

| SKILL | INDICATION | ALS STANDING ORDER | CONTRAINICATION | COMMENTS |
|--------------------------------|--|--------------------|--|---|
| Bougie | Assist with intubation | Yes | Unable to visualize the 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 | Pediatric: 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 >180 | After x3 BHO | | |
| | Unstable, conscious SVT (BHO) Unstable, conscious Atrial Fibrillation/Flutter HR ≥180(BHPO) | No | | |
| Chest seal | Occlusive dressing designed for treating open chest wound | Yes | None | |
| CPAP | Age ≥ 15 years Respiratory Distress: CHF, COPD, asthma, pneumonia or drowning. Moderate to severe respiratory distress. Retractions/accessory muscle use AND <ul style="list-style-type: none"> • RR ≥25/min OR <ul style="list-style-type: none"> • SpO₂ <94% | Yes | Unconscious 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. Non-verbal patients with poor head/neck tone may be too obtunded for CPAP. 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. |

Document revised 7/1/2016

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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 ≥ 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 ₂ Detection Device (Qualitative) | All intubated patients <15kgs - unless quantitative end tidal CO ₂ available for patient <15kgs. | Yes | None | Monitor continuously after ET / ETAD/ Perilaryngeal Airway Adjunct insertion |
| End tidal CO ₂ 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 |
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| 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 100mA. The mA should then be increased a small amount, usually about 20%, for ongoing pacing. |
| 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. | 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 1ml 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 1ml volume). Vastus lateralis patients less than 3 years of age. (Maximum of 3ml 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>If unable to adequately ventilate via BVM the unconscious pediatric patient who is apneic or has ineffective respirations.</p> <p>Newborn deliveries if HR<60 after 30 seconds of ventilation and if unable to adequately ventilate via BVM.</p> <p>To replace ETAD/Perilaryngeal if:</p> <ul style="list-style-type: none"> • ventilations inadequate OR • need ET suction | Yes | <p>? Opioid OD prior to Narcan</p> <p>Able to adequately ventilate the pediatric patient via BVM</p> <p>Gag reflex</p> | <p>3 attempts per patient <u>SQ</u> Additional attempts <i>BHPO</i> Attempt=attempt to pass ET (not including visualizations and suctioning). Document and report LEADSD Reconfirm and report EtCO₂ and lung sounds after each pt movement and at turnover Extubation <u>SQ</u> if placement issue, otherwise per BHO.</p> <p>ET Depth Pediatrics: Refer to pediatric chart for ETT Depth (P-117).</p> <p>If intubated patient is to be moved apply c-collar prior to moving. Assess for right mainstem intubation.</p> |
| Intubation: Perilaryngeal airway adjunct (ETAD/Combitube. Laryngeal- Tracheal/King Airway) | <p>Apnea or ineffective respirations for unconscious patient or decreasing LOC.</p> | Yes | <p>Gag reflex present Patient <4' tall ? Opioid OD prior to Narcan Ingestion of caustic substances Hx esophageal disease Laryngectomy/Stoma</p> | <p>Extubate <u>SQ</u> if placement issue, otherwise per BHO</p> <p><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</p> <p><u>ETAD:</u> Use Small Adult size tube in all patients under 6' Report and document ventilation port number if ETAD.</p> <p>Document and report LEADSD.</p> <p>Report and document Capnography and lung sounds pre, post placement and at each patient movement and at the turnover of care.</p> <p>If intubated patient is to be moved apply c-collar prior to moving.</p> |

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| 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 ≥ 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"> • Bronchospasm • Wheezing • Croup-like cough • Stridor | 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 + (2 x age) | Yes | None | Use 14g, 3.25 inch IV catheter Insert into 2nd/3rd ICS in mid-clavicular line on the involved side. (Preferred) OR 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, or obtain contact number, to help hospital personnel establish time of onset. Document and report the last time known normal. |
| Pulse Oximetry | Assess oxygenation | Yes | None | Obtain room air saturation if possible, prior to O ₂ 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 Stabilization | 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"> • Neurologic deficit • Priapism • Anatomic deformity to the spine secondary to injury | Yes | None | Pregnant patients (>6mo) tilt 30 degree left lateral decubitus. Optional if no neuro deficit AND all of the following are present and documented: <u>Adult Patient (<65 years of age)</u> <ol style="list-style-type: none"> 1. awake, oriented to person, place & time 2. no drug/ETOH influence 3. no pain/tenderness of neck or back upon palpation 4. no significant competing, distracting pain 5. cooperative 6. no language barrier 7. no abnormal motor/sensory exam Backboards should be limited to extrication whenever possible; with supine, neutral, in-line stabilization maintained on the gurney during transport. If a patient is not able to tolerate the supine position during transport documentation should include why the patient was not able to tolerate position and this should be communicated to the receiving hospital staff. Document the following: A Neurological Examination Includes: <ul style="list-style-type: none"> • Test of sensation and abnormal sensation (parasthesias) in all 4 extremities • 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"> - Wrist/finger extension and flexion - Foot plantar and dorsiflexion |

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| Spinal Stabilization | | | | <p><u>Pediatric Patient</u> N=no altered LOC E=evidence of obvious injury absent C=complete spontaneous ROM without pain K=kinematic (mechanism) negative</p> <p>Pediatrics Patients and Car Seats: Infants restrained in a rear-facing car seat 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)</p> <p>Children restrained in a car seat (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.</p> <p>Children restrained in a booster seat (without a back) need to be extricated and immobilized following standard spinal immobilization procedures.</p> <p>See Attachment for 'Suspected Spinal Injury Algorithm'</p> |
| Tourniquet | Severely injured extremity when direct pressure or pressure dressing fails to control life-threatening hemorrhage. | Yes | None | <p>Direct pressure failure not required prior to tourniquet application in mass casualty.</p> <p>Tourniquet must be tight enough to occlude arterial flow. Assess and document pulses</p> |
| Valsalva Maneuver | SVT | Yes | None | <p>Most effective with adequate BP D/C after 5-10 sec if no conversion</p> |
| Video Laryngoscope | To assist with endotracheal intubation using video laryngoscopy | | | <p>Optional inventory item. See Intubation ET for comments.</p> |

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

No. S-104
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 Date: 7/1/2016

| SKILL | INDICATION | ALS STANDING ORDER | CONTRAINDICATIONS | COMMENTS |
|---|---|---|--|--|
| VASCULAR ACCESS | | | | |
| External jugular | When unable to establish other peripheral IV and IV is needed for definitive therapy ONLY . | 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 SO 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 acute status 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 BHO (<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) 40mg IO prior to fluid administration. |
| Percutaneous Dialysis Catheter Access(e.g. Vascath) | Unable to establish other peripheral IV and IV needed for immediate definitive therapy ONLY and no other medication delivery route available | No | None | Vas Cath contains concentrated dose of Heparin which must be aspirated PRIOR 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 IV is needed for immediate definitive therapy ONLY 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. |

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| | | | | Do not apply pressure dressing. |
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* When medication by that route is a SO.



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