

NWC EMSS Skill Performance Record
DRUG-ASSISTED VIDEO LARYNGOSCOPY INTUBATION (ProVu)

Name:	1 st attempt: <input type="checkbox"/> Pass <input type="checkbox"/> Repeat
Date:	2 nd attempt: <input type="checkbox"/> Pass <input type="checkbox"/> Repeat

Instructions: An awake adult has severe dyspnea and exhaustion from HF or asthma. Prepare equipment and intubate using DAI procedure.

Performance standard	Attempt 1 rating	Attempt 2 rating
0 Step omitted (or leave blank) 1 Not yet competent: Unsuccessful; required critical or excess prompting; marginal or inconsistent technique 2 Successful; competent with correct timing, sequence & technique, no prompting necessary		
* Takes appropriate BSI precautions: gloves, goggles, mask HEPA filter for ventilating w/ BVM		
State indications: <input type="checkbox"/> Actual or potential airway impairment/compromise or aspiration risk that cannot be mitigated by BLS interventions <input type="checkbox"/> Actual or impending hypoxic or hypercarbic resp. failure (apnea, ineffective ventilatory effort; SpO ₂ ≤ 90; EtCO ₂ ≥ 60) BLS airways, NIPPV, BVM ventilations contraindicated or ineffective <input type="checkbox"/> Increased work of breathing (WOB) (e.g., retractions, use of accessory muscles) resulting in severe fatigue <input type="checkbox"/> Need for ↑ insp. pressure or PEEP to maintain gas exchange NIPPV/BVM ventilations contraindicated or ineffective <input type="checkbox"/> Need for sedation to control or effectively assist ventilations		
State contraindications/restrictions to use of sedatives: <input type="checkbox"/> Coma with absent airway reflexes or known hypersensitivity/allergy <input type="checkbox"/> Use in pregnancy could be potentially harmful to fetus; consider risk/benefit		
State contraindications to ETI: Severe airway trauma or obstruction that does not permit the safe placement of an ET tube		
Prepare patient <input type="checkbox"/> Position for optimal view and airway access (head up to 45° unless contraindicated) (Prolongs safe apneic period; improves glottic visualization; improves intubation success; decreases post intubation aspiration) <input type="checkbox"/> Open the airway manually; *insert BLS adjuncts: NPA or OPA unless contraindicated		
Assess to the extent possible for S&S suggesting they may be difficult to ventilate : (MOANS": mask seal, obesity, age (elderly), no teeth, stiffness "BONES": beard, obese, no teeth, elderly, sleep apnea/snoring.)		
Assess for signs suggesting a difficult intubation (LEMON): Look, Evaluate the 3-3-2 rule, Mallampati score, Obstruction, and Neck mobility. The 3-3-2 rule measures the inter-incisor distance, hyoid-to-mental distance, and thyroid-to-hyoid distance.		
Assess GCS, VS; SpO ₂ on RA; auscultate breath sounds for baseline		
*Preoxygenate 3 minutes: O ₂ wash in; nitrogen wash out <input type="checkbox"/> Apply O₂ at 15 L/ETCO₂ NC; maintain before and during procedure <input type="checkbox"/> RR ≥ 10 / AWAKE / good ventilatory effort: Consider CPAP at 5-10 PEEP if not contraindicated <input type="checkbox"/> RR < 10 or shallow: O ₂ 15 L/BVM squeeze bag over 1 sec providing just enough air to see visible chest rise (~400-600mL); avoid high airway pressure (≥25cm H ₂ O) & gastric distention. Ventilate at 10 BPM (1 every 6 sec) to SpO ₂ 94% EtCO ₂ 35-45 If Hx asthma/COPD: 6-8 BPM to SpO ₂ 92%. If SpO ₂ does not meet this goal, contact OLMC. <input type="checkbox"/> If only 1 O ₂ source: Sense EtCO ₂ via NC (no O ₂); deliver O ₂ through BVM until procedure starts. Then switch O ₂ source to NC and run throughout ETI insertion		
Prepare (select, check, assemble) equipment – have ready before pacing blade into mouth		
<input type="checkbox"/> BLS airways; O ₂ sources; size appropriate BVM bags and masks; have below ready: <input type="checkbox"/> Suction equipment (DuCanto rigid and 12-14 Fr flexible catheters); turn on to ✓ unit <input type="checkbox"/> ProVu Display (reusable; inspect for S&S of damage) <input type="checkbox"/> ProVu disposable blade (curved non-channeled) ETT 7.0 & 7.5 <input type="checkbox"/> Stylet; 6mL syringe, water-soluble lubricant <input type="checkbox"/> BP, EtCO ₂ , SpO ₂ , ECG monitors; commercial tube holder, head blocks or tape, stethoscope <input type="checkbox"/> Alternate airways prepped & in sight (I-gel; cricothyrotomy) <input type="checkbox"/> Medications: Ketamine, etomidate, fentanyl, midazolam (depending on pt)		

