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|  | <b>COUNTY OF SACRAMENTO</b><br>EMERGENCY MEDICAL SERVICES AGENCY | Document #          | 8028.14  |
|   | PROGRAM DOCUMENT:<br><br><b>Environmental Emergencies</b>        | Draft Date:         | 06/14/96 |
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Signature on File

Signature on File

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EMS Medical Director

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EMS Administrator

**Purpose:**

- A. To establish the treatment standard for prehospital personnel treating patients suffering from environmental emergencies.

**Authority:**

- A. California Health and Safety Code, Division 2.5
- B. California Code of Regulations, Title 22, Division 9

**Protocol:**

**Frostbite:**

| <b>BLS</b>  |
|---|
| 1. Supplemental O <sub>2</sub> as necessary to maintain SpO <sub>2</sub> ≥ 94%. Use lowest concentration and flow rate of O <sub>2</sub> as possible.<br>2. Airway adjuncts as needed.<br>3. Remove wet/frozen clothing and place patient in a warm environment.<br>4. Assess area of frostbite; check circulation, sensation and movement of extremities <ul style="list-style-type: none"> <li>• Do not rub-protect from further trauma, contamination, or moisture</li> </ul> 5. Transport in position of comfort. |

**Hypothermia:**

| <b>BLS</b>  |
|---|
| 1. Supplemental O <sub>2</sub> as necessary to maintain SpO <sub>2</sub> ≥ 94%. Use lowest concentration and flow rate of O <sub>2</sub> as possible.<br>2. Airway adjuncts as needed.<br>3. Assess for trauma<br>4. Place in a warm environment, remove wet clothes; re-warm with warm clothes and blankets.<br>5. Handle patients with care, sudden jarring of patients may precipitate cardiac arrest.<br>*If in cardiac arrest perform CPR until patient can be warmed in hospital. * |
| <b>ALS</b>  |
| 1. Advanced airway adjuncts as needed.<br>2. Cardiac Monitoring<br>3. Consider vascular access.<br>4. Monitor and reassess.<br>5. If in cardiac arrest refer to policy 8031.<br>6. Transport  |

### Hyperthermia:

| <b>BLS</b>   |  |
|--|--|
| 1.   | Supplemental O <sub>2</sub> as necessary to maintain SpO <sub>2</sub> ≥ 94%. Use lowest concentration and flow rate of O <sub>2</sub> as possible. |
| 2.   | Airway adjuncts as needed.   |
| 3.   | Place patient in a cool area and remove clothing as appropriate.   |
| 4.   | Transport  |
| * If sweating is absent, proceed with cooling patients as rapidly as possible (cool packs on neck, in axilla and inguinal areas; fanning and misting, if possible, undress patient, cover with sheet and wet thoroughly.)* |  |
| <b>ALS</b>   |  |
| 1.   | Advanced airway adjuncts as needed.  |
| 2.   | Consider vascular access.  |
| 3.   | Cardiac Monitoring   |
| 4.   | Transport  |

### Near Drowning:

| <b>BLS</b> |  |
|------------|--|
| 1.         | Supplemental O <sub>2</sub> as necessary to maintain SpO <sub>2</sub> ≥ 94%. Use lowest concentration and flow rate of O <sub>2</sub> as possible. |
| 2.         | Airway adjuncts as needed.   |
| 3.         | Consider Spinal Motion Restriction (SMR) per policy 8044   |
| 2.         | Transport  |
| <b>ALS</b> |  |
| 1.         | *Follow appropriate protocol*  |
| 2.         | *Body temperature criteria shall not be used as criteria for declaring death.*   |

### Snake Bite:

| <b>BLS</b> |  |
|------------|--|
| 1.         | Supplemental O <sub>2</sub> as necessary to maintain SpO <sub>2</sub> ≥ 94%. Use lowest concentration and flow rate of O <sub>2</sub> as possible. |
| 2.         | Airway adjuncts as needed.   |
| 3.         | Assess site of wound for swelling redness from stings/bites.   |
| 4.         | Immobilize affected extremity at or slightly below the level of the heart.   |
| 5.         | Keep patient at rest.  |
| 6.         | Transport  |
| 7.         | Pre-alert receiving hospital of possible need for antivenom if moderate to severe venomous snake bite is noted.                                    |

| <u>Degree of Envenomation</u>  | <u>Presentation</u>   |
|--|---|
| None   | Punctures or abrasions; some pain or tenderness at the bite.  |
| Mild   | Pain, tenderness, edema at the bite; perioral paresthesias may be present.  |
| Moderate   | Pain, tenderness, erythema, edema beyond the area adjacent to the bite; often, systemic manifestations and mild coagulopathy. |
| Severe   | Intense pain and swelling of entire extremity, often with severe systemic signs and symptoms; coagulopathy                    |
| Life-threatening   | Marked abnormal signs and symptoms; severe coagulopathy   |
| *DO NOT APPLY ICE OR TOURNIQUET TO SITE *                              |   |
| *DO NOT BRING DEAD SNAKE TO THE HOSPITAL, TAKE A PICTURE IF POSSIBLE * |   |
| <b>ALS</b>   |   |
| 1. *Assess for anaphylaxis and treat per PD# 8001*                     |   |

**Stings / Bites:**

| <b>BLS</b>  |  |
|---|--|
| 1.  | Supplemental O <sub>2</sub> as necessary to maintain SpO <sub>2</sub> ≥ 94%. Use lowest concentration and flow rate of O <sub>2</sub> as possible. |
| 2.  | Airway adjuncts as needed.   |
| 3.  | Assess skin for swelling, redness and rash. If extremity, check distal circulation, sensation and movement   |
| 4.  | Keep affected extremities at level of heart and immobilize.  |
| 5.  | Transport  |
| *Apply ice for insect bite, not snake bites.*     |  |
| <b>ALS</b>  |  |
| 1. *Assess for anaphylaxis and treat per PD 8001* |  |

**Cross Reference:** PD# 8001 – Allergic Reaction/Anaphylaxis  
 PD# 8031 – Cardiac Arrest  
 PD# 8038 – Shock  
 PD# 8044 - Spinal Motion Restriction (SMR)