

Crush Injury/Syndrome	
ADULT	PEDIATRIC
BLS Procedures	
Perform spinal precautions as indicated Determine Potential vs. Actual Crush Syndrome Administer oxygen as indicated Maintain body heat	
ALS Standing Orders	
Potential for Crush Syndrome <ul style="list-style-type: none"> • IV/IO access • Release compression • Monitor for cardiac dysrhythmias 	
Crush Syndrome <ul style="list-style-type: none"> • Initiate 2nd IV/IO access • Normal Saline <ul style="list-style-type: none"> ○ IV/IO bolus – 1 Liter • Sodium Bicarbonate <ul style="list-style-type: none"> ○ IV/IO mix – 1 mEq/kg <ul style="list-style-type: none"> • Added to 1st Liter of Normal Saline • Albuterol <ul style="list-style-type: none"> ○ Nebulizer – 5 mg/6 mL <ul style="list-style-type: none"> • Repeat as needed • Pain Control– Per Policy 705.19 • Release compression • Monitor for cardiac dysrhythmias • For cardiac dysrhythmias: <ul style="list-style-type: none"> ○ Calcium Chloride <ul style="list-style-type: none"> • IV/IO slow push – 1 g over 1 min For continued shock <ul style="list-style-type: none"> • Repeat Normal Saline <ul style="list-style-type: none"> ○ IV/IO bolus – 1 Liter For persistent hypotension after fluid bolus: <ul style="list-style-type: none"> • Epinephrine 10 mcg/mL <ul style="list-style-type: none"> ○ IV/IO slow push - 1 mL (10 mcg) every 2 minutes ○ Titrate to SBP of greater than or equal to 90 mm/Hg 	Crush Syndrome <ul style="list-style-type: none"> • Initiate 2nd IV/IO access if possible or establish IO • Normal Saline <ul style="list-style-type: none"> ○ IV/IO bolus – 20 mL/kg • Sodium Bicarbonate <ul style="list-style-type: none"> ○ IV/IO mix– 1 mEq/kg <ul style="list-style-type: none"> • Added to 1st Normal Saline bolus • Albuterol <ul style="list-style-type: none"> ○ Patient ≤ 30 kg <ul style="list-style-type: none"> • Nebulizer – 2.5 mg/3 mL <ul style="list-style-type: none"> ○ Repeat as needed ○ Patient > 30 kg <ul style="list-style-type: none"> • Nebulizer – 5 mg/6 mL <ul style="list-style-type: none"> ○ Repeat as needed • Pain Control– Per Policy 705.19 • Release compression • Monitor for cardiac dysrhythmias • For cardiac dysrhythmias: <ul style="list-style-type: none"> ○ Calcium Chloride <ul style="list-style-type: none"> • IV/IO slow push – 20 mg/kg over 1 min For continued shock <ul style="list-style-type: none"> • Repeat Normal Saline <ul style="list-style-type: none"> ○ IV/IO bolus – 20 mL/kg For persistent hypotension after fluid bolus: <ul style="list-style-type: none"> • Epinephrine 10 mcg/mL <ul style="list-style-type: none"> ○ IV/IO slow push - 0.1 mL/kg (1 mcg/kg) every 2 minutes ○ Max single dose of 1 mL or 10 mcg ○ Titrate to SBP of greater than or equal to 80 mm/Hg
Base Hospital Orders Only	
Consult with ED Physician when orders are needed for interventions within scope but not addressed in policy	
Additional Information: <ul style="list-style-type: none"> • Potential Crush Syndrome – Continuous crush injury to torso or extremity above wrist or ankle for 2 hours or less. • Crush Syndrome – Continuous crush injury to torso or extremity above wrist or ankle for greater than 2 hours. • Dysrhythmias are usually secondary to Hyperkalemia. ECG monitor may show: Peaked T-waves, Absent P-waves, widened QRS complexes, bradycardia • Calcium Chloride and Sodium Bicarbonate precipitate when mixed. Strongly consider starting a second IV (if feasible) for administration of Calcium Chloride 	

Effective Date: July 1, 2022
Next Review Date: February 28, 2024

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VCEMS Medical Director