I. PURPOSE
A. To outline the criteria and process for re-triage of patients needing trauma care from non-trauma facilities to appropriate trauma centers.
B. Patients meeting the criteria for Emergency “Rapid” Trauma Re-Triage shall be transferred using 9-1-1 Paramedic IFT emergency transport guidelines. Refer to EMS Administrative Policy 5006 (Hospital Guidelines for Acute Care IFT).

II. EMERGENCY TRAUMA RE-TRIAGE CRITERIA
A. Adult patients (≥ fifteen [15] years of age) appropriate for Emergency Trauma Re-Triage to a trauma center include:
   1. Patients with abnormal blood pressure/perfusion as evidenced by:
      a. Systolic blood pressure under (<) 90 mmHg;
      b. Need for high-volume fluid resuscitation (> 2 L NS) or immediate blood replacement.
   2. Patients with significant neurological findings or injuries, including:
      a. GCS < 9 or deteriorating by two (2) or more during observation;
      b. Blown pupil;
      c. Obvious open skull fracture.
   3. Patients meeting anatomic criteria:
      a. Penetrating injury to head, neck, chest, or abdomen;
      b. Extremity injury with evident ischemia or loss of pulses.
   4. Patients, who in the judgment of the evaluating emergency physician, are anticipated to have a high likelihood for emergent life or limb-saving surgery or other intervention within two (2) hours.
B. Pediatric Patients (< fifteen [15] years of age) appropriate for Emergency Trauma Re-Triage to a Pediatric Trauma Center (UCSF Benioff Children’s Hospital Oakland (CHO)) include:
   1. Hemodynamic criteria:
      a. Patients with abnormal blood pressure or poor perfusion. Pediatric clinical signs of poor perfusion include: cool, mottled, pale or cyanotic skin or prolonged capillary refill, low urine output, or lethargy;
      b. Requirement of more than two (2) crystalloid boluses (20 mL/kg each) or requirement of blood transfusion (10 mL/kg).
   2. Neurologic criteria:
      a. GCS < 12 (pediatric scale – or deteriorating by two (2) or more during observation;
      b. Blown pupil;
      c. Obvious open skull fracture;
      d. Cervical spine injury with neurologic deficit.
   3. Respiratory criteria:
      a. Respiratory failure resultant from injury;
      b. Intubation required resultant from injury.

Effective January 2018
4. Anatomic criteria:
   a. Penetrating wound to the head, neck, chest, or abdomen.

5. Patients, who in the judgment of the evaluating emergency physician, are anticipated to have a high likelihood for emergent life or limb saving surgery or other intervention within two (2) hours.

6. Exceptions
   a. Pregnant pediatric patients may be transferred to an adult trauma center;
   b. Pediatric patients with significant/major burns without traumatic injuries should be transferred to a burn center instead of a trauma center;
   c. Contact the trauma center to discuss patients with suspected vascular injuries.

III. RE-TRIAGE PROCEDURE
   A. Once the patient has been identified as qualifying for Emergency Trauma Re-triage, the trauma center should be contacted (see contact list and phone numbers below) as soon as possible and the patient should be specifically identified as an “Emergency Trauma Re-Triage.” Based on that notification (and if the specialty center is not on trauma bypass), the patient will be accepted for transfer.

   B. Have records (and staff and equipment, if necessary) prepared for transport. The ambulance will generally arrive within ten (10) minutes of request and patient should be ready for transport. If delays occur, the 9-1-1 ambulance may be reassigned for other emergency needs. Availability of records should never delay transport.

IV. TRANSFER PROCEDURE (if not Emergency Trauma Re-Triage)
   A. Contact the trauma center to discuss patient status and request transfer. See list of hospitals and phone numbers below.

   B. If transfer is accepted, arrange for transport, appropriate to patient condition or potential need.

   C. Patient records and diagnostic imaging disks (if available) should be readied for transport ambulance. Records that are not ready at time of transport departure can be faxed. Availability of records should never delay transport.

V. TRAUMA CENTERS
   A. John Muir Health Medical Center (JMMC) – Walnut Creek is the designated trauma center for adults (≥ fifteen [15] years of age) in Contra Costa County.

   B. CHO is the closest designated trauma center for pediatric patients (< fifteen [15] years of age).

   C. When JMMC is on trauma bypass status, it is unable to accept patients with emergent need for transfer or field triages because critical hospital resources (e.g. surgeons and operating rooms) are not available. Location and helipad availability are items to consider in choice of other trauma center destinations.

   D. When not on trauma bypass status, trauma centers may also be impacted by bed availability issues and may not be able to accept non-emergent transfers.
E. Alternate pediatric trauma centers include UC Davis Medical Center in Sacramento and Santa Clara Valley Medical Center in San Jose. Emergency Re-Triage Criteria as addressed in this policy are not utilized at these two (2) facilities.

Other local adult trauma centers include:

**LOCAL TRAUMA CENTER CONTACT PERSONS/PHONE NUMBERS**

<table>
<thead>
<tr>
<th>Adult Trauma Centers</th>
<th>Contact Person</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Alameda County Medical Center (Highand) - Oakland</td>
<td><strong>Re-Triage only:</strong> ED Physician</td>
<td>(510) 535-6000</td>
</tr>
<tr>
<td></td>
<td><strong>Other transfers:</strong> On-call Trauma Surgeon</td>
<td>(510) 437-4800 ext. 0</td>
</tr>
<tr>
<td><strong>San Francisco General Hospital</strong></td>
<td>Attending Physician</td>
<td>(415) 206-8111</td>
</tr>
<tr>
<td>John Muir Medical Center – Walnut Creek</td>
<td>Transfer Center</td>
<td>(925) 947-4488</td>
</tr>
<tr>
<td>Santa Clara Valley Medical Center – San Jose</td>
<td>ED Physician</td>
<td>(408) 885-3228</td>
</tr>
<tr>
<td>Sutter Eden Medical Center – Castro Valley</td>
<td>On-call Trauma Surgeon</td>
<td>(510) 898-6805</td>
</tr>
<tr>
<td>UC Davis Medical Center - Sacramento</td>
<td>ED Physician</td>
<td>(916) 734-5669</td>
</tr>
<tr>
<td>Kaiser Permanente Medical Center - Vacaville</td>
<td>ED Physician</td>
<td>(707) 624-1161</td>
</tr>
<tr>
<td>Stanford Medical Center – Palo Alto</td>
<td>ED Physician</td>
<td>(650) 723-7337</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pediatric Trauma Centers</th>
<th>Contact Person</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCSF Benioff Children’s Hospital of Oakland</td>
<td>Transfer Center</td>
<td>(510) 428-3240</td>
</tr>
<tr>
<td>UC Davis Medical Center - Sacramento</td>
<td>ED Physician</td>
<td>(916) 734-5669</td>
</tr>
<tr>
<td>Santa Clara Valley Medical Center – San Jose</td>
<td>ED Physician</td>
<td>(408) 885-3228</td>
</tr>
<tr>
<td>Stanford Medical Center – Palo Alto</td>
<td>ED Physician</td>
<td>(650) 723-7337</td>
</tr>
</tbody>
</table>

** Indicates no helipad on site