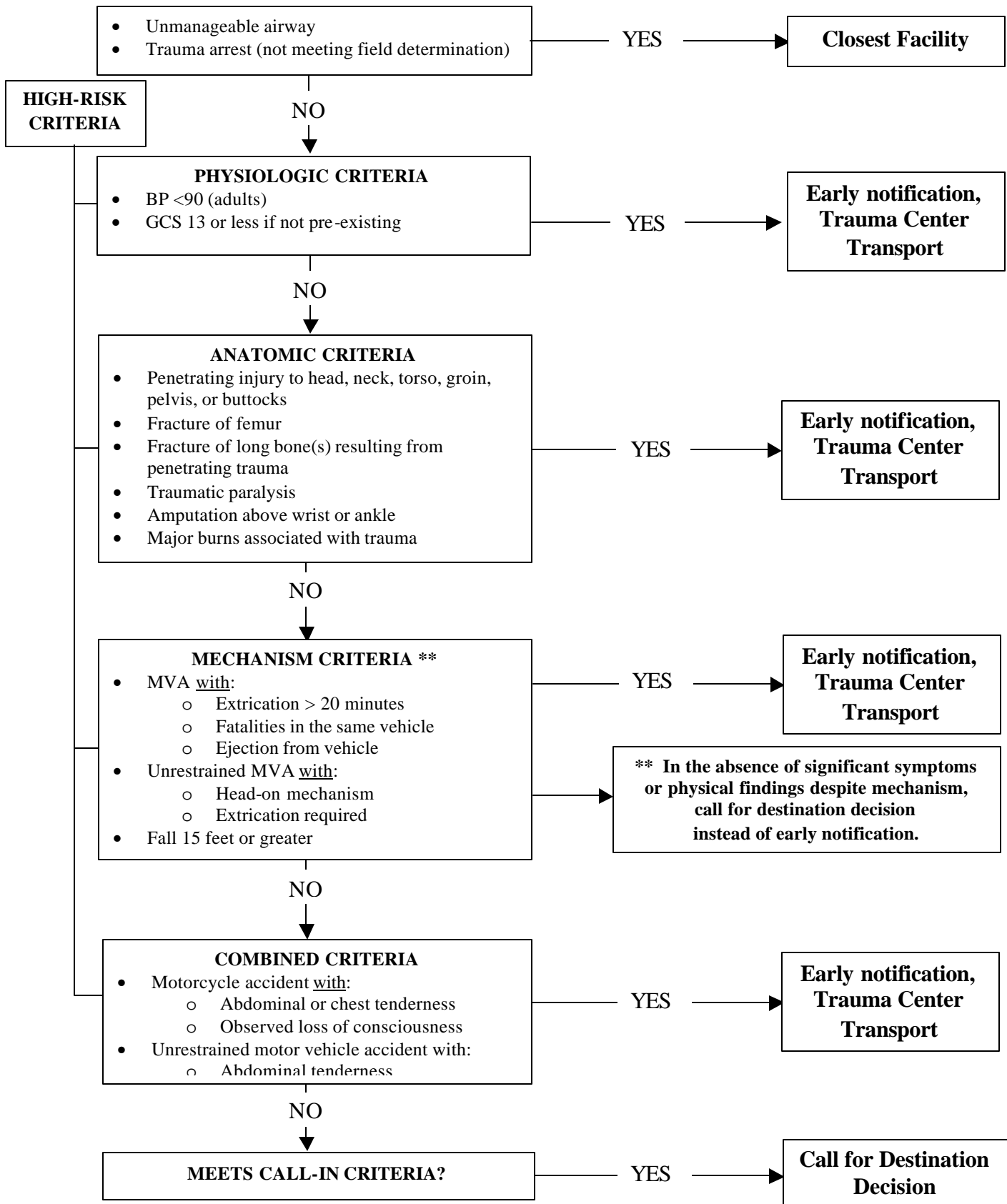


III. TRAUMA TRIAGE ALGORITHM



IV. CALL-IN CRITERIA FOR BASE HOSPITAL DESTINATION DECISION

- A. Most trauma mechanisms are quite variable in terms of risk for significant injury. In order to maintain the highest accuracy in trauma triage, base hospital destination decision is required prior to transport of the following patients (who do not meet high-risk criteria otherwise):
 1. Evidence of high-energy dissipation or rapid deceleration which may include:
 - a. vehicle rollover with unrestrained occupant,
 - b. intrusion of passenger space by 1 foot or greater,
 - c. impact of 40 mph or greater,
 - d. persons requiring disentanglement from a vehicle,
 2. Adult hit by vehicle traveling faster than 15 mph.
 3. Child less than 14 years hit by a vehicle.
 4. Persons ejected from a moving object (motorcycle, horse etc.).
 5. Significant blunt injury to the head, neck, thorax (chest/back), abdomen or pelvis.
 6. Penetrating injury to extremities (above knee or elbow) without apparent fracture.
- B. If no significant symptoms or physical findings noted despite above mechanism(s), call-in not required and patient may be transported to hospital of choice or to closest facility.
- C. Base contact should be made if a patient meets call-in criteria and it is believed trauma center services may be needed, even in the event that the trauma has occurred several hours prior to EMS response.
- D. Patients 65 years of age and older may sustain significant injuries with less forceful mechanisms, and may merit call-in for less significant mechanisms (e.g. ground level fall with new alteration of mental status).

