# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMBULANCE REROUTING CRITERIA</td>
<td>V</td>
</tr>
<tr>
<td>EMERGENCY MEDICAL SERVICES - STAFF DIRECTORY</td>
<td>VI</td>
</tr>
<tr>
<td>CERTIFICATION</td>
<td>RECERTIFICATION</td>
</tr>
<tr>
<td>APPROVED ABBREVIATIONS</td>
<td>VIII</td>
</tr>
<tr>
<td><strong>GENERAL POLICIES TAB</strong></td>
<td></td>
</tr>
<tr>
<td>GENERAL POLICIES TOC</td>
<td>1</td>
</tr>
<tr>
<td>AN OVERVIEW OF PATIENT CARE POLICIES</td>
<td>2</td>
</tr>
<tr>
<td>ASSAULT</td>
<td>ABUSE</td>
</tr>
<tr>
<td>BURN PATIENT CARE</td>
<td>6</td>
</tr>
<tr>
<td>BURN PATIENT CRITERIA</td>
<td>8</td>
</tr>
<tr>
<td>CARDIOPULMONARY RESUSCITATION (CPR)</td>
<td>9</td>
</tr>
<tr>
<td>ADDITIONAL INFORMATION:</td>
<td>10</td>
</tr>
<tr>
<td>MECHANICAL CPR DEVICES:</td>
<td>10</td>
</tr>
<tr>
<td>PIT CREW ROLES:</td>
<td>11</td>
</tr>
<tr>
<td>CRUSH INJURY SYNDROME</td>
<td>12</td>
</tr>
<tr>
<td>EXTREMITY INJURY</td>
<td>13</td>
</tr>
<tr>
<td>HYPERKALEMIA</td>
<td>14</td>
</tr>
<tr>
<td>HYPERTHERMIA / HEAT ILLNESS</td>
<td>15</td>
</tr>
<tr>
<td>HYPOTHERMIA</td>
<td>16</td>
</tr>
<tr>
<td>INFECTION CONTROL</td>
<td>18</td>
</tr>
<tr>
<td>OB/GYN EMERGENCIES</td>
<td>19</td>
</tr>
<tr>
<td>SCOPE OF PRACTICE - LOCAL OPTIONAL</td>
<td>20</td>
</tr>
<tr>
<td>SMOKE INHALATION / CO MONITORING</td>
<td>21</td>
</tr>
<tr>
<td>TRANSPORT GUIDELINES</td>
<td>23</td>
</tr>
<tr>
<td>TRAUMA PATIENT CARE</td>
<td>24</td>
</tr>
<tr>
<td>TRAUMA PATIENT CRITERIA</td>
<td>25</td>
</tr>
<tr>
<td>TXA - TRANEXAMIC ACID</td>
<td>28</td>
</tr>
</tbody>
</table>

| **ADULT POLICIES TAB**                                                 |      |
| ADULT POLICIES TOC                                                    | 29   |
| ACUTE STROKE                                                          | 30   |
| AIRWAY OBSTRUCTION                                                    | 32   |
| ALTERED LEVEL OF CONSCIOUSNESS                                        | 33   |
# Emergency Medical Services - Staff Directory

| EMS Office | 618-2050 (main number)  
<table>
<thead>
<tr>
<th></th>
<th>618-2099 (fax #)</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-call EMS Staff</td>
<td>(925) 422-7595 – ACRECC</td>
</tr>
</tbody>
</table>
| EMS Website | http://ems.acgov.org  
|              | EMS Email- alcoems@acgov.org |

**EMS Director**

| Lauri McFadden | 618-2055 | lauri.mcfadden@acgov.org |

**Deputy EMS Director**

| William McClurg | 618-2030 | william.mcclurg@acgov.org |

**Medical Director**

| Zita Konik, MD, FAEMS | 618-2086 | zita.konik@acgov.org |

**EMS Coordinators**

<table>
<thead>
<tr>
<th>Naila Francies</th>
<th>208-9061</th>
<th><a href="mailto:naila.francies@acgov.org">naila.francies@acgov.org</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Quality Improvement</td>
<td>Data</td>
<td>EHR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cynthia Frankel</th>
<th>618-2031</th>
<th><a href="mailto:cynthia.frankel@acgov.org">cynthia.frankel@acgov.org</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS for Children</td>
<td>ReddiNet</td>
<td>AED/PAD Prog.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Kreig Harmon</th>
<th>667-7984</th>
<th><a href="mailto:kreig.harmon@acgov.org">kreig.harmon@acgov.org</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Quality Improvement</td>
<td>Field Protocols &amp; App</td>
<td>CCT-P</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mike Jacobs</th>
<th>618-2047</th>
<th><a href="mailto:michael.jacobs@acgov.org">michael.jacobs@acgov.org</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialty Systems of Care - Cardiac Arrest Care</td>
<td>STEMI</td>
<td>Stroke</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elsie Kusel</th>
<th>481-4197</th>
<th><a href="mailto:elsie.kusel@acgov.org">elsie.kusel@acgov.org</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialty Programs</td>
<td></td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Jim Morrissey - Supervisor</th>
<th>618-2036</th>
<th><a href="mailto:jim.morrisseyy@acgov.org">jim.morrisseyy@acgov.org</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>MHOAC</td>
<td>Emergency Preparedness and Response</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ryan Preston</th>
<th>618-2033</th>
<th><a href="mailto:ryan.preston@acgov.org">ryan.preston@acgov.org</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>CA OES Region II Regional Disaster Medical Health Specialist (RDMHS)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scott Salter</th>
<th>618-2022</th>
<th><a href="mailto:scott.salter@acgov.org">scott.salter@acgov.org</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Standards</td>
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<td></td>
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<table>
<thead>
<tr>
<th>Leslie Simmons</th>
<th>667-7412</th>
<th><a href="mailto:leslie.simmons@acgov.org">leslie.simmons@acgov.org</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Receiving Facility Liaison</td>
<td>Ambulance Ordinance</td>
<td>Compliance</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Carolina Snypes</th>
<th>618-2011</th>
<th><a href="mailto:carolinae.snypes@acgov.org">carolinae.snypes@acgov.org</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Special Project</td>
<td>Procurement Management</td>
<td>BLS Clinical Quality Improvement</td>
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<table>
<thead>
<tr>
<th>Andrew Sulyma</th>
<th>667-7533</th>
<th><a href="mailto:andrew.sulyma@acgov.org">andrew.sulyma@acgov.org</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dispatch Liaison</td>
<td>Fire Department Liaison</td>
<td>CA OES Region II Regional Disaster Medical Health Specialist (RDMHS)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gerald Takahashi</th>
<th>667-7588</th>
<th><a href="mailto:gerald.takahashi@acgov.org">gerald.takahashi@acgov.org</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational Programs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Yolanda Takahashi</th>
<th>618-2003</th>
<th><a href="mailto:yolanda.takahashi@acgov.org">yolanda.takahashi@acgov.org</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>CATT Project Manager</td>
<td>911 EOA Transport Provider Liaison</td>
<td>Unusual Occurrences</td>
</tr>
</tbody>
</table>

**Certifications**

<table>
<thead>
<tr>
<th>Sonya Lee</th>
<th>618-2034</th>
<th><a href="mailto:sonya.lee@acgov.org">sonya.lee@acgov.org</a></th>
</tr>
</thead>
</table>
1. **CHILD ABUSE / ELDER ABUSE / DOMESTIC VIOLENCE:** In any situation where EMS personnel knows or reasonably suspects a person suffering from any wound or other physical injury inflicted upon the person where the injury is the result of **assaultive or abusive conduct:**

   1.1 Immediately notify the appropriate law enforcement agency
   1.2 Reasonable effort will be made to transport the patient to a receiving hospital for evaluation. Immediately inform hospital staff of your findings.
   1.3 Document all pertinent observations on the electronic health record
   1.4 Immediately (or as soon as practical) contact the appropriate agency by telephone and give a verbal report
   1.5 A written report for child/elder abuse must be filed within 36 hours

---

**TO REPORT CHILD ABUSE:**

- Immediate verbal report to: Alameda County Children and Family Services at: 510-259-1800 - 24 hour number, follow the appropriate prompts. Make sure to note the name and title of the individual that you gave your report to.
- Complete the written report found at: [http://tinyurl.com/SCAreportform](http://tinyurl.com/SCAreportform) and fax to 510-780-8620 within 36 hours of the incident
- **ALL** responding agencies at a scene must complete their own report - no single agency can report in behalf of another agency.

