt. present, scene & primary survey)
 |  |  |  |  |  |
| 1. Review the patient’s chart.
	1. Contraindications to procedure
	2. Physicians order
 |  |  |  |  |  |
| 1. Inform the nurse of pending decannulation.
 |  |  |  |  |  |
| 1. Introduce self and identify department.
 |  |  |  |  |  |
| 1. Correctly identify patient using two patient identifiers (wristband and second method such as name & birthdate).
 |  |  |  |  |  |
| 1. Explain procedure to patient and provide patient/family education. Confirm understanding.
	1. Tell patient what you are going to do.
	2. Tell patient what they will have to do.
	3. How will removal feel
	4. How will they feel afterwards (sore throat, hoarse, weak voice) Tell them about follow-up (no talking & NPO)
 |  |  |  |  |  |
| 1. Wash hands and apply proper PPE
 |  |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **0** | **1** | **2** | **3** | **NA** |
| **CAP A FENESTRATED TT** |  |  |  |  |  |
| 1. Assemble the equipment
2. Suction & supplies
3. Fenestrated inner cannula & cap
4. Oxygen equipment for upper airway (nasal cannula)
 |  |  |  |  |  |
| 1. Position patient (manikin). Maintain head of the bed in upright position, greater than 45 degrees, or per institutional protocol.
 |  |  |  |  |  |
| 1. Apply monitors (ECG, pulse oximeter…)
 |  |  |  |  |  |
| 1. Preoxygenate then suction artificial airway, oropharynx, and subglottic secretions above the airway cuff.
 |  |  |  |  |  |
| 1. **Hold the trach tube flange while removing the solid inner cannula and replace with fenestrated inner cannula**
 |  |  |  |  |  |
| 1. **Deflate the cuff as patient coughs. Suction mouth as needed.**
 |  |  |  |  |  |
| 1. **Hold the trach tube flange while placing the cap on the outer cannula**
 |  |  |  |  |  |
| 1. **Place oxygen on upper airway**
 |  |  |  |  |  |
| 1. Evaluates airway patency and ventilation by auscultation immediately following tube change.
	1. Subjective response
	2. Adequate air movement around tracheostomy tube
	3. Breath sounds
	4. Heart Rate
	5. Respiratory rate
	6. Work of breathing
	7. Non-invasive monitors – pulse oximeter
 |  |  |  |  |  |
| 1. If distress occurs, remove the cap and apply oxygen to tracheostomy tube.
 |  |  |  |  |  |
| 1. What would be the procedure for suctioning this patient with an open fenestration?
 |  |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **0** | **1** | **2** | **3** | **NA** |
| **PLUG A FENESTRATED TT**  |  |  |  |  |  |
| 1. Assemble the equipment
2. Suction & supplies
3. Tracheostomy plug
4. Oxygen equipment for upper airway (nasal cannula)
 |  |  |  |  |  |
| 1. Position patient (manikin). Maintain head of the bed in upright position, greater than 45 degrees, or per institutional protocol.
 |  |  |  |  |  |
| 1. Preoxygenate and hyperinflate then suction artificial airway, oropharynx, and subglottic secretions above the airway cuff.
 |  |  |  |  |  |
| 1. **Hold the trach tube flange while removing solid inner cannula**
 |  |  |  |  |  |
| 1. **Deflate the cuff as patient coughs**
 |  |  |  |  |  |
| 1. **Hold the trach tube flange while placing the plug on outer cannula**
 |  |  |  |  |  |
| 1. **Place oxygen on upper airway**
 |  |  |  |  |  |
| 1. Evaluates airway patency and ventilation by auscultation immediately following tube change.
	1. Adequate air movement around tracheostomy tube
	2. Breath sounds
	3. Heart Rate
	4. Respiratory rate
	5. Work of breathing
	6. Non-invasive monitors – pulse oximeter
 |  |  |  |  |  |
| 1. If distress occurs, remove the plug and apply oxygen to tracheostomy tube.
 |  |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **0** | **1** | **2** | **3** | **NA** |
| **APPLY SPEAKING VALVE TO A FENESTRATED TT**  |  |  |  |  |  |
