for other causes of alterations of mentation

i. Transport as soon as possible to a hospital capable of resuscitation. If cardiac arrest develops consider transport to a center capable of extracorporeal circulation (ECMO) or cardiopulmonary bypass (if feasible)
j. Warm the patient compartment of the ambulance to at least 24°C (75.2°F) during transport

5. Frost bite:
   a. If the patient has evidence of frostbite, and ambulation/travel is necessary for evacuation or safety, avoid rewarming of extremities until definitive treatment is possible. Additive injury occurs when the area of frostbite is rewarmed then inadvertently refrozen. Only initiate rewarming if refreezing is absolutely preventable
      i. If rewarming is feasible and refreezing can be prevented use circulating warm water (37°–39°C/98.6°–102°F) to affected body part, thaw injury completely. If warm water is not available, rewarm frostbitten parts by contact with non-affected body surfaces. **Do not rub** or cause physical trauma.
      ii. After rewarming, cover injured parts with loose sterile dressing. If blisters are causing significant pain, and the clinician is so trained, these may be aspirated, however, should not be de-roofed. Do not allow injury to refreeze. Treat per the Pain Management Guideline.

Patient Safety Considerations

1. Given the additive effects of additional cold stress, the patient should be removed from the cold environment as soon as operationally feasible
2. In patients suffering from moderate to severe hypothermia, it is critical to not allow these patients to stand or exercise as this may cause circulatory collapse
3. Devices that self-generate heat (e.g., heat packs) that are being utilized during the rewarming process should be wrapped in a barrier to avoid direct contact with the skin and to prevent burns. Available evidence suggests that heat packs with peak temperatures above 45°C (113°F) are most likely to cause burns. In patients who are unresponsive, or unable to recognize a developing injury, please check the area in which the heating pad is placed regularly to ensure no tissue damage occurs.

Notes/Educational Pearls

Key Considerations

Considerations in cardiac arrest

1. The following are contraindications for initiation of resuscitation in the hypothermic patient:
   a. Obvious fatal injuries (such as decapitation)
   b. The patient exhibits signs of being frozen (such as ice formation in the airway)
   c. Chest wall rigidity such that compressions are impossible
   d. Danger to rescuers or rescuer exhaustion
   e. Avalanche victims buried for 35 minutes or longer with airway obstruction by ice or snow
2. Fixed and dilated pupils, apparent rigor mortis, and dependent lividity may not be contraindication for resuscitation in the severely hypothermic patient
3. The mainstay of therapy in severe hypothermia and cardiac arrest should be effective chest compressions and attempts at rewarming. Chest compressions