**TO REPORT ELDER OR DEPENDENT ADULT ABUSE:**

- By staff at a licensed health care facility contact:
  - Ombudsman - 800-231-4024
- At home, or by a visitor or another resident at a licensed health care facility contact:
  - Alameda County Adult Protective Services - 866-225-5277 - 24 hour number
  
  After 5 pm M-F and weekends, an operator answers this line and can page a social worker (if needed.) If the patient was assaulted or has suffered serious neglect contact local law enforcement.
- A written report can be completed online by going to: [https://reporttoaps.org/](https://reporttoaps.org/) and then clicking on "Alameda County Intake Form" and completing

**TO REPORT DOMESTIC VIOLENCE:**

Domestic violence is defined as the willful intimidation, physical assault, battery, sexual assault, and/or other abusive behavior as part of a systematic pattern of power and control perpetrated by one intimate partner against another.
2. **SEXUAL ASSAULT:** This involves any form of non-consensual conduct/contact with another person, or the inability of the victim to give consent due to age, cognitive disability, or voluntary/involuntary incapacitation by substances. Substances are involved in the majority of sexual assaults, keep a high-index of suspicion on these patients. When EMS responds to a victim of sexual assault:

2.1 Use best judgement when assigning the primary-care provider noting the gender could be triggering to the victim

2.2 Explain in advance each treatment/procedure and offer the patient simple choices (e.g. to sit up or recline on the gurney) empowering them to feel in control.

2.3 Mirror the patient’s language (e.g., do not say “rape” or “sexual assault” if the patient has not used those words

2.4 Keep the assessment brief and injury-focused:
   - Do not interview the patient about the assault
   - In the absence of hemorrhage, there is rarely a need to visualize genitalia
   - Assess the patient for strangulation injuries, as this is a common with sexual assault

2.5 Preserve the physical evidence:
   - Transport the patient “as found.” Discourage showering, removing/changing clothes, brushing teeth, using mouthwash, smoking, eating or drinking. Do not allow the patient to wash or clean their hands.
   - If clothes have been removed, place clothing in a paper bag. Do not use plastic bags; they collect moisture, which degrades important organic material. If it is necessary to cut off the patient's clothes, cut around soiled, torn, or damaged areas by 6 inches.
   - Do not clean, irrigate, or apply ointment to wounds. If necessary, apply a dry sterile gauze to wounds.
   - If the patient needs to urinate, or vomit, the preserve in a clean container (e.g. urinal, emesis basin). This evidence especially important with drug-facilitated sexual assaults.
   - Chain of custody must be maintained for each item to be valuable in the forensic process. This is best accomplished by having the patient keep all evidence collected at scene in their possession or law enforcement maintaining possession.

2.6 Transport the patient to a facility capable of performing the sexual assault forensic exam regardless of the hospital's diversion status. This exam can be performed up to 21 days post assault.

   - **Adult patients:** Highland (ACMC) Hospital or Washington Hospital
   - **Pediatric patients:** Children’s Hospital (≤13 y.o.)

3. **SUSPECTED HUMAN TRAFFICKING:** Human trafficking involves labor or services, using force, fraud or coercion for the purposes of subjection to involuntary servitude. It can be commercial sex acts using force, fraud or coercion or any commercial sex act, if the person is under 18 years of age, regardless of coercion

3.1 Warning signs of human trafficking include:
   - Individuals, who are segregated from contact with responders, are physically or emotionally bullied by others, or who don’t have control of their own ID/documents.
   - Locations with unsuitable living conditions or unreasonable security measures
   - Incidents where responders are approached and asked for protection/asylum from other individuals at a scene

3.2 Reporting requirements:
   - EMS personnel are encouraged to report to local law enforcement suspected human trafficking cases.
ASSAULT | ABUSE | HUMAN TRAFFICKING | DOMESTIC VIOLENCE

4. DOMESTIC VIOLENCE (DV) LETHALITY SCREEN

4.1 Determine level of distress – is patient injured or complaining of any medical complaints?

► Assess and treat as appropriate
► If patient c/o or presents with medical complaints, assess for signs & symptoms of possible strangulation
► Attempt private audience with patient (maintaining regard for safety)
► If patient is NOT transported - and if safe, appropriate and feasible - perform a DV Lethality Screen

⇒ If patient screens HIGH RISK, refer patient to the Family Violence Law Center (FVLC) by calling the FVLC 24/7 hotline # 800-947-8301
⇒ Briefly describe the DV circumstances to the FVLC advocate without providing any patient identifying information
⇒ If patient consents to speaking with FVLC advocate, hand patient the phone
⇒ If patient does not consent to speaking with FVLC advocate, give patient discreet FVLC resource information and advise that he/she can call 24/7
⇒ Repeat basic safety planning tips that the FVLC advocate provides
► If patient is transported, be sure to inform receiving facility of lethality risk (determined by tool) and DV advocacy steps taken

4.2 Questions used in the Domestic Violence Lethality Screen for First Responders

⇒ A “yes” response to any of Questions 1–3 automatically triggers the protocol referral

1. Has he/she ever used a weapon against you or threatened you with a weapon?
2. Has he/she threatened to kill you or your children?
3. Do you think he/she might try to kill you?

⇒ Negative responses to Questions 1–3, but positive responses to at least four of Questions 4–11, trigger the protocol referral

4. Does he/she have a gun or can he get one easily?
5. Has he/she ever tried to choke you?
6. Is he/she violently or constantly jealous or does he/she control most of your daily activities?
7. Have you left him/her or separated after living together or being married?
8. Is he/she unemployed?
9. Has he/she tried to kill himself?
10. Do you have a child that he/she knows is not his/hers?
11. Does he/she follow or spy on you or leave threatening messages?

If patient consents, any first responder may trigger the protocol referral to FVLC if not already triggered above, as a result of the victim’s response to the below question, or whenever the first responder believes the victim is in a potentially lethal situation

⇒ Is there anything else that worries you about your safety? (If “yes”) What worries you?
SCOPE OF PRACTICE - LOCAL OPTIONAL

1. Approved for use in Alameda County – all items require additional training

1.1 BLS PERSONNEL:
   1.1.1 Aspirin
   1.1.2 Blood Glucose Testing
   1.1.3 Epinephrine
   1.1.4 Narcan

2. Local Optional Scope of Practice – requires authorization from State EMS Authority and additional training

2.1 ALS PERSONNEL:
   2.1.1 Buprenorphine (optional)
   2.1.2 Hydroxocobalamin (optional)
   2.1.3 Ketamine (Ketalar)
   2.1.4 Ketorolac (Toradol)
   2.1.5 Olanzapine (Zyprexa)
   2.1.6 Sodium Thiosulfate
   2.1.7 Tranexamic Acid

3. Field personnel will not perform any skill that is not a part of his/her scope of practice or has not been authorized by the Alameda County Health Officer and/or EMS Medical Director

4. During an inter-facility transfer or during a mutual aid response into another jurisdiction, a paramedic may utilize the scope of practice for which he/she is trained and accredited

5. Paramedics will not draw blood unless approved in advance by the EMS Medical Director

6. Field personnel are prohibited from carrying any medical equipment or medications that have not been authorized for prehospital use by the Alameda County EMS Medical Director
1. **INTRODUCTION:** The goal of the Alameda County trauma system is to transport confirmed patients meeting the various criteria below to a designated trauma center in a timely manner, bypassing non-trauma centers.

2. **RED CRITERIA TRAUMA PATIENTS (High Risk for Serious Injury):**

   2.1 A patient is identified as at high risk for serious injury when any of the following injury patterns or mental status/vitals signs listed below are present. These patients should be transported to a designated Trauma Center rapidly.

