

HEAT - Heatstroke

HEAT-C COMPLICATIONS

OUTCOME: The patient and/or family will understand the consequences of heat stroke and the complications associated with heatstroke.

STANDARDS:

1. Explain that the body tissues and cells breakdown (denaturization of enzymes, destabilization of cells and breakdown of metabolic pathways) when the body's temperature increases above 105.8°F (41°C).
2. Discuss the complications of multisystem failure and the risks of morbidity and mortality that can occur as a result of heatstroke.
3. Discuss the possibility of circulatory collapse, that may precede permanent brain damage or death.

HEAT-CUL CULTURAL/SPIRITUAL ASPECTS OF HEALTH

OUTCOME: The patient/family will understand the impact and influences that cultural and spiritual traditions, practices, and beliefs have on health and wellness.

STANDARDS:

1. Discuss the potential role of cultural/spiritual traditions, practices and beliefs in achieving and maintaining health and wellness. Refer to clergy services, traditional healers, or other culturally appropriate resources.
2. Explain that traditional medicines/treatments should be reviewed with the healthcare provider to determine if there are positive or detrimental interactions with prescribed treatment. Explain that the medical treatment plan must be followed as prescribed to be effective.

HEAT-DP DISEASE PROCESS

OUTCOME: The patient and/or family will understand how heat stroke occurs and the signs and symptoms of heatstroke.

STANDARDS:

1. Discuss that heatstroke is an emergency.
2. Discuss signs and symptoms of heatstroke with the patient:
 - a. Headache
 - b. Vertigo
 - c. Fatigue

- d. Decreased sweating
 - e. Skin warm to touch
 - f. Flushing
 - g. Increased heart rate
 - h. Increased respiratory rate
3. Discuss the pathophysiology of heat stroke: inadequacy or failure of the heat loss mechanism.
 4. Explain factors that may predispose to heatstroke:
 - a. Disease status or conditions, such as diabetes, anhidrosis, or previous episodes of heat stroke.
 - b. Environmental conditions such as high humidity, extremely high temperatures
 - c. Clothing that is tight or made of spandex or rubber.

HEAT-EX EXERCISE

OUTCOME: The patient/family will understand how heatstroke can be influenced by exercise.

STANDARDS:

1. Discuss with patient/family how exercising in a warm environment, excessive exercising and prolonged exercise and exertion can lead to heatstroke.
2. Discuss the importance of frequent hydration and rest when exercising in a warm environment.

HEAT-FU FOLLOW-UP

OUTCOME: The patient/family will understand the seriousness of heatstroke and the importance of follow up care.

STANDARDS:

1. Discuss the importance of follow up appointments after a heat stroke to determine if there is any permanent or ongoing damage.
2. Discuss the importance of keeping follow up appointments.
3. Discuss the procedures for obtaining follow up appointments.

HEAT-L LITERATURE

OUTCOME: The patient/family will receive literature about heatstroke and important preventive measures.

STANDARDS:

1. Provide patient/family with literature on heatstroke and prevention of heatstroke.
2. Discuss the content of the literature.

HEAT-M MEDICATIONS

OUTCOME: The patient/family will understand the use of medications in the emergency room to manage heatstroke.

STANDARDS:

1. Discuss with the patient that pharmacological therapy may not be required.
2. Discuss with the patient that signs/symptoms such as dysrhythmia and shivering may occur as a complication of heatstroke and may require medication therapy.
3. Discuss with the patient that once they leave the hospital they may require medications that will treat the complications that have occurred from the heatstroke.
4. Discuss with the patient the importance of following the instructions in regards to their medications.
5. Discuss the common and important side effects and drug interactions of the medications prescribed.

HEAT-MNT MEDICAL NUTRITION THERAPY

OUTCOME: The patient/family will understand the specific nutritional intervention(s) needed for treatment or management of this condition, illness, or injury.

STANDARDS:

1. Explain that Medical Nutrition Therapy (MNT) is a systematic nutrition care process provided by a Registered Dietitian (RD) that consists of the following:
 - a. Assessment of the nutrition related condition.
 - b. Identification of the patient's nutritional problem.
 - c. Identification of a specific nutrition intervention therapy plan.
 - d. Evaluation of the patient's nutritional care outcomes.
 - e. Reassessment as needed.
2. Review the basic nutrition recommendations for the treatment plan.
3. Discuss the benefits of nutrition and exercise to health and well-being.
4. Assist the patient/family in developing an appropriate nutrition care plan.
5. Refer to other providers or community resources as needed.

HEAT-N NUTRITION

OUTCOME: The patient/family will understand the importance of adequate hydration and that water is the beverage of choice.

STANDARDS:

1. Explain that water is the beverage that best hydrates the body.
2. Discuss that caffeinated beverages and alcohol are especially dangerous and may predispose to dehydration and heat stroke.

HEAT-P PREVENTION

OUTCOME: The patient/family will understand ways to prevent heatstroke.

STANDARDS:

1. Discuss that it is easier to prevent heat stroke than to treat it.
2. Discuss with the patient/family that the majority of heat stroke cases are preventable by avoiding extremely hot/humid environments, inadequately ventilated spaces, inadequate fluid intake and heavy clothing in warm conditions.
3. Discuss with the patient/family ways to prevent heatstroke when heat exposure cannot be avoided: reducing or eliminating strenuous activities, staying adequately hydrated, frequently taking showers, wearing light weight clothing, and avoiding direct sunlight.
4. Discuss that up to a liter an hour may be required to prevent dehydration and predispose to heat stroke.
5. Discuss with the patient the most likely time of year to develop heatstroke: summer.
6. Discuss with patient the risk factors such as increased age, debility, low fluid intake, excessive exercise, alcohol and drug use, chronic disease, living conditions with no air-conditioning, travel to warmer climates, and prolonged outdoor activities.

HEAT-TE TESTS

OUTCOME: The patient/family will understand the test(s) to be performed, the potential risks, the expected benefits, and the risks of non-testing.

STANDARDS:

1. Explain test(s) that have been ordered (explain as appropriate):
 - a. method of testing
 - b. necessity, benefits, and risks of test(s) to be performed
 - c. any potential risk of refusal of recommended test(s)

- d. any advance preparation and instructions required for the test(s)
 - e. how the results will be used for future medical decision-making
 - f. how to obtain the results of the test
2. Explain test results:
- a. meaning of the test results
 - b. follow-up tests may be ordered based on the results
 - c. how results will impact or effect the treatment plan
 - d. recommendations based on the test results

HEAT-TX TREATMENT

OUTCOME: The patient/family will understand the management and treatment of heatstroke.

STANDARDS:

1. Discuss the importance of seeking emergency care if heatstroke is suspected.
2. Discuss the importance of slowly decreasing the temperature of the person.
3. Discuss the management of heatstroke in the emergency department; protection of airway, intravenous administration of fluids, monitoring of temperature, decreasing of temperature, and monitoring of cardiorespiratory status.
4. Discuss the goal of treatment with the patient: prevention of further heat loss, decrease in the core body temperature, and management and prevention of complications.
5. Discuss with the patient/family the importance of seeking emergency help as soon as possible in the incidence of a heatstroke.
6. Discuss the probability that the person experiencing a heatstroke may be admitted to an intensive care unit for extensive monitoring.