Treatment Protocol	4302

Effective	Expires
July 1, 2018	March 31, 2019

Policy: **Traumatic Injuries**	Approval: Medical Director **Reza Vaezazizi, MD**	Signed
Applies To: **PSP, EMT, AEMT, PM, MICN, BHP, EMS System**	Approval: REMSA Director **Bruce Barton**	Signed

Enter from the Universal Patient Treatment Protocol
For specific Emergency Stabilization or Patient Management of **Traumatic Injuries**

PSP | EMT | AEMT | PM

Pertinent Findings

Environment	History	Physical	Differential
***P**ersonal / patient safety*	*Mechanism of injury*	***D**eformity*	*Head injury*
***E**nvironmental hazards*	*Time of event*	***C**ontusion*	*Spinal cord / neurologic injury*
***N**ature of event / numbers*	*Speed and details*	***A**brasion, avulsion, amputation*	*Spinal fracture*
***M**echanism of injury*	*Damage to vehicle/structure*	***P**uncture, penetration, paradoxical movement*	*Airway obstruction and hypoxia*
***A**dditional resources*	*Location in vehicle/structure*	***B**urn*	*Tension pneumothorax*
***N**eed for special ops*	*Ejection*	***L**aceration*	*Pneumothorax / hemothorax*
	Seat belt / air bag / child seat	***S**welling*	*Flail chest*
	Helmet / protective equipment	***T**enderness*	*Bleeding and/or hypovolemia*
	Others injured or dead	***I**nstability*	*Pericardial tamponade*
	SAMPLE history	***C**repitus*	*Pelvic or femur fracture*
			Dislocation

Emergency Stabilization or Patient Management

Do not delay transport with nonessential treatment of the nonentrapped, transport ready, critical trauma patient
Attempt to limit scene time to 10 minutes or less when Trauma Triage Criteria are met

Suspected traumatic brain injury
Increase ventilatory rate for unequal / fixed and dilated pupils and extensor posturing / no motor response:
Adult: 20 breaths per minute
Child: 25 breaths per minute
Infant: 30 breaths per minute

Impaled object
Support and stabilize object in place
Remove only if interfering with the airway or with chest compressions

Flail chest
Assist ventilations as clinically indicated
Do not attempt to stabilize the flail segment by sandbagging, splinting, and/or swathing

Eye injury
Irrigate with saline as clinically indicated
Apply protective rigid shields bilaterally
Position patient as clinically indicated to meet physiologic requirements

PSP | EMT | AEMT | PM

B

B

Emergency Stabilization or Patient Management *(continued)*	PSP	EMT	AEMT	PM
Avulsed tooth Handle tooth by the crown *Do not touch any part of the tooth that normally exists below the gum line* In the alert and cooperative patient, attempt to replace tooth in its socket If unable, wrap in milk or normal saline soaked gauze sponge and transport **Wound care** Dress and bandage abrasions, lacerations, avulsions, punctures and/or penetrations as clinically indicated Dress open pneumothorax with occlusive dressing Briefly remove to release pressure when clinically indicated by signs of tension pneumothorax Dress evisceration with saline soaked dressing *Do not intentionally replace evisceration* Rinse exposed bone with saline and dress with saline soaked gauze sponge or non-adherent dressing *Do not intentionally allow exposed bone to retract* Dress injured genitalia with saline soaked dressing, applying direct pressure to control bleeding Rinse amputation in saline, wrap in saline soaked dressing, bag, indirectly place on ice, and transport **Fracture or dislocation** *Assess distal neurovascular functions using PMS (pulse, motor, sensation) before and after manual stabilization* Manually stabilize and/or splint fractures and dislocations as found *Do not intentionally allow exposed bone to retract and do not intentionally reduce dislocation*	PSP	EMT	AEMT	PM
Assess distal neurovascular functions using PMS (pulse, motor, sensation) before and after manipulation/splinting Return grossly angulated extremity fractures to the anatomic position as clinically indicated *Use gentle traction* Splint fractures as clinically indicated Stabilize and/or splint mid-shaft femur fractures using a traction splint as clinically indicated Splint dislocations as found Contact a base hospital (BH) for any fracture or dislocation with neuro and/or vascular compromise	PSP	EMT	AEMT	PM
Amputation Rinse amputated body part(s) with normal saline Wrap with saline soaked dressing Place in a bag Keep part(s) cool but don't place directly on ice **Pain management** Apply disposable cold pack(s) as clinically indicated for pain associated with traumatic injury	PSP	EMT	AEMT	PM

C

C

Emergency Stabilization or Patient Management *(continued)*

Fentanyl slow IV/IO push or IM/IN (may substitute Morphine Sulfate slow IV/IO push or IM) For pain associated with isolated traumatic injury to an extremity or the appendicular skeleton While systolic BP remains greater than 90 mmHg See the REMSA Calculation Chart for concentration, and patient specific dosage and volume May repeat once Further repetition requires a base hospital order (BHO) Administration of more than one opioid requires a base hospital physician order (BHPO)				PM
Crush injuries 0.9% Normal Saline IV/IO bolus For suspected hyperkalemia associated with crush injuries See the REMSA Calculation Chart for concentration, and patient specific dosage and volume May repeat as clinically indicated Use a volume control chamber IV set during pediatric administration			AEMT	PM
Tranexamic Acid (TXA) Traumatic injuries within 3 hours, must have either: Signs and symptoms of hemorrhagic shock with SBP < 90 mmHg Significant hemorrhage with heart rate >/= 120 Administer IVPB with 50-100 mL NS over 10 minutes See the REMSA Calculation Chart for concentration, and patient specific dosage Repetition requires a base hospital order (BHO)				PM

Return to Universal Patient Treatment Protocol
For continuing Scene Management, Emergency Stabilization, Patient Disposition, or Patient Management

PSP | EMT | AEMT | PM

***** ***** **Base Hospital Orders** ***** *****

Initiate, repeat, or modify standing orders within scope of practice As ordered For traumatic injuries		EMT	AEMT	PM
Albuterol 0.083% HHN or in-line with a ventilatory device; or MDI when equipped As ordered For suspected hyperkalemia associated with crush injuries			AEMT	PM
Calcium Chloride 10% As ordered For suspected hyperkalemia associated with crush injuries Midazolam (may substitute Lorazepam or Diazepam) As ordered For anxiety associated with traumatic injury Morphine Sulfate (may substitute Fentanyl) As ordered For pain associated with traumatic injury other than isolated traumatic injury to an extremity Sodium Bicarbonate 8.4% As ordered For suspected hyperkalemia associated with crush injuries				PM
Assess, clarify, monitor, treat within scope of practice, and determine or change disposition and/or destination As ordered Mode of transport is an operational decision		EMT	AEMT	PM