<table>
<thead>
<tr>
<th>Injury Patterns</th>
<th>Mental Status &amp; Vitals Signs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Penetrating injuries to head, neck, torso, and proximal extremities</td>
<td>• Total Glasgow Coma Scale ( \leq 13 ) or Motor GCS &lt; 6 (Unable to follow commands)</td>
</tr>
<tr>
<td>• Skull deformity, suspected skull fracture</td>
<td>• RR &lt; 10 or &gt; 29 breaths/min</td>
</tr>
<tr>
<td>• Suspected spinal injury with new motor or sensory loss</td>
<td>• Respiratory distress or need for respiratory support</td>
</tr>
<tr>
<td>• Chest wall instability, deformity, or suspected flail chest</td>
<td>• Room-air pulse oximetry &lt; 90%</td>
</tr>
<tr>
<td>• Suspected pelvic fracture</td>
<td></td>
</tr>
<tr>
<td>• Suspected fracture of two or more proximal long bones</td>
<td></td>
</tr>
<tr>
<td>• Crushed, degloved, mangled, or pulseless extremity</td>
<td></td>
</tr>
<tr>
<td>• Amputation proximal to wrist or ankle</td>
<td></td>
</tr>
<tr>
<td>• Active bleeding requiring a tourniquet or wound packing with continuous pressure</td>
<td></td>
</tr>
</tbody>
</table>

3. **YELLOW CRITERIA TRAUMA PATIENTS (Moderate Risk for Serious Injury):**

   3.1 In addition to above criteria, the following mechanisms of injury and EMS provider judgment of risk factors can be utilized to preferentially triage a patient to a trauma center. In general, these patients are transported code 2, however, differing field circumstances and/or patient condition may require a code 3 transport.

<table>
<thead>
<tr>
<th>Mechanism of Injury</th>
<th>EMS Judgment</th>
</tr>
</thead>
<tbody>
<tr>
<td>• High-Risk Auto Crash</td>
<td>Consider risk factors, including:</td>
</tr>
<tr>
<td>– Partial or complete ejection</td>
<td>• Low-level falls in young children (age ( \leq 5 ) years) or older adult (age ( \geq 65 ) years) with significant head impact</td>
</tr>
<tr>
<td>– Significant intrusion (including roof)</td>
<td>• Anticoagulant use</td>
</tr>
<tr>
<td>• ( \geq 12 ) inches occupant site OR</td>
<td>• Suspicion of child abuse</td>
</tr>
<tr>
<td>• ( \geq 18 ) inches any site OR</td>
<td>• Special, high-resource healthcare needs</td>
</tr>
<tr>
<td>• Need for extrication for entrapped patient</td>
<td>• Pregnancy &gt; 20 weeks</td>
</tr>
<tr>
<td>– Death in passenger compartment</td>
<td>• Burns in conjunction with trauma</td>
</tr>
<tr>
<td>– Child (age 0–9 years) unrestrained or in unsecured child safety seat</td>
<td>• Children should be triaged preferentially to pediatric capable centers</td>
</tr>
<tr>
<td>– Vehicle telemetry data consistent with severe injury</td>
<td>• EMS Provider judgment - If concerned, take to a trauma center</td>
</tr>
<tr>
<td>• Rider separated from transport vehicle with significant impact (eg, motorcycle, ATV, horse, etc.)</td>
<td></td>
</tr>
<tr>
<td>• Pedestrian/bicycle rider thrown, run over, or with significant impact</td>
<td></td>
</tr>
<tr>
<td>• Fall from height &gt; 10 feet (all ages)</td>
<td></td>
</tr>
</tbody>
</table>
4. **TRANSPORT:** Patients that meet Red or Yellow trauma criteria in the prior sections will be transported to the closest, most appropriate, designated Trauma Center. **Exception:** The patient is identified as meeting Red or Yellow trauma criteria, but presents with one of the following:

<table>
<thead>
<tr>
<th>PATIENT PRESENTATION</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UNMANAGEABLE AIRWAY:</strong> The patient requires advanced airway management, and the paramedic is unable to manage the patient's airway through basic or advanced interventions.</td>
<td>Closest Basic E.D.</td>
</tr>
<tr>
<td><strong>ADULT TRAUMA ARREST - BLUNT or PENETRATING:</strong></td>
<td>Determination of Death in the Field (page 86) <strong>Note:</strong> Coroner's personnel must transport all dead bodies. If ordered to move a body by law enforcement, note the time, name, and badge number of the officer, and comply with the request. Ensure that the police officer on scene has contacted the Coroner’s Bureau for permission to move the body</td>
</tr>
<tr>
<td><strong>PEDIATRIC TRAUMA ARREST BLUNT or PENETRATING:</strong></td>
<td>ETA to the Pediatric Trauma Center ≤ 20 minutes</td>
</tr>
<tr>
<td></td>
<td>ETA to the Pediatric Trauma Center ≥ 20 minutes</td>
</tr>
</tbody>
</table>

5. **TRAUMA BASE CONTACT:** Varying field circumstances make rigid application of any set of rules impractical. These criteria should serve as guidelines. Clinical circumstances may dictate that transport be undertaken immediately with Trauma Base contact made en route

5.1 **Designated trauma base hospital** - Highland Hospital is the Base Station for all trauma patients requiring base contact

5.2 **Contact the trauma Base Physician if:**

- The patient meets the criteria listed in the "Yellow Criteria" but the provider is requesting transport to a basic ED
- The patient requires medical treatment not covered in the "Trauma Patient Care" protocol (see page 25)
- The patient would benefit from consultation with the Base Physician
TRAUMA PATIENT CRITERIA

6. OUT-OF-COUNTY TRANSPORT

6.1 Patients who meet "Trauma Patient Criteria" may be transported directly to an out of county Trauma Center if it is the closest, most appropriate destination for the patient.

6.2 Prior to transporting to an out-of-county Trauma Center, the transporting provider must:
   - Contact the out-of-county Trauma Center by landline to determine if they can accept the patient.
   - Give a brief report including E.T.A. (See Reporting Format Protocol).
   - Contact the Alameda County Base Hospital if medical consultation is required (see #5 above).

6.3 Out-of-County Trauma Centers:

<table>
<thead>
<tr>
<th>TRAUMA CENTER</th>
<th>PEDIATRIC CAPABLE</th>
<th>LOCATION</th>
<th>PHONE #</th>
</tr>
</thead>
<tbody>
<tr>
<td>STANFORD UNIVERSITY MEDICAL CENTER</td>
<td>X</td>
<td>PALO ALTO</td>
<td>(650) 723-7337</td>
</tr>
<tr>
<td>SAN FRANCISCO GENERAL HOSPITAL</td>
<td></td>
<td>SAN FRANCISCO</td>
<td>(415) 206-8111</td>
</tr>
<tr>
<td>REGIONAL MEDICAL CENTER</td>
<td></td>
<td>SAN JOSE</td>
<td>(408) 729-2841</td>
</tr>
<tr>
<td>SANTA CLARA VALLEY MEDICAL CENTER</td>
<td>X</td>
<td>SAN JOSE</td>
<td>(408) 885-6912</td>
</tr>
<tr>
<td>JOHN MUIR MEDICAL CENTER</td>
<td></td>
<td>WALNUT CREEK</td>
<td>(925) 947-4444</td>
</tr>
<tr>
<td>SAN JOAQUIN GENERAL</td>
<td></td>
<td>FRENCH CAMP</td>
<td>(209) 982-1975</td>
</tr>
</tbody>
</table>
### MEDICATIONS – AUTHORIZED | STANDARD INITIAL DOSE

