

Annex 8

Heat Plan

8. HEAT PLAN

Purpose:

This plan outlines procedures to follow in case of extreme or prolonged heat situations that would affect the normal operations of caring and treatment of consumers at ECRH. This plan coordinates the utilization of all available resources to ensure that the primary mission of providing aid and care to consumers is accomplished.

General:

The Facility is equipped with cooling systems, either central cooling systems or window units. The windows in Gracewood Campus consumer areas are capable of being opened for air circulation. However, doors and windows should remain closed to help keep cool air within buildings as long as the temperature inside is lower than that outside. There are some fans available, however, not enough if the Campus had a wide power failure or the cooling system became inoperative for a long period of time. (Note: The Augusta Campus windows are not designed to open.)

Procedure:

Upon instructions from the Regional Hospital Administrator or designee, this plan will be implemented. All efforts will be directed toward ensuring that there is sufficient personnel on duty to maintain proper care and treatment of all consumers, to maintain and repair mechanical equipment used for cooling purposes and to transport consumers, equipment and supplies as needed or as specified by this plan.

Mitigation and Preparedness:

East Central Regional Hospital provides numerous training and preparation activities for staff to prepare for extreme heat situations. These situations present dangerous conditions at the hospital several times a year. The following actions have been implemented to lessen the impact to the hospital consumers and staff.

1. Training and Education:

- a. Heat training is given to all employees as part of their Annual Updates. These updates provide staff with the knowledge of heat related illnesses

and how to recognize these illnesses. These updates are documented as part of the employees competency file.

- b. Bulletin articles are printed periodically to remind staff to be aware of the dangers that heat presents.
- c. New employees receive training in New Employee Orientation to what the signs, symptoms and warning signs of heat related illnesses. This training is documented in Human Resource Development and provided on the employees training record.
- d. Notification is given to all staff via email if conditions are expected for a given time. All staff has access to the information directly or through supervision.

2. Maintenance Director or Designee:

- a. Provides weekly Preventive Maintenance to all HVAC systems to lessen the occurrence of HVAC system failure during extreme heat situations.
- b. Will ensure that air conditioning systems and related equipment are in good operational condition throughout the summer. The following will be accomplished:
 - i. During the first quarter of the calendar year all air conditioning systems will be serviced to ensure that the systems are in good operational condition.
 - ii. Will provide for a preventive maintenance check in addition to the regular preventive maintenance schedule on all air conditioning equipment, ice machines, fans, generators, etc., as soon as a prolonged high temperature period is forecasted.
 - iii. The Maintenance Director will ensure that an adequate supply of spare parts for air conditioning and other cooling type equipment is always readily available for repairs to the equipment on ECRH campuses.
 - iv. A priority system for repairs to the Facility will be established, with consumer living areas having the highest priority.
 - v. Back-up electrical equipment within available resources should be identified that could be used to power air conditioning equipment if power is out to the Facility.
 - vi. Establish liaison with Georgia Power for determining cause of power failure and determining voltage demands.
 - vii. Monitor water supply tanks and ensure that an adequate supply is maintained. Ensure that the systems are functional and in good operating order to take care of the needs of ECRH campuses.

RESPONSE ACTIONS

1. General:

- a. The following actions are guidelines for staff and consumers to follow in the event that extreme heat situations are experienced in the area. The actions are designed to lessen the impact to safety of our consumers and staff.
 - i. When notification is made that extreme heat situations are expected, the Safety Manager or designee will notify all areas that extreme temperatures are expected.
 - ii. Notification will be made to all Program Areas, Living Areas, and Support Areas as to the when the extreme heat is expected and the duration of the extreme heat.
 - iii. Once notification has been received by staff, every effort should be made to curtail normal outside activities until the warning time is over. Every effort should be made to keep consumers as comfortable as possible.
 - iv. Outside activities by staff and consumers should be monitored during this time. Any person that experiences heat related illness should be given medical attention at once.
 - v. Notification should be made to the Chief Operating Officer, Developmental Disabilities Chief, and Nurse Director to curtail of any normal activities due to do extreme heat.
 - vi. Every effort should be made to keep the inside of buildings as cool as possible. Doors and windows should remain closed to help keep cool air within buildings.
 - vii. Plant Operations staff will monitor the HVAC systems in buildings to ensure that the systems are working properly. In the event of a failure, notification will be made to the Chief Operating Officer and consumers and staff will be moved to areas that have working HVAC. Fans will be made possible if it is not feasible to move the consumers from the affected area.