| 1. Assemble the equipment
2. Suction & supplies
3. Speaking valve such as Passy Muir
4. Fenestrated inner cannula
5. Oxygen equipment for tracheostomy collar
 |  |  |  |  |  |
| 1. Position patient (manikin). Maintain head of the bed in upright position, greater than 45 degrees, or per institutional protocol.
 |  |  |  |  |  |
| 1. Explain procedure to patient and verify understanding (patient must be alert)
 |  |  |  |  |  |
| 1. Preoxygenate and hyperinflate then suction artificial airway, oropharynx, and subglottic secretions above the airway cuff.
 |  |  |  |  |  |
| 1. **Deflate the cuff as patient coughs**
 |  |  |  |  |  |
| 1. **Hold the trach tube flange while removing the solid inner cannula and replace with fenestrated inner cannula**
 |  |  |  |  |  |
| 1. **Hold the trach tube flange while placing the speaking valve on outer cannula**
	1. **Attach valve to 15 mm connector**
	2. **Give valve ¼ turn to secure**
 |  |  |  |  |  |
| 1. **Place oxygen over tracheostomy tube**
 |  |  |  |  |  |
| 1. Evaluates airway patency and ventilation by auscultation immediately following tube change.
	1. Adequate air movement around tracheostomy tube
	2. Breath sounds
	3. Heart Rate
	4. Respiratory rate
	5. Work of breathing
	6. Non-invasive monitors – pulse oximeter
 |  |  |  |  |  |
| 1. If distress occurs, remove the speaking valve and apply oxygen to tracheostomy tube.
 |  |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **0** | **1** | **2** | **3** | **NA** |
| **CONTINUE HERE FOR ALL PROCEDURES – DECANNULATION** |  |  |  |  |  |
| 1. Assemble equipment and supplies for procedure (or make sure it is present in room):
	1. Suction & supplies
	2. Resuscitation bag & mask
	3. Spare tracheostomy tube and lubricant
	4. 10 cc syringe & blue pad
	5. Sterile gauze, tape and ointment
	6. Oxygen equipment & pulse oximeter
 |  |  |  |  |  |
| 1. Position patient (manikin). Maintain head of the bed in upright position, greater than 45 degrees, or per institutional protocol.
 |  |  |  |  |  |
| 1. Explain procedure to patient and verify understanding (if possible)
 |  |  |  |  |  |
| 1. Preoxygenate and hyperinflate then suction artificial airway, oropharynx, and subglottic secretions above the airway cuff.
 |  |  |  |  |  |
| 1. **Apply appropriate oxygen device to the patient’s face.**
 |  |  |  |  |  |
| 1. **Loosen the trach tube ties**
 |  |  |  |  |  |
| 1. **Deflate the cuff as the patient coughs**
 |  |  |  |  |  |
| 1. **Remove the trach tube gently in a curved motion**
 |  |  |  |  |  |
| 1. **Clean trach stoma with sterile saline (do not use hydrogen peroxide) and tape sterile gauze in place (use ointment if indicated)**
 |  |  |  |  |  |
| 1. Evaluates airway patency and ventilation by auscultation immediately following tube change.
	1. Adequate air movement around tracheostomy tube
	2. Breath sounds
	3. Heart Rate
	4. Respiratory rate
	5. Work of breathing
	6. Non-invasive monitors – pulse oximeter
 |  |  |  |  |  |
| 1. If distress occurs: *(stridor or laryngospasm)*
2. Perform bag & mask ventilation
3. Increase oxygen
4. Give aerosol treatment
5. Call Rapid Response Team & Contact physician
6. Prepare to reinsert the tracheostomy tube or pediatric ET tube
 |  |  |  |  |  |
| 1. Clean patient area
 |  |  |  |  |  |
| 1. Ensure patient safety
 |  |  |  |  |  |
| 1. Ask closing question
 |  |  |  |  |  |
| 1. Appropriately document procedure in medical records and complete billing.
 |  |  |  |  |  |
| 1. Effectively communicate results and treatment to other members of the healthcare team.
 |  |  |  |  |  |
| 1. Knowledge/Comprehension Level - Can the student answer all oral review questions?
 |  |  |  |  |  |