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<p>*Check ETT cuff integrity while in package; fill syringe w/ 6 mL of air; leave attached to pilot tubing</p>		
<p>*Assemble ProVu per standard procedure; ensure it is operational. Place lubricant on end of ET tube. Load stylet into tube. Ensure stylet is inserted fully and loosely seated.</p>		
<p>Premedicate during pre-ox: Pain present + etomidate or midazolam being used to sedate: FENTANYL 1 mcg/kg (max single dose 100 mcg) IVP/IO/IN/IM; Elderly/debilitated: 0.5 mcg/kg (max 50 mcg)</p>		
<p>*SEDATE: Optimum sedation evidenced by absent gag reflex (lack of eyelash reflex or response to a glabellar tap); easy up and down movement of jaw, no reaction to pressure applied to both angles of the mandible). Allow for clinical response before intubating Estimate wt carefully</p> <p>Order of preference</p> <p><input type="checkbox"/> KETAMINE 2 mg/kg slow IVP (over one min) or 4 mg/kg IN (NAS) / IM (max 300 mg) OR</p> <p><input type="checkbox"/> Child ≥10: ETOMIDATE 0.5 mg/kg IVP (max 40 mg) if ketamine refused/contraindicated</p> <p><input type="checkbox"/> If no ketamine or etomidate due to drug shortage: MIDAZOLAM 5 mg IVP/IN + FENTANYL 100 mcg IVP/IN. If insufficient sedation: repeat Midazolam 5 mg IVP/IN Additional doses require OLMC using dosing per the SOP</p>		
<p>Intubate:</p>		
<p><input type="checkbox"/> Maintain O₂ 15 L/EtCO₂ NC during procedure</p> <p><input type="checkbox"/> When ready to perform procedure: stop ventilating pt.; withdraw OPA (NPA remains)</p> <p><input type="checkbox"/> Monitor VS, level of consciousness, skin color, ETCO₂; SpO₂ during procedure; time elapsed</p>		
<p>START TIMING tube placement after last breath _____</p> <p><input type="checkbox"/> Open mouth w/ cross finger (standard) technique</p> <p><input type="checkbox"/> *Insert ProVu blade midline over tongue (holding blade just above non-channeled portion, not on large handle portion below screen). Avoid pushing tongue into larynx.</p> <p><input type="checkbox"/> *Watch for the epiglottis; direct blade tip toward vallecula to facilitate visualization of the glottis on the video screen. The blade tip can be placed in the vallecula like a Macintosh blade or can be used to lift the epiglottis like a Miller blade. For best results, center the vocal cords in the middle of the display's video screen. DO NOT LIFT TO LOOK! Tilt blade toward user</p> <p><input type="checkbox"/> If the distal window becomes obstructed (e.g., blood/secretions), remove the blade from the patient's mouth and clear the lens. Suction secretions prn for optimal visualization.</p> <p>Note: Each blade insertion into mouth = 1 attempt Limit 2 attempts</p>		
<p>*Insert ET tube: Limit 1 attempt at ETT insertion</p>		
<p><input type="checkbox"/> Maintain view and advance ETT with stylet through glottic opening. Stop inserting once entered glottic opening. The rigid stylet must be removed prior to further insertion. At this point hold ETT and remove stylet while inserting ETT. Imagine process similar to IV catheter insertion. Never insert fully the ETT with rigid stylet fully inserted in ETT. This process of stylet removal may be a two-person approach. One person holding and inserting ETT, the other removing the stylet, all while maintaining the camera view of the glottic opening.</p> <p><input type="checkbox"/> If trouble passing ETT: Blade tip may have been advanced too far; good image of the vocal cords prevents ETT from advancing because the blade/camera is obstructing ETT passage. Withdraw blade slightly and gently lift in an anterior direction prior to attempting to advance the ETT.</p> <p><input type="checkbox"/> Advance ETT to proper depth (3 X tube ID at teeth)</p>		
<p>*Remove blade: Firmly hold ETT in place; remove blade from mouth.</p>		
<p><input type="checkbox"/> Turn off the display by pressing and holding the POWER button for approximately four seconds for power off. If not fully powered off, the camera will remain in sleep mode which will drain battery.</p> <p><input type="checkbox"/> Carefully remove stylet from the ETT by pulling up and forward towards the patient's chest.</p>		
<p>*Confirm tracheal placement: Ensure adequate ventilations + oxygenation:</p>		
<p><input type="checkbox"/> 15 L O₂ /BVM at 10 BPM (asthma/COPD 6-8 BPM); volume & pressure just to see chest rise</p> <p><input type="checkbox"/> 5-point auscultation: Confirm absent gastric sounds + bilateral breath sounds (midaxillary and anterior chest)</p> <p><input type="checkbox"/> Definitive confirmation: ETCO₂ number & waveform (most reliable)</p> <p><input type="checkbox"/> Time of tube confirmation: (Seconds of apnea) _____</p>		
<p>*Troubleshooting</p>		
<p><input type="checkbox"/> If breath sounds only on right, withdraw ETT slightly and listen again.</p> <p><input type="checkbox"/> If in esophagus: remove ETT, reoxygenate 30 sec; insert an I-gel</p>		

