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

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

In Inyo and Mono Counties, the assigned base hospital should be contacted for determination of appropriate destination.

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

Refer to ICEMA Reference #8130 - 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 #12010 - Determination of Death On Scene.

### III. LIMITED ALS (LALS) INTERVENTIONS

- Advanced airway as indicated.
- King Airway contraindicated in airway burns.
- 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 <90mmHG 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 >90mmHG and/or signs of adequate tissue perfusion.  
*IV NS 500 ml/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 #7040 -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 #12010 - 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.
- **Base Hospital Orders:** May order additional fluid boluses.

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 <90mmHG 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 >90mmHG and/or signs of adequate tissue perfusion.  
  
IV/IO NS 500 ml/hour.
- Treat pain as indicated.  
  
**Pain Relief:** Fentanyl per ICEMA Reference #7040 - Medication - Standard Orders. Document BP and pain scale every five (5) minutes while medicating for pain and reassess the patient.
- 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.

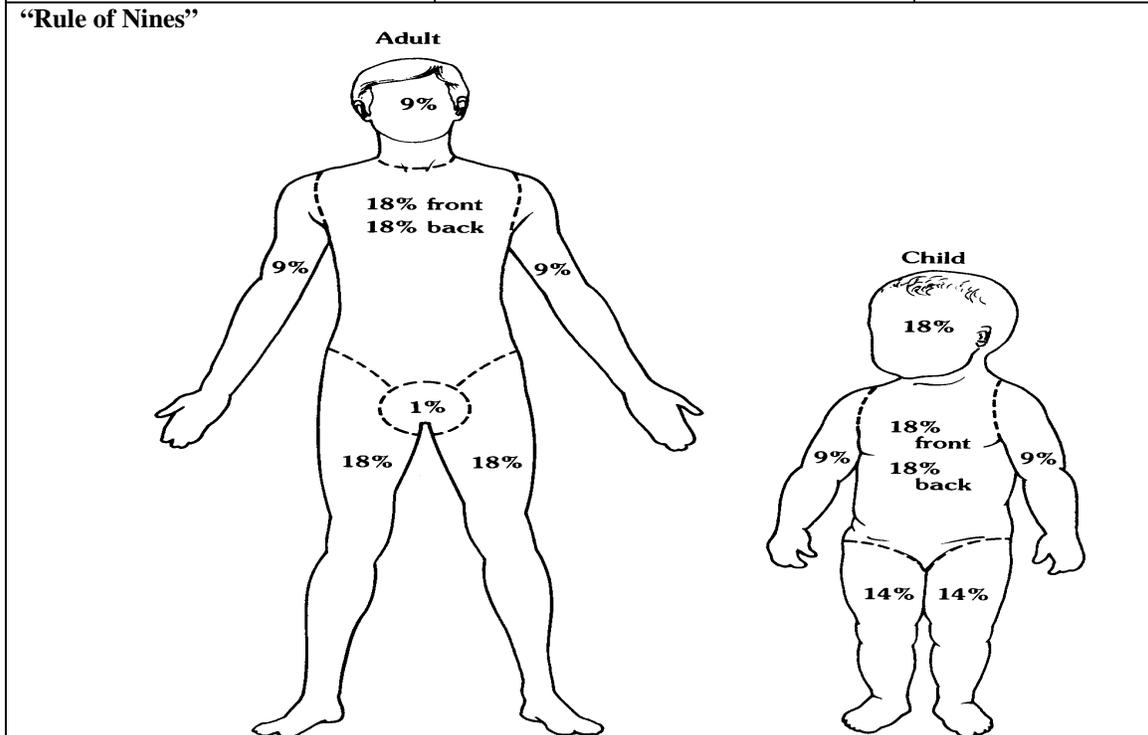
**A. Manage Special Considerations**

- **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 #7040 - 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 #12010 - 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>• &lt; 10% TBSA</li> <li>• &lt; 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 Injury</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><u>MAJOR</u> - ADULT</b></p> <ul style="list-style-type: none"> <li>• &gt;20% TBSA burn in adults</li> <li>• &gt; 5% Full Thickness</li> <li>• High Voltage Burn</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: Arrowhead Regional Medical Center (ARMC)</p>	



**VI. REFERENCES**

<u>Number</u>	<u>Name</u>
7040	Medication - Standard Orders
9010	General Patient Care Guidelines
10190	ICEMA Approved Skills
11070	Adult Cardiac Arrest
12010	Determination of Death on Scene
15030	Trauma Triage Criteria and Destination Policy