REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT – Basic

SMO: Hypothermia

Overview: Core body temperature less than 95 º F [35º C] can result from a decrease in head production, an increase in heat loss, or a combination of the two factors. Most common cause is exposure to extreme environmental conditions. Classified as Mild (CBT of 96.8º F to a CBT of 93.2º F[36-34º C]), Moderate (CBT of 86º F [30ºC]), and Severe (CBT of < 86.0º F [<30ºC]).

INFORMATION NEEDED

__ Length of exposure
__ Air temperature, water temperature, was patient wet or dry?
__ Medical history: trauma, alcohol, tranquilizers, anticonvulsants, medical problems (such as diabetes)

OBJECTIVE FINDINGS

MILD HYPOTHERMIA

__ Alert to impaired judgment
__ Possible slurred speech
__ Shivering
__ Evidence of local injury; blanching, blistering, erythema of extremities, ears, nose

MODERATE HYPOTHERMIA

All of the above PLUS
__ respiratory depression
__ myocardial irritability
__ bradycardia
__ atrial fibrillation

TREATMENT

__ Routine Medical Care
__ Note patient's temperature if possible
__ Remove all clothing: dry patient, cover with blankets to prevent further heat loss
__ Maintain warm environment
__ Encourage transport for evaluation of injuries/ hypothermia

OBJECTIVE FINDINGS
SEVERE HYPOTHERMIA (PROBABLE CARDIAC ARREST)
__ Cold skin, skin color changes
__ Altered mental status
__ No shivering
__ Loss of deep tendon reflexes, fixed and dilated pupils
__ Weak, thready pulse-- possible cardiac arrest
__ Spontaneous ventricular fibrillation

TREATMENT
__ Assess breathing and pulse for full 30-45 seconds
__ If not breathing and/or pulseless, start CPR
__ Attach AED (for use in children at least 1 year of age): If the patient is in Vfib or pulseless Vtach, **defibrillate** up to a **maximum** of 3 shocks
__ Ensure adequacy of CPR
__ Apply warm packs to central pulse areas (carotid, axilla, femoral). Avoid peripheral warming.
__ Rapid transport
** TRIPLE ZERO CANNOT BE CONFIRMED FROM THE FIELD ON THESE PATIENTS **

Documentation of adherence to protocol:
___ Passive external rewarming (clothing removed, covered with blankets)
___ Mental status documented

PRECAUTIONS AND COMMENTS
- Note that infants and children are more susceptible to heat loss and special care should be taken to prevent heat loss in these patients.
- Medications known to impair thermoregulation include alcohol, antidepressants, psychiatric medications, sedatives, pain medications (Aspirin, NSAIDS, acetaminophen).
- May need prolonged palpation/observation to detect pulse and respirations.
- Bradycardia is normal and should not be treated. Even very slow rates may be sufficient for metabolic demands. CPR is indicated for confirmed pulseless patient but may not be effective until patient is rewarmed.
- Hypothermia patient should not be determined "dead" until rewarmed or determined dead by other criteria.
- Heat packs with temperature greater than 110 degrees Fahrenheit should not be used to rewarm patient because of risk of burning skin.
- Excessive movement of the patient may precipitate ventricular fibrillation: **Gentle movement is important.**
- Frost bite: Do NOT rub or apply hot packs in the field situation. Avoid thaw and refreeze.

REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT – Intermediate, EMT – Paramedic

SMO: Hypothermia

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INFORMATION NEEDED

__ Length of exposure
__ Air temperature, water temperature, was patient wet or dry?
__ Medical history: trauma, alcohol, tranquilizers, anticonvulsants, medical problems (such as diabetes)

OBJECTIVE FINDINGS

MILD HYPOTHERMIA

__ Alert to impaired judgment
__ Possible slurred speech
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__ Evidence of local injury; blanching, blistering, erythema of extremities, ears, nose

MODERATE HYPOTHERMIA

All of the above PLUS
__ respiratory depression
__ myocardial irritability
__ bradycardia
__ atrial fibrillation

TREATMENT

__ Routine Medical Care
__ Note patient's temperature if possible
__ Remove all clothing: dry patient, cover with blankets to prevent further heat loss
__ Maintain warm environment
__ IV access
__ Encourage transport for evaluation of injuries/ hypothermia

OBJECTIVE FINDINGS

SEVERE HYPOTHERMIA (PROBABLE CARDIAC ARREST)

__ Cold skin, skin color changes
__ Altered mental status
__ No shivering
__ Loss of deep tendon reflexes, fixed and dilated pupils
__ Weak, thready pulse-- possible cardiac arrest
__ Spontaneous ventricular fibrillation

TREATMENT

__ Assess breathing and pulse for full 30-45 seconds
__ If not breathing and/ or pulseless, start CPR
__ Place on cardiac monitor: If the patient is in Vfib or pulseless Vtach, **defibrillate** per defibrillation protocol up to a **maximum** of 3 shocks
__ Ensure adequacy of CPR. Follow appropriate ACLS protocol—Medications usually not effective with temperature < 89º F. For temperatures > 89º F medications should be given at standard doses but longer intervals between doses. This prevents toxic accumulation of the drug. Contact medical control for further assistance in medication administration in these patients.
__ Obtain IV access—administer warmed IV fluid
__ Apply warm packs to central pulse areas (carotid, axilla, femoral). Avoid peripheral warming.
__ Rapid transport

** TRIPLE ZERO CANNOT BE CONFIRMED FROM THE FIELD ON THESE PATIENTS **

Documentation of adherence to protocol:

__ Passive external rewarming (clothing removed, covered with blankets)
__ If not breathing and/or pulseless CPR initiated.
__ If patient noted to be in V-fib or pulseless V-tach, defibrillation of up to 3 times performed.
__ Mental status documented; if Altered Mental Status, IV initiated

PRECAUTIONS AND COMMENTS

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