REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT – Basic

SMO: Hyperthermia

Overview: Heat illness results from one of two basic causes:

- normal mechanisms that regulate the body's thermostat are overwhelmed by environmental conditions such as heat stress or increased exercise in moderate to extreme environmental conditions.
- Failure of the body's regulatory mechanisms especially in older adults/ young children or babies or ill or debilitated patients.

INFORMATION NEEDED

__ Patient activity
__ Medications: tranquilizers, alcohol, diuretics, antidepressants, amphetamines, cocaine, and other illicit (street) drugs.
__ Associated symptoms: chest pain, cramps, headache, orthostatic symptoms, nausea, weakness
__ Air temperature and humidity; presence of excess clothing

OBJECTIVE FINDINGS--HEAT CRAMPS

__ Temperature – Usually normal
__ Mental Status – Alert
__ Skin signs – may be warm or cool to touch
__ Ability to perspire—present or absent?
__ Neuro exam - Normal except for muscle cramps (usually legs)

TREATMENT

__ RMC
__ Note patient's temperature if possible
__ Remove excess clothing
__ Move patient to cool area—protect patient from shivering by protecting with light covering
__ Give cool/cold liquids PO as tolerated
__ Consider gluco check. If hypoglycemic, see Hypoglycemic SMO.
__ Stretch cramped muscles to reduce pain

OBJECTIVE FINDINGS--HEAT EXHAUSTION
__ Temperature – Normal to slight elevation
__ Mental Status – Alert to slight confusion
__ Skin signs – usually hot to touch
__ Ability to perspire—present or absent?
__ Neuro exam – No loss of control of extremities, but feels very weak, maintains normal neuro function

TREATMENT
__ RMC
__ Note patient's temperature if possible
__ Remove excess clothing
__ Move patient to cool area—protect patient from shivering by protecting with light covering
__ Give cool/cold liquids PO as tolerated
__ Consider gluco check. If hypoglycemic, see Hypoglycemic SMO.
__ Oxygen therapy to keep pulse ox > 95%

OBJECTIVE FINDINGS--HEAT STROKE
__ Temperature – Core temperature usually 104 degrees Fahrenheit or greater
__ Mental Status – Altered
__ Skin signs – Usually flushed, hot; may or may not be moist if exercise induced
__ Ability to perspire—present or absent?
__ Neuro exam - May have active persistent seizures

TREATMENT
__ RMC
__ Note patient's temperature if possible
__ Remove excess clothing
__ Move patient to cool area—protect patient from shivering by protecting with light covering
__ Spray or sprinkle tepid water and use fan to cool
__ Continue COOLING measures during transport
__ Consider gluco check. If hypoglycemic, see Hypoglycemic SMO.
__ Consider ALS transport

Documentation of adherence to protocol:
__ Skin signs
__ Mental status
__ Cooling measures started

PRECAUTIONS AND COMMENTS

- Persons at great risk of Hyperthermia are the elderly, individuals in endurance athletic events, and persons on medications which impair the body's ability to regulate heat.
- Be aware that heat exhaustion may progress to heat stroke.
- Do not use ice water or cold water to cool patient due to potential vasoconstriction.
- Do not place towels or blankets on the patient as they may increase core temperature.
- Patients with simple heat cramps may not need to be transported if cooling measures and liquids relieve symptoms. Consult with Medical Control.
- Be alert for signs of occult trauma, e.g. falls, and institute appropriate treatment if suspected.

REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT –Paramedic

SMO: Hyperthermia

Overview: Heat illness results from one of two basic causes:

- normal mechanisms that regulate the body's thermostat are overwhelmed by environmental conditions such as heat stress or increased exercise in moderate to extreme environmental conditions.
- Failure of the body's regulatory mechanisms especially in older adults/ young children or babies or ill or debilitated patients.

INFORMATION NEEDED

__ Patient activity
__ Medications: tranquilizers, alcohol, diuretics, antidepressants, amphetamines, cocaine, and other illicit (street) drugs.
__ Associated symptoms: chest pain, cramps, headache, orthostatic symptoms, nausea, weakness
__ Air temperature and humidity; presence of excess clothing

OBJECTIVE FINDINGS--HEAT CRAMPS

__ Temperature – Usually normal
__ Mental Status – Alert
__ Skin signs – may be warm or cool to touch
__ Ability to perspire—present or absent?
__ Neuro exam - Normal except for muscle cramps (usually legs)

TREATMENT

__ RMC
__ Note patient's temperature if possible
__ Remove excess clothing
__ Move patient to cool area—protect patient from shivering by protecting with light covering
__ Give cool/cold liquids PO as tolerated
__ Consider gluco check. If hypoglycemic, see Hypoglycemic SMO.
__ Stretch cramped muscles to reduce pain

OBJECTIVE FINDINGS--HEAT EXHAUSTION
__ Temperature – Normal to slight elevation
__ Mental Status – Alert to slight confusion
__ Skin signs –usually hot to touch
__ Ability to perspire—present or absent?
__ Neuro exam – No loss of control of extremities, but feels very weak, maintains normal neuro function

TREATMENT
__ RMC
__ Note patient's temperature if possible
__ Remove excess clothing
__ Move patient to cool area—protect patient from shivering by protecting with light covering
__ Cardiac monitor
__ IV access
__ Give cool/cold liquids PO as tolerated
__ Consider gluco check. If hypoglycemic, see Hypoglycemic SMO.
__ Oxygen therapy to keep pulse ox > 95%

OBJECTIVE FINDINGS--HEAT STROKE
__ Temperature – Core temperature usually 104 degrees Fahrenheit or greater
__ Mental Status – Altered
__ Skin signs – Usually flushed, hot; may or may not be moist if exercise induced
__ Ability to perspire—present or absent?
__ Neuro exam - May have active persistent seizures

TREATMENT
__ RMC
__ Note patient's temperature if possible
__ Remove excess clothing
__ Move patient to cool area—protect patient from shivering by protecting with light covering
__ Spray or sprinkle tepid water and use fan to cool
__ Cardiac monitor
__ IV access with large bore IV
__ If hypotensive (SBP<90 or signs of poor perfusion): fluid challenge (500cc NS, reassess and repeat if indicated)
__ Continue COOLING measures during transport
__ Consider gluco check. If hypoglycemic, see Hypoglycemic SMO.
__ Transport to closest facility

Documentation of adherence to protocol:
__ Skin signs
__ Mental status
__ If skin flushed and hot and Altered Mental Status present: IV and cooling measures started

PRECAUTIONS AND COMMENTS

- Persons at great risk of Hyperthermia are the elderly, individuals in endurance athletic events, and persons on medications which impair the body's ability to regulate heat.
- Be aware that heat exhaustion may progress to heat stroke.
- Do not use ice water or cold water to cool patient due to potential vasoconstriction.
- Do not place towels or blankets on the patient as they may increase core temperature.
- Patients with simple heat cramps may not need to be transported if cooling measures and liquids relieve symptoms. Consult with Medical Control..
- Be alert for signs of occult trauma, e.g. falls, and institute appropriate treatment if suspected.