

Policy Number:	510
Original Issue Date:	June 2002
Last Reviewed/Revised:	February 22, 2024
Effective Date:	April 1, 2024
Next Review:	February 2026

EMERGENCY MEDICAL SERVICES POLICIES and PROCEDURES

TRAUMA TRIAGE CRITERIA AND PATIENT DESTINATION

I. Purpose: To establish criteria for triage and destination of trauma patients.

II. Authority: California Health and Safety Code, Sections [1798](#), [1798.2](#), & [1798.170](#). California Code of Regulations, Title 22, Sections [100255](#), [100147](#) and [100169](#).

III. Definitions: None

IV. Policy:

A. TRAUMA PATIENT TRIAGE: Patients who are injured will be evaluated, triaged, and transported to the appropriate receiving hospital according to the following criteria:

1. Physiologic Criteria, Step 1:

1.1 *Glasgow Coma Scale*

- Unable to follow commands (GCS Motor <6)

1.2 *Systolic Blood Pressure*

- Age 0-9 years: SBP <70mmHg + (2 x Age Years)
- Age 10-64 years: SBP <90mmHg or HR >SBP
- Age 65 years and older: SBP <110mmHg or HR >SBP

1.3 *Respiratory Rate*

- RR < 10 or > 29 breaths/minute
- Respiratory distress or need for respiratory support
- Room-Air Pulse Oximetry < 90%

2. Anatomic Injury Criteria, Step 2:

- 2.1 Penetrating injuries to head, neck, torso, or extremities proximal to elbow or knee
- 2.2 Chest wall instability, deformity, or suspected flail chest
- 2.3 Suspected two or more proximal long-bone fractures (femur, humerus)
- 2.4 Crushed, degloved, mangled or pulseless extremity
- 2.5 Amputation proximal to wrist or ankle
- 2.6 Suspected pelvic fractures
- 2.7 Skull deformity, suspected skull fracture
- 2.8 Acute paralysis, extremity weakness, or sensory loss possibly due to spinal cord injury
- 2.9 Seat belt injury with significant bruising to neck, chest, or abdomen
- 2.10 Diffuse abdominal tenderness because of blunt trauma
- 2.11 Active bleeding requiring a tourniquet or wound packing with continuous pressure

3. Mechanism of Injury Criteria, Step 3:

3.1 Falls:

- Adults: Height > 10ft
- Children (<15): Height > 10 ft or two times the height of the child

3.2 High-Risk Auto Crash

- Intrusion (including roof) > 12" patient side **OR occupant site**; > 18" any occupant site
- Ejection (partial or complete) from automobile
- Death in same passenger compartment
- Age 0-9 years unrestrained or sitting in an unsecured child safety seat

APPROVAL:

SIGNATURE ON FILE
Nicholas Clay, EMS Agency Director

SIGNATURE ON FILE
Daniel Shepherd, MD, EMS Agency Medical Director

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- 3.3 Auto vs. pedestrian/bicyclist thrown/run over with significant impact **OR** > 20mph
- 3.4 Rider separated from transport vehicle with significant impact **OR** > 20mph (e.g. motorcycle, ATV, horse, etc)

4. Other Criteria/Co-Morbidities, Step 4

- 4.1 Age 65 years and older
- 4.2 Low-level falls with significant head impact in ages < 5 years or 65 years and older
- 4.3 Burns with trauma mechanism
- 4.4 Time-sensitive extremity injury (open fracture, neurovascular compromise)
- 4.5 Pregnancy > 20 weeks with known or suspected abdominal trauma
- 4.6 Prehospital care provider judgment
- 4.7 Amputation or partial amputation of any part of the hand
- 4.8 Penetrating injury to the globe of the eye (at risk for vision loss)
- 4.9 Anticoagulation Use

V. Procedure:

- A. Trauma patients will be transported based on injury and “EMS Transport Zone” area (Per *Policy 511 – EMS Transport Zones: North and South*)

