

## MWLC EMSS Skills Sheet

# Advanced Airway: Endotracheal Intubation (AirTraq)

Name:	1 <sup>st</sup> attempt:	Meets Standard	Does not meet standard
Date:	2 <sup>nd</sup> attempt:	Meets Standard	Does not meet standard

**Instructions:** The purpose of this skills sheet is to outline the requirements for endotracheal intubation utilizing the AirTraq device. This skills sheet shall be utilized when evaluating using an AirTraq in training and skills validation by both practicing MWLC EMSS personnel and students. **Required items to meet standards are indicated with an asterisk.**

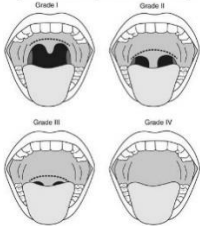
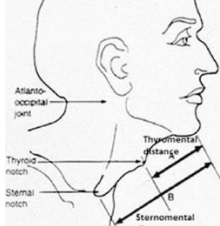
Performance standard	1 <sup>st</sup> attempt	2 <sup>nd</sup> attempt
NP=Step not performed. 0=Does not meet standard. Unsuccessful; critical or excess prompting; improper technique. 1=Meets Standard. Successful; minimal to no prompting; proper technique.		

* BSI: Gloves, Eye Protection, Respiratory Protection (minimum required)		
* <b>State intended purpose, advantages, and features of using an AirTraq for ET Intubation:</b>  <b>Purpose:</b> The AirTraq is the device utilized for <i>endotracheal intubation</i> when indicated by Region IX MWLC EMSS SOP in securing an airway. <input type="checkbox"/> <b>Advantages:</b> <ul style="list-style-type: none"> <li>• Definitive control over ventilations.</li> <li>• Aspiration protection.</li> <li>• Provides for increased inspiratory pressure and PEEP as needed.</li> <li>• Video equipment with capacity for recording procedure (video and still pictures)</li> </ul> <input type="checkbox"/> <b>Features:</b> Latex free, single patient use device.		
* <b>State indications for using AirTraq for endotracheal intubation:</b> <b>*MUST verbalize indications for advanced airway placement per SOP.</b>		
* <b>State at least 3 contraindications:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Gag reflex.</li> <li><input type="checkbox"/> Trismus (Lockjaw).</li> <li><input type="checkbox"/> Limited mouth opening.</li> </ul>		
<b>State Precautions</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Inadequate sedation with retained gag reflex may lead to coughing, bucking, excessive salivation, retching, laryngospasm or breath holding.</li> <li><input type="checkbox"/> Patients with any condition which may increase the risk of a full stomach e.g. hiatal hernia, extreme obesity, pregnancy or a history of upper GI surgery etc. <b>Have suction ready.</b></li> </ul>		

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### \* Demonstrate preparing patient

<p><b>* Patient Preparation:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Position patient's head per procedure unless head/neck movement is inadvisable or contraindicated.</li> <li><input type="checkbox"/> Ensure airway is unobstructed (remove dentures or removable plates from the mouth, clear obstruction) before attempting insertion.</li> </ul>		
<p><b>* Preoxygenation Procedure:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> If patient spontaneously breathing, attempt preoxygenation w/ NRM</li> <li><input type="checkbox"/> If assist needed: Insert NPA/OPA and ventilate with BVM for 3 minutes w/ ETCO<sub>2</sub> monitoring.             <ul style="list-style-type: none"> <li>• Provide just enough air to see chest rise – avoid high pressure &amp; gastric distention.</li> <li>• Ventilate at 10 BPM (1 every 6 sec); Hx asthma/COPD: 6-8 BPM</li> </ul> </li> </ul>		
<p><b>* Assess for signs of difficult intubation:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Neck / Mandible mobility.</li> <li><input type="checkbox"/> Ability to open mouth.</li> <li><input type="checkbox"/> Oral trauma.</li> <li><input type="checkbox"/> Loose teeth.</li> <li><input type="checkbox"/> Mallampati view (see picture at right)</li> <li><input type="checkbox"/> Thyromental distance (see picture at right)</li> <li><input type="checkbox"/> Overbite.</li> </ul>	<p><b>Mallampati View</b></p> 	<p><b>Thyromental Distance</b></p> 