<table>
<thead>
<tr>
<th>Medication</th>
<th>Dosage/Route</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adenosine</strong></td>
<td>1st dose: 6 mg; 2nd dose: 12 mg (rapid IV/IO push)</td>
</tr>
<tr>
<td><strong>Albuterol</strong></td>
<td>5 mg in 6 ml normal saline</td>
</tr>
</tbody>
</table>
| **Amiodarone**      | **Wide complex Tachycardia**: 150 mg IV/IO over 10 mins  
                      | **VF/VT**: 1st dose: 300 mg IV/IO; 2nd dose: 150 mg IV/IO  
                      | Follow each dose with 20mL NS flush. (two doses only) |
| **Aspirin**         | 162 mg chewable or 324 mg (5gr.) tablet – not enteric coated |
| **Atropine sulfate**| Bradycardia: 1 mg IV/IO - (max total 3 mg)         |
| **Buprenorphine**   | 16mg Sublingual (SL)                              |
| **Calcium chloride 10%** | 1 gm over 2 minutes IV/IO                  |
| **Charcoal**        | 1 gm/kg (Max 50 gms) PO                          |
| **Dextrose 10%**    | 10 gms IV/IO                                     |
| **Diphenhydramine (Benadryl)** | Allergic Reaction: 1 mg/kg IV/IO/IM up to 50 mg |
| **Epinephrine 1mg/mL** | Anaphylaxis: 0.3 mg-0.5 mg IM  
                      | Bronchospasm: 0.01 mg/kg IM (max dose 0.5mg)          |
| **Epinephrine 0.1mg/mL** | Anaphylactic shock: 1mL (0.1mg) IV/IO slowly  
                      | Cardiac arrest: 10mL (1 mg) IV/IO  
                      | Cardiogenic/Distributive Shock: Diluted to 0.01mg/ml (10mcg/ml), 0.5ml (5mcg) slow IV/IO |
| **Fentanyl**        | Pain Management: 25-100 mcg IV/IO/IM/IN (max. single dose 100 mcg) |
| **Glucagon**        | 1 mg IM                                           |
| **Oral Glucose**    | 30 gms PO                                         |
| **Ipratropium (Atrovent)** | 500 mcg (2.5 ml unit dose) Via nebulizer           |
| **Lidocaine 2%**    | 40 mg IO (2 mL) slowly (1 ml over 30 seconds)     |
| **Ketamine (Ketalar)** | 0.3 mg/kg IV/IO/IM/IN - IV/IO dose to be mixed in 100ml NS/D5W and infused over 10 min |
| **Ketorolac (Toradol)** | 15 mg IM/IV/IO                                   |
| **Midazolam (Versed)** | Sedation: IV (slowly) / IN (briskly): 1-2 mg, IM: 2-4 mg (if no IV)  
                      | Seizure: IM/IN: 10 mg, IV/IO: 0.1 mg/kg - max dose 10 mg |
| **Naloxone (Narcan)** | Initial dose: Titrated up to 2 mg IV/IM/IN BLS Providers may only use IN Route. Max. initial dose is 2 mg |
| **Nitroglycerine spray** | 0.4 mg metered spray or tablet                    |
| **Normal saline**   | 250 - 500 ml IV/IO fluid bolus                    |
| **Olanzapine (Zyprexa)** | 10 mg PO orally dissolving tablet               |
| **Ondansetron (Zofran)** | 4 mg IV Slowly over 30 seconds or 4 mg IM/PO (oral dissolving tablets)  
                      | (rapid IV administration <30 seconds can cause syncope) |
| **Oxygen**          | 2 - 6 L/nasal cannula | 15 L/non-rebreather mask |
| **Sodium bicarbonate** | 1 mEq/kg IV/IO                                |
| **Sodium thiosulfate** | 12.5 grams IV/IO over 10 minutes               |
**SUSPECTED OPIOID WITHDRAWAL**

- **Routine Medical Care**
- **Indications:**
  - Post Naloxone Administration
  - Patient stated complaint of opioid withdrawals or seeking assistance for Opioid Use Disorder (OUD)
  - Patient presenting with signs/symptoms consistent with any positive score on the Clinical Opiate Withdrawal Scale (COWS)
- **Goals:**
  - Reduce patient suffering and;
  - Patient entry into a CA Bridge Program (www.cabridge.org) for treating Opioid Use Disorder

---

**Patient meets**

Yes

**indication(s) listed above?**

No

Proceed to appropriate treatment algorithm

---

**Evaluate severity of S/S utilizing COWS Score on ALCO EMS App or via ESO EHR**

---

**Clinical Opioid Withdrawal Scale (COWS) of ≥ 7?**

---

Yes

**Give patient water to moisten oral mucosa**

**Administer 16mg of Buprenorphine SL**

May administer an additional 8mg (max. total dose of 24 mg) of Buprenorphine if S/S persist/worsen

---

No

**Transport to CA Bridge facility is not required, but encouraged and preferred, regardless of insurance status**

Alameda County - CA Bridge facilities:
- Highland
- San Leandro

---

→ Report findings including COWS Score to Receiving Facility
→ Provide patient with MAT brochure
→ Document findings and treatment(s)

---

**To locate the COWS Scoring Tool in the ALCO EMS App, Open the App > Adult > Suspected Opioid Withdrawal > Click the ! in upper right-hand corner**

**Buprenorphine administration exclusion criteria:**

→ < 18 years old
→ Methadone use within the last 10 days
→ Pregnant
→ Altered mental status/unable to give consent
→ Current/recent intoxication and/or recent use of benzodiazepines or other intoxicants
→ Unable to comprehend potential risks/benefits of treatment

---

**Signs/Symptoms of Opioid Withdrawals:**

- Tachycardia
- Sweating/diaphoresis
- Restlessness and/or agitation
- Dilated pupils
- Chills/body or joint aches
- Rhinorrhea/lacrimation
- Yawning
- Tremors
- Nausea/Vomiting/Diarrhea/ABD pain
- Piloerection
VENTRICULAR FIBRILLATION | PULSELESS VT

*Routine Medical Care
*Note: Use of a mechanical CPR device is required whenever available and appropriate

**Defibrillate (see note)
* RESUME CPR
** Consider advanced airway
** IV/IO NS
* 2 minutes or 5 cycles of CPR
** Check Rhythm

VF/Pulseless VT notes:

* Chest compressions:
  CPR/mCPR must be minimally interrupted (<10 secs) and should not be paused for airway placement. mCPR does not need to be paused for defibrillation(s). Manual chest compressors must be rotated at every rhythm check.

** Defibrillation:
  Refer to manufacturer’s documentation for energy dose recommendations

*** Epinephrine
  May be repeated q10mins to a max of 3 doses

Go to Policy:
  ✓ Asystole/PEA page 37
  ✓ Return of Spontaneous Circulation page 48

BLS Airway (OPA)
BVM ventilation at rate of 10-12 with 10-15 lpm O2
ITD (Placed closest to patient - see page 130)
ETCO2 Monitoring

Shockable rhythm?

Yes

✓ **Defibrillate (see note)
✓ Resume CPR immediately
✓ Consider advanced airway
✓ IV/IO NS
✓ 2 minutes or 5 cycles of CPR
✓ Check Rhythm

Shockable rhythm?

No

✓ CPR while defibrillator charging
✓ **Defibrillate (see note)
✓ Resume CPR
✓ ***Epinephrine 0.1mg/mL 1 mg IV/IO
✓ 2 minutes or 5 cycles of CPR
✓ Check Rhythm

Shockable Rhythm?

No

✓ CPR while defibrillator charging
✓ **Defibrillate (see note)
✓ Resume CPR
✓ Amiodarone 300 mg IV/IO

Proceed to VF/VT – Refractory on Page 60
**Ventricular Fibrillation | Pulseless VT - Refractory**

- **Routine Medical Care**
- **Note:** Use of a mechanical CPR device is required whenever available and appropriate
- **Indications:** VF/Pulseless VT is considered refractory if 3 defibrillations have been delivered and additional defibrillation(s) are required at any point in a resuscitation.

If patient meets the above indications, prepare a second defibrillator and place the second defibrillator’s pads in the anterior/lateral position as pictured.

