

## TRIAGE OF TRAUMA PATIENTS

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### I. PURPOSE

Trauma triage directs trauma patients to appropriate medical facilities for definitive care. The goal of triage is to identify critically injured patients who need rapid surgical intervention or the specialized services of the trauma center. Those who do not need trauma center services can be transported to the closest appropriate facility or the patients' hospital(s) of choice.

### II. DEFINITIONS

Base Hospital: John Muir Medical Center – Walnut Creek Campus is the designated base hospital for Contra Costa County.

Trauma Center: The appropriate trauma center for adults is John Muir Medical Center – Walnut Creek Campus. The most appropriate trauma center for pediatric patients (0-14 years) is Children's Hospital, Oakland if transport can be made in less than 30 minutes.

High-Risk Criteria: Symptoms and mechanisms that correlate with a high risk of critical trauma injuries and merit direct transport to a trauma center after an early notification call.

Early Notification Call: For patients meeting criteria for direct transport to the trauma center (high-risk), notification in a brief manner at an early stage to allow the trauma center to prepare resources pending the patient's arrival. The call should be made as early as possible, preferably before leaving the scene.

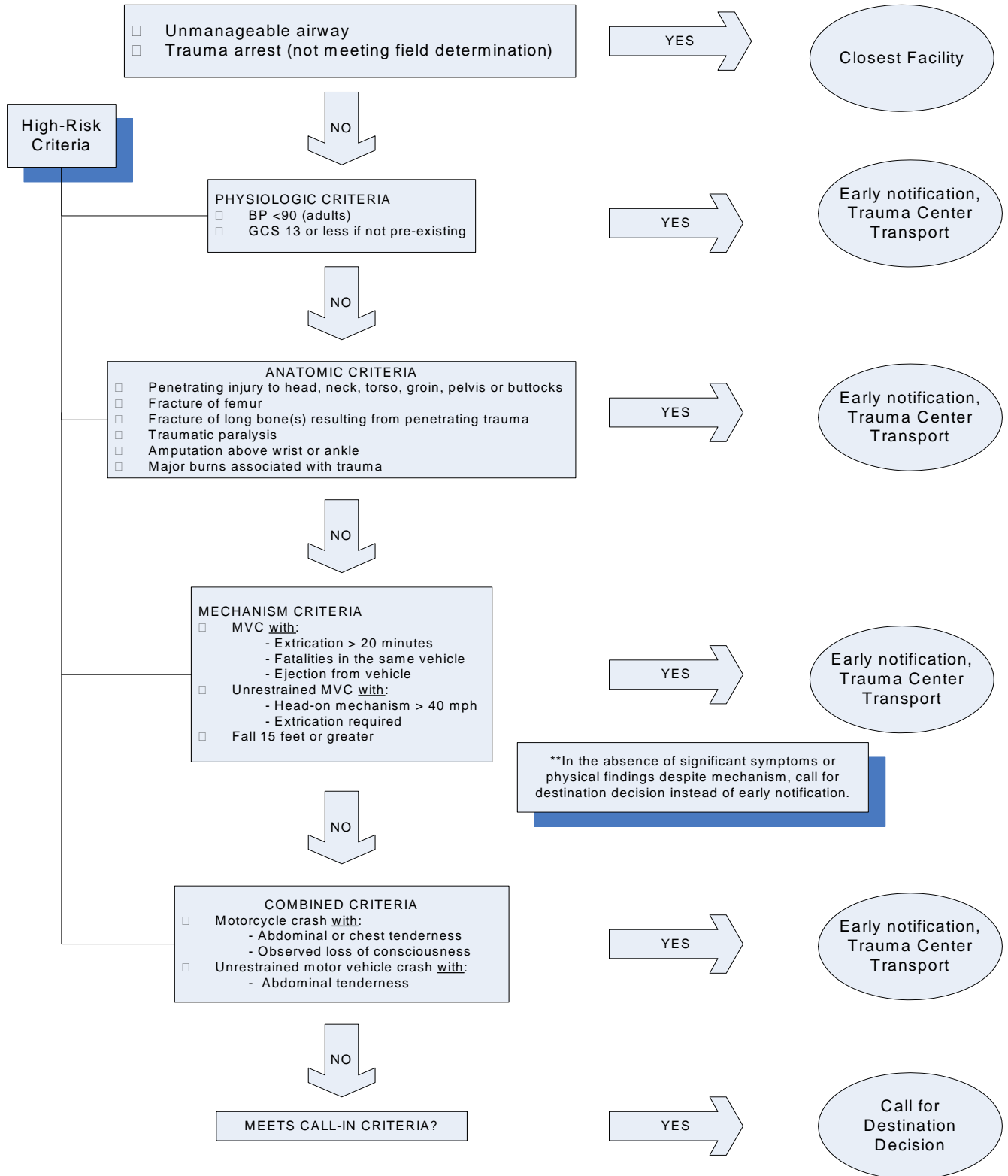
Call-In Criteria: For patients who do not have high-risk criteria, but have trauma mechanisms that could potentially cause severe trauma. These patients require a destination determination call to the base hospital.

Destination Determination: For patients meeting call-in criteria, the base hospital physician will determine which patients warrant trauma center destination based on the report of the paramedic.

5-minute Update: Notification from the field to the trauma center that the patient will be arriving in five minutes. This call initiates hospital activation of a trauma team.

Patients with Unmanageable Airway: Patients whose airways are unable to be adequately maintained with BLS or ALS maneuvers.

### III. TRAUMA TRIAGE ALGORITHM



**For possible helicopter transports only:** Trauma patients who do not meet high-risk criteria but by evaluation of mechanism and physical exam findings appear to have potential significant injuries merit early notification call and rapid Trauma Center transport.

#### IV. CALL-IN CRITERIA FOR BASE HOSPITAL DESTINATION DECISION

- A. Most trauma mechanisms are 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 (restrained),
    - d. persons requiring disentanglement from a vehicle,
  - 2. Adult hit by vehicle traveling faster than 15 mph.
  - 3. Child less than 14 years or adult (65 years or older) hit by a vehicle.
  - 4. Persons ejected from a moving object (motorcycle, horse, etc.).
  - 5. Significant blunt force to the head, neck, thorax (chest/back), abdomen or pelvis.
  - 6. Penetrating injury to extremities (above knee or elbow) without apparent fracture.
- B. 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).
- C. 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.
- D. 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.

#### 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 (approximately 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 – Walnut Creek Campus.
    - b. If helicopter transport is utilized, transport to John Muir Medical Center – Walnut Creek Campus.
- 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.