

HYPOTHERMIA / FROSTBITE

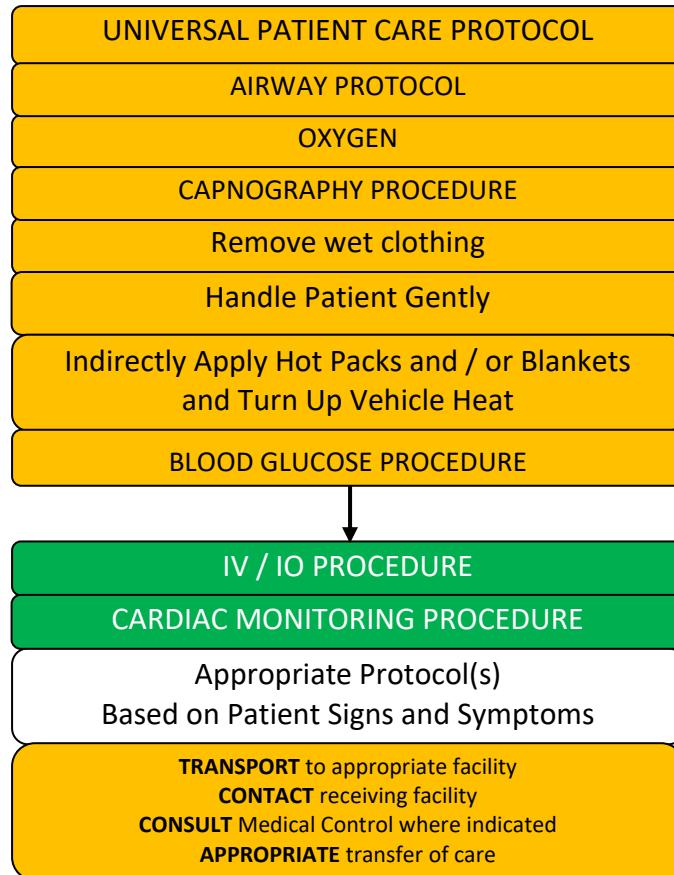
Airway / Breathing

Circulation / Shock

Cardiac

Medical

Trauma



EMT Intervention

AEMT Intervention

PARAMEDIC Intervention

Online Medical Control

HYPOTHERMIA / FROSTBITE

| HISTORY | SIGNS AND SYMPTOMS | DIFFERENTIAL DIAGNOSIS |
|---|--|--|
| <ul style="list-style-type: none"> Past medical history Medications Exposure to environment even in normal temperatures Exposure to extreme cold Extremes of age Drug use: alcohol, barbiturates Infections / sepsis Length of exposure / wetness | <ul style="list-style-type: none"> Cold, clammy Shivering Mental status changes Extremity pain or sensory abnormality Bradycardia Hypotension or shock | <ul style="list-style-type: none"> Sepsis Environmental exposure Hypoglycemia CNS dysfunction Stroke Head injury Spinal cord injury |

| KEY POINTS |
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| <ul style="list-style-type: none"> Exam: Mental Status, Heart, Lungs, Abdomen, Extremities, Neuro Hypothermic / drowning / near drowning patients that appear cold and dead are NOT dead until they are warm and dead, or have other signs of obvious death (putrefaction, traumatic injury unsustainable to life). Defined as core temperature < 93.2° F (34° C). Extremes of age are most susceptible (i.e., young, and old). Patients with low core temperatures will not respond to ALS drug interventions. Maintain warming procedure and supportive care. Warming procedures includes removing wet clothing, limiting exposure, and covering the patient with warm blankets if available. Do not allow patients with frozen extremities to ambulate. Do not attempt to rewarm deep frostbite unless there is an extreme delay in transport, and there is a no risk that the affected body part will be refrozen. Contact Medical Control prior to rewarming a deep frostbite injury. With temperature less than 86° F (30° C) ventricular fibrillation is common cause of death. Handling patients gently may prevent this. If the temperature is unable to be measured, treat the patient based on the suspected temperature. Hypothermia may produce severe bradycardia. Shivering stops below 90° F (32° C). Hot packs can be activated and placed in the armpit and groin area if available. Care should be taken not to place the packs directly against the patient's skin. Consider withholding CPR if patient has organized rhythm. Discuss with Online Medical Control. Patients with low core temperatures may not respond to ALS drug interventions. Discuss ACLS drug use with Online Medical Control in severely hypothermic patients. Maintain warming procedure and supportive care. Warming procedures includes removing wet clothing, limiting exposure, and covering the patient with warm blankets if available. The most common mechanism of death in hypothermia is ventricular fibrillation. If the hypothermia victim is in ventricular fibrillation, CPR should be initiated. If V-FIB is not present, then all treatment and transport decisions should be tempered by the fact that V-FIB can be caused by rough handling, noxious stimuli, or even minor mechanical disturbances, this means that respiratory support with 100% oxygen should be done gently, including intubation, avoiding hyperventilation. The heart is most likely to fibrillate between 85 - 88° F (29 - 31° C.) Defibrillate VF / VT x1 if no change, perform CPR and defer repeat defibrillation attempts until patient has been rewarmed. Superficial frostbite can be treated by using the patient's own body heat. |