**Double-sequential defibrillation steps:**
1. Charge both defibrillators to recommended energy level
2. Deliver shock using defibrillator placed in A/P position first
3. Deliver shock with A/L placed defibrillator 1 second after the first defibrillation

**VF/Pulseless VT notes:**
- **Chest compressions:** CPR/mCPR must be minimally interrupted (<10 secs) and should not be paused for airway placement. mCPR does not need to be paused for defibrillation(s). Manual chest compressors must be rotated at every rhythm check.
- **Defibrillation:** Refer to manufacturer’s documentation for energy dose recommendations
- **Epinephrine**
  - May be repeated q10mins to a max of 3 doses

**Go to Policy:**
- ✓ Asystole/PEA page 37
- ✓ Return of Spontaneous Circulation page 48

Continue **Double-sequential Defibrillation (see note)** as appropriate every 2 minutes or 5 cycles of CPR or move to appropriate protocol.
**ANAPHYLAXIS / ALLERGIC REACTION**

- **Epinephrine IM** is the cornerstone of treatment of anaphylaxis and should be given as early as possible. It is best absorbed from an injection in the lateral thigh.
- If the patient is in severe distress, administer Epinephrine IM and consider immediate transport.
- **SIGNS OF ANAPHYLAXIS (Systemic Reaction)** – wheezing, repetitive cough, tightness in chest, stridor, difficulty swallowing or tightness in throat, change in voice, dizziness or feeling faint, abdominal complaints (pain, repeated vomiting, diarrhea or incontinence), anxiety, lethargy.
- **SIGNS OF ANAPHYLACTIC SHOCK** – pallor, hypotension, cool, clammy mottled skin, altered sensorium.
- **FACIAL/ORAL SWELLING (Angioedema)** can accompany anaphylaxis, but is not always present.
- Use a length-based resuscitation tape (LBRT) to determine pediatric medication dosages and fluid bolus.

---

**ANAPHYLAXIS (Systemic Reaction)**

- **EPINEPHRINE 1mg/ml IM**
  - BLS Providers: 0.15mg IM
  - ALS Providers: See LBRT for IM dose
  - Minimum single dose 0.1 mg
  - Maximum single dose 0.5 mg
  - May Repeat x 1 in 15 min.

**OXYGEN**

- If Any Distress

**ALLERGIC REACTION** (Skin or mucous membrane symptoms only without signs of anaphylaxis or airway obstruction)

- **DIPHENHYDRAMINE**
  - See LBRT for IV/IM/IO dose
  - Max. dose: 50mg

---

**IV/IO Access**

- FLUID BOLUS NS 10-20 ml/kg
- Assist ventilations with BVM as required

**YES**

- **SIGNS OF SHOCK?**

**NO**

- For persistent wheezing or respiratory distress
  - **ALBUTEROL**
    - 5 mg in 6 ml NS via handheld nebulizer, mask, or BVM
    - Consider for Urticaria (Hives/Itching)
  - **DIPHENHYDRAMINE**
    - See LBRT for IV/IM/IO dose
    - Max. dose: 50mg

---

**NOTES**

* If patient develops signs of anaphylaxis, go to other arm of this algorithm.

**Shock in children may be subtle and hard to recognize. BP readings may be difficult to determine or inaccurate and may be a late sign of shock.**

***IV/IO epinephrine should only be used if symptoms are unresponsive to IM epinephrine and patient has signs of profound shock.***

§ Diphenhydramine may lessen discomfort from rash/itching but is not an essential treatment of anaphylaxis. Consider reduced dosage if patient has taken diphenhydramine in the past 1-2 hrs.
BRADYCARDIA

• Pediatric Routine Medical Care
• Consider and treat other possible causes:
  ➔ Hypoxemia ➔ Hypothermia ➔ Head Injury
  ➔ Heart Block ➔ Toxins/drugs ➔ Beta Blockers or calcium channel blockers
• Note: TCP reserved for children with profound symptomatic bradycardia refractory to BLS and ALS. Use pediatric electrodes if child weighs < 15 kg
• Use an LBRT to determine pediatric medication dosages - (Shown underlined on the algorithm)

- Support ABCs - if needed
- \( O_2 \) – titrate to 94-99% \( \text{SpO}_2 \)
- Attach monitor

- Begin CPR
- \( \text{NS IV/IO} \)

- Persistent symptomatic bradycardia?

  Yes
  - Epinephrine 0.1mg/mL IV/IO
  - See LBRT for dose
  - Repeat q 3-5 min

  If increased vagal tone or primary AV block:
  - Atropine 0.1mg/ml IV/IO
  - See LBRT for dose
  - May repeat q 3-5 minutes:
    - Minimum single dose 0.1mg
    - Maximum total dose 3mg

  - Consider TCP – see page 145
    (see note above)
  - Consider sedation with: Midazolam
    - see page 138

- No

- Observe Transport

- Consider TCP – see page 145

- Consider sedation with: Midazolam
  - see page 138

- If asystole develops, go to:
  - Pulseless Arrest - Asystole page 71

Base Physician Consult
NEONATAL RESUSCITATION

• Pediatric Routine Medical Care
  • Resuscitation should be initiated on all premature infants who meet the following criteria:
    - **Weight:** > 500 gms or 1 pound and **Gestational Age:** ≥ 20-24 weeks
  • If naloxone considered for persistent respiratory depression, HR and color must first be restored
  • Avoid naloxone for neonates whose mothers are suspected of long-term exposure to opioids
  • **Note:** Manage the patient's airway with proper airway positioning, simple airway adjuncts, suctioning, and BVM ventilation as necessary. Consider Advanced Airway Management (page 114) if BVM ventilation is not adequate.
  • Use an LBRT to determine pediatric medication dosages - (Shown underlined on the algorithm)

**Term Gestation? Amniotic fluid clear? Breathing or crying? Good muscle tone?**

- **Yes**
  - Provide warmth
  - Position - Clear airway if needed
  - Dry, stimulate, reposition

- **No**
  - Apneic or HR < 100

**Breathing & HR > 100?**

- **Yes**
  - Pink?
    - Monitor
    - Supplemental O₂
    - Effective ventilation
      - HR > 100 & color pink
      - Post Resuscitation care

- **No**
  - Cyanotic?
    - Persistent Cyanosis?

**Positive pressure ventilation 40-60 breaths/minute**

- **Yes**
  - HR < 60?
    - Continue ventilation
    - Administer chest compressions compression:ventilation ratio 3:1 (90:30 for a total of 120 combined events/minute)
  - Epinephrine 0.1mg/mL IV/IO
    - See LBRT for dose
    - Fluid bolus 10 ml/kg – may need to repeat

- **No**
  - HR < 60?
**PAIN MANAGEMENT**

- **Pediatric Routine Medical Care.** If oxygen is administered, titrate to 94-99% SpO2
- Pain management should be initiated as early as possible and before transport in the stable patient. Consider pain management prior to the manipulation of suspected fractures
- **The preferred route of administration is intranasal (IN)**
- Use an LBRT to determine pediatric medication dosages - (Shown underlined on the algorithm)

### BLS Interventions:
- Positioning
- Cold Pack(s)
- Splinting
- Coaching

### ALS Intervention:
**Fentanyl IN/IM/IV/IO**

*See LBRT for dose*

- May repeat dose on LBRT q 5 min, to a max. of 3 total doses via all routes

### Base Physician consult
- if patient requires > 200 mcg or if contraindication(s) are present

**Monitor/Reassess**

---

**Pediatric Fentanyl Dose Chart (2 mcg/kg)**

<table>
<thead>
<tr>
<th>WEIGHT</th>
<th>DOSE</th>
<th>VOLUME</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 kg</td>
<td>10 mcg</td>
<td>0.2 mL</td>
</tr>
<tr>
<td>10 kg</td>
<td>20 mcg</td>
<td>0.4 mL</td>
</tr>
<tr>
<td>20 kg</td>
<td>40 mcg</td>
<td>0.8 mL</td>
</tr>
<tr>
<td>30 kg</td>
<td>60 mcg</td>
<td>1.2 mL</td>
</tr>
<tr>
<td>40 kg</td>
<td>80 mcg</td>
<td>1.6 mL</td>
</tr>
<tr>
<td>&gt; 50 kg</td>
<td>100 mcg</td>
<td>2 mL</td>
</tr>
</tbody>
</table>