1. EMS Transport North Zone Patients

- a. Adult Trauma Patients (> 14 years of age) via Ground Transport
 - i. Adult Step 1, 2, and 3 Trauma Patients in the North Zone, per Policy 511, will be transported to, and establish BHC with, Marian Regional Medical Center (MRMC)
 - ii. Adult Step 4 Trauma Patients: Contact catchment base hospital per *SBCEMSA Policy 622 – Base Hospital Service Areas and Ground Ambulance Transport Zones*.
 - iii. Adult Air Transport in North Zone:
 - (a) Transporting Air Provider will determine the trauma center destination based on the fastest scene-to-door transport time. BHC must be established with the receiving trauma center.
- b. Pediatric Trauma Patients (≤ 14 years of age)
 - i. Pediatric Step 1, 2, and 3 trauma patients in the North Zone, per Policy 511, will use the following transport guidelines:
 - (a) Drive time estimated ≤ 20 min: Transport to, and establish BHC with, MRMC
 - (b) Drive time estimated > 20 min: Transport via Air Resource to, and establish BHC with, SBCH (if Air Transport Resource is Available)
 - ii. Pediatric Step 4 Trauma Patients: Contact catchment base hospital per *SBCEMSA Policy 622 – Base Hospital Service Areas and Ground Ambulance Transport Zones*.
 - iii. Pediatric Air Transport is unavailable in North Zone:
 - (a) Ground transport to, and establish BHC with, MRMC.

2. EMS Transport South Zone Patients

- a. Adult Trauma Patients (> 14 years of age) via Ground Transport
 - i. All Adult Step 1, 2, and 3 trauma patients in the South Zone, per Policy 511, will be transported to, and establish BHC with, Santa Barbara Cottage Hospital (SBCH).
 - (a) Adult Air Transport in South Zone:
 - 1. Transporting Air Provider will determine the trauma center destination based on the fastest scene-to-door transport time. BHC must be established with the receiving trauma center.
- b. Pediatric Trauma Patients (≤ 14 years of age)

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- i. All Pediatric Step 1, 2, and 3 trauma patients in the South Zone, per Policy 511, will be transported to, and establish BHC with, Santa Barbara Cottage Hospital (SBCH).
 - (a) Pediatric Air Transport in South Zone:
 - 1. Transporting Air Provider will transport to SBCH. BHC must be established with the receiving trauma center.
- c. All Step 4 Adult and Pediatric Trauma Patients: Contact catchment base hospital per *SBCEMSA Policy 622 Base Hospital Service Areas and Ground Ambulance Transport Zones*.
- 3. Special Considerations
 - a. Obstructed Airway: The patient may be transported to the closest available emergency department for airway management prior to transfer to a designated trauma center. In this rare event, the paramedic will contact the hospital where the patient will initially be transported.
 - b. Traumatic Cardiac Arrest
 - i. Patients 18 years old or older with a transport time to the closest hospital that exceeds twenty (20) minutes or a patient with an extended extrication and total time in cardiac arrest (extrication time plus transport time) exceeds, or will exceed, twenty (20) minutes will be determined to be dead in the field per *Policy 509, – Determination of Death*.
 - (a) If transport time is estimated to be less than 20 minutes, the patient's cardiac rhythm should be assessed using cardiac monitor.
 - 1. If the rhythm is PEA greater than 30 beats per minute, ventricular tachycardia, or ventricular fibrillation, resuscitation measures shall take place.
 - a. Transport to the closest hospital unless transport to a trauma center would be no more than 15 minutes longer.
 - 2. If the rhythm is asystole or wide complex PEA at a rate of 30 beats per minute or slower, the patient shall be determined to be dead.
 - ii. Patients less than 18 years old will be transported to the closest hospital unless transport to a trauma center would be less than 15 minutes longer.
 - (a) Resuscitation measures will be initiated unless the patient has suffered decapitation, decomposition, incineration, lividity, rigor mortis, or evisceration of heart or brain, or by Base Hospital Order.

VI. References:

- A. [Policy 511 EMS Transport Zones](#)
- B. [Policy 509 Determination of Death](#)

