ORANGE COUNTY EMERGENCY MEDICAL SERVICES
BASE HOSPITAL TREATMENT GUIDELINES
CRUSH INJURIES (PEDIATRIC)

BASE GUIDELINES

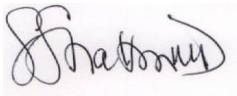
1. Determine ALS Standing Order treatments/procedures rendered prior to base hospital contact. Use ALS standing order as guidelines for treatments/procedures not initiated prior to base hospital contact.
2. Use length-based tape for weight determination.
3. Confined space and MCI situations may not allow time for treatment prior to release of crush weight. Ideally, treatment should be started prior to release of compression.
4. Hydrate intravenously prior to release of compression to combat hypovolemia and to dilute cellular toxins.
5. If both legs crushed, do not use IO for vascular access.
6. BH-P-20/SO-P-20 Crush Injuries- Pediatric orders apply to crush injury of muscular regions of the legs, pelvis, arms, and shoulders and do not apply to isolated crush injuries of hands or feet. Treat hand or foot crush injuries as isolated skeletal fractures as follows:
   - ► Splint or immobilize fractured extremities (note any breaks of skin or open wounds).
   - ► May place cold packs over splinted fracture sites for comfort.
   - ► Transport to nearest appropriate ERC (ALS escort if morphine given).
7. For continued pain with systolic BP > 80 : give or repeat *Fentanyl 2 mcg/kg IV/IM/IN* **or** *Morphine sulfate: 0.1 mg/kg IV/ IM (maximum total dose Fentanyl 100 mcg, Morphine 5 mg).*

ALS STANDING ORDER

The following orders apply to crush injury of muscular regions of the legs, pelvis, arms, and shoulders and do not apply to isolated crush injuries of hands or feet. Treat hand or foot crush injuries as isolated skeletal fractures.

1. Assist ventilation with BVM when indicated.
2. Obtain pulse oximetry; if oxygen saturation less than 95%, administer:
   - ► *High flow oxygen by mask as tolerated.*
3. IV/IO access in unaffected limb and administer:
   - ► *Normal Saline 20 mL/kg bolus, prior to release of compression force.*
4. For signs of hypovolemia or poor perfusion;
   - ► *Administer a second Normal Saline 20 mL/kg bolus, may repeat a third 20 mL/kg bolus to attain or maintain perfusion.*
5. For possible hyperkalemia:
   - ► *Albuterol 6 mL (5 mg) nebulized continuous inhalation as tolerated.*
6. If crush injury duration greater than one (1) hour:
   - ► *Sodium bicarbonate (NaHCO3) 1 mEq/kg IV/IO.*
7. For pain when BP greater than 80 systolic:
   - ►*Morphine sulfate: 0.1 mg / kg IV (alternate route of IM may be used if formulation approved for IM use), may repeat once for continued pain (maximum 5 mg).*

   OR
   - ►*Fentanyl 2 mcg/kg IN/IV/IM, may repeat once after 3 minutes for continued pain (maximum dose 100 mcg)*
8. Release compression and extricate patient.
9. Non-compressive splints and dressings as needed.
10. Keep affected limb at level of the heart to decrease edema.
11. ALS escort to nearest ERC or contact Base Hospital if patient meets PTRC criteria.

Approved: 

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