

SKILL	INDICATION	ALS STANDING ORDER	CONTRAINDICTION	COMMENTS
Bougie	Assist with intubation	Yes	Unable to visualize the vocal cords	No blind intubations. May use bougie if agency approved and trained annually Optional inventory
Carboxyhemoglobin monitor	Suspected or known carbon monoxide exposure	Yes	None	Consider transport to facility with hyperbaric chamber for suspected carbon monoxide poisoning in the unconscious or pregnant patient.
Cardioversion: synchronized	Unstable VT Unconscious SVT	Yes	<b>Pediatric:</b> If defibrillator unable to deliver <5 J or biphasic equivalent	In addition to NTG patches, remove chest transdermal medication patches prior to cardioversion.
	Unconscious Atrial fibrillation/flutter and HR $\geq$ 180	After x3 BHO		
	Unstable, conscious SVT ( <b>BHO</b> ) Unstable, conscious Atrial Fibrillation/Flutter HR $\geq$ 180( <b>BHPO</b> )	No		
Chest seal	Occlusive dressing designed for treating open chest wound	Yes	None	
CPAP	Age $\geq$ 15 years Respiratory Distress: CHF, COPD, asthma, pneumonia or drowning. Moderate to severe respiratory distress. Retractions/accessory muscle use <b>AND</b> <ul style="list-style-type: none"> <li>• RR <math>\geq</math>25/min</li> <li><b>OR</b></li> <li>• SpO<sub>2</sub> &lt;94%</li> </ul>	Yes	Unconscious  Non-verbal patients with poor head/neck tone may be too obtunded for CPAP  CPR BP <90 mmHg Vomiting Age <15 Possible pneumothorax Facial trauma Unable to maintain airway	CPAP may be used only in patients alert enough to follow direction and cooperate with the assistance. BVM assisted ventilation is the appropriate alternative.  CPAP should be used cautiously for patients with suspected COPD or pulmonary fibrosis, start low and titrate pressure.
Defibrillation	VT (pulseless) VF	Yes	None	In addition to NTG patches, remove chest transdermal medication patches prior to defibrillation.

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EKG monitoring	Any situation where potential for cardiac dysrhythmia.	Yes	None	Apply monitor before moving patient with chest pain, syncope, or in arrest. Document findings on PPR and leave strip with patient.
12 lead EKG	Chest pain and/or Signs and symptoms suggestive of myocardial infarction.  Suspected hyperkalemia and $\geq 72$ hours since last dialysis.  ROSC after cardiac arrest  To identify a rhythm.	Yes	None	Report: 12 lead interpretation of STEMI Bundle Branch Block (LBBB, RBBB).  Poor quality EKG, artifact, paced rhythm, atrial fibrillation or atrial flutter for consideration of a false positive reading STEMI  Repeat the 12 lead EKG only if the original EKG interpretation is NOT ***ACUTE MI SUSPECTED***, and patient's condition worsens. Do not delay transport to repeat. Document findings on the PPR and transmit EKG if available and leave EKG with patient.
End tidal CO <sub>2</sub> Detection Device (Qualitative)	All intubated patients <15 kgs - unless quantitative end tidal CO <sub>2</sub> available for patient <15 kgs.	Yes	None	Monitor continuously after ET/ETAD/Perilaryngeal Airway Adjunct insertion
End tidal CO <sub>2</sub> Detection Device – Capnography (Quantitative)	All intubated patients Respiratory distress Trauma	Yes	None	Monitor continuously after ET/ETAD/Perilaryngeal Airway Adjunct insertion Use early in cardiac arrest
Esophageal Detection Device-aspiration based	Patients intubated with ETT or ETAD	Yes	Patient <20 kg Laryngeal/Tracheal Airway (King Airway)	Repeat as needed to reconfirm placement. May use for both ET/ETAD (Port 2) Optional
External Cardiac Pacemaker	Unstable narrow complex bradycardia with a pulse refractory to Atropine 1 mg Unstable wide complex bradycardia (BP <90 AND chest pain, dyspnea or altered LOC)	Yes	None	Document rate setting, milliamps and capture  External pacing on standing orders should begin with minimum rate set at 60/min. Energy output should be dialed up until capture occurs, usually between 50 and 100 mA. The mA should then be increased a small amount, usually about 10%, for ongoing pacing.