---

**Fentanyl Considerations:**

- **Contraindications:**
  - Age-adjusted hypotension
  - Decreased respiratory rate
  - Altered mental status
  - Suspected Traumatic Brain Injury

**Notes:**
- Capnography monitoring is recommended
- Burn patients may require higher doses
- Have Naloxone readily available

---
**POISONING | INGESTION | OVERDOSE**

- **Pediatric Routine Medical Care**
- **Protect Yourself!** - See page 157 “Hazardous Materials Incidents - EMS Response”
- **Identify substance** - Contact the Base Physician regarding other treatment options. Bring any containers, labels or a sample (if safe) into the hospital with the patient.
- **Determine type, amount, and time of the exposure**
- **Base Physician consult** for treatment options if suspecting: organophosphate poisoning, or calcium channel or beta blocker OD. Consider contacting Poison Control for other substances 800-222-1222
- **Remove contaminated clothing.** Brush powders off, wash off liquids with large amount of water
- **Withhold charcoal if rapidly decreasing level of consciousness a possibility (e.g., tricyclic OD)**
- **Note:** Manage the patient's airway with proper airway positioning, simple airway adjuncts, suctioning, and BVM ventilation as necessary. Consider Advanced Airway Management (page 114) if BVM ventilation is not adequate.
- **Use an LBRT to determine pediatric medication dosages** - (Shown underlined on the algorithm)

---

**Flowchart**

- **Ventilating adequately, alert with a good gag reflex?**
  - Yes
    - If non-acid, non-caustic, non-petroleum, and within one hour of ingestion consider: **Activated Charcoal PO**
      - See LBRT for dose
      - Max dose of 50 grams
  - No
    - Assist respiration with BVM (see note above)

- **If tricyclic antidepressant suspected:** **Sodium Bicarbonate IV/IO**
  - See LBRT for dose

- **Base Physician order**

- **For patients with suspected narcotic OD go to Respiratory Depression page 72**

- **For late stage seizure go to:** **Seizure page 76**

---

**DRAFT**
# Pediatric Drug Chart - (Drugs Not on the LBRT)

## Green
- **Weight**: 3-5 kg
- **Drug**: Albuterol
- **Dosage**: 5 mg/kg every 20-60 minutes
  - **NS**: 5 mg in 6 mL

## Orange
- **Weight**: 6-7 kg
- **Drug**: Amiodarone
- **Dosage**: 5 mg/kg IM

## White
- **Weight**: 8-9 kg
- **Drug**: Dexamethasone
- **Dosage**: 5 mg/kg IM

## Yellow
- **Weight**: 10-11 kg
- **Drug**: Albuterol
- **Dosage**: 5 mg/kg every 20-60 minutes
  - **NS**: 5 mg in 6 mL

## Blue
- **Weight**: 12-14 kg
- **Drug**: Dexamethasone
- **Dosage**: 5 mg/kg IM

## Pink
- **Weight**: 15-18 kg
- **Drug**: Albuterol
- **Dosage**: 5 mg/kg every 20-60 minutes
  - **NS**: 5 mg in 6 mL

## Purple
- **Weight**: 19-22 kg
- **Drug**: Dexamethasone
- **Dosage**: 5 mg/kg IM

## Red
- **Weight**: 24-28 kg
- **Drug**: Albuterol
- **Dosage**: 5 mg/kg every 20-60 minutes
  - **NS**: 5 mg in 6 mL

## Grey
- **Weight**: 3-5 kg
- **Drug**: Dexamethasone
- **Dosage**: 5 mg/kg IM
**PULSELESS ARREST: ASYSTOLE, PEA**

- **Pediatric Routine Medical Care**
- **Note**: Manage the patient's airway with proper airway positioning, simple airway adjuncts, suctioning, and BVM ventilation as necessary. Consider Advanced Airway Management (page 114) if BVM ventilation is not adequate.
- **Use an LBRT to determine pediatric medication dosages** - (Shown underlined on the algorithm)

### CPR

**O₂ – High Flow**
- **Monitor**
- **ETCO2**

**Shockable rhythm?**
- **Yes**
  - Resume CPR
    - **IV / IO NS**
    - Epinephrine 0.1mg/mL IV/IO
    - See LBRT for dose
    - (1st dose ASAP – preferably within 5 min from start of CPR)
    - q 10 minutes, up to 3 doses
  - **2 minutes CPR**
    - 30:2 5 cycles 1 rescuer
    - 15:2 10 cycles 2 rescuers
    - Check rhythm
  - **Shockable rhythm?**
    - **No**
      - Do not interrupt CPR to administer medications
      - Go to: Pulseless Arrest – V-fib/V-tach

### Base Physician Consult

**Non-shockable rhythm continues?**
- **Yes**
  - **Discontinuation of CPR**: If non-shockable rhythm persists, despite appropriate, aggressive ALS interventions for 30 minutes (OR if ETCO2 is <10mmHg after 20 minutes in a patient with an advanced airway), consider discontinuation of CPR
  - Go to: appropriate dysrhythmia protocol
  - If pulse present - post resuscitation care
- **No**

**Discontinuation of CPR**: Continue CPR and medication administration

**Transport**

**End**
**PULSELESS ARREST: VF/ VT**

- **Pediatric Routine Medical Care**
- **Note:** Manage the patient's airway with proper airway positioning, simple airway adjuncts, suctioning, and BVM ventilation as necessary. Consider Advanced Airway Management (page 114) if BVM ventilation is not adequate.
- **Use an LBRT to determine pediatric medication dosages** - (Shown underlined on the algorithm)

**CPR until defibrillator available/charged**

- **O₂ – High Flow Monitor ETCO₂**

  - **Shockable rhythm?**
    - Yes: **Defibrillate** (see LBRT for dose)
    - Yes: Resume CPR
    - Yes: IV / IO NS
    - No: 2 minutes CPR 30:2 5 cycles 1 rescuer 15:2 10 cycles 2 rescuers
    - Check rhythm
    - Yes: CPR while defibrillator charging  
      - **Defibrillate** (see LBRT for dose)  
      - Resume CPR  
      - Epinephrine 0.1mg/mL IV/IO: See LBRT for dose q 10 minutes, up to 3 doses
    - No: Go to:  
      - Pulseless Arrest – Asystole/PEA  
      - If pulse present - post resuscitation care

- **Do not interrupt CPR to administer medications**

  - **CPR while defibrillator charging**  
    - **Defibrillate** (see LBRT for dose)  
    - Resume CPR  
    - Amiodarone IV/IO – See LBRT for dose
**RESPIRATORY DEPRESSION OR APNEA (SUSPECTED NARCOTIC OD)**

- **Routine Medical Care**
- **Naloxone can cause acute withdrawal symptoms (agitation, vomiting, etc.) in patients who are chronic utilizers of narcotics**
- **Naloxone can cause cardiovascular side effects (chest pain, pulmonary edema) or seizures in a small number of patients (1-2%)**
- **Patients who are maintaining adequate respirations with decreased level of consciousness do not generally require Naloxone for management**
- **Use an LBRT to determine pediatric medication dosages** - (Shown underlined on the algorithm)

**Algorithm:**

1. Maintain airway patency and adequate respirations with BLS airway adjuncts and BVM as needed
   
   - **Oxygen:** titrate to SpO2 of 94-99%
   - **Consider vascular access**

2. **Respiratory rate ≤ 12**
   - **Naloxone 1 mg/mL IN/IM/IV:**
     - **See LBRT for dose**
     - **Titrate dose to maintain respiratory rate ≥ 12**
     - **Repeat as needed to maintain respiratory rate ≥ 12 (no max. dose)**
     - **BLS Providers** may only utilize the IN administration route

3. **If patient is a known/suspected chronic utilizer of narcotics, consider 1:10 dilution of Naloxone:Normal Saline**
   - **Administer in 0.1 mg (1 ml) increments to maintain respiratory rate ≥ 12**

4. **Monitor/Reassess**

5. **If BVM ventilation and Naloxone are ineffective, consider Advanced Airway placement**
   - (see page 116)
RESPIRATORY DISTRESS (WHEEZING) – LOWER AIRWAY

- Pediatric Routine Medical Care
- Position of comfort
- **Note:** Manage the patient's airway with proper airway positioning, simple airway adjuncts, suctioning, and BVM ventilation as necessary. Consider Advanced Airway Management (page 114) if BVM ventilation is not adequate
- Use an LBRT to determine pediatric medication doses - (Shown underlined on the algorithm)

**O₂ – titrate to 94-99% SpO₂**
via blowby or non-rebreather mask

**Moderate to Severe Distress**
Any of the following:
- Cyanosis
- Accessory muscle use
- Inability to speak > 2 syllables
- Severe wheezing/SOB

**Assist respirations**
(see note)

**Albuterol**
5 mg in 6 ml NS
and
**Ipratropium**
500 mcg (2.5 ml)
by nebulizer or via BVM

If response inadequate:
**Epinephrine 1mg/mL**
*See LBRT for dose*
Maximum single dose: 0.3 mg
May repeat x1 in 20 mins.

