Trauma Assessment/Treatment Guidelines

I. Purpose: To establish a consistent approach to the care of the trauma patient

A. Rapid trauma survey

1. Airway
    a. Maintain inline cervical stabilization
        1) Follow spinal precautions per VCEMS Policy 614
    b. Open airway as needed
        2) Utilize a trauma jaw thrust to maintain inline cervical stabilization if indicated
    c. Suction airway if indicated
2. Breathing
    a. Assess rate, depth and quality of respirations
    b. If respiratory effort inadequate, assist ventilations with BVM
    c. Insert appropriate airway adjunct if indicated
    d. Assess lung sounds
    e. Initiate airway management and oxygen therapy as indicated
        1) Maintain SpO2 ≥ 94%
3. Circulation
    a. Assess skin color, temperature, and condition
    b. Check distal/central pulses and capillary refill time
    c. Control major bleeding
    d. Initiate shock management as indicated
4. Disability
    a. Determine level of consciousness (Glasgow Coma Scale)
    b. Assess pupils
5. Exposure
    a. If indicated, remove clothing for proper assessment/treatment of injury location. Maintain patient dignity
    b. Maintain patient body temperature

B. Detailed physical examination

1. Head
    a. Inspect/palpate skull
    b. Inspect eyes, ears, nose and throat
2. Neck
    a. Palpate cervical spine
    b. Check position of trachea
    c. Assess for jugular vein distention (JVD)
3. Chest

a. Visualize, palpate, and auscultate chest wall

4. Abdomen/Pelvis
   a. Inspect/palpate abdomen
   b. Assess pelvis, including genitalia/perineum if pertinent
5. Extremities
   a. Visualize, inspect, and palpate
   b. Assess Circulation, Sensory, Motor (CSM)
6. Back
   a. Visualize, inspect, and palpate thoracic and lumbar spines

C. Trauma care guidelines

1. Head injuries
   a. General treatments
      1) Evaluate head and face – maintain high index of suspicion for injury if significant mechanism of injury is present or physical examination is remarkable for findings
      2) If in spinal precautions, elevate head of backboard 30° unless contraindicated
      3) Do not attempt to intubate head injured patients unless unable to manage with BLS airway measures
      4) Do not delay transport if significant airway compromise
   b. Penetrating injuries
      1) DO NOT REMOVE IMPALED OBJECT (unless airway obstruction is present)
      2) Stabilize object manually or with bulky dressings
   c. Facial injuries
      1) Assess airway and suction as needed
      2) Remove loose teeth or dentures if present
   d. Eye injuries
      1) Remove contact lenses
      2) Irrigate eye thoroughly with suspected acid/alkali burns
      3) Avoid direct pressure
      4) Cover both eyes
      5) Stabilize any impaled object manually or with bulky dressings
2. Spinal cord injuries
   a. General treatments
      1) Evaluate spinal column – maintain high index of suspicion for injury if significant mechanism of injury is present or physical examination is remarkable for findings
      2) Place patient in supine position if hypotension is present

b. Penetrating injuries – DO NOT REMOVE IMPALED OBJECT
   1) Stabilize object manually or with bulky dressings
   2) Control bleeding if present
   3) In the presence of penetrating injuries, if no neurologic deficit is present upon physical examination, withhold spinal immobilization
c. Neck injuries
   1) Monitor airway
   2) Control bleeding if present

3. Thoracic Trauma
   a. General treatments
      1) Evaluate chest – maintain high index of suspicion for internal injury if significant mechanism of injury is present or physical examination is remarkable for findings
      2) Keep patients sitting high-fowlers
         a) If in spinal precautions, elevate head of backboard 30° unless contraindicated
         b) In the presence of isolated penetrating injuries, if no neurologic deficit is present upon physical examination, consider withholding spinal immobilization
      3) Goal of fluid resuscitation is to maintain SBP of ≥ 80 mmHg. If SBP > 80 mmHg, then maintain IV/IO at TKO rate
         a) Maintain palpable peripheral pulses
   b. Penetrating injuries – DO NOT REMOVE IMPALED OBJECT
      a) Remove object if CPR is interfered
      b) Stabilize object manually or with bulky dressings
      c) Control bleeding if present
   c. Flail Chest/Rib injuries
      a) Immobilize with padding and bulky dressings to affected area
      b) Assist ventilations if respiratory status deteriorates
   d. Pneumothorax/Hemothorax
      a) Keep patient sitting high-fowlers
      b) Assist ventilations if respiratory status deteriorates1.
         1) Suspected tension pneumothorax should be managed per VCEMS Policy 715
   e. Open (Sucking) Chest Wound
      a) Place an occlusive dressing to wound site. Secure on 3 sides only
      b) Assist ventilations if respiratory status deteriorates

f. Cardiac Tamponade – If suspected, expedite transport
   a) Beck's Triad
      1) Muffled heart tones
      2) JVD
      3) Hypotension
g. Traumatic Aortic Disruption
   a) Assess for quality of radial and femoral pulses
   b) If suspected, expedite transport

4. Abdominal/Pelvic Trauma
   a. General Treatments
      1) Evaluate abdomen and pelvis – maintain high index of suspicion for internal injury if significant mechanism of injury is present or physical examination is remarkable for findings
      2) Goal of fluid resuscitation is to maintain SBP of ≥ 80 mmHg. If SBP > 80 mmHg, then maintain IV/IO at TKO rate
         a) Maintain palpable peripheral pulses
   b. Blunt injuries
      1) Place patient in supine position if hypotension is present
   c. Penetrating injuries – DO NOT REMOVE IMPALED OBJECT
      1) Stabilize object manually or with bulky dressings
      2) Control bleeding if present
   d. Eviscerations
      1) DO NOT REPLACE ABDOMINAL CONTENTS
         a) Cover wound with saline-soaked dressings
      2) Control bleeding if present
   e. Pregnancy
      1) Place patient in left-lateral position
      2) If in spinal immobilization, place padding under backboard to tilt to the left
   f. Pelvic injuries
      1) Consider wrapping a bed sheet tightly around the pelvis and tying it together for use as a binder to help control internal bleeding
         a) Assessment of pelvis should be only performed ***ONCE*** to limit additional injury
      2) Control bleeding if present
      3) If possible avoid log rolling patient.

4. Extremity Trauma

a. General Treatments

1) Evaluate CSM distal to injury

a) If decrease or absence in CSM is present:

(1) Manually reposition extremity into anatomical position

(2) Re-evaluate CSM

b) If no change in CSM after repositioning, splint in anatomical position and expedite transport

c) Cover open wounds with sterile dressings

d) Place ice pack on injury area (if closed wound)

e) Splint/elevate extremity with appropriate equipment

b. Dislocations

1) Splint in position found with appropriate equipment

c. Penetrating injuries – DO NOT REMOVE IMPALED OBJECTS

1) Stabilize object manually or with bulky dressings

2) Control bleeding if present

d. Femur fractures

1) Utilize traction splint only if isolated mid-shaft femur fracture is suspected

2) Assess CSM before and after traction splint application

e. Amputations

1) Clean the amputated extremity with NS

2) Wrap in moist sterile gauze

3) Place in plastic bag

4) Place bag with amputated extremity into a separate bag containing ice packs

5) Prevent direct tissue contact with the ice packs

VCEMS Medical Director