Pediatric Trauma Triage & Transport

Assessment for Serious Signs / Symptoms / Mechanism

This protocol applies to patients a prudent provider should consider as having a mechanism/event consistent with significant/major trauma and is not meant to be inclusive of all minor injuries

Patient < 16 years old

- YES → continue
- NO → Follow Adult Trauma Triage and Transport Guidelines !

1

- Inability to manage or secure airway/oxygenation/ ventilation
- Unmanageable signs/symptoms of shock
- Uncontrolled bleeding

YES → **Transport to the closest Trauma Center or closest Emergency Department as identified by Service Medical Director**

NO

2

- Pediatric Glasgow Coma Scale PGCS ≤ 13
- Decreased Level of Responsiveness (See AVPU Scale)
- Penetrating trauma to head, neck, torso, or extremities proximal to knee or elbow
- Proximal Long bone fractures - crushed, mangled, or degloved extremity - Amputation proximal to the wrist or ankle - Pelvic fractures
- Open or depressed skull fractures
- Indications of significant closed head injury
- Paralysis
- Ejection of patient
- Indications of significant Chest or Abdominal Trauma
- Auto vs. Pedestrian >20 mph
- **Burns** Ψ

YES → Designated Pediatric Trauma Center * if within **60** minutes by ground

- YES → **Transport to DESIGNATED PEDIATRIC TRAUMA CENTER ***
- NO → Transport to Closest Trauma Center

NO

3

- Fall > 10 feet or 2-3 times the height of a child
- MVA with Intrusion >12 inches roof; > 18 inches passenger compartment (as outlined in 2011 CDC guideline)
- Ejection from the vehicle (other occupant)
- Death in same vehicle
- Mechanism consistent with high risk of injury
- Inadequately restrained
- Another occupant of the same vehicle is transported to a high level trauma center
- Auto vs. Pedestrian >20 mph
- Motorcycle or motorized recreational vehicle

YES → Designated Pediatric Trauma Center * if within **30** minutes by ground

- YES → **Transport to DESIGNATED PEDIATRIC TRAUMA CENTER ***
- NO → Transport to Closest Trauma Center

NO

4

SPECIAL CIRCUMSTANCES
Pregnancy > 20 Weeks

- Without other trauma mechanism: triage to appropriate facility
- With trauma mechanism: triage to trauma center

NO → ***Any Injury not mentioned above shall be triaged and transported based on the EMS provider judgement – preferably with online medical direction – and according to local Protocols***

* Designated Pediatric Trauma Center is defined as those with ACS Designated Pediatric Trauma Center Status – or as identified by DHEC as Adult Trauma Center that includes Pediatrics

PEDIATRIC TRAUMA

PEDIATRIC GLASGOW COMA SCALE (PGCS)				
	>1 year		< 1 year	SCORE
EYE OPENING	Spontaneously		Spontaneously	4
	To Verbal Command		To Shout	3
	To Pain		To Pain	2
	No Response		No Response	1
MOTOR RESPONSE	Obeys		Spontaneous	6
	Localizes Pain		Localizes Pain	5
	Flexion-Withdrawal		Flexion-Withdrawal	4
	Flexion-Abnormal (Decorticate rigidity)		Flexion-Abnormal (Decorticate rigidity)	3
	Extension (Decerebrate rigidity)		Extension (Decerebrate rigidity)	2
	No Response		No Response	1
	>5 Years	2 – 5 Years	0 – 23 months	
VERBAL RESPONSE	Oriented	Appropriate words/phrases	Smiles/coos appropriately	5
	Disoriented/confused	Inappropriate words	Cries and is consolable	4
	Inappropriate words	Persistent cries and screams	Persistent inappropriate crying and/or screaming	3
	Incomprehensible sounds	Grunts	Grunts, agitated, and restless	2
	No Response	No Response	No response	1
			TOTAL PEDIATRIC GLASGOW COMA SCORE (3-15):	

Age	Heart Rate	Respiratory Rate	Systolic BP mm/Hg
Infant – 1 year	<100 or > 180	<30 or > 60	< 70
Toddler (1-2 yrs)	<80 or >150	<20 or > 40	<75
Preschooler (3-5 yrs)	<75 or >110	<20 or >34	<80
School Age (6-9 yrs)	<70 or >100	<16 or >25	<85
Adolescent (10-17 yrs)	<60 or >100	<12 or >20	<90

AVPU Scale	
A	Patient **A**lert
V	Patient responds to **V**oice
P	Patient responds to **P**ain
U	Patient **U**nresponsive

Pediatric Trauma Triage & Transport

PEDIATRIC TRAUMA

***** WHEN IN DOUBT – TRANSPORT TO PEDIATRIC TRAUMA CENTER.**
*** * * DO NOT HESITATE TO CONTACT MEDICAL CONTROL FOR QUESTIONS OR ADVICE !**

*** DESIGNATED PEDIATRIC TRAUMA CENTERS (SC)**

- Grand Strand Medical Center [F00004780]
- PRISMA Health Greenville Memorial [F00004703]
- McLeod Regional Medical Center – Florence [F00045381]
- MUSC Children's Health [F00004807]
- PRISMA Health Richland [F00004741]

*** DESIGNATED PEDIATRIC TRAUMA CENTERS (Out of State)**

- CMC Charlotte (NC)
- Augusta UMC / Children's Hospital of Georgia (GA)
- Savannah Children's (GA)

Pearls

- **Items in Red Text (below) are key performance measures used in the EMS Acute Trauma Care Toolkit**
- **Recommended Exam: Mental Status, Skin, HEENT, Heart, Lung, Abdomen, Extremities, Back, Neuro**
- **Transport Destination is chosen based on the EMS System Trauma Plan with EMS pre-arrival notification.**
- Examine all restraints / protective equipment for damage.
- In prolonged extrications or serious trauma consider air transportation for extended transport times.
- Do not overlook the possibility for child abuse.
- Consider non-accidental trauma in situations where injuries are inconsistent with mechanism, unexplained injuires exist, or there are conflicting reports of injury
- See considerations for Non-accidental trauma in Pediatric Head/Spine Trauma Protocol
- Scene times should not be delayed for procedures. These should be performed en route when possible.
- Bag valve mask is an acceptable method of managing the airway if pulse oximetry can be maintained above 90%.
- Ψ Burns with 2nd degree or greater (Partial Thickness or greater) regardless of BSA – if within 60 minutes drive time or air medical is available – transfer directly to a burn center.
  - Ψ Where burns are involved as noted above - transport to a burn center is preferable - but if time does not permit - then transport to a Designated Pediatric Trauma Center is the next best option