

Michigan TRAUMA AND ENVIRONMENTAL SOFT TISSUE AND ORTHOPEDIC INJURIES

Initial Date: 5/31/2012

Revised Date: 08/11/2023

Section 2-5

Soft Tissue & Orthopedic Injuries

- 1. Follow General Pre-hospital Care Protocol.
- 2. Pediatric patients (≤ 14 years of age) utilize MI MEDIC cards for appropriate medication dosage. When unavailable utilize pediatric dosing listed within protocol.
- 3. Control bleeding (refer to **Bleeding Control (BCON)- Procedure Protocol**)
 - A. Utilize direct pressure.
 - B. Consider early tourniquet use (refer to **Tourniquet Application-Procedure Protocol**).
 - C. Consider MCA approved hemostatic agents and hemorrhage control devices.
 - D. Consider use of pressure dressings with deep wound packing.
 - E. Consider pelvic binding for suspected unstable pelvic fracture.
- 4. For uncontrolled bleeding with hemorrhagic shock see **Hemorrhagic Shock-Treatment Protocol**
- 5. If appropriate, maintain spinal precautions for patient per **Spinal Injury Assessment-Treatment Protocol.**
- 6. Assess pain on 1-10 scale and treat per Pain Management-Procedure Protocol.
- 7. Immobilize/splint orthopedic injuries as appropriate.
 - A. Special Considerations
 - Consider traction splinting for closed femur fractures (excluding hip/femoral neck).
 - ii. Straighten severely angulated fractures if distal extremity has signs of decreased perfusion.
 - iii. Evaluate and document neurovascular status before and after splinting.
- 8. Partial/complete amputations, major soft tissue injuries (e.g., mangled extremity) and open fractures.
 - A. Control bleeding as above
 - B. Cover wounds with sterile dressings moistened with sterile solution.
 - C. Splint extremity.
 - D. Recoverable amputated parts should be brought to hospital as soon as possible.
 - E. Wrap amputated part in sterile dressing moistened with sterile solution. Seal in a plastic bag and, if available, place bag in container of ice and water. DO NOT place part directly on ice.
 - S F. Obtain IV access per Vascular Access and IV Therapy-Procedure Protocol.
 - G. Administer antibiotics (per MCA selection).



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MCA Selection for Antibiotics
No antibiotic selection
Ceftriaxone Slow IV Push: 2gm diluted with 20ml NS 1. Adult: 2 gm (diluted) slow IVP 3-5 min 2. Pediatrics > 2 months of age:
Ceftriaxone Infusion: Diluted dose added to 100 mL NS bag
1. Adult: 2 gm (diluted) added to 100 mL NS bag. Infuse over 15-30 min
2. Pediatrics > 7 years of age: a. Ceftriaxone Infusion according to MI MEDIC cards
b. If MI MEDIC cards are not available, add 50 mg/kg (diluted) to 100 mL
NS bag. Max dose 2 gm. Infuse over 15-30
Cefazolin Slow IV Push: 2 gm diluted with 20 ml or NS, 1. Adults: 2 gm (diluted) slow IVP 3-5 min 2. Pediatrics: a. Administer diluted dose according to MI MEDIC cards. b. If MI MEDIC cards are not available, administer 30 mg/kg (diluted) slow IVP 3-5 min (Maximum dose 2 gm)
Cefazolin Infusion. Diluted dose added to 100 mL NS bag
1. Adult: 2 gm (diluted), added to 100 mL bag of NS. Infuse over 15-30 minutes.
2. Pediatrics > 7 years of age:
a. Cefazolin Infusion according to MI MEDIC cards.
b. If MI MEDIC cards are not available, add 30 mg/kg (diluted) to 100 mL NS bag. Max dose 2 gm. Infuse over 15- 30 minutes.

- H. Frequent monitoring of circulation, sensation, and motion distal to the injury during transport.
- 9. For severe crush injuries, refer to **General Crush Injury-Treatment Protocol**.
- 10. Impaled objects are left in place and stabilized. Removal of impaled objects is only with approval of Medical Control.
- 11. Follow MCA transport protocol.
 - 12. Provide pain management per **Pain Management-Procedure Protocol.**

Medication Protocols

Cefazolin Ceftriaxone

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