



ORANGE COUNTY EMERGENCY MEDICAL SERVICES
BASE HOSPITAL TREATMENT GUIDELINES
BURN (THERMAL, ELECTRICAL, CHEMICAL) (PEDIATRIC)

#: BH-P-95
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Date: 04/01/2017

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. Consider routing patient to Emergency Receiving Center with Burn Unit if any of the following major burn criteria are met:

Mechanism of Injury:

- Suspected inhalation injury (patients burned in an enclosed space, patients with facial burns, hoarseness, dyspnea, soot in mouth, carbonaceous sputum, singed nasal hairs).
- High voltage/electric burns (including lightning injury).
- Chemical burns (including acids and bases).

Physiological alteration:

- Burns that involve the face, hands, feet, genitalia, perineum, or major joints.
- Circumferential burns.
- Patients with a pre-existing medical condition that may complicate management or prolong recovery (e.g. diabetes, renal failure, cardiac or pulmonary disease).

Total Burn Surface Area (TBSA):

- Second or third degree burns >10% total body surface area (TBSA) in any age group.

3. Monitor cardiac rhythm in electrical burns for rhythm disturbances.
4. For continued pain and systolic BP > 80:
 - ▶ Give or repeat Fentanyl 2 mcg/kg IV/IM/IN OR Morphine sulfate 0.1 mg/kg IV, may repeat once (maximum dose Fentanyl 100 mcg; Morphine 5 mg) avoid administration in areas of burned skin.

ALS STANDING ORDER

1. For any burn injury occurring in an enclosed space or with smoke generated at the site:
 - ▶ High-flow Oxygen by mask or nasal cannula (direct or blow-by) as tolerated.
2. Apply cooling measures if burn still "hot".
3. For wheezing or suspected smoke inhalation:
 - ▶ Albuterol, Continuous nebulization of 6 mL (5 mg) concentration as tolerated.
4. For severe pain, systolic BP > 80: Base contact required if ≤ 2 years of age
 - ▶ Morphine sulfate: 0.1 mg / kg IV/IM, 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)
5. For blood pressure ≤ 80 or signs of shock:
 - ▶ Establish IV access
 - ▶ Infuse 20 mL/kg Normal Saline bolus (maximum 250 mL), may repeat twice to maintain perfusion.
6. Contact Base Hospital for Burn Unit destination if any of the following burn criteria are met:

Mechanism of Injury:

- Suspected inhalation injury (patients burned in an enclosed space, patients with facial burns, hoarseness, dyspnea, soot in mouth, carbonaceous sputum, singed nasal hairs).
- Electric burns (including lightning injury).
- Chemical burns (including acids and bases).

Physiological alteration:

- Burns that involve the face, hands, feet, genitalia, perineum, or major joints.
- Circumferential burns.
- Patients with a pre-existing medical condition that may complicate management or prolong recovery (e.g. diabetes, renal failure, cardiac or pulmonary disease).

Total Burn Surface Area (TBSA):

- Second or third degree burns >10% total body surface area (TBSA) in any age group.

Approved:

Review Dates: 11/16
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ALS STANDING ORDER

TREATMENT GUIDELINES:

Suspected carbon monoxide toxicity (closed space burn, smoke inhalation, chemical fires):

- Pulse oximetry O₂ saturation will be inaccurate due to inability of pulse oximeter to differentiate between carbon monoxide and oxygen molecule.

Chemical burns:

- Brush away any remaining dry chemical.
- Irrigate burn wound and surrounding skin with copious and continuous water or saline flush to dilute and remove as much residual chemical as possible.
NOTE: Some chemicals are activated by water and might worsen the burn or create hazardous fumes; e.g., sodium, phosphorus, acetyl bromide, aluminum carbide, silicon tetrachloride.

Electrical Burns:

- Electrical burns may often appear insignificant while causing marked muscle and soft tissue damage. Cardiac irritability may occur with electrical burns.
- High voltage, greater than 110 volt, alternating current burn victims should be transported with ALS escort and cardiac rhythm monitoring.

Approved: