



## INLAND COUNTIES EMERGENCY MEDICAL AGENCY POLICY AND PROTOCOL MANUAL

**Reference No. 14070**  
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Page 1 of 5

### BURNS - ADULT (15 years of age and older)

Burn patient requires effective communication and rapid transportation to the closest receiving hospital.

#### I. **FIELD ASSESSMENT/TREATMENT INDICATORS**

Refer to ICEMA Reference #9030 - Destination policy.

#### II. **BLS INTERVENTIONS**

- Break contact with causative agent (stop the burning process).
- Remove clothing and jewelry quickly, if indicated.
- Keep patient warm.
- Estimate % TBSA burned and depth using the "Rule of Nines".
  - An individual's palm represents 1% of TBSA and can be used to estimate scattered, irregular burns.
- Transport to ALS intercept or to the closest receiving hospital.

#### A. **Manage Special Considerations**

- **Thermal Burns:** Stop the burning process. Do not break blisters. Cover the affected body surface with dry, sterile dressing or sheet.
- **Chemical Burns:** Brush off dry powder, if present. Remove any contaminated or wet clothing. Irrigate with copious amounts of saline or water.
- **Tar Burns:** Cool with water, do not remove tar.
- **Electrical Burns:** Remove from electrical source (without endangering self) with a nonconductive material. Cover the affected body surface with dry, sterile dressing or sheet.
- **Eye Involvement:** Continuous flushing with NS during transport. Allow patient to remove contact lenses if possible.
- **Determination of Death on Scene:** Refer to ICEMA Reference #14250 - Determination of Death On Scene.

#### III. **LIMITED ALS (LALS) INTERVENTIONS**

- Advanced airway as indicated.
- Airway Stabilization:

Burn patients with respiratory compromise or potential for such, will be transported to the closest most appropriate receiving hospital for airway stabilization.
- IV access (warm IV fluids when available).

- *Unstable:* BP less than 90 mm HG and/or signs of inadequate tissue perfusion, start 2<sup>nd</sup> IV access.  
  
IV NS 250 ml boluses, may repeat to a maximum of 1000 ml.
- *Stable:* BP more than 90 mm HG and/or signs of adequate tissue perfusion.  
  
IV NS 500 ml per hour.
- Transport to appropriate facility.
  - *Minor Burn Classification:* Transport to the closest most appropriate receiving hospital.
  - *Moderate Burn Classification:* Transport to the closest most appropriate receiving hospital.
  - *Major Burn Classification:* Transport to the closest most appropriate Burn Center (San Bernardino County contact ARMC).
  - *Critical Trauma Patient (CTP) with Associated Burns:* Transport to the most appropriate Trauma Center.
- Burn patients with associated trauma, should be transported to the closest Trauma Center. Trauma base hospital contacted shall be made.

**A. Manage Special Considerations**

- **Electrical Burns:** Place AED on patient.
  - Electrical injuries that result in cardiac arrest shall be treated as medical arrests.
- **Respiratory Distress:** Use BVM as needed and transport to the nearest facility for airway control. Contact receiving hospital ASAP. Albuterol with Atrovent per ICEMA Reference #11010 -Medication - Standard Orders.
- **Deteriorating Vital Signs:** Transport to the closest most appropriate receiving hospital. Contact base hospital.
- **Pulseness and Apneic:** Transport to the closest most appropriate receiving hospital and treat according to ICEMA policies. Contact base hospital.
- **Determination of Death on Scene:** Refer to ICEMA Reference #14250 - Determination of Death on Scene.
- **Precautions and Comments:**
  - High flow oxygen is essential with known or potential respiratory injury. Beware of possible smoke inhalation.
  - Contact with appropriate advisory agency may be necessary for hazardous materials, before decontamination or patient contact.

- Do not apply ice or ice water directly to skin surfaces, as additional injury will result.

#### IV. ALS INTERVENTIONS

- Advanced airway (as indicated).
- Airway Stabilization:  
  
Burn patients with respiratory compromise or potential for such, will be transported to the closest most appropriate receiving hospital for airway stabilization.
- Monitor ECG.
- IV/IO Access (Warm IV fluids when available).
  - *Unstable:* BP less than 90 mm HG and/or signs of inadequate tissue perfusion, start 2<sup>nd</sup> IV access.  
  
*IV/IO NS* 250 ml boluses, may repeat to a maximum of 1000 ml.
  - *Stable:* BP more than 90 mm HG and/or signs of adequate tissue perfusion.  
  
*IV/IO NS* 500 ml per hour.
- Treat pain as indicated.  
  
**Pain Relief:** Administer an appropriate analgesic per ICEMA Reference #14100 - Pain Management - Adult. Document vital signs and pain scales every five (5) minutes until arrival at destination.
- Transport to appropriate facility:
  - *CTP with associated burns*, transport to the closest Trauma Center.
  - Burn patients with associated trauma, should be transported to the closest Trauma Center. Trauma base hospital contacted shall be made.
- Insert nasogastric/orogastric tube as indicated.
- Refer to Section V - Burn Classifications below.