V. TRiage AND REPORTING PROCEDURES

- A. Determine whether the patient meets high-risk criteria for direct transport or meets call-in criteria.
- B. Contact the Base Hospital as soon as possible for either early notification or destination decision as indicated in the Trauma Triage Algorithm.
 1. **Early Notification Report** – This report should be brief (approx 1 minute)
 - a. Agency name and unit number
 - b. Advise as Early Notification Report
 - c. ETA at trauma center
 - d. Patient age and sex
 - e. Brief description of mechanism of injury and scene
 - f. Brief description of known significant abnormalities in primary and secondary surveys
 2. **Destination Decision Report** – This report needs to contain sufficient detail to aid in decision-making by base physician
 - a. Agency name and unit number
 - b. Advise as Destination Decision Report
 - c. ETA to trauma center
 - d. Patient age and sex
 - e. Mechanism of injury (brief description)
 - f. Basic scene information (e.g. protective gear, extrication, estimated MPH)
 - g. Primary Survey (can be reported as ABCD normal except....)
 - h. Secondary Survey (report abnormal findings only)
 - i. Prehospital treatments and response
 - j. Paramedic concerns

- C. The *five-minute update call* should be made when five minutes from the trauma center and should include expanded patient information, including significant changes in vital signs, mental status, physical findings or symptoms en route.
- D. Receiving hospitals shall be contacted by field personnel prior to arrival.
- E. On Trauma Center arrival, use MIVT format at transfer of patient care. (30-second report)
 - 1. Report should be made to Trauma physician or ED physician
 - 2. MIVT format
 - a. Mechanism of injury
 - b. Injuries Sustained and Level of Consciousness (AVPU format)
 - c. Vital signs – include ECG rhythm if abnormal, pulse oximetry if known
 - d. Treatment and patient's response to treatment
 - e. More detailed information can be provided when requested

VI. SPECIAL CIRCUMSTANCES

- A. All patients with unmanageable airway should be transported to the closest Basic ED.
- B. Patients who do not qualify for field pronouncement of death, but have or develop cardiopulmonary arrest should be transported to the closest Basic ED.
- C. Contra Costa County Trauma Center Bypass:
 - 1. Transport patients with high-risk criteria or patients directed to a trauma center by base hospital destination decision via ground or air transport, as indicated, to the closest appropriate and available designated out-of-county trauma center.
 - 2. If an out-of-county trauma center is not available:
 - a. Transport via ground to the nearest Basic ED, which may include John Muir Medical Center.
 - b. If helicopter transport is utilized, transport to John Muir Medical Center.
- D. Out-of-County Destinations:
 - 1. Aside from trauma center bypass situations, an out-of-county destination may be the appropriate destination if there is significant time saving.
 - 2. The base shall be contacted to assist with destination determination of patients who require transport to out-of-county destinations, including pediatric patients with prolonged transport times (> 30 minutes) and patients redirected because of trauma center bypass.
 - 3. The base will be responsible for notification of other trauma centers to alert them of the patient's pending arrival.
- E. Disrupted Communications with Base:
 - 1. Patients who normally require base hospital destination determination should be transported to the most appropriate and available receiving facility per the paramedic's judgment.
 - 2. Alternate mechanisms of communication (e.g., via dispatch) should be used to determine trauma center availability if out-of-county destinations are being considered.

Clinical criteria for helicopter use (policy 33 D revision) proposed wording:

III.A. Clinical Criteria

1. Patients with an anticipated need for emergent trauma center intervention. Criteria for air ambulance transport include patients with high-risk trauma criteria who have:
 - a. unstable vital signs, or;
 - b. multi-system trauma (e.g. high-velocity blunt trauma), or;
 - c. penetrating trauma (other than extremity injuries), or;
 - d. head injury patients with airway management issues or profound alteration of consciousness.
2. Critically ill.... (as before)

Current policy wording excerpted from Policy 33 D (page 9 of the pdf file) – part most in need of revision is in italics:

III. EMS AIRCRAFT UTILIZATION CRITERIA

Only when the following clinical AND time criteria are met shall a patient be transported by an air ambulance (medical helicopter). When these criteria are not met, the helicopter should be cancelled even if it is already on the ground and the helicopter crew has made patient contact.

The senior medical person on scene shall be responsible for assessing helicopter use criteria and shall advise the IC or designee to cancel the helicopter when indicated. Helicopter crew has the authority and responsibility to turn over patient care to ground ambulance if patient does not meet criteria.

A. Clinical Criteria

- 1. Patient meets physiologic criteria (CRAMS 7 or less) or has anatomic injuries which categorizes the patient as a Critical Trauma Patient according to EMS trauma policy***
2. Critically ill or injured patients whose conditions may be aggravated or endangered by ground transport (e.g., limited access via ground ambulance or unsafe roadway)
3. Unusual circumstances such as ambulance not available, multicasualty incidents, or patients with specialized needs available only at a remote facility such as burn victims or potential critical pediatric patients distant from the specialty services.

B. Time Criteria

EMS Aircraft transport should be used only when it will provide benefit in terms of transport time to the receiving facility when compared to time for ground transport. When considering air transport times, it is important to consider immediate availability, load time, driving/flight time, unloading and delivery of the patient into the hospital. If ground ambulances will be necessary to move the patient to a helicopter or to move the patient from the helicopter to the hospital, this may add a significant amount of time to the overall transport.