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<input type="checkbox"/> If ETT cannot be placed successfully (2 attempts to visualize cords/1 attempt to pass tube) or nothing can be visualized; consider alternate airway (BIAD); ventilate & monitor as above Consider need for additional medication		
<p>If tube placed correctly</p> <input type="checkbox"/> *Inflate cuff w/ up to 6 mL air to proper pressure (minimal leak or 20 cm H ₂ O if cuff manometer available; avoid overinflation); remove syringe <input type="checkbox"/> Note ETT depth: diamond level w/ teeth or gums (3 X ID ETT) <input type="checkbox"/> *Insert OPA; align ETT with side of mouth; secure with commercial tube holder; apply lateral head immobilization <input type="checkbox"/> *Continue to ventilate at 10 BPM (asthma 6-8); ET _{CO} ₂ 35-45; O ₂ to SpO ₂ 94% (92% COPD)		
<p>If secretions in tube or gurgling sounds with exhalation: suction ETT prn per procedure</p> <input type="checkbox"/> Select a flexible suction catheter; mark maximum insertion length with thumb and forefinger <input type="checkbox"/> *Preoxygenate patient; insert sterile catheter into the ET tube leaving catheter port open <input type="checkbox"/> At proper insertion depth, cover catheter port and apply suction while withdrawing catheter <input type="checkbox"/> Limit suction application time to 10 sec (adult). Ventilate/oxygenate patient per SOP.		
<p>*Reassess: Frequently monitor SpO₂, EtCO₂, tube depth, VS, & lung sounds to detect displacement, complications (esp. after pt movement), or condition change. If intubated & deteriorates, consider: Displacement of tube, Obstruction of tube, Pneumothorax, Equipment failure (DOPE)</p>		
<p>*After 10 min: Assess need for post invasive airway sedation and analgesia (PIASA) – Use RASS below If RASS (-1) or higher & SBP ≥ 90 (MAP ≥ 65) (in order of preference):</p> <input type="checkbox"/> KETAMINE (pain dose) 0.3 mg/kg slow IVP (pain relief + sedation) unless contraindicated OLMC NOT needed for ketamine pain dose added to sedation dose that exceeds max total of 300 mg OR <input type="checkbox"/> MIDAZOLAM standard sedation dose + FENTANYL (standard dose) if restless/tachycardic (S&S pain)		
<p>State complications of the procedure:</p> <input type="checkbox"/> *Post-intubation hyper or hypoventilation: Titrate to ET _{CO} ₂ <input type="checkbox"/> * Barotrauma: pneumothorax & tension pneumothorax; esophageal perforation <input type="checkbox"/> Trauma to teeth, vocal cords, larynx, trachea, mucosal, TMJ injuries, nerve injury <input type="checkbox"/> * Misplaced tube (esophagus, hypopharynx, mainstem bronchus) <input type="checkbox"/> * Over sedation <input type="checkbox"/> *Peri-intubation Hypoxia (<90% SpO ₂), bradycardia (per age), hypotension (SBP <90 mmHg or lowest age-appropriate SBP) or cardiac arrest Peri-intubation period is time from sedative given or last PPV to up to 10 minutes post any invasive airway attempt		