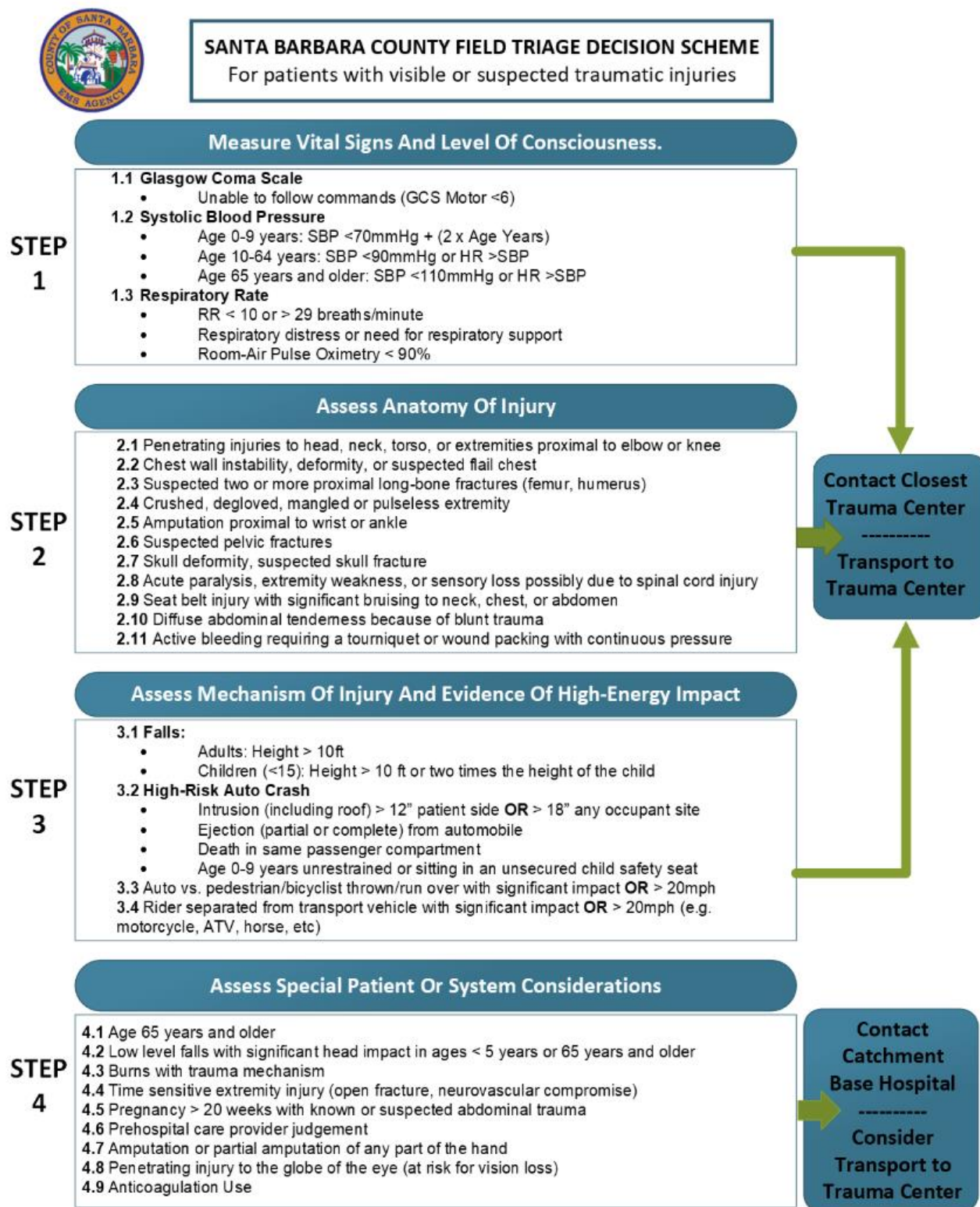
VII. Attachments:

- A. [Santa Barbara County Field Triage Decision Scheme](#)
- B. [Trauma Destination Chart](#)

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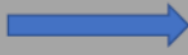
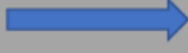
Attachment A: Santa Barbara County Field Triage Decision Scheme



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Attachment B: Trauma Destination Chart

SCENE LOCATION	PATIENT AGE	TRANSPORT METHOD		STEP			
				1	2	3	4
North Zone	Adult (Greater than 14 years old)		Ground	Marian Regional Medical Center			Transport to Catchment Base Hospital per Policy 622
			Air	*Air resource determines destination based on fastest scene to destination time.			
	Pediatric (Less than or equal to 14 years old)	Drive time estimated ≤ 20 min OR Air Unavail. Drive time estimated > 20 min	Ground	Marian Regional Medical Center			
			Air	Santa Barbara Cottage Hospital			
South Zone	Adult (Greater than 14 years old)		Ground	Santa Barbara Cottage Hospital			
			Air	*Air resource determines destination based on fastest scene to destination time.			
	Pediatric (Less than or equal to 14 years old))		Ground	Santa Barbara Cottage Hospital			
			Air	Santa Barbara Cottage Hospital			