



Long Term Care and Services for Seniors

**Heat Related
Illness Prevention
and Management
Plan**

Record of Review

Sign off	Date
Senior Leadership – Laura MacDermaid	May 31, 2021
Senior Leadership – Laura MacDermaid	July 29, 2022

1. Policy

- 1.1 There is an organized plan in place to deal with extreme heat. The safety of the residents, clients, staff, and visitors is of primary concern during an emergency.
- 1.2 The hot weather program runs from May 15th to September 15th annually and on any day which the outside temperature forecasted by Environment Canada for the areas in which the Long-Term Care Home (LTCH) or Adult Day Program (ADP) is 26 degrees Celsius or above at any point during the day and anytime the inside temperature of the LTCH or ADP reaches 26 degrees Celsius or above.
- 1.3 The building is fully climate controlled through its Building Automation System (BAS). This plan must be evaluated annually by the Environmental Services (ES) department. There will be processes to communicate to residents/staff if the temperature is over 26 degrees Celsius or above.

2. Purpose

- 2.1 To ensure that every designated cooling area in the LTCH is required to be served by air conditioning which is operated as necessary to maintain the temperature at a comfortable level for residents during specified periods.
- 2.2 To identify specific resident risk factors that may lead to heat related illness and outline the requirement for staff to regularly monitor whether residents are exposed to risk factors and the necessary strategies to mitigate these risks.
- 2.3 To identify symptoms of heat related illness and outline the requirement for staff to regularly monitor whether residents exhibit these symptoms and the necessary strategies to take in response.
- 2.4 To ensure there is a communication plan to communicate the heat related illness prevention and management plan to residents, staff, volunteers, visitor, Residents and Family Councils.
- 2.5 Licensees are required to incorporate in residents' care plans, an interdisciplinary assessment of the seasonal risk relating to heat related illness, including protective measures required to prevent or mitigate heat related illness.

3. Procedure

3.1 Procedure During Routine Monitoring

A. Nursing Department:

- (1) All residents are deemed "high risk" for heat related illness.
- (2) Every May, staff are to ensure there is a Hot Weather Care Plan in place for all residents and it is up to date.
- (3) Review Hot Weather Illness Prevention and Management Program with all staff on the resident home area (RHA) annually during the month of May and as required.
- (4) If the home area feels hot, registered staff to notify ES immediately to conduct a temperature check.

- (5) Notify the Emergency Coordinator (EC), ES Manager, ES Supervisors, Administrator, Assistant Administrator, and Director of Care if the building area temperature is 26 degrees Celsius or higher.

B. Environmental Services Department:

- (1) Ensure that the home's temperature is measured and documented in writing, at a minimum in the following areas of the home:
 - (a) At least two resident bedrooms in different parts of the home
 - (b) One resident common area on every floor of the home, which may include a lounge, dining area or corridor.
 - (c) Every designated cooling area
- (2) The temperature must be documented at least once every morning, once every afternoon between 12 pm and 5pm, and once every evening or night.
- (3) Keep documented measurements for at least one year
- (4) In addition, the building is fully climate controlled through the BAS system. The BAS system would be set to trigger an alarm if the temperature gets over 26 degrees and 32 degrees in the kitchen/laundry. BAS system retains the temperature readings indefinitely.
- (5) Notify the Emergency Coordinator, ES Manager, ES Supervisors, Administrator, Assistant Administrator and Director of Care if the building temperature is 26 degrees Celsius or higher in any of the resident home areas and 32 degrees in either the kitchen or laundry room

3.2 Procedure When Inside Temperature is 26 Degrees Celsius or Higher

A. Communication

- (1) There will be posters for staff and residents posted throughout the building talking about heat related illness prevention and management
- (2) ES department will communicate with home managers if the inside temperature is 26 degrees Celsius or higher. The following department staff will do the following:
 - (a) **Nursing Department:**
 - (i) Provide additional fluids for all residents. These fluids should be water or fruit juice.
 - (ii) Observe residents for symptoms of heat related illness; notify Medical Director and Director of Nursing/Delegate of resident who are suffering.