If respiratory distress continues
**Albuterol** (only)
5 mg in 6 ml NS
by nebulizer or via BVM
May repeat x1 if respiratory distress continues

**Mild Respiratory Distress**
- Mild wheezing/SOB
- Cough

**Maintain airway and oxygen**
If decreased LOC or apnea
Consider:
**BVM Ventilation**
(see note)

**Albuterol**
5 mg in 6 ml NS
via hand-held nebulizer, mask
or BVM
May repeat x1

**RESPIRATORY DISTRESS (WHEEZING) – LOWER AIRWAY**

75
**ROUTINE MEDICAL CARE - PEDIATRIC**

The defined age of a pediatric patient is **14 years old or less**, and unless specified otherwise, pediatric protocols should be used to treat these patients. Note: An infant is considered to be < 1 year old. A child is considered to be ≥ 1 year old. Specified ages for transport or treatment other than 14 years old include:

<table>
<thead>
<tr>
<th>TRANSPORT</th>
<th>TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>5150 Psych Evaluation (page 133):</td>
<td>Advanced Airway Management (page 114):</td>
</tr>
<tr>
<td>➔ Children (≤ 11 y.o.) – Children’s Hospital</td>
<td>➔ &lt;40kg: authorized airway is OPA/NPA, BVM, or SGA</td>
</tr>
<tr>
<td>➔ Adolescents (≥ 12 y.o. &amp; ≤ 17 y.o.) – Willow Rock</td>
<td>CPAP (page 122):</td>
</tr>
<tr>
<td>Trauma Destination (page 26):</td>
<td>IO Access (page 130 or page 131):</td>
</tr>
<tr>
<td>➔ ≤ 14 y.o. – Children’s Hospital</td>
<td>➔ ≤ 17 y.o. may not refuse transport or treatment unless legally emancipated</td>
</tr>
<tr>
<td>➔ ≥ 15 y.o. – Closest Adult Trauma Center</td>
<td></td>
</tr>
</tbody>
</table>

**Sexual Assault (page 3):**

| ➔ Children (≤ 13 y.o.) – Children’s Hospital | |
| ➔ All Others (≥ 14 y.o.) – Highland or Washington |

An approved Alameda County-specific, pediatric LBRT shall be used to determine appropriate medication dosages, fluid volumes, defibrillation settings and equipment sizes. The tape is designed to estimate a child’s weight based on length (head to heel).

<table>
<thead>
<tr>
<th>PRIMARY SURVEY</th>
<th>SPECIAL CONSIDERATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish level of responsiveness</td>
<td>➔ AVPU: Alert, Verbal, Painful, Unresponsive</td>
</tr>
<tr>
<td>Evaluate airway and protective airway reflexes</td>
<td>➔ Identify signs of airway obstruction and respiratory distress, including:</td>
</tr>
<tr>
<td></td>
<td>➔ cyanosis</td>
</tr>
<tr>
<td></td>
<td>➔ stridor</td>
</tr>
<tr>
<td></td>
<td>➔ drooling</td>
</tr>
<tr>
<td></td>
<td>➔ tachypnea</td>
</tr>
<tr>
<td></td>
<td>➔ intercostal retractions</td>
</tr>
<tr>
<td></td>
<td>➔ absent breath sounds</td>
</tr>
<tr>
<td></td>
<td>➔ choking</td>
</tr>
<tr>
<td></td>
<td>➔ grunting</td>
</tr>
<tr>
<td></td>
<td>➔ apnea or bradypnea</td>
</tr>
<tr>
<td></td>
<td>➔ nasal flaring</td>
</tr>
<tr>
<td>Secure airway</td>
<td>➔ Open airway using jaw-thrust and chin-lift (and/or head tilt if no suspected spinal trauma). Suction as needed. Consider placement of an oral or nasal airway adjunct if the child is unconscious</td>
</tr>
<tr>
<td></td>
<td>➔ If cervical spine trauma is suspected, see page 139</td>
</tr>
<tr>
<td>Consider Spinal Motion Restriction (SMR)</td>
<td>➔ Use chest rise as an indicator of ventilation</td>
</tr>
<tr>
<td></td>
<td>➔ Use pulse oximetry</td>
</tr>
<tr>
<td>Assess need for ventilatory assistance</td>
<td>➔ CPR as needed (see CPR page 9)</td>
</tr>
<tr>
<td></td>
<td>➔ Assess perfusion using the following indicators:</td>
</tr>
<tr>
<td></td>
<td>➔ heart rate</td>
</tr>
<tr>
<td></td>
<td>➔ quality of pulse</td>
</tr>
<tr>
<td></td>
<td>➔ mental status</td>
</tr>
<tr>
<td></td>
<td>➔ capillary refill</td>
</tr>
<tr>
<td></td>
<td>➔ skin signs</td>
</tr>
<tr>
<td></td>
<td>➔ blood pressure</td>
</tr>
<tr>
<td>Evaluate and support circulation. Stop Hemorrhage</td>
<td>➔ Perform a head-to-toe assessment, including temperature</td>
</tr>
<tr>
<td></td>
<td>➔ Obtain patient history</td>
</tr>
<tr>
<td></td>
<td>➔ Do environmental assessment, consider possibility of intentional injury</td>
</tr>
<tr>
<td>Continue with secondary survey</td>
<td>➔ Perform a head-to-toe assessment, including temperature</td>
</tr>
<tr>
<td></td>
<td>➔ Obtain patient history</td>
</tr>
<tr>
<td></td>
<td>➔ Do environmental assessment, consider possibility of intentional injury</td>
</tr>
<tr>
<td>Determine appropriate treatment protocols</td>
<td>➔ Provide family psychosocial support</td>
</tr>
<tr>
<td></td>
<td>➔ An approved Alameda County-specific, pediatric LBRT shall be used to determine appropriate medication dosages, fluid volumes, defibrillation settings and equipment sizes.</td>
</tr>
<tr>
<td></td>
<td>➔ When starting an IV/IO/saline lock, use chlorhexidine as a skin prep</td>
</tr>
<tr>
<td></td>
<td>➔ Label insertion site with “PREHOSPITAL IV – DATE and TIME”</td>
</tr>
<tr>
<td></td>
<td>➔ Pediatric patients are subject to rapid changes in body temperature. Steps should be taken to prevent loss of or increase in body temperature</td>
</tr>
<tr>
<td></td>
<td>➔ Compared to the adult patient, a small amount of fluid, lost from or administered to, a pediatric patient can result in shock or pulmonary edema</td>
</tr>
<tr>
<td></td>
<td>➔ Scene time for treatment of pediatric patients should be kept at a minimum. Most treatment should be done en route</td>
</tr>
</tbody>
</table>
SEIZURE

• Pediatric Routine Medical Care
• Midazolam should not be given unless the patient is actively seizing - 3 or more seizures in ≤ 5 minutes or any seizure lasting > 5 minutes
• Cooling Measures: Loosen clothing and/or remove outer clothing/blankets
• Use an LBRT to determine pediatric medication dosages - (Shown underlined on the algorithm)

Actively seizing?

