Purpose: To provide a process for the assessment and management of hyperthermia.

I. Assessment Information:

MBSP:

A. History:

1. Past Medical History: cardiovascular, respiratory, renal, psychiatric
2. Current History: environmental exposure, alcohol/drug use (phenothiazine, cocaine), exercise

B. Specific Objective Findings:

1. Vital signs
2. Mental and neurologic status:
   a. If altered mental status, see Altered Mental Status Protocol.
3. Environmental clues: temperature, humidity, duration of exposure, skin condition/perspiration, muscle twitching, core temperature

II. Management

A. General Management:

MBSP
1. Utilize universal precautions.
2. Establish and maintain airway, provide oxygenation and support ventilation.
3. Move patient to a cool area.
4. Remove restrictive clothing.
5. If possible, give responsive patient oral fluids.

B. Management of unstable hyperthermic patient with altered LOC, and signs of shock:

P — 1. Monitor EKG.

SP — 2. Obtain vascular access.
   a. Administer 300ml fluid bolus in adult, 20ml/kg in peds, with repeat as needed, titrating to signs of adequate perfusion.

MBSP — **C. Management of stable patient with early signs of heat exhaustion:** (pallor, diaphoresis, generalized weakness and patient remaining alert)

1. If possible, give patient oral fluids.

2. Allow patient to rest.
3. If patient is not improving , go to Unstable Patient care above.

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5. Possible orders post radio contact:
    a. Additional IV fluids

MBSP D.Management of unstable patient with Heat Stroke (skin is red, hot and dry, core temp > 102º):

1. Immediately initiate aggressive cooling:

ADVANCE \R 33.85a. Cold/wet sheet
    b. Air conditioning with good ventilation
    c. Misting of cool water
    d. Ice packs in axilla, neck and groin
    e. Do NOT use alcohol to attempt cooling.
2. Obtain vascular access.
3. If patient experiences seizures, refer to Seizure Protocol.
4. Immediate transport

CONTACT MEDICAL CONTROL

4. Possible orders post radio contact:
    a. Consider treatment as listed for Unstable Patient.

E. If patient presents with an isolated sudden development of severe cramps:

1. Move patient to cool area to rest.
2.If possible, give oral fluids.

ADVANCE \R 33.85

3. If symptoms persist, obtain vascular access.
    a. Administer 300ml fluid bolus in adult, 20ml/kg in peds; re-evaluate patient.

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4. Transport

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III. Special Considerations

A. *Heat exhaustion* -
a form of hypovolemic shock. Treat the patient for shock, which does not include aggressive cooling measures.

B. *Heat stroke* -
a disturbance of the heat regulating mechanism characterized by high fever and collapse, sometimes seizures, coma and death, is a true medical emergency. Exercise/activity in a hot and humid environment can trigger the emergency. Infants, the elderly. and persons on medication which impairs the body's ability to regulate heat are at high risk. Heat stroke is usually characterized by hot, dry, flushed skin with sudden onset of altered mental status.

C. *Heat cramps* -
sudden development of severe cramps of the abdominal or skeletal muscles brought about by the excessive elimination of salt through

D. Heat exhaustion and heat stroke can be accompanied with electrolyte imbalances and subsequent cardiac rhythm disturbances.

E. Transport should not be delayed.

F. For heat stroke, the immediate priority is cooling the patient. This may require some imagination. Use all of the physical cooling methods: conduction, convection, radiation, and evaporation.