COUNTY OF SACRAMENTO
EMERGENCY MEDICAL SERVICES AGENCY

Program Document: **Environmental Emergencies**
Policy Number: 8028.16

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Signature on File
EMS Medical Director

Signature on File
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:

BLS

1. Supplemental O2 as necessary to maintain SpO2 ≥ 94%. Use the lowest concentration and flow rate of O2 possible.
2. Airway adjuncts as needed.
3. Remove wet/frozen clothing and place the patient in a warm environment.
4. Assess the area of frostbite; check circulation, sensation, and movement of extremities.
   a. Do not rub-protect from further trauma, contamination, or moisture.
5. Transport in the position of comfort.

Hypothermia:

BLS

1. Supplemental O2 as necessary to maintain SpO2 ≥ 94%. Use the lowest concentration and flow rate of O2 possible.
2. Airway adjuncts as needed.
3. Assess for trauma
4. Place in a warm environment. Remove wet clothes and re-warm with warm clothes and blankets.
5. Handle patients with care. The sudden jarring of patients may precipitate cardiac arrest.

If in cardiac arrest, perform CPR until the patient can be warmed in the hospital.

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6. Advanced airway adjuncts as needed.
7. Cardiac Monitoring
8. Consider vascular access.
9. Monitor and reassess.
10. If in cardiac arrest, refer to PD# 8031 – Medical Cardiac Arrest.
11. Transport

Hyperthermia:

BLS

1. Supplemental O2 as necessary to maintain SpO2 ≥ 94%. Use the lowest concentration and flow rate of O2 possible.
2. Airway adjuncts as needed.
3. Place the 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 the axilla and inguinal areas; fanning and misting, if possible, undress patient, cover with a sheet, and wet thoroughly.)

ALS

5. Advanced airway adjuncts as needed.
6. Consider vascular access.
7. Cardiac Monitoring
8. Transport

Near Drowning:

BLS

1. Supplemental O2 as necessary to maintain SpO2 ≥ 94%. Use the lowest concentration and flow rate of O2 possible.
2. Airway adjuncts as needed.
3. Consider Spinal Motion Restriction (SMR) per PD# 8044
4. Transport

ALS

5. *Follow appropriate protocol*
6. *Body temperature criteria shall not be used as criteria for declaring death.*

Snake Bite:

BLS

1. Supplemental O2 as necessary to maintain SpO2 ≥ 94%. Use the lowest concentration and flow rate of O2 possible.
2. Airway adjuncts as needed.
3. Assess the site of the wound for swelling and redness from stings/bites.
4. Immobilize affected extremity at or slightly below the level of the heart.
5. Keep the patient at rest.
6. Transport
7. Pre-alert receiving hospital of the possible need for antivenom if moderate to severe venomous snake bite is noted.

NOTE: If the patient is experiencing signs and symptoms of anaphylaxis, treat per PD# 8001 – Allergic Reaction/Anaphylaxis.

Degree of Envenomation	Presentation
None	Punctures or abrasions; some pain or tenderness at the bite.
Mild	Pain, tenderness, and edema at the bite; perioral paresthesia 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 a tourniquet to the site.

Do not bring the dead snake to the hospital; take a picture if possible.

ALS

1. *Assess for anaphylaxis and treat per PD# 8001*

Stings/Bites

BLS

1. Supplemental O2 as necessary to maintain SpO2 ≥ 94%. Use the lowest concentration and flow rate of O2 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 the level of the heart and immobilize.
5. Transport

Apply ice for insect bites, not snake bites.

ALS

6. *Assess for anaphylaxis and treat per PD# 8001 – Allergic Reaction/Anaphylaxis*

Note:

If the patient is experiencing signs and symptoms of anaphylaxis, treat per PD# 8001 – Allergic Reaction/Anaphylaxis.

Cross Reference:

PD# 8001 – Allergic Reaction/Anaphylaxis
PD# 8031 – Medical Cardiac Arrest
PD# 8038 – Shock
PD# 8044 – Spinal Motion Restriction (SMR)