**Students must pass all critical steps with a score of 2 or 3**

Updated 10/2013

**ORAL REVIEW QUESTIONS**

1. How can the RT determine if a patient is ready for decannulation? *Patient breathing spontaneously (weaned from mechanical ventilation), can manage secretions, can protect their airway, and passes the cuff leak test.*
2. What should be done for severe post decannulation stridor and marked respiratory distress? *Immediately reinsert the tracheostomy tube or a small ET tube through the stoma*
3. List the methods for removal of a tracheostomy tube:
4. *Remove the TT*
5. *Replace the TT with a smaller cuffed TT*
6. *Replace the TT with a smaller uncuffed TT*
7. *Replace the TT with a fenestrated TT the cap, plug or use a speaking valve*
8. What is done with the stoma once the tracheostomy tube is removed?

*The stoma is cleaned with ½ strength hydrogen peroxide and then covered with a gauze, antibiotic ointment and tape*

1. How should a patient be positioned for a trach tube change?

*Maintain head of the bed in upright position, greater than 45 degrees, or per institutional protocol. Places roll under shoulders to expose the neck area.*

1. How is the new tracheostomy tube prepared?

*a. Check cuff prior to insertion*

*b. Lubricate with water soluble lubricant*

*c. Remove inner cannula*

*d. Insert obturator during insertion then remove*

1. What is done after a new tracheostomy tube is inserted?

*a. Remove the obturator*

*b. Secure TT with ties*

*c. Insert inner cannula (if needed)*

*d. Replace oxygen device*

*e. Clean stoma area*

*f. Replace trach dressing*

1. What should be done if the new tracheostomy tube cannot be inserted?

*If the patient is in distress, consider bag mask ventilation (cover stoma with gauze) or insert small ET tube into stoma temporarily*

1. What are the steps to capping a fenestrated trach tube?
	1. *Suction oral pharynx and TT*
	2. *Replace solid inner cannula with fenestrated inner cannula*
	3. *Deflate cuff*
	4. *Apply cap*
	5. *Apply O2to upper airway*
2. What are the steps to plugging a fenestrated trach tube?

*a. Suction oral pharynx and TT*

*b. Remove the inner cannula*

*c. Deflate cuff*

*d. Apply plug*

*e. Apply O2 to upper airway*

1. What are the steps for applying a speaking valve to a fenestrated trach tube?

*a. Suction oral pharynx and TT*

*b. Replace inner cannula with fenestrated inner cannula*

*c. Deflate cuff*

*d. Apply speaking valve properly*

*e. Apply trach collar to trach tube*

1. What patient’s do not qualify for capping. Plugging or speaking valves?
	1. *Patients with upper airway obstruction*
	2. *Patients who cannot manage their secretions*
	3. *Patients in respiratory distress*
	4. *Patients who are not awake and alert*
	5. *Patients with foam cuff tubes, ET tubes or laryngectomy tubes*
2. What could be the problem if a patient does not tolerate capping, plugging or speaking valves?
	1. *Upper airway obstruction*
	2. *Tracheal stenosis*
	3. *Secretion*
	4. *Inflated cuff*
	5. *Trach tube too large*
	6. *Fenestration opening blocked*
	7. *Weak patient*
	8. *Patient anxiety*
3. How often should passy muir valves be replaced? *Replace every 2 months, when sticky, noisy, vibrating or high resistance is noted.*
4. How are speaking valves cleaned? *Swish valve in pure-fragrance free soap and warm water, rinse with warm water and allow to air dry.*