

**FOOTHILL COLLEGE EMS PROGRAMS
AIRWAY MANAGEMENT
SKILLS LAB**

PERFORMANCE OBJECTIVE

Rescuers will demonstrate their ability to manage a patient's airway. Taking more than 15 minutes is a "FAIL" for this skill.

CONDITIONS

An airway management trainer manikin and various ventilation devices and adjuncts are provided to the Rescuer. The Rescuer may inventory equipment and prepare items for easier access before beginning the skill.

EQUIPMENT

PPE	Airway Manikin
Oxygen Tank	Regulator with flowmeter and PPV
O2 Wrench/Toggle on Tank	CPR Pocket Mask
Nasal Cannula	Non-Rebreather Mask
Nasopharyngeal Airways	Oropharyngeal Airways
Bag Valve Mask–Adult, Child & Infant [Set includes	BVM [Body, Mask, O2 Tubing & Reservoir Bag]
Endotracheal Tube Set	Thomas Tube Holder with modified ET Tube
Battery Operated Suction Unit	Flexible suction catheter
Rigid (tonsil tip) suction catheter [With or without a hole]	

STANDARDS

The standards are incorporated into the checklist to be used by the scorer.

1. PENMAN
States: "I would perform PENMAN" and consider donning Gloves, Goggles, Respirator and Face Shield.
2. PERFORMS: ASSEMBLE OXYGEN TANK
Stand up oxygen tank and hold with one hand on tank all times for safety while assembling the regulator.
Check the regulator for a rubber gasket "O-ring."
Fit regulator pins into the ports of the neck of the oxygen tank and tightens securely [Note: Do not over-tighten]
Use a wrench or use the tank toggle to open oxygen tank
<ul style="list-style-type: none"> ● Assures the regulator gauge is not facing anyone. ● Open valve by turning left (<i>Counter Clockwise</i>). ● Open the tank all the way, then turns back ¼ turn. ● Checks for leaks. (Listens for "hissing" noise.)
<ul style="list-style-type: none"> ● Rescuer examines the pressure gauge for PSI [Pounds per Square Inch] ● Rescuer States: "The gauge shows ##### PSI" (<i>Actual Tank Pressure</i>). If the tank has less than 500 PSI, I will take it out of service and replace it with a full tank." (2,000 PSI) ● Lay the oxygen tank back into the airway bag.
3. Performs putting on Nasal Cannula (NC)
Select Nasal Cannula and attach to the flow meter nipple [tree] on the regulator.
Select liter flow rate between 1-6 LPM [Liters Per Minute] and listens for air flow.
Place cannula on patient: <ul style="list-style-type: none"> ● If the cannula has a flip tab, let it rest on the upper lip and place the flared or straight nasal prongs inside nares. ● Secure the thin tubing over each ear and cinch the sliding fastener under the mandible.
4. Performs putting on Non-Rebreather Mask (NRM)
Select NRM and attach to the flow meter nipple on the regulator.
Select liter flow rate between 10 to 15 LPM and fill the reservoir bag by closing valve with gloved finger.
Remove one of the valves for safety and place the mask on the patient.
Place apex of the mask over the bridge of the nose and mold the aluminum blade over bridge of nose.

**FOOTHILL COLLEGE EMS PROGRAMS
AIRWAY MANAGEMENT
SKILLS LAB**

<p>Pull elastic straps to tighten the seal of the mask onto the patient's face.</p> <ul style="list-style-type: none"> ● Rescuer States: "I would remove one mask flap for safety and I would observe the reservoir bag for <ul style="list-style-type: none"> ○ deflation with inhalation and ○ inflation with exhalation."
<p>5. Performs placing a Oropharyngeal Airway (OPA)</p> <p>Selects the OPA that will fit the patient.</p> <ul style="list-style-type: none"> ● Place distal end of OPA at patient's earlobe and measures the mid-bite block to the corner of patient's mouth following curvature of jaw. ● Open patient's mouth using head-tilt chin-lift maneuver (per AHA). ● Hyperextends the patient's neck while inserting the distal end of the OPA up into the roof of the mouth halfway. ● Rotate the distal tip of the OPA 180 degrees and inserts it further down until the bite block rests at the teeth. ● Look for breathing by observing the chest rise and fall while maintaining head-tilt with hand. ● Rescuer Counts Aloud: "1 one-thousand, 2 one-thousand, ..." for no more than 10 seconds <p>[Disclaimer: both measurable options with/without following curvature of jaw]</p>
<p>6. Performs placing a Nasopharyngeal Airway (NPA)</p> <p>Selects the NPA that will fit the patient.</p> <ul style="list-style-type: none"> ● Place distal end of NPA at patient's earlobe and the flange at the tip of nose following the jaw curvature. [NOTE: Do not stretch NPA between nose and ear.] ● Determine the <u>correct length</u> and <u>largest diameter</u> of airway that will fit into the right nostril ● Lubricate distal end of NPA about 1 to 2 inches [over absorbent tissue in class]. ● Hyperextend the patient's neck while inserting the beveled end medially into nare. ● With a slight shimmy or minimal rotation, rest flange against the nare. ● Look for breathing by observing the chest rise and fall while maintaining head-tilt with hand. ● Rescuer Counts Aloud: "1 one-thousand, 2 one-thousand, ..." for no more than 10 seconds <p>[Disclaimer: both measurable options with/without following curvature of jaw]</p>
<p>7. Performs the Bag-valve Mask (BVM)</p> <p>Position self at the patient's head. [Note: Patient's head may be between the rescuers knees in the field.]</p> <ul style="list-style-type: none"> ● Inserts the airway adjunct (NPA or OPA) with the proper technique. ● Assemble the BVM and attach the proper size mask. ● Attach the oxygen tubing to flow meter and sets it to 15 LPM. ● Apply the mask onto the patient's face while using the C-E technique. ● Places index fingers over base of mask and places thumbs over apex of mask with remaining fingers under mandible ● Use downward push on the mask and upward lift on mandible to maintain hyperextension of neck ● Ventilate patient, in a smooth and rhythmic fashion, delivering each ventilation over 1 seconds long ● Delivers ventilation at the rate of one breath every 5 to 6 seconds. ● Counting aloud: "Breath [squeeze BVM], 1 one-thousand, 2 one-thousand, 3 one-thousand, 4 one-thousand, breath [squeeze]" Performs several rounds until stopped by scorer. ● Rescuer States: "I would assess the effectiveness of ventilations by observing for chest rise and fall."
<p>8 Performs Suctioning – Rigid and French (aka Flexible) Catheter</p> <p>Presents all three catheters and checks for the presence or absence of an opening [a "hole"] that must be covered to initiate suction.</p> <ul style="list-style-type: none"> ● Rescuer may explain the difference in how each one functions based on the hole or absence of a hole. ● Select a catheter and connect to tubing. ● Turn on battery operated suction unit to test patency of suction by crimping the tubing and listening for a change in the motor sound and suction sound within tubing or by observing pressure display lights. ● Rescuer may use sterile water or saline if available to test suction function or to clear obstructions. <p>Rigid & Flexible Catheter Measured for Oropharyngeal Use:</p>

