Trauma System
I. **PATIENT ENTRY:**

**Measure Vital Signs and Level of Consciousness**

**Step 1: Mandatory Physiological Criteria**
- Glasgow Coma Scale $\leq 13$ or
- Systolic blood pressure $< 90$ or
- Respiratory rate $< 10$ or $> 29$ ($< 20$ in infant $< 1$ year)

**YES**
- Take to trauma center. Steps 1 and 2 attempt to identify the most seriously injured patients. These patients should be transported preferentially to the highest level of care within the trauma system.

**NO**
- Assess anatomy of injury

**Step 2: Mandatory Anatomical Criteria**
- All penetrating injuries to head, neck, torso, and extremities proximal to elbow and knee
- Flail chest
- Two or more proximal long-bone fractures
- Crushed, degloved, or mangled extremity
- Amputation proximal to wrist and ankles
- Suspected pelvic fracture
- Open or depressed skull fracture
- Motor or sensory deficit

**YES**
- Take to trauma center. Steps 1 and 2 attempt to identify the most seriously injured patients. These patients should be transported preferentially to the highest level of care within the trauma system.

**NO**
- Assess mechanism of injury and evidence of high-energy impact
- go to Step 3, next page
Trauma System Entry and Guidelines – 50.100

Step 3: Mechanism of Injury

- Falls
  - Adults: > 20 ft. (one story is equal to 10 ft.)
  - Children: > 10 ft. or 2-3 times the height of the child

- High-Risk Auto Crash
  - Intrusion: > 12 in. occupant site; > 18 in. any site
  - Ejection (partial or complete) from automobile
  - Death in same passenger compartment
  - Vehicle telemetry data consistent with high risk of injury

- Auto vs Pedestrian/Bicyclist Throw, Run Over, or with Significant (> 20 mph) Impact

- Motorcycle or ATV Crash > 20 mph

YES → Take to closest appropriate trauma center

NO → Assess special patient or system considerations

Step 4: Special Populations (Comorbidities)

- Age
  - Older Adults: Risk of injury death increases after age 55
  - SBP < 110 might represent shock after 65 years
  - Low impact mechanisms (e.g. ground level falls) may result in severe injuries
  - Children: Should be triaged preferentially to pediatric-capable trauma centers

- Anticoagulation and Bleeding Disorders
  - Patients with head injury are at high risk for rapid deterioration

- Burns
  - Without other trauma mechanism: Triage to burn facility
  - With trauma mechanism: Triage to trauma center

- Pregnancy > 20 Weeks

- EMS Provider Judgment

YES → Consider trauma system entry or contact medical control

NO → Transport according to protocol
II. MEDICAL DIRECTION:
A. Off-line medical direction for trauma patients is controlled by the Treatment Protocols and Procedures section.
B. OLMC is provided by the receiving hospital. OLMC may override off-line medical direction. Any instances where this occurs will be documented in the pre-hospital care report.

III. COMMUNICATIONS:
A. The following information will be provided to receiving hospital:
   1. Unit number and the location of the incident.
   2. Number of patients.
   3. Age and sex of the patients.
   4. Trauma system entry criteria and vital signs.
   5. Glasgow Coma Scale.
   6. ETA to Trauma Center.
   7. Patient destination based on incident location or request.

IV. TRAUMA CENTER DESTINATION:
A. St. Charles Medical Center- Bend is the only Level 2 in Central Oregon.
B. Patients or Guardians Request: If the alert, competent patient or his/her competent guardian demands transport to a specific hospital, the EMS provider will try to honor that request and notify the receiving hospital immediately.
C. Multiple Patients: Follow ATAB 7 MCI Plan.
D. Diversion To Local Hospital: If the paramedic is unable to establish an airway, the patient should be transported to the nearest acute care facility

V. MODE OF TRANSPORT:
An air ambulance should be used when it would reduce total pre-hospital time by 15 minutes or greater. This is usually achieved whenever the ground transport time will exceed 30 minutes (Scene is > 15 miles from Level 2 hospital, or other circumstances exist).

VI. PATIENT EVALUATION PROTOCOL:
A. Treatment Priority Should Be Approached In This Order:
   1. Airway Maintenance (Including control of the cervical spine).
   2. Breathing.
   3. Control of circulation and hemorrhage.
   4. Treatment of shock.
   5. Neurological examinations.
   7. Splinting of fractures.
VII. SCENE TIME:
After gaining access to the patient, scene time should not exceed ten minutes for any patient who is entering the Trauma System. Plan to start IV/IOs and initiate other care once en-route to the hospital if necessary.
JumpSTART Pediatric MCI Triage

1. **Able to walk?**
   - YES: **MINOR**
   - NO: **Breathing?**
     - NO: **Position upper airway**
     - APNEIC: **DECEASED**
     - NO: **Pulsable pulse?**
     - NO: **Immediate**
     - YES: **5 rescue breaths**
     - APNEIC: **DECEASED**
     - BREATHING: **Immediate**
   - YES: **Respiratory Rate**
     - <15 OR >46: **Immediate**
     - 15-45: **Immediate**
     - **Pulsable Pulse?**
       - NO: **Immediate**
       - YES: **AVPU**
         - "P," "V," or "U" (APPROPRIATE): **Immediate**
         - "P," "V," or "U" (INAPPROPRIATE) POSTURING OR "O": **Delayed**

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The National Incident Management System (NIMS) will be used to manage all incidents.

1. Incident Command (IC) is the responsibility of the agency having jurisdiction (AHJ).

2. Each assisting agency shall retain full authority to operate within the scope of its agency operational and administrative protocols and procedures.

3. Agencies that are assisting in the support of a single jurisdiction will function under the direction of that jurisdiction’s designated Unified Incident Command.

4. Incident Command of a multi-discipline event should be predicated on the “Primary Hazard” of the event.

5. In a Unified Command, the “Lead Agency” may change as priorities change.

The Mass Casualty Incident ATAB 7 Plan is a tool that may be used in part or whole as determined by the on-scene Incident Commander in situations where the number of patients exceeds the resources of the on-scene responders. There is no set number of patients that will automatically initiate this protocol. If the Incident commander determines that additional resources or incident structure is needed to better manage due to the complexity of the incident, he/she shall announce to dispatch that an MCI is being declared. This may be done upon arrival or at any time during the incident.

- If the incident involves multiple asymptomatic patients (HazMat exposure) set up secure evaluation area.
- During a declared MCI, the Trauma System is not in effect.
- “Licensed ambulances” are not needed for transport.
- If transport resources are limited, more than one critical patient may be placed in an ambulance.