<p>Verbalize post-procedure cleaning & disinfection: After the procedure is complete, separate the display and video adapter from the blade. Dispose of blade per standard protocol and clean/disinfect display and video adapter/I-2 policy.</p>		
<p>*Critical error criteria in addition to starred items: Check if occurred during an attempt</p> <input type="checkbox"/> Failure to ventilate w/in 30 sec if pt apneic or hypoventilating after applying PPE/interrupts ventilations for >30 sec at any time <input type="checkbox"/> Failure to provide appropriate FiO ₂ preox and during peri-intubation period <input type="checkbox"/> Failure to ventilate patient at appropriate rate, volume or pressure: max 2 errors/min permissible <input type="checkbox"/> Failure to successfully intubate within 2 attempts without immediately attempting alternate airway <input type="checkbox"/> Suctions patient excessively or does not suction the patient when needed <input type="checkbox"/> Exhibits unacceptable affect with patient or other personnel <input type="checkbox"/> Performs in a way that could cause harm to a pt or is inconsistent with competent care		

Factually document below your rationale for checking any of the above critical criteria.

Rating: (Select 1)

- Proficient:** Skillful and efficient; performed all steps independently in full conformity with practice standards for competency, could rapidly problem solve and integrate history, exam findings, and perform multiple tasks concurrently with contextual and adaptive competence while forming appropriate EMS impressions without assistance or instruction.
- Competent:** All key steps independently performed with correct technique, sequence and timing. All starred (*) items explained/performed correctly with no critical error; minimal coaching needed.
- Practice evolving/not yet competent:** Did not perform with correct technique, sequence, or timing; required frequent coaching or reference to procedure manual | made critical errors | recommend additional practice

Proctor (PRINT NAME – signature)

The **Richmond Agitation Sedation Scale (RASS)**

Assesses level of alertness or agitation | Used after placement of ADV airway to avoid over/under-sedation

Combative	+4	Agitated	+2	Alert and calm	0	Light sedation	-2	Deep sedation	-4
Very agitated	+3	Restless	+1	Drowsy	-1	Moderate sedation	-3	Unarousable sedation	-5

Goal: RASS -2 to -3. If higher (not sedated enough) assess for pain, anxiety | Rx appropriately to achieve RASS of -2

NAJ 4/26