#### A. Manage Special Considerations

- **Electrical Burns:** Monitor for dysrhythmias, treat according to ICEMA protocols.
  - Electrical injuries that result in cardiac arrest shall be treated as medical arrests.
- **Respiratory Distress:** Intubate patient if facial/oral swelling are present or if respiratory depression or distress develops due to inhalation injury.
  - Albuterol with Atrovent per ICEMA Reference #11010 - Medication - Standard Orders.

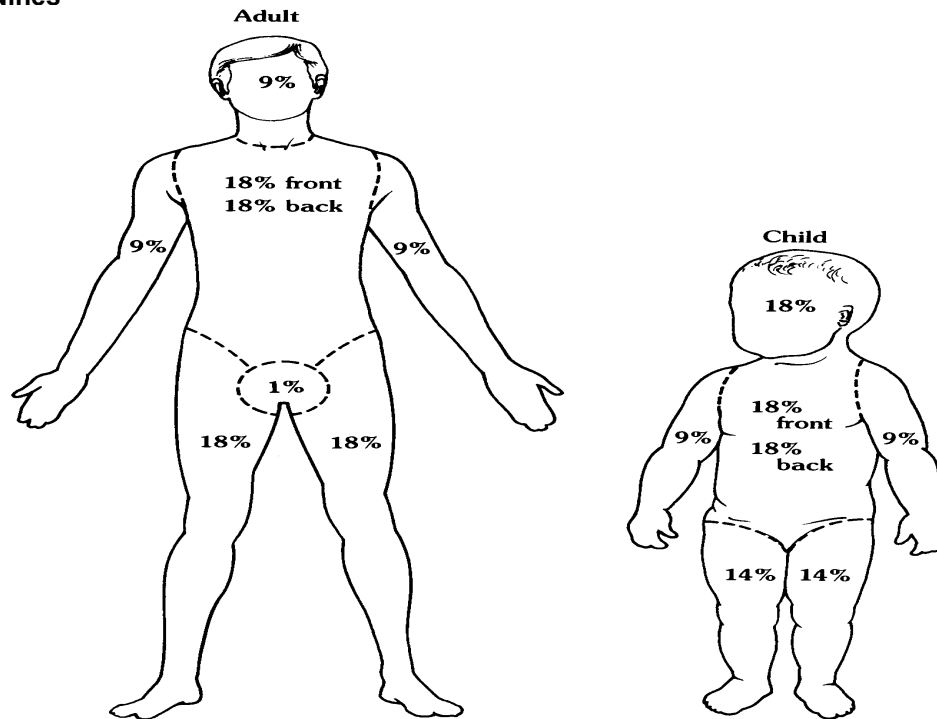
- Administer humidified oxygen, if available.
- Apply capnography.
- Awake and breathing patients with potential for facial/inhalation burns are not candidates for nasal tracheal intubation. CPAP may be considered, if indicated, after consultation with base hospital.
- **Deteriorating Vital Signs:** Transport to the closest receiving hospital. Contact base hospital.
- **Pulseness and Apneic:** Transport to the closest receiving hospital and treat according to ICEMA policies. Contact base hospital.
- **Determination of Death on Scene:** Refer to ICEMA Reference #14250 - Determination of Death on Scene.
- **Precautions and Comments:**
  - Contact with appropriate advisory agency may be necessary for hazardous materials, before decontamination or patient contact.
  - Do not apply ice or ice water directly to skin surfaces, as additional injury will result.
- **Base Hospital Orders:** May order additional medications, fluid boluses and CPAP.

**V. BURN CLASSIFICATIONS**

| ADULT BURN CLASSIFICATION CHART  | DESTINATION   |  |
|--|---|--|
| <p><b><u>MINOR</u> - ADULT</b></p> <ul style="list-style-type: none"> <li>• Less than 10% TBSA</li> <li>• Less than 2% Full Thickness</li> </ul>   | <p><b>CLOSEST MOST APPROPRIATE RECEIVING HOSPITAL</b></p> |  |
| <p><b><u>MODERATE</u> - ADULT</b></p> <ul style="list-style-type: none"> <li>• 10 - 20% TBSA</li> <li>• 2 - 5% Full Thickness</li> <li>• High Voltage Burn</li> <li>• Suspected Inhalation Injury</li> <li>• Circumferential Burn</li> <li>• Medical problem predisposing to infection (e.g., diabetes mellitus, sickle cell disease)</li> </ul> | <p><b>CLOSEST MOST APPROPRIATE RECEIVING HOSPITAL</b></p> |  |

|   |  |
|---|--|
| <p><b>MAJOR - ADULT</b></p> <ul style="list-style-type: none"> <li>• More than 20% TBSA burn in adults</li> <li>• More than 5% Full Thickness</li> <li>• Known Inhalation Injury</li> <li>• Any significant burn to face, eyes, ears, genitalia, or joints</li> </ul> | <p><b>CLOSEST MOST APPROPRIATE BURN CENTER</b></p> <p>In San Bernardino County, contact:<br/>                 Arrowhead Regional Medical Center (ARMC)</p> |
|---|--|

**“Rule of Nines”**



**VI. REFERENCES**

| <u>Number</u> | <u>Name</u>                     |
|---------------|---------------------------------|
| 9030          | Destination                     |
| 11010         | Medication - Standard Orders    |
| 14100         | Pain Management - Adult         |
| 14250         | Determination of Death on Scene |