### \* Demonstrate preparing equipment

<p><b>* State preparing suction equipment:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Prepare suction (attach DeCanto) and turn on. Suctions as needed.</li> <li><input type="checkbox"/> Suctions as needed.</li> <li><input type="checkbox"/> Ensure that laryngeal structures are as dry as possible – suction secretions prior to insertion.</li> </ul>		
<p><b>* State preparing AirTraq device:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Maintain sterile technique throughout.</li> <li><input type="checkbox"/> Obtain rescue airway (iGel) and have immediately available.</li> <li><input type="checkbox"/> Obtain AirTraq blade. Inspect packaging; ensure no damage prior to opening; within expiration date.</li> <li><input type="checkbox"/> Attach video equipment to blade. Inspect device:             <ul style="list-style-type: none"> <li>• Ensure it powers up (allow for warming of screen for up to 30 seconds).</li> <li>• Camera operational.</li> </ul> </li> <li><input type="checkbox"/> Obtain ET tube:             <ul style="list-style-type: none"> <li>• Packaging intact, within expiration date.</li> <li>• Test bulb by inflating with 10ml syringe.</li> <li>• Deflate bulb after test, leave 10ml syringe attached.</li> <li>• Insert bougie into ET tube with end just short of ET tube tip.</li> <li>• Lubricate ET tube per procedure and insert into blade channel.</li> </ul> </li> <li><input type="checkbox"/> Prepare all supplies needed to evaluate, secure, and utilize a properly placed ET tube.             <ul style="list-style-type: none"> <li>• BVM.</li> <li>• ETCO<sub>2</sub>.</li> <li>• ResQPod and Filter. (if applicable)</li> <li>• Tape or Commercial Fastener.</li> <li>• Head immobilizer.</li> <li>• Stethoscope.</li> </ul> </li> </ul>		

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**\* Demonstrate insertion**

<p><b>* Sedation as needed.</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> State why sedation is indicated.</li> <li><input type="checkbox"/> Utilizes procedures as outlined in Region IX MWLC EMSS SOP for Drug Assisted Intubation.</li> </ul>		
<p><b>* Insertion.</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Utilize no more than 30 seconds to complete procedure and ventilate through ET tube.             <ul style="list-style-type: none"> <li>• <b>Time starts immediately when ventilations paused. Partner monitors time.</b></li> <li>• Ventilations paused and OPA removed (NPA remains)</li> </ul> </li> <li><input type="checkbox"/> If SMR indicated, head stabilization is provided and maintained throughout procedure.</li> <li><input type="checkbox"/> Open patient's mouth with cross finger technique, or gently press down on chin to open mouth.</li> <li><input type="checkbox"/> With AirTraq handle parallel to patient's chest, insert tip of blade into oral cavity maintaining close proximity to tongue.</li> <li><input type="checkbox"/> Insertion progresses until tip of blade reaches back of tongue.</li> <li><input type="checkbox"/> Insertion continues while simultaneously raising handle to a vertical position.             <ul style="list-style-type: none"> <li>• <b>Tip of blade shall be positioned in the vallecula.</b></li> <li>• <b>"The View" shall be identified on the video screen in order to progress to passing ET tube.</b></li> <li>• <b>GENTLE lifting may be utilized to facilitate "The View" if blade tip is positioned properly in the vallecula.</b></li> <li>• If "The View" is not obtained, remove the blade for a failed attempt and immediately resume ventilations (after reinserting OPA). Make a decision for 2<sup>nd</sup> ET intubation attempt or iGel.</li> </ul> </li> <li><input type="checkbox"/> Advance bougie through vocal cords. The bougie may be twisted to facilitate positioning.</li> <li><input type="checkbox"/> Advance ET tube and visualize ET tube pass through vocal cords.             <ul style="list-style-type: none"> <li>• Bulb of ET tube must pass through vocal cords.</li> </ul> </li> <li><input type="checkbox"/> Once ET tube is inserted to proper depth (3X tube ID at teeth):             <ul style="list-style-type: none"> <li>• Firmly hold ET tube in place until secured with commercial holder or tape.</li> <li>• Remove tube from blade channel.</li> <li>• Carefully remove blade from mouth.</li> <li>• Carefully remove bougie from ET Tube.</li> <li>• Apply BVM, capnography, and any other indicated components (ResQPod, filter, etc.) and ventilate with oxygen.</li> </ul> </li> </ul>		

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**\* Demonstrate ventilation and assessment**

<p><b>* Ventilate with oxygen at proper rate, volume, and CONFIRM proper tube position (listed in order)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Auscultation bilateral breath sounds over midaxillary lines &amp; anterior chest.</li> <li><input type="checkbox"/> Note chest rise with ventilations.</li> <li><input type="checkbox"/> Evaluate ETCO<sub>2</sub>.</li> <li><input type="checkbox"/> Absent gastric sounds.</li> <li><input type="checkbox"/> Patient condition remains stable or demonstrative of improvement.</li> <li><input type="checkbox"/> <b>Make placement decision:</b> <ul style="list-style-type: none"> <li>• If decision is ET tube is properly placed:           <ul style="list-style-type: none"> <li>• Maintain proper ventilations at 10 breaths per minute (asthma 6-8).</li> <li>• Inflate cuff with &lt;= 10ml air and remove syringe.</li> <li>• Insert OPA, if needed.</li> </ul> </li> <li>• If unilateral breath sounds heard:           <ul style="list-style-type: none"> <li>• Check tube ID at teeth, and slowly withdraw ET tube until bilateral breaths heard.</li> <li>• Document new tube ID at teeth.</li> <li>• Maintain proper ventilations at 10 breaths per minute (asthma 6-8).</li> <li>• Inflate cuff with &lt;= 10ml air and remove syringe.</li> <li>• Insert OPA, if needed.</li> </ul> </li> <li>• If decision is ET tube not properly placed OR unsure:           <ul style="list-style-type: none"> <li>• Remove ET tube, place OPA, and ventilate patient.</li> <li>• If 1<sup>st</sup> ET intubation attempt, make a decision for 2<sup>nd</sup> ET intubation attempt or iGel.</li> </ul> </li> </ul> </li> </ul>		
<p><b>Preceptor ask</b>, "How would you know if you are delivering appropriate volumes with each ventilation?"  <i>(Chest rise, good breath sounds to periphery bilaterally; good capnography number and waveform; SpO<sub>2</sub> if not in cardiac arrest)</i></p>		
<p><b>* Secure ET tube.</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> When good ventilations and appropriate positioning established, tape in place from 'maxilla to maxilla' or secure with commercial device. *Manual stabilization to remain until fully secured otherwise.</li> <li><input type="checkbox"/> Keep ET tube midline in mouth.</li> </ul>		
<p><b>* Serial reassessments &lt;= 5 minutes OR following moving patient / condition changes:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Utilizes assessment criteria as per Region IX MWLC EMSS SOP.</li> </ul>		
<p><b>* Post-Intubation Sedation:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> If sedation need identified: utilize sedation per Region IX MWLC EMSS SOP.</li> <li><input type="checkbox"/> <b>Utilize and document R.A.S.S. scoring for proper sedation.</b></li> </ul>		

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**\* Suction**

**\* Demonstrate suction procedure**

- Obtain properly sized flexible suction catheter. (must verbalize method used to size determine size)
- Connect to suction and ensure suction is running.
- Properly lubricate per procedure.
- Preoxygenate for at least 3 minutes.
- Mark maximum insertion length with thumb and forefinger.
- Insert catheter into the ET tube leaving catheter port open.
- Once fully inserted, cover catheter port and slowly withdraw to suction secretions.

**\* Troubleshooting and considerations**

**\* Verbalize troubleshooting / consideration criteria:**

- Provider being evaluated SHALL verbalize all components of D.O.P.E. used to assess deterioration and how to manage each problem:
  - Displacement
  - Obstruction
  - Pneumothorax
  - Equipment Failure.

**Risks and Complications**

- Laryngospasm    Sore throat    Tongue numbness    Cyanosis
- Trauma to the pharyngo-laryngeal framework
- Down-folding of epiglottis (more common in children)
- Gastric insufflation, regurgitation and inhalation of the gastric contents
- Nerve injuries, vocal cord paralysis, lingual or hypoglossal nerve injuries

**Evaluator printed name and signature:**

**Evaluator Comments:**