2. Developmental Disabilities Chief (Gracewood Campus) and Nurse Administrator (Augusta Campus):

- a. Will ensure that the consumers are made as comfortable as possible. The following tasks will be accomplished upon notification to implement the plan:
 - i. Position pedestal fans and floor fans when available inside building at strategic locations to keep air circulating.
 - ii. Will determine if the temperature inside building is lower than existing outside air. Outside doors or windows should not be opened unless

the outside temperature is lower than the inside temperature. Open outside windows / doors in building and install exhaust fans on opposite sides of building to ensure cross flow movement of outside air if air outside is cooler than that inside.

- iii. Consumer movement within the facility should be curtailed as much as possible while repairs are being performed.
 - iv. Will ensure that preventive measures for severe heat are followed by all employees. **See Attachment 1, Preventive Measures.**
- b. In the event of air conditioning equipment failure, evaluate the situation and consider positioning the elderly and non-ambulatory consumers in the coolest areas of the building.

3. Food Service Director or Designee:

- a. Will establish a system for reviewing menus to be served during hot weather periods to determine substitutions and preparation changes that may be appropriate.
- b. Due to the unavailability of electrical supply or other utilities, outside grills would be obtained for food preparation.
- c. Be prepared to make available for the consumers extra chilled juices, iced tea or iced coffee and other iced beverages. Special request for extra juices, etc., may have to be supported by a doctor's order.
- d. Will take action to bag excess ice from machines and store in freezer at Central Kitchen.
- e. Take appropriate action to ensure that food items are not spoiled during power outage and that ice supply is maintained.

4. Service Directors/ Nurse Managers/Team Leaders & Direct Care Staff:

- a. Develop a plan for moving consumers to a cooler building should the heat situation become so severe as to require movement.
- b. Contact the Regional Hospital Administrator or the Director of DDS if the temperature and humidity reach dangerous levels. **See Attachment 2, ECRH Weather Index Chart.**

5. Nursing Staff and Unit Physicians will:

- a. At the onset of high temperatures, will monitor consumers very closely, particularly the non-ambulatory and the elderly. **See Attachment 3, Symptoms and Treatment.**
- b. Increase the amount of fluid administered to consumers and ensures that they are clothed appropriately.
- c. Require the use of special cooling aids, such as cool showers, damp clothing and ice if the temperature reaches a point that warrants such emergency measures.

Recovery Actions:

1. In the event of prolonged extreme heat exposure, every effort should be made to keep daily events as close to normal as possible.
2. Consumers and staff should be provided fluids as needed after extreme heat has been experienced.
3. In the event of HVAC system failure and removal from the building, allow the system time to cool the building before re-entering the building with consumers and staff.
4. Staff and consumers should be monitored closely for any heat related illness that may develop after the emergency.

ATTACHMENTS

1. Preventive Measures
2. Symptoms and Treatment
3. Weather Index Chart

Attachment 1

ADDITIONAL PREVENTIVE MEASURES (EXTREME OR PROLONGED HEAT)

Nursing and Direct Care Staff should take the following preventive measures during periods of extreme or prolonged heat:

1. Monitor consumers very closely, particularly the elderly. The elderly are more susceptible to heat stroke and heat exhaustion.
2. Increase fluid intake, as appropriate.
3. Ensure that consumers are clothed properly for periods of intense heat. Non-ambulatory consumers should be checked regularly.
4. In the event of a complete failure of the air conditioning equipment, special attention should be given to positioning the elderly and non-ambulatory consumers in the coolest area of the Unit.
5. Special cooling aids, such as cool showers, damp clothing and ice should be used when appropriate.
6. Consumers showing symptoms of heat exhaustion should receive prompt medical therapy.
7. Consumers showing symptoms of heat stroke must be given prompt attention by a physician.
8. Consumers will wear hats and use a sunscreen when out in the hot sun; particularly when they are on walks.
9. Recreational Activities held outside should be canceled during periods of extreme high humidity and high temperatures.
10. Keep consumers inside buildings or shaded areas.
11. Living Area staff is reminded that some buses are not air conditioned, and consumers should be watched very closely when traveling in buses during periods of prolonged heat and high temperatures.
12. Clothing should be worn loosely, not tucked in. Cotton clothing, preferably white, is recommended.

Attachment 2

SYMPTOMS AND TREATMENT **(HEAT EXPOSURE)**

There are many medical ramifications of prolonged heat exposure that could affect the consumers and staff. However, it is necessary to explain a few of the more often seen medical emergencies resulting from heat exposure.