- (iii) Discontinue tub bathing. Implement bed baths using tepid water.
- (iv) Discourage residents from going outside.
- (v) Ensure that all residents are dressed appropriately. Residents who dress themselves should be checked for over dressing. Frail residents should be dressed in cotton undershirts or nightgowns.
- (vi) Set up cooling stations in RHA's
- (vii) Close blinds and drapes and turn off lights as appropriate.
- (viii) Turn off any unnecessary heat generating equipment.
- (ix) Monitor and record body temperatures and fluid balance of all high-risk residents each shift. Continue to monitor body temperatures after the heat wave is over - once per shift for 24 hours and then once daily for 48 hours.
- (x) Contact Resident Care Coordinator/designate (if applicable) to authorize assignment of additional staff as required
- (xi) Move residents (if applicable) to cooler areas of the building

3.3 **If Residents Appear to be Exhibiting Heat Related Illness:**

- A. Monitor and record body temperature, pulse, respirations, and blood pressure.
- B. Consult with the Dietitian. Encourage fluids to 2400 ml per 24 hours. Monitor and record fluid intake and urinary output.
- C. Do not serve hot food or drinks with high sugar content.
- D. Provide sponge baths to lower body temperature. Do not use alcohol in the water. Drape wet cold towels over the neck, chest, axillae, and groin if necessary.
- E. Notify the attending physician. Review resident's current medications - particularly diuretics, phenothiazines and laxatives.
- F. Notify the resident's family of the resident's condition.
- G. Check room temperature immediately and every eight hours thereafter.
- H. Transfer residents to cooling areas, if unable to transfer resident, use a fan to lower the room temperature.

3.4 **Outings during Hot Weather:**

- A. If the exterior temperature is 26 degrees Celsius or above with high humidity, the safety of the trip, along with heat risk of each resident, is to be reviewed by the Coordinator of Recreation and Therapy in consultation with the Director of Care/Delegate.
- B. Appropriate course of action may include:

- (1) Cancellation of trip
- (2) Changing destination
- (3) Limiting time of the trip
- C. During the trip:
 - (1) Staff to monitor for signs and symptoms of heat related illness
 - (2) Limit physical activity
 - (3) Keep residents out of direct sunshine, keep in shaded cool area
 - (4) Increase fluid intake for all residents
 - (5) Cut the trip short and return to the Home immediately if required

4. Roles and Responsibilities

4.1 Environmental Services Department:

- A. Work with mechanical maintenance workers and contractors (if applicable) to have air conditioning back to fully functionality as soon as possible. ES Manager/Delegate to approve overtime hours and off hour service calls if required.
- B. Set up cooling area in RHA's.
- C. Provide extra towels to be used for cooling.
- D. Close blinds and drapes and turn off lights as appropriate.
- E. Conduct temperature checks on all home areas every 4 hours until temperature is 26 degrees Celsius or below, manually record temperature checks on tracking form.
- F. Close all windows and exterior doors.
- G. Monitor the building, ensuring blinds and drapes are closed, windows are closed, lights are off, cords are not a tripping hazard.
- H. Provide Administrator, Assistant Administrator, and Director of Care update reports via email or phone every 4 – 6 hours until temperature is 26 degrees Celsius or below.
- I. If laundry room temperature exceeds 32 degrees Celsius, under the direction of the ES Manager/Delegate dryers should be shut down for 2 hours or until temperature drops. Laundry production may be shifted to cooler nighttime hours if required.
- J. ES Manager and Supervisors to reassign staff if required, to assist with resident care needs.

4.2 Food Services:

- A. Cold meal menus to be implemented under the direction of the Director of Food Services/Delegate.
- B. Provide ice water/ popsicles to all home areas - ensuring adequate supply for residents, staff, and visitors.

- C. Increase quantity of cold beverages available on the nourishment cart, limiting caffeine beverages.
- D. Turn off any unnecessary heat generating equipment.
- E. Ensure fans are placed around the kitchen.
- F. Under the direction of the Food Service Manager/Delegate, reduce the use of the dish machines as much as possible; implement the use of disposable dishes for all meals and nourishments where possible.

4.3 Recreation Department:

- A. The Coordinator of Recreation and Therapy to meet with the Emergency Coordinator (EC) to determine appropriate course of action, which may include:
 - (1) Cancellation of recreation programs.
 - (2) Some or all recreation staff assisting in serving fluids or sponge bathing.
 - (3) Assisting residents to cooling areas in the building.
 - (4) Providing impromptu nonphysical programs in cooler conditioned areas of the home.
 - (5) Do not provide alcoholic beverages during programs.

4.4 Therapy Department:

- A. Discontinue regular therapy programming and request staff to report to the registered nurse (RN) to assist with care of the residents
- B. Assist with the serving of drinks and sponging of residents as required

4.5 Home Leadership Team:

- A. Ensure staff are drinking frequently and staying hydrated.
- B. Reorganize break times to increase time and frequency of rest breaks for staff.
- C