Monterey County EMS System Policy

Policy Number: 5140
Effective Date: 7/1/2018
Review Date: 6/30/2021

EMERGENCY DEPARTMENT RE-TRIAGE AND RAPID TRANSFER OF TRAUMA PATIENTS TO TRAUMA CENTER

I. AUTHORITY

Authority for this policy is noted in Division 2.5, California Health and Safety Code, Sections 1798.162, 1798.163 California Code of Regulations §100255, 100266

II. PURPOSE

To outline the criteria and process for emergency re-triage and transfer of patients needing trauma care from non-trauma center facilities to appropriate trauma centers.

III. POLICY

A. Under the Field Trauma Triage Criteria policy (#4040), major trauma patients are to be triaged directly to a Trauma Center from the field by EMS personnel. Trauma patients, who present at other facilities via EMS or other arrival mode, when medically appropriate, should be considered for re-triage or transfer to a trauma center for definitive care. If patients are seriously injured, the re-triage and transfer process should be done as quickly as possible.

B. Transferring facilities should use the attached algorithm to assist with identification of those trauma patients who would benefit from care at a trauma center.

C. Transferring facilities should also make use of the process outlined in the attached algorithm to facilitate transfer to the trauma center.

D. The re-triage and transfer of trauma patients will be monitored at Trauma Evaluation Quality Improvement (TEQIC) meetings.

E. Local Receiving Hospitals shall have:

1. Written transfer agreements (for both adult and pediatric patients) with an appropriate designated Level I or Level II Trauma Center.
2. Guidelines for identification of those patients who should be considered for transfer to a Trauma Center consistent with California Regional Trauma Care Committee Criteria.
3. A procedure for arranging the transfer of appropriate patients (adults and pediatrics) including, but not limited to:
    a. Notification of the receiving Trauma Center physician.
    b. Arranging for transport by either ground or air.

F. Trauma Center shall have:

1. Written transfer agreements with at least the nearest designated Level I Trauma Center, with specialty centers providing tertiary level care for burn, spinal cord injury patients, and the nearest designated Pediatric Trauma care.

2. Guidelines for identification of those patients who should be considered for transfer to a Trauma Center consistent with California Regional Trauma Care Committee Criteria.
3. A procedure for arranging the transfer of appropriate patients (adult and pediatric) including but not limited to:
    a. Notification of the receiving center physician.
    b. Arranging for transport by either ground or air.

END OF POLICY

James Stubblefield, M.D., FACEP
EMS Medical Director

Mike Petrie

Michael Petrie, EMT-P, MBA, MA
EMS Bureau Chief

Monterey County Emergency Trauma Re-Triage Procedure—Adult (15 and older)

Step 1

Determine if injured patient meets Emergency Re-Triage Criteria:

Blood pressure/ perfusion:

- ❖ Systolic pressure <90 or tachycardia above 100 or clinical signs of poor perfusion
- ❖ Need for high volume fluid resuscitation (>2 L NS) or immediate blood replacement

Head injury with GCS/ Neurologic

- ❖ GCS less than 9 with evidence of head trauma
- ❖ GCS deteriorating by 2 or more during observation
- ❖ Paralysis
- ❖ Blown pupil
- ❖ Obvious open skull fracture

Anatomic criteria:

- ❖ Penetrating injuries to head, neck, chest or abdomen
- ❖ Extremity injury with ischemia evident or loss of pulses

Provider judgment: 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 2 hours

Step 2

Contact Trauma Center

Natividad Medical Center—See side box
Acceptance by: Transfer Center
Phone: 855-445-7872 Fax: 916-646-7100

Santa Clara Valley Medical Center Burn Unit—
Report only
Burn line: Phone: 408-885-6666
Trauma Line: 408-947-4087

- ❖ State that the case is:

"EMERGENCY TRAUMA RE-TRIAGE"

Step 3

If patient is going to NMC- state that this is a Red Box or a Blue Box Transfer. Transfer center will arrange report and transport

Step 4

Prepare patient, diagnostic imaging disk(s), and paperwork for immediate transport

- ❖ Fax additional paperwork that is not ready at time of transport departure.