- A. Heat Stroke (Sun Stroke): Heat stroke is a medical emergency and requires immediate treatment. Usually victims have been exposed to intense heat, or have participated in strenuous activities; however, older persons can have a heat stroke from mild activity, such as taking a walk.
1. Symptoms: Faintness, dizziness, headache, rapid pulse, no perspiration (even though the person may have been sweating earlier), weakness, hot dry skin, red or flushed skin.
 - a. During severe stages there is nausea, vomiting and unconsciousness.
 - b. Symptoms are accompanied by high fever, reaching 104 degrees or higher. Pulse rate rises to rate of 140 or above (normal temperature equals 98.6 degrees, normal pulse rate equals 72 to 80 beats per minute).
 - c. Sustained high fever will result in brain damage. Death will result if the victim is not cooled quickly.
 2. Treatment: Remove victim immediately from the sun. Lower body temperature by applying wet towels on body, using fan, placing ice bags over body, tub bathing in cold tap water or giving a sponge body bath, using rubbing alcohol or cold water.
 - a. When body temperature is reduced to a safe level (102 degrees) cooling efforts can be stopped and the victim observed for 10 minutes. Call for medical help if the victim's temperature starts to rise again. Cool the victim again.
 - b. When the temperature remains at a safe level, put the victim to bed and get medical help.
 - c. Do not give tea, coffee or alcoholic beverages. If the victim is conscious, they may have other cool drinks or water.
- B. Heat Exhaustion: Is a result of sweating. The body loses excessive fluids and salt. It may take days to develop. Body temperature remains approximately normal. Uncorrected condition leads to collapse, but it usually is possible to rouse the victim.

1. Symptoms: Thirst, muscle cramps, extreme fatigue, weakness, dizziness, headaches, fever, faintness, nausea, pale clammy skin, heavy perspiration, possible delirium, depending on severity.
2. Treatment: For mild heat exhaustion, rest in bed away from heat. Drink as many fluids as possible, especially fluids containing added salts (1/2 Teaspoon salt – about 2 “pinches” per glass of water) every 15 minutes. 3 or 4 doses may be given. Coffee and tea are permissible. Contact a Physician.
 - a. Heat cramps may accompany heat exhaustion, and usually involve the abdominal muscles or the limbs. Relief may be given by:
 - i) Warm, wet towels placed over the cramped area and firm pressure applied against the muscle with the flat of the hand.
 - ii) Drinking a salt water solution.
 - b. A victim who is sweating, has a normal temperature and is tired (heat exhaustion) needs rest but does not need to be cooled off as vigorously as with heat stroke.
 - c. Medical care is needed for severe heat exhaustion.
 - d. Heat exhaustion often can be prevented by taking adequate salt and water during times of excessive exposure to heat, avoiding strenuous exertion and wearing suitable clothing.

C. Heat Syncope (Fainting): Heat Syncope, or fainting, is the direct result of exercising in the heat.

1. Symptoms: Sudden dizziness, suddenly tired, suddenly the victim will faint, skin will be cool, sweaty and pale, pulse will be weak and not as rapid as in heat stroke.
2. Treatment: Rest, cool down and drink extra fluids.

Attachment 3

ECRH Weather Index Chart

Temperature - Humidity Restrictions

100° F or Higher - Any % - All outdoor activity canceled (Consumers and Staff)

95° F or Greater – Avoid All outdoor activity except short distance movement between buildings. Air conditioned vehicles should be used for longer distances. (Consumers and Staff)

90° F to 95° F - 49% or Less – Limit outside activities to less than 30 consecutive minutes. Rest periods indoors and water breaks every 30 minutes (Consumers)

85° F to 90° F - 49% or Less – Avoid prolonged exposure and/or physical activity.

Rest periods, water breaks every 30 minutes (Consumers)

84° F or Less - 49% or Less – Rest periods, water breaks every 60 minutes (Consumers)

40° F to 45° F - Temperature or Wind Chill – Avoid lengthy outdoor activities unless adequate clothing is available. (Consumers)

40° F or below - Temperature or Wind Chill – Avoid outdoor activities except movement between buildings with adequate clothing. Heated vehicles are preferable for longer distances between buildings. (Consumers)

NOTE: ALL OUTDOOR STRENUOUS ACTIVITIES SHOULD BE CURTAILED FOR ALL STAFF WHEN THE DRY AIR TEMPERATURE IS BETWEEN 95° F AND 99° F, AND HUMIDITY IS 50% OR GREATER.