Yes

Midazolam

Preferred route is IN – See LBRT for dose (half of dose in each nare)
OR
IM: See LBRT for dose
OR
IV/IO: See LBRT for dose – Administer in 1-2 mg increments
Up to a maximum dosage of 5 mg for all routes

No

Check Blood Glucose

Yes

Continues to seize?

Results ≤ 60 mg/dL?

Yes

Go to ALOC page 62

No

If patient continues to seize consider:
- Additional Midazolam

No

If febrile:
Cooling measures

Reassess as needed

Base Physician order

Yes

No
SEVERE NAUSEA

**Routine Medical Care**
- **Indications:** Intractable vomiting or severe nausea in patients aged 4 years and older
- **Contraindications:** Hypersensitivity to 5-HT3 receptor antagonists (i.e. – dolasetron (Anzemet), granisetron (Kytril))
- **Note #1:** Consider other treatable causes
- **Note #2:** Administering Zofran rapidly can cause syncope
- **Note #3:** If patient has s/s of anaphylaxis/allergic reaction, follow Anaphylaxis/Allergic Reaction policy
- **Use an LBRT to determine pediatric medication dosages** - (Shown underlined on the algorithm)

O₂ – titrate to 94-99% SpO₂
Maintain airway
IV NS

Is the patient severely nauseous and/or vomiting?*

**Ondansetron (Zofran)**
- PO (preferred route) - 4 mg
- IV/IM – See LBRT for dose
  - Slowly (over 30 sec.) if given IV
  - Max single dose 4 mg IV/IM

If symptoms do not improve

Is the patient > 40kg?

- Yes
  - Repeat x1 q 15 minutes
- No
  - Contact Base Hospital

Reassess as needed
Patient Care Policy (Pediatric)  

**TACHYCARDIA**

• Pediatric Routine Medical Care  
• Use an LBRT to determine pediatric medication dosages - (Shown underlined on the algorithm)

- Support ABCs if needed  
- \( O_2 \) – titrate to 94-99% \( SpO_2 \)  
- Attach monitor

**Narrow QRS \( \leq 0.08 \) sec**

Evaluate rhythm  
Consider causes: compensatory vs. non-compensatory

- **Sinus Tachycardia**
  - \(< 220/\text{min} - \) infant  
  - \(< 180/\text{min} - \) child  
  - \( P \) waves - present/normal  
  - \( R \) to \( R \) - variable  
  - \( PR \) - constant  

  Treat underlying cause(s)  
  Consider: **Fluid bolus**

- **Supraventricular Tachycardia** (SVT)
  - \( > 220/\text{min} - \) infant  
  - \( > 180/\text{min} - \) child  
  - \( P \) waves - absent/abnormal  
  - Heart rate - constant

  If stable (with pulses and good perfusion)  
  Consider: **Vagal Maneuver**

  **Adenosine Rapid IVP**
  - See LBRT initial dose (max. 1st dose 6 mg)  
  - See LBRT repeat dose (max. 2nd dose 12 mg)

If unstable (with pulse but poor perfusion)

If stable (with pulses and good perfusion)

If unstable (with pulses but poor perfusion)

**Wide QRS \( > 0.08 \) sec**

Possible/probable V-tach

- **Consult with Base Physician for Amiodarone IV/IO infusion** (over 20-60 mins)  
  See LBRT for dose

Synchronized Cardioversion

- See LBRT for dose  
- If not effective, increase to the next dose listed on LBRT

Consider **Sedation**

but do not delay cardioversion  
See **Sedation page 138**

Evaluate QRS duration

**Evaluate rhythm**

**Sinus Tachycardia**

- \(< 220/\text{min} - \) infant  
- \(< 180/\text{min} - \) child  
- \( P \) waves - present/normal  
- \( R \) to \( R \) - variable  
- \( PR \) - constant

If unstable (with pulse but poor perfusion)

- Support ABCs if needed  
- \( O_2 \) – titrate to 94-99% \( SpO_2 \)  
- Attach monitor

**Evaluate rhythm**

Consider causes: compensatory vs. non-compensatory

- **Supraventricular Tachycardia** (SVT)
  - \( > 220/\text{min} - \) infant  
  - \( > 180/\text{min} - \) child  
  - \( P \) waves - absent/abnormal  
  - Heart rate - constant

If stable (with pulses and good perfusion)  
Consider: **Vagal Maneuver**

**Adenosine Rapid IVP**

- See LBRT initial dose (max. 1st dose 6 mg)  
- See LBRT repeat dose (max. 2nd dose 12 mg)

If unstable (with pulse but poor perfusion)

**Support ABCs if needed**

**Evaluate QRS duration**

**Possible/probable V-tach**

- **Consult with Base Physician for Amiodarone IV/IO infusion** (over 20-60 mins)  
  See LBRT for dose

Synchronized Cardioversion

- See LBRT for dose  
- If not effective, increase to the next dose listed on LBRT

Consider **Sedation**

but do not delay cardioversion  
See **Sedation page 138**

**Evaluate rhythm**

Consider causes: compensatory vs. non-compensatory

- **Sinus Tachycardia**
  - \(< 220/\text{min} - \) infant  
  - \(< 180/\text{min} - \) child  
  - \( P \) waves - present/normal  
  - \( R \) to \( R \) - variable  
  - \( PR \) - constant

If unstable (with pulse but poor perfusion)

**Evaluate QRS duration**

**Possible/probable V-tach**

- **Consult with Base Physician for Amiodarone IV/IO infusion** (over 20-60 mins)  
  See LBRT for dose

Synchronized Cardioversion

- See LBRT for dose  
- If not effective, increase to the next dose listed on LBRT

Consider **Sedation**

but do not delay cardioversion  
See **Sedation page 138**
ADVANCED AIRWAY MANAGEMENT

1. INTRODUCTION: The approved airway management procedure consists of endotracheal intubation (ETI) or insertion of a supraglottic airway (SGA) device.

***Nasotracheal intubation is NOT an approved skill in Alameda County***

1.1 Manage the patient's airway with proper airway positioning, simple airway adjuncts, suctioning, and BVM ventilation as necessary with all patients.

1.2 For patients ≥ 40kg, personnel are authorized to perform the skill of endotracheal intubation or placement of an SGA.

1.3 For patients < 40kg, BVM ventilation is the preferred method of ventilatory management. If BVM ventilation is unsuccessful or impossible, a SGA device may be placed.

1.4 If advanced airway placement will interrupt chest compressions, providers may consider deferring insertion of the airway until the patient fails to respond to initial CPR and defibrillation or demonstrates ROSC (2015 AHA Guidelines)

1.5 Personnel must confirm tube placement (ETI or SGA) with capnography / capnometry, auscultation and physical assessment (auscultation, observation of chest rise, visualization of the tube passing through the cords, etc.). See Section #4.

2. INDICATIONS:

2.1 Non-traumatic cardiac and/or respiratory arrest.

2.2 Traumatic cardiac and/or respiratory arrest or severe ventilatory compromise where the airway cannot be adequately maintained by BLS techniques.

3. APPROVED ADVANCED AIRWAY MANAGEMENT PROCEDURE:

3.1 Endotracheal intubation

3.1.1 Definition: An intubation attempt is defined as the insertion of the laryngoscope blade into the patient's mouth.

3.1.2 All ETI attempts should be performed with two providers.

3.1.3 All ETI attempts must utilize a gum elastic bougie device.

3.1.4 The maximum ETT size that can be utilized for ETI is 7.0mm.

3.1.5 Make no more than 2 total intubation attempts per patient. Each attempt should not last longer than 30 seconds. Ventilate with 100% oxygen for one minute prior to each attempt.

3.1.6 If patient has a Cormack-Lehane* grade of 3 or 4 (epiglottis is not or is barely visible), consider primary use of a supraglottic airway.

3.2 Supraglottic Airway Device (i-gel®)

3.2.1 Definition: A supraglottic airway attempt is defined as the insertion of the supraglottic airway device into the patient's mouth.

3.2.2 For patients ≥ 40kg, a supraglottic airway (i-gel®) device may be placed as a primary airway (if Cormack-Lehane grade is 3 or 4) or after unsuccessful attempt(s) at endotracheal intubation.