General Trauma Management

Trauma

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Austin County
EMS Protocol & Guideline

Version:	1.0
Date:	04/2019

Overview: The primary goal of trauma care remains as: airway stabilization, breathing protection, circulation support and cervical spine stabilization. Work to rapidly identify severe life-threatening conditions, including the potential for severe internal bleeding, throughout the care of the patient experiencing major trauma. This is a critical step in determining appropriate transport destinations, including bypassing the local hospital for a level 1 or 2 trauma center.

Definition: Any patient who experienced an extrinsic event which led to an injury or possibility of injury.

Minor – Moderate Bleeding

- **Direct Pressure**
- **Bandaging**: Appropriate to injury

Penetrating Injuries

- **Stabilize the object in place**
  - NEVER remove a penetrating object unless it impedes airway management and/or CPR

Airway Management

- **See RSI Procedure (If needed)**
  - Maintain EtCO2 at 35-40 mm/Hg
- **If RSI is needed**:
  - 1st attempt may be with ET Tube
  - 2nd Attempt **King Tube Placement**
  - **If King Unsuccessful = ET Tube
  - **If appropriate, See **Cric Procedure**

Pain Management

***See **Pain management Procedure**
***Consider **Ketamine** for extreme pain

Hemorrhage/Significant Bleeding Control

- **Tourniquet:** Place > 2 inches above the amputation
  - **2nd Tourniquet:** May be placed PRN, preferable above initial Tourniquet

AND/OR

- **Wound Packing**: Using quick clot gauze pack the wound starting with pressure at the sight of the bleed. Then bandage with Israeli Bandage as needed

Controlled Bleeding

Fluid Resuscitation to maintain baseline/adequate perfusing pressures

Uncontrolled / Internal Bleeding

Fluid resuscitation to maintain mental status or systolic BP of 80-90 mmHg (permissive Hypotension)

Consider TXA 1 gram over 10 mins

Fractures/Deformities

- **Splint:** Using appropriate device
  - Pain Control First (when possible)
  - PMS Pre & Post procedure
  - Place grossly deformed extremities into an anatomical normal position

Amputation

- **Tourniquet:** Place > 2 inches above the amputation
  - **2nd Tourniquet:** May be placed PRN, proximal if possible

Pearls

- Emergency transport is indicated for injuries to vascular compromise & amputation; time is particularly critical in these cases. Consider Air Medical
- Uncontrolled
- Geriatric patients should be evaluated with a high index of suspicion, particularly if they are taking anticoagulant medication. Often occult injuries are more difficult to recognize and these patients can decompensate unexpectedly with little warning.
- A bag-valve-mask with airway adjunct (NPA/OPA, if needed) is an acceptable method of managing the airway if pulse oximetry can be maintained ≥ 92% and there is no foreseeable risk for aspiration.
- Law Enforcement or Fire Department may bandage injuries prior to your arrival. Thorough assessment is required; this includes removing bandaging so that you may properly assess the injury.
- Tourniquets are extremely painful. Address the patient's pain management needs as soon as safely feasible.
- Mass casualty incident or obvious life-threatening hemorrhage: Consider Tourniquet/iTClamp Procedure FIRST.
- **Do NOT**: ◊ Soak amputated part in fluid (water/saline/etc.) ◊ Cover with wet gauze/towels ◊ Place directly on ice (causing frost bite)
- Amputated parts should be (when possible): ◊ Rinsed with Normal Saline ◊ Place in plastic bag ◊ Transported with the patient, or immediately upon discovery if patient is already transported.
- Surgical reattachment technology is advancing rapidly. Assumptions of what is viable to be reattached should generally be assumed as "possible".
- Amputated tooth should be transported in milk if possible; otherwise, keeping the tooth in moist in gauze is acceptable.