

HYPOTHERMIA/FROSTBITE
PROTOCOL

CONTACT MEDICAL CONTROL

P

d. Possible orders post radio contact:

- 1) Administration of drugs in amounts as specified by medical control.
- 2) Vascular access and administration of warm IV fluids

M B S P

5. **If pulse is present:**

- a. Transport in warmed patient compartment, monitoring patient closely.

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b. Possible orders post radio contact:

- 1) Administration of drugs in amounts as specified by medical control.
- 2) Vascular access and administration of warm IV fluids.

M B S P

C. **If temperature is > 86°:**

1. If respirations are absent **or inadequate**, establish and maintain the airway, provide oxygenation and support ventilation.
2. **If respirations are adequate**, provide oxygenation.
3. **If pulse is absent**, refer to appropriate Cardiac Arrest Protocol.
 - a. If confirmed submersion time is greater than two hours, immediately contact Medical Control for possible referral to Dead on Scene Protocol.
4. **If pulse is present**, continue with this protocol.
5. Remove wet or constrictive clothes from patient. Wrap in blankets and protect from wind exposure.
6. Transport in warmed patient compartment, monitoring patient closely.

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7. Obtain vascular access.

- a. Use warm IV fluids if possible.
8. If altered mental status, refer to Altered Mental Status Protocol.

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- P** **9. Possible orders post radio contact:**
- a. Administration of additional drugs in amounts as specified by medical control.
 - b. Additional administration of warm IV fluids.

NOTE: **The 86° F temperature designation is applicable for the standing orders. Medical control may vary therapy based on the patient's presentation and the clinical setting. This determination will be made AFTER medical control contact.**

- M B S P** **III. Management of Frostbite**
- A. Remove wet or constricting clothing. Keep skin dry and protected from wind.
 - B. Do not allow the limb to thaw if there is a chance that limb may re-freeze before evacuation is complete or if patient must walk to transportation.
 - C. Dress injured areas lightly in clean cloth to protect from pressure, trauma or friction. Do not rub. Do not break blisters.
 - D. Maintain core temperature by keeping patient warm with blankets, warm fluids, etc..
 - E. Frostbitten areas should be supported and elevated during transport.
 - F. All patients with suspected frostbite should be evaluated by a physician.
 - G. Consider pain management per procedure.

- M B S P** **IV. Special Considerations**
- A. Hypothermia:
 - 1. Shivering does not occur below 90° F (32° C).
 - 2. The heart is most likely to fibrillate below 85-88° F (30° C). Prolonged CPR may be necessary until re-warming is complete.
 - 3. Excessive patient manipulation may induce ventricular fibrillation in the hypothermic patient.
 - 4. If patient has even a faint pulse, organized electrical rhythm and occasional respirations, CPR is currently felt to be unnecessary. In general, even very slow rates are probably sufficient for metabolic demands (Bradycardias are normal and are not treated). CPR is indicated for absence of pulse.
 - 5. Drugs should be used sparingly, since peripheral vasoconstriction may prevent entry into central circulation until temperature is restored. Additional drug administration should be approved by Medical Control.
 - 6. **Patients who appear dead after prolonged exposure to cold air or water will not be pronounced "dead" until they have been re-warmed in the hospital (unless submersion time greater than 2 hours).**
 - B. Frostbite:
 - 1. Thawing is extremely painful and should be done under controlled conditions, preferably in the hospital. Careful monitoring, pain medication, prolonged re-warming, and sterile handling are required.

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2. Partial re-warming, or re-warming followed by re-freezing, is far more injurious to tissues than delay in re-warming or walking on a frozen extremity to reach help. Do not re-warm prematurely. Indications for field re-warming are extremely rare.
3. Warming with heaters or stoves, rubbing with snow, drinking alcohol and other methods of stimulating the circulation are dangerous and should not be used.

NOTE: This protocol may be used in conjunction with the Trauma Protocol.

5/12/98