

CRUSH INJURY / CRUSH SYNDROME

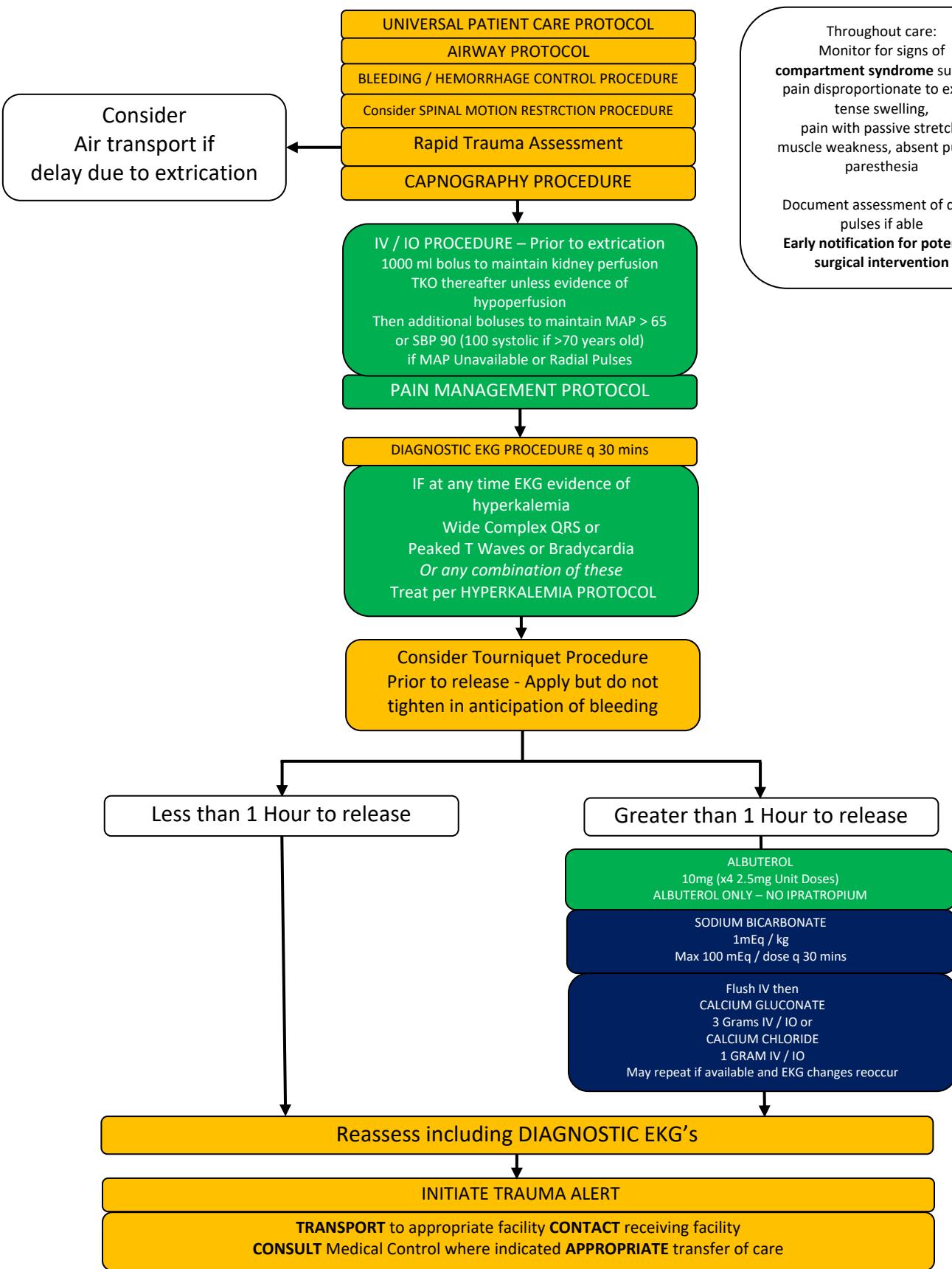
Airway / Breathing

Circulation / Shock

Cardiac

Medical

Trauma



EMT Intervention

AEMT Intervention

PARAMEDIC Intervention

Online Medical Control

CRUSH INJURY / CRUSH SYNDROME

HISTORY	SIGNS AND SYMPTOMS	DIFFERENTIAL DIAGNOSIS
<ul style="list-style-type: none"> • Traumatic crush mechanism • Non-Traumatic swelling of limb 	<ul style="list-style-type: none"> • Pain disproportionate to exam • Tense swelling • Pain with passive stretch • Muscle weakness • Absent pulses • Paresthesia 	<ul style="list-style-type: none"> • Compartment syndrome • Contusions • Crush syndrome • Degloving injury • Fracture(s) • Laceration(s) • Peripheral nerve injury • Tendon injury • Vascular injury • Rhabdomyolysis • Localized allergic reactions • Cellulitis

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KEY POINTS

- Care goals include recognizing traumatic crush injury mechanism and minimizing the systemic effects such as rhabdomyolysis, hyperkalemia, acute kidney injury
- Rapid extrication and evacuation to a definitive care facility (trauma center preferred)
- A patient with a crush injury may initially present with very few signs and symptoms. Maintain a high index of suspicion for any patient with a compressive mechanism of injury
- A fatal medical complication of crush syndrome is hyperkalemia. Suspect hyperkalemia if T-waves become peaked, QRS becomes prolonged (greater than 0.12 seconds), absent P wave, prolonged QTc, or sine wave. Continue fluid resuscitation through extrication and transfer to hospital
- Non-traumatic injuries that may cause compartment syndrome include prolonged immobilization, prolonged compression of the torso/limbs, electrical injury, or burns
- Key Documentation Elements include; Time of tourniquet application, neurovascular status of any crushed extremity, EKG findings consistent with hyperkalemia, and amount of IV fluid administered
- Place a tourniquet on any trapped extremities if accessible above the crush area prior to release in preparation of post release bleeding