LEVELS OF TRANSPORTATION—SCOPE OF PRACTICE—PROVIDER CONTACT NUMBERS

	TYPE		
	ALS	**CCT-RN**	**AIR AMBULANCE**
Provider(s)	Paramedic (single)	Critical Care RN & EMT	RN/RN
Scope of Care Provided	Standard Paramedic Scope. No paralyzing agents or blood products. Can sedate intubated patients with midazolam.	Mechanical ventilation, most medications including paralyzing agents, blood products	Mechanical ventilation, most medications including paralyzing agents, blood products
Contact Number	AMR-831-796-6446 AMR-831-796-6447	AMR……831-796-6446 AMR……831-796-6447	CALSTAR.....800-252-5050
NOTE: Transport Provider list subject to change			

If not transporting to NMC- Determine appropriate level of transport and arrange transport (can be done simultaneous to receiving center contact)

- ❖ If within Paramedic Scope of Practice and timely transfer is needed—contact AMR dispatch to request ***Emergency Interfacility Transfer*.**
- ❖ Transport should generally arrive within 10 minutes

If exceeds paramedic scope of practice, contact AMR for CCT or CALSTAR for Air Ambulance or arrange for nursing staff to accompany paramedic ambulance

Step 1

Determine if patient meets Emergency Re-Triage Criteria—Pediatric:

Blood pressure/ perfusion

- ❖ Hypotension or tachycardia (based on age-appropriate chart below) or clinical signs of poor perfusion (see below)
- ❖ Need for more than two crystalloid boluses (20 ml/kg each) or need for immediate blood replacement (10ml/kg)

GCS/ Neurologic with evidence of head injury

- ❖ GCS less than 12 (pediatric scale—see verbal scale below)
- ❖ GCS deteriorating by 2 or more during observation
- ❖ Cervical spine injury with neurological deficit
- ❖ Blown pupil
- ❖ Obvious open skull fracture
- ❖ Paralysis

Anatomic criteria: Penetrating injuries to head, neck, chest, or abdomen

Respiratory criteria: Respiratory failure or intubation required

Provider judgment: 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 2 hours

IMPORTANT PEDIATRIC RE-TRIAGE EXCEPTION:

- ❖ **Pregnant patients** of any age should be transferred to an adult trauma center that can handle high risk OB (NMC can do this)
- ❖ **Major burns** should be preferentially transferred to a burn center
- ❖ Contact hospital first for **major extremity injuries with vascular compromise (as a primary injury)**

NORMAL VITAL SIGNS

Age	Weight	Heart Rate	Systolic BP	Broselow Color
Newborn	3-5 kg	80-190	65-104	Grey or Pink
1 Year	10 kg	80-160	70-112	Purple
3 Years	15 kg	80-140	75-116	White
5 Years	20 kg	75-130	75-116	Blue
8 Years	25 kg	70-120	80-122	Orange
10 Years	30 kg	65-115	85-126	Green

PEDIATRIC CLINICAL SIGNS OF POOR PERFUSION	PEDIATRIC GCS—VERBAL SCALE (2<YO)	
❖ Cool, mottled, pale or cyanotic skin	5	Coos and babbles
❖ Low urine output	4	Irritable
❖ Lethargic	3	Only cries to pain
❖ Prolonged capillary refill	2	Only moans to pain
	1	None

STEP 3

Contact Trauma Center

Santa Clara Valley Medical Center—Children's
Phone: 408-947-4087 **Burns:** Phone: 408-885-6666

Lucille Packard Children's Hospital
Phone: 650-723-4696

UCSF Benioff Children's Hospital Oakland
Phone: 855-246-5437

- ❖ State that the case is :
  "EMERGENCY TRAUMA RE-TRIAGE"

Determine appropriate level of transport and arrange transport (can be done simultaneous to receiving center contact)

- ❖ If within Paramedic Scope of Practice and timely transfer is needed—contact AMR dispatch to request ***Emergency Interfacility Transfer***
- ❖ Transport should generally arrive within 10 minutes

*See information on transportation on Adult (Age 15 and over) procedure

Prepare patient, diagnostic imaging disk(s), and paperwork for immediate transport

- ❖ Fax additional paperwork that is not ready at time of transport departure

- ❖ **DO NOT DELAY TRANSPORT**