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Glucose Monitoring	Hypoglycemia (suspected) Hyperglycemia	Yes	None	Repeat BS not indicated en route if patient is improving Repeat BS must be done if patient left on scene and initial was abnormal (AMA/Release)
Hemostatic Gauze	Life-threatening hemorrhage in the trauma patient when tourniquet cannot be used or to supplement tourniquet or bleeding unable to be controlled with direct pressure.	Yes	Bleeding controlled with direct pressure with standard gauze.	Should be applied with minimum 3 minutes of direct pressure.
Intranasal: IN	When IN route indicated	Yes*	None	Volumes over 1 ml per nostril are likely too large and may result in runoff out of the nostril.
Injection: IM	When IM route indicated	Yes*	None	Usual site: Deltoid in patients greater than or equal to 3 years of age. (Maximum of 1 ml volume).  Vastus lateralis patients less than 3 years of age. (Maximum of 3 ml volume)
Injection: IV	When IV route indicated	Yes*	None	

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Intubation- ET/Stomal	<p>Apnea or ineffective respirations for unconscious adult patient or decreasing LOC.</p> <p>To replace ETAD/Perilaryngeal if:</p> <ul style="list-style-type: none"> <li>• ventilations inadequate OR</li> <li>• need ET suction</li> </ul>	Yes	<p>?Opioid OD prior to Narcan</p> <p>Able to adequately ventilate the pediatric patient via BVM</p> <p>Gag reflex</p> <p>Infants and pediatric patients</p>	<p>3 attempts per patient <u>SQ</u> Additional attempts <i>BHPO</i>                      Attempt=attempt to pass ET (not including visualizations and suctioning).</p> <p>Document and report <b>LEADSD</b>                      Lung Sounds                      EtCO<sub>2</sub>                      Absent Abdominal Sounds                      Depth                      Size                      Document presence of EtCO<sub>2</sub> waveform and EtCO<sub>2</sub> numeric value at Transfer of Care</p> <p><b>Establishment of EtCO<sub>2</sub> prior to intubation:</b></p> <p>The presence of EtCO<sub>2</sub> greater than zero (0) is required prior to ET tube/ETAD placement.</p> <p><b>Exception to the mandatory use of EtCO<sub>2</sub> prior to intubation with ET tube/ETAD:</b></p> <p>-When the patient presents with intractable vomiting or airway bleeding, initial airway management should be focused on clearing of the airway with positioning of the patient (i.e. logrolling), and suctioning of the mouth and oropharynx.</p> <p>-If the airway paramedic assessment determines that it is still necessary to intubate the patient after clearing the airway, an ET tube/ETAD may be inserted prior to obtaining CO<sub>2</sub> readings in order to secure airway.</p> <p>-Immediately following insertion of the advanced airway, persistent CO<sub>2</sub> waveform and reading (other than zero) must be maintained or the ET tube/ETAD must be removed.</p> <p>If EtCO<sub>2</sub> drops to zero (0) and does not increase with immediate troubleshooting, extubate and manually ventilate the patient via BVM.</p> <p>Report and document capnography value, presence of waveform and lung sounds pre, post placement, at each patient movement and at the transfer of care.</p>

Intubation- ET/Stomal  (continued)				If intubated patient is to be moved, apply c-collar prior to moving.
Intubation: Perilaryngeal airway adjunct  (ETAD/Combitube. Laryngeal-Tracheal/King Airway)	Apnea or ineffective respirations for unconscious patient or decreasing LOC.	Yes	Gag reflex present Patient <4' tall ?Opioid OD prior to Narcan  Ingestion of caustic substances Hx esophageal disease Laryngectomy/Stoma	Extubate <u>SQ</u> if placement issue, otherwise per <b>BHO</b>  <u>King Airway:</u> Use Size 3 (yellow) for patients 4' – 5' tall Use Size 4 (red) for patients 5' – 6' tall Use Size 5 (purple) for patients >6' tall  <u>ETAD:</u> Use Small Adult size tube in all patients under 6' Report and document ventilation port number if ETAD.  Document and report <b>LEADSD</b> Lung Sounds EtCO <sub>2</sub> Absent Abdominal Sounds Depth Size Document presence of EtCO <sub>2</sub> waveform and EtCO <sub>2</sub> numeric value at Transfer of Care  <b>Establishment of EtCO<sub>2</sub> prior to intubation:</b>  The presence of EtCO <sub>2</sub> greater than zero (O) is a required prior to ET tube/ETAD placement.  <b>Exception to the mandatory use of EtCO<sub>2</sub> prior to intubation                  with ET tube/ETAD:</b>  -When the patient presents with intractable vomiting or airway bleeding, initial airway management should be focused on clearing of the airway with positioning of the patient (i.e. logrolling), and suctioning of the mouth and oropharynx.  -If the airway paramedic assessment determines that it is still necessary to intubate the patient after clearing the airway, an ET tube/ETAD may be inserted prior to obtaining CO <sub>2</sub> readings in order to secure airway.  -Immediately following insertion of the advanced airway, persistent CO <sub>2</sub> waveform and reading (other than zero) must be maintained or the ET tube/ETAD must be removed.