**FOOTHILL COLLEGE EMS PROGRAMS
AIRWAY MANAGEMENT
SKILLS LAB**

- Measure the distal end of the rigid catheter from the tip of earlobe to corner of the mouth, following curvature of the jaw, to mark maximum distance.
- Insert catheter **no further** than this depth and enter without suctioning.
- Suction oropharynx only when withdrawing in a circular motion.
- **Rescuer States:** “I would suction *for no more than*, 15 seconds for an adult, 10 seconds for a child, or 5 seconds for an infant.”
- “I would consider a log roll if there was excessive vomiting.” “The patient would need to be hyperoxygenated after suctioning.”

9. Prepares and demonstrate the Endotracheal Tube [ET Tube]

- Present ET Tube Set (ET Tube, stylette, & 10cc syringe)
- Inserts stylette into ET Tube and does not extend past the Murphy's Eye.
 - Set the syringe for 10cc and connects to the ET Tube to inflate the cuff.
 - Scorer will prepare and insert the Thomas tube holder and modified ET Tube on airway manikin.
 - Connect oxygen tubing from BVM to regulator and set flow rate to 15 LPM.
 - Hold ET Tube with fingers to prevent in or out movement while attaching the BVM.
- Rescuer States:** “The depth of the ET tube is ## centimeters. I would notify the paramedic if it changed.”
- Ventilate the patient, in a smooth, rhythmic fashion (delivers each breath over 1 second) one breath every 6 to 8 seconds [AHA Advanced Airway]
- Counts Aloud:** “Breath, 1 one-thousand, 2 one-thousand, 3 one-thousand...”
- States:** “I would assess effectiveness of ventilations by observing for chest rise and fall.”

10. Performs the use CPR Pocket Mask

- Rescuer positions themselves at the head of the patient.
- Open CPR Mask case and pushes the center of the mask to dome it out and inserts the one-way valve.
 - Place mask on face with apex over the bridge of the nose and the bottom base between the lower lip and chin.
 - Places hands on mask using the C-E technique.
 - Place index fingers over base of mask and places thumbs over apex of mask with remaining fingers under mandible
 - Use upward and forward pull on mandible to maintain hyperextension of neck.
 - Ventilate patient, in a smooth and rhythmic fashion, delivering each ventilation over 1 seconds long
 - Delivers ventilation at the rate of one breath every 5 to 6 seconds. [AHA BLS]
 - **Counting aloud:**
 - “Breath, 1-one-thousand, 2 one-thousand, 3 one-thousand, [breath in at 4 one-thousand and breath out at 5]”
 - **States:** “I would assess the effectiveness of breaths by observing for chest rise and fall.”

11. Performs: Bleed the regulator and remove from tank

- Close Tank Valve with Appropriate Tool**
- Turns valve Right (Clockwise) to close the oxygen tank.
 - Bleed the regulator valve by turning the flowmeter to any number and observe the needle move to the red zone and stop at Zero. Turn flowmeter **back to "0" to shut off.**
 - Removes regulator from tank and secure equipment.

- Critical Criteria:**
- ___ Failure to state, “I would perform PENMAN”
 - ___ Failure to operate oxygen in a safe manner
 - ___ Failure to apply O2 therapy appropriately
 - ___ Failure to frequently reassess the patient after application of the airway management device
 - ___ Failure to ensure that the patient understands the procedure
 - ___ Failure to set the proper parameters for oxygen delivery device
 - ___ Failure to manage patient as a competent EMT
 - ___ Fails to complete skill in 15 minutes