

HYPERTHERMIA

History:

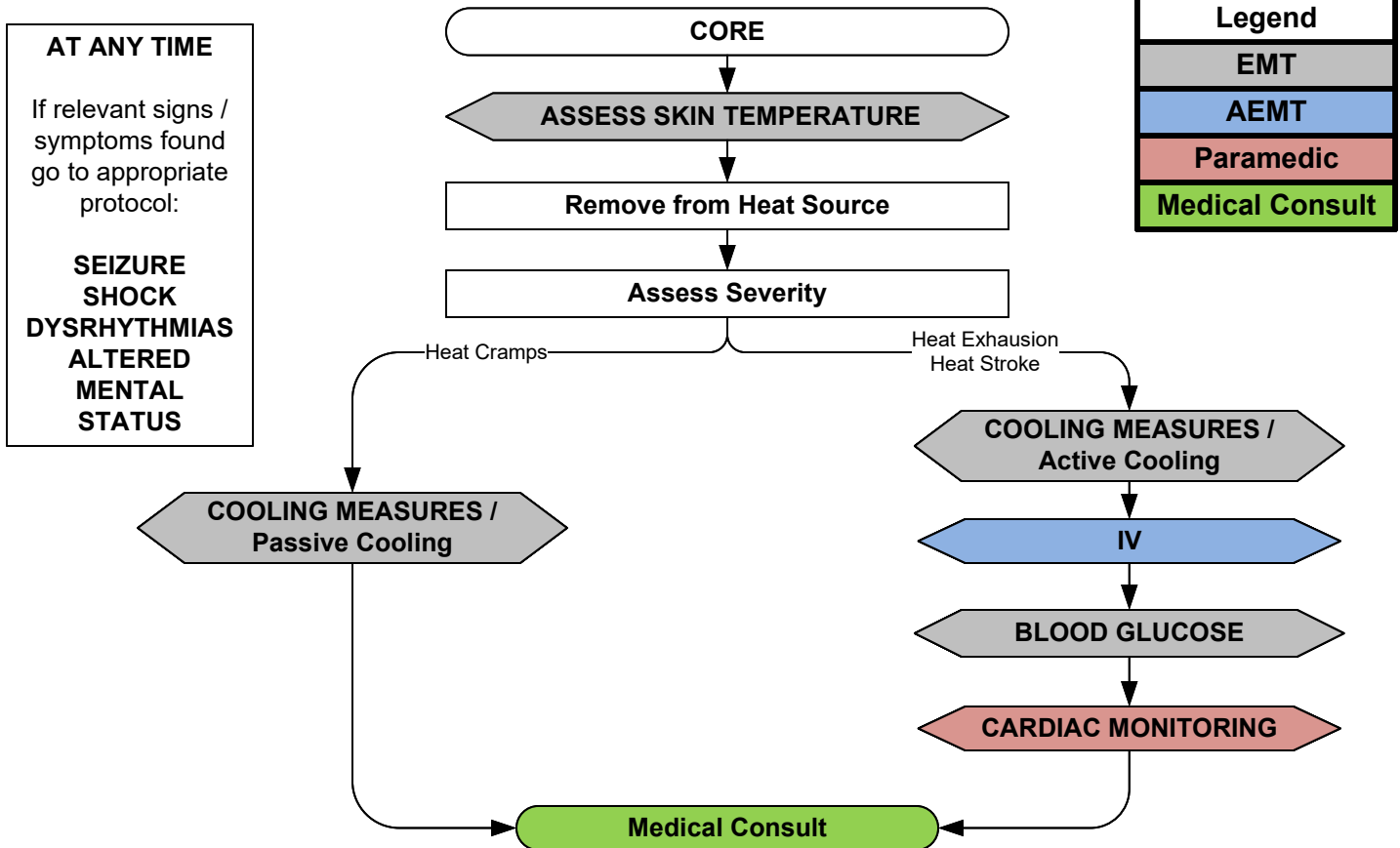
- Age
- Exposure to increased temperatures and / or humidity
- Extreme exertion
- Time and length of exposure
- Poor oral intake
- Fatigue and / or muscle cramping
- SAMPLE
- Recent illness / infection
- Psychiatric history

Signs and Symptoms:

- Altered level of consciousness or unconsciousness
- Hot, dry or sweaty skin
- Hypotension or shock
- Seizures
- Nausea

Differential:

- Dehydration
- Medications
- Hyperthyroidism (Storm)
- Delirium tremens (DT's)
- Heat cramps
- Heat exhaustion
- Heat stroke
- CNS lesions or tumors



Pearls:

- **Heat stroke** consists of high body temperature. A change in mental status is the primary assessment finding to differentiate heat stroke from heat exhaustion. If you have any doubt as to whether the patient is presenting with heat stroke vs. heat exhaustion, err on the side of aggressive cooling and treatment as though the patient is presenting with heat stroke. Sweating generally disappears as body temperature rises above 104° F. Cold water immersion (ice bath) is the most effective means of cooling and when available on scene, it is acceptable to delay transport in an effort to reduce the patient's temperature.
- **Heat exhaustion** consists of dehydration and salt depletion. Patients will often present with elevated body temperature, cool moist skin, weakness, anxiousness and tachypnea.
- Cocaine, amphetamines, and stimulants including energy drinks and dietary supplements may elevate body temperatures.
- **Heat cramps** consists of benign muscle cramping due to dehydration and is not associated with an elevated temperature.
- Predisposed by use of: tricyclic antidepressants, phenothiazines, anticholinergic medications, and alcohol.
- **Active cooling**—Remove the patient's clothing, wet the patient and increase the air flow over the patient. This promotes evaporative and convective cooling.
- **Passive cooling**—Limited to removing patient from heat/environmental source and removing clothes.
- Shivering is a normal part of the cooling process and should NOT be an indication to discontinue cooling measures. In the presence of heat stroke, Midazolam may be considered for excessive shivering associated with cooling techniques to stop tremors and reduce heat generation.