Intubation: Perilaryngeal airway adjunct  (ETAD/Combitube. Laryngeal-Tracheal/King Airway)  (continued)				Report and document capnography value, presence of waveform and lung sounds pre, post placement, at each patient movement and at the transfer of care  If intubated patient is to be moved, apply c-collar prior to moving.
Length Based Resuscitation Tape (LBRT)	Determination of length for calculation of pediatric drug dosages and equipment sizes.	Yes	None	Base dosage calculation on length of child, if weight unknown. Refer to pediatric chart for dosages (P-117).  Children $\geq 37$ kg use adult medication dosages regardless of age or height.
Magill Forceps	Airway obstruction from foreign body with decreasing LOC/unconscious	Yes	None	
Nasogastric / Orogastric tube	Gastric distention interfering w/ ventilations	Yes	Severe facial trauma Known esophageal disease	If NG tube needed in a patient with a King Airway, insertion should be via the suction port, if available.
Nebulizer, oxygen powered	Respiratory distress with: <ul style="list-style-type: none"> <li>• Bronchospasm</li> <li>• Wheezing</li> <li>• Croup-like cough</li> <li>• Stridor</li> </ul>	Yes*	None	Flow rate 4- 6 L/min via mouthpiece; 6-10 L/min via mask/ET.
Needle Thoracostomy	Severe respiratory distress with unilateral, diminished breath sounds and systolic BP <90  Pediatric: severe respiratory distress with unilateral diminished breath sounds AND BP <70 + (2x age)	Yes	None	Use 14 g, 3.25 inch IV catheter Insert into 2nd/3rd ICS in mid-clavicular line on the involved side. (Preferred) <b>OR</b> Insert catheter into anterior axillary line 4th/5th ICS on involved side  Tape catheter securely to chest wall and leave open to air.

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Prehospital Pain Scale	All patients with a traumatic or pain-associated chief complaint	Yes	None	Assess for presence of pain and intensity.
Prehospital Stroke Scale	All adult patients with suspected Stroke/CVA	Yes	None	Assess facial droop, arm drift, & speech. Bring witness to ED, or obtain accurate contact number, to help hospital personnel establish time of onset. Document and report the last known well time.
Pulse Oximetry	Assess oxygenation	Yes	None	Obtain room air saturation if possible, prior to O <sub>2</sub> administration.
Re-Alignment of Fracture	Grossly angulated long bone fracture	Yes	None	Use unidirectional traction. Check for distal pulses prior to realignment and every 15" thereafter. BHO in long bone fractures with neurovascular compromise.
Removal of Impaled Object	Compromised ventilation of patient with impaled object in face/cheek or neck.	Yes	None	
Saline lock	Used to provide IV access in patients who do not require continuous infusion of intravenous solutions.	Yes	Patients presentations which may require IV fluid replacement	

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Spinal Motion Restriction	Spinal pain of ?trauma  MOI suggests ?potential spinal injury  Acute neurological deficit following injury  Penetrating trauma with neurological deficit.  Victims of penetrating trauma (stabbing, gunshot wound) to the head, neck, and/or torso should not receive spinal stabilization unless there is one or more of the following: <ul style="list-style-type: none"> <li>• Neurologic deficit</li> <li>• Priapism</li> <li>• Anatomic deformity to the spine secondary to injury</li> </ul>	Yes	None	Pregnant patients (>6 mo) tilt 30 degree left lateral decubitus.  See S-104 Attachment for “ <b>Spinal Motion Restriction Algorithm</b> ”  <b>The Acronym “NSAIDS” Should Be Used to Remember the Steps in Algorithm:</b> <b>N-</b> Neurologic exam <b>S-</b> Sixty five <b>A-</b> Altered (including language barrier) <b>I-</b> Intoxication <b>D-</b> Distracting injury <b>S-</b> Spine exam  Spinal Motion Restriction is not required if <b>ALL of the following are present and documented:</b> <ol style="list-style-type: none"> <li>1. No neuro complaints/ no abnormal exam</li> <li>2. Not 65 years old and older</li> <li>3. Not altered / no language barrier</li> <li>4. Not intoxicated by drugs and/or alcohol</li> <li>5. No significant competing, distracting pain</li> <li>6. No spine pain or tenderness</li> </ol> <b>Spinal Motion Restriction:</b> -The use of an appropriately sized cervical collar on a stretcher while limiting the movement of the spine and maintaining “neutral” in-line position.  -Backboards should be limited to extrication whenever possible. In-line stabilization should be maintained with the patient supine and neutral on the gurney during transport.  -If a patient is not able to tolerate the supine position during transport, document the reason and communicate to receiving hospital staff.

