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

**EXTUBATION**  DATE:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 INSTRUCTOR:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Grade: PASS FAIL**

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| --- | --- |
| **Points** | **PERFORMANCE EVALUATION SCORING** |
| 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:** *Patient is on a ventilator with a closed suction system. Ventilator settings are PS 5 cm H2O, PEEP 5 cmH2O and an FiO2  of 0.30.* **YOU ARE ASKED TO EXTUBATE A PATIENT.** *Assume patient has passed pre-extubation assessment and cuff leak test.*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **0** | **1** | **2** | **3** | **NA** |
|  |  |  |  |  |  |
| 1. Gather the appropriate equipment and supplies:
2. PPE
3. Suction & supplies
4. Resuscitation bag & mask
5. Monitoring equipment (pulse ox., ECG…)
6. Intubation supplies
7. 10 mL syringe
8. Bandage scissors
9. Stethoscope
10. Blue pad
11. Aerosol medication nebulizer and racemic epinephrine
12. Oxygen equipment
 |  |  |  |  |  |
| 1. Perform initial contact (pt. present, scene & primary survey)
 |  |  |  |  |  |
| 1. Review the patient’s chart.
	1. Physician orders/protocol
	2. Contraindications to extubation
 |  |  |  |  |  |
| 1. Inform patient’s nurse and assure tube feeding is turned off for 4 – 6 hours prior to procedure.
 |  |  |  |  |  |
| 1. Introduce self and identify department.
 |  |  |  |  |  |
| 1. Correctly identify patient using two patient identifiers (wristband and a second identifier). Asks 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)
	5. Tell them about follow-up (no talking & NPO)
 |  |  |  |  |  |
|  | **0** | **1** | **2** | **3** | **NA** |
| 1. Wash hands & apply appropriate PPE
 |  |  |  |  |  |
| 1. Perform cuff leak test.
 |  |  |  |  |  |
| 1. Prepare the equipment PRIOR TO EXTUBATION

a. Suction & suppliesb. Resuscitation bag & mask & oxygenc. Re - intubation suppliesd. Aerosol medication nebulizer and vaponephrine (alpha)e. Oxygen equipment \_\_\_\_\_ L/min or \_\_\_\_\_\_%f. Monitors (ECG, Pulse oximeter…)g. Blue pad, scissors, syringe… |  |  |  |  |  |
| 1. Apply monitors (ECG, pulse oximeter…)
 |  |  |  |  |  |
| 1. Position patient (manikin). Maintain head of the bed in an upright position, greater than 45 degrees, or per institutional protocol.
 |  |  |  |  |  |
| 1. Preoxygenate then suction artificial airway, oropharynx and secretions above the airway cuff.
 |  |  |  |  |  |
| 1. Deflate the cuff (do not cut pilot line) as you have **patient cough**
 |  |  |  |  |  |
| 1. Remove ET securing device.
 |  |  |  |  |  |
| 1. Remove endotracheal tube a traumatically **during a cough.**
 |  |  |  |  |  |
| 1. Instruct patient to **cough** and clear secretions, suction oropharynx as needed.
 |  |  |  |  |  |
| 1. Immediately administer oxygen and maintain head of bed in the up-right position.
 |  |  |  |  |  |
| 1. Evaluate airway patency and ventilation by auscultation immediately following extubation.
	1. Subjective response
	2. Clinical appearance (color, work of breathing…
	3. Air movement
	4. Breath sounds
	5. Vital signs
	6. Oxygenation & ventilation
	7. Ability to clear secretions
 |  |  |  |  |  |
| 1. Confirm understanding of:
	1. Airway soreness, hoarseness and weak voice
	2. NPO
	3. Need to call if breathing becomes noisy or difficult (be sure patient has call light)
 |  |  |  |  |  |
| 1. If distress occurs:
2. Mild to moderate stridor
* Give aerosol treatment and aerosol mask
* Increase oxygen as needed
1. Laryngospasm:
* Perform bag & mask ventilation
* Provide sedation
* Prepare to reinsert the tracheostomy tube or pediatric ET tube
1. Severe distress
* Prepare to reinsert the tracheostomy tube or pediatric ET tube
* Call Rapid Response Team & Contact physician
 |  |  |  |  |  |
|  | **0** | **1** | **2** | **3** | **NA** |
| 1. Clean area
 |  |  |  |  |  |
| 1. Ensure patient safety
 |  |  |  |  |  |
| 1. Ask closing question
 |  |  |  |  |  |
| 1. Wash hands
 |  |  |  |  |  |
| 1. Appropriately document procedure in medical records and completes charge.
 |  |  |  |  |  |
| 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**

Developed 9/2014

**ORAL REVIEW QUESTIONS**

1. How can the RT determine if a patient is ready for extubation? *Patient breathing spontaneously (weaned from mechanical ventilation), has low oxygen needs, acceptable LOC, can control, protect and clear their airway, passes the cuff leak test…*
2. What is the cuff leak test? *Prior to extubation the patient is suctioned properly and then the cuff is deflated and either the tube is occluded and the patient evaluated for air movement around the tube or the patient is bagged and the neck is auscultated for air movement around the tube.*
3. What should be done if the patient fails the cuff leak test? *Inform the physician and recommend that extubation be delayed. Patient may require steroids.*
4. What FiO2 and device should a patient be placed on post extubation? *Base the decision on the present condition of the patient and oxygen needs. Placing them on a slightly higher* FiO2 *is not unusual. Most will transition to a nasal cannula.*
5. What is the appropriate adult dosage for a vaponephrine aerosol treatment for post extubation stridor? *0.5 mL in normal saline (approximately 2mL saline).*
6. Why should the cuff be deflated with a syringe rather than cutting the inflation line? *If the line is cut, the cuff may not be deflated and the cords can be damaged. This will also render the tube unusable in the case of an extreme airway emergency.*
7. Why is the ET tube removed at peak inspiration or during a cough? *This is the point where the vocal cords are the most open.*
8. What should be done in the presence of mild post extubation stridor? Oxygen, cool mist aerosol therapy and vaponephrine.
9. What should be done for moderate post extubation stridor and moderate distress? Oxygen, cool mist aerosol therapy vaponephrine treatment, and possibly steroid administration (IV) or heli-ox.
10. What should be done for severe post extubation stridor and marked respiratory distress? *Bag patient and then immediately reintubate the patient.*
11. What might make you consider setting up a cool aerosol mask rather than a nasal cannula prior to extubation? *If a patient had a prior failed extubation due to stridor, a difficult intubation, a failed cuff leak test…*