Spinal Motion Restriction  (continued)				Sports Injury Patient- If a patient is helmeted and/or shoulder padded, patient helmet and pads should be removed while on scene  <b>Document the following:</b> A Neurological Examination Includes: <ul style="list-style-type: none"> <li>• Test of sensation and abnormal sensation (parasthesias) in all 4 extremities</li> <li>• Test of motor skills in all 4 extremities with active movements by the patient (avoid just reflexive movements like hand grasp to include:                         <ul style="list-style-type: none"> <li>- Wrist/finger extension and flexion</li> <li>- Foot plantar and dorsiflexion</li> </ul> </li> </ul> <u>Pediatric Patient</u> N=no altered LOC E=evidence of obvious injury absent C=complete spontaneous ROM without pain K=kinematic (mechanism) negative  Pediatrics Patients and Car Seats: <b>Infants restrained in a rear-facing car seat</b> may be immobilized and extricated in the car seat. The child may remain in the car seat if the immobilization is secure and his/her condition allows (no signs of respiratory distress or shock)  <b>Children restrained in a car seat</b> (with a high back) may be immobilized and extricated in the car seat; however, once removed from the vehicle, the child should be placed in spinal immobilization.  <b>Children restrained in a booster seat</b> (without a back) need to be extricated and immobilized following standard spinal immobilization procedures.  See Attachment for “ <b>Spinal Motion Restriction Algorithm</b> ”
Tourniquet	Severely injured extremity when direct pressure or pressure dressing fails to control life-threatening hemorrhage.	Yes	None	Direct pressure failure not required prior to tourniquet application in mass casualty.  Tourniquet must be tight enough to occlude arterial flow. Assess and document pulses
Valsalva Maneuver	SVT	Yes	None	Most effective with adequate BP D/C after 5-10 sec if no conversion

COUNTY OF SAN DIEGO EMERGENCY MEDICAL SERVICES  
 POLICY/PROCEDURE/PROTOCOL  
 SUBJECT: TREATMENT PROTOCOL – SKILLS LIST

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Video Laryngoscope	To assist with endotracheal intubation using video laryngoscopy	Yes	None	Optional inventory item. See Intubation ET for comments.
<b>VASCULAR ACCESS</b>				
External jugular	When unable to establish other peripheral IV and IV is needed for definitive therapy <b>ONLY</b> .	Yes	None	
Extremity	Whenever IV line is needed or anticipated for definitive therapy.	Yes BHPO if other than upper extremities or external jugular	None	Lower extremities remain <u>SQ</u> in the pediatric patient.
Indwelling Devices	Primary access site for patients with indwelling catheters if needed for definitive therapy.	Yes	Devices without external port	Clean site for minimum of 15 seconds prior to accessing. Infuse at a rate to support continuous flow and prevent backflow into IV line. Needleless systems may require adaptor. Examples include Groshong, Hickman, PICC lines.
Intraosseous	Fluid/medication administration in <b>acute status</b> patient when needed for definitive therapy and unable to establish venous access.  Pediatric patient: unconscious.	Yes	Tibial fracture Vascular Disruption Prior attempt to place in target bone Humeral fracture Local infection at insertion site	Splint extremity. Observe carefully for signs of extravasation. Do not infuse into fracture site. Neonate <28 days old <b>BHO</b> (<1 cm in depth)  Attempts to initiate tibial IO should be the priority when peripheral access is unavailable; however humeral IO insertion may be utilized when unable to access other sites in an acute status patient.  In conscious adult patient slowly infuse Lidocaine 2% (Preservative free) 40 mg IO prior to fluid administration.
Percutaneous Dialysis Catheter Access (e.g. Vascath)	Unable to establish other peripheral IV and <b>IV needed for immediate definitive therapy ONLY</b> and no other medication delivery route available	No	None	Vas Cath contains concentrated dose of Heparin which must be aspirated <b>PRIOR</b> to infusion. Infuse at a rate to support continuous flow and prevent backflow into IV line. Needleless systems may require adaptor. Annual training required.
Shunt/graft - AV (Dialysis)	Unable to establish other peripheral IV and <b>IV is needed for immediate definitive therapy ONLY</b> and no other medication delivery route available.	No	None	Prior to access, check site for bruits and thrills. Access fistula on venous side (weaker thrill). Inflate BP cuff around IV bag to just above patient's systolic BP to maintain flow of IV. If unsuccessful, hold direct pressure over site for 10" to stop bleeding. Do not apply pressure dressing.

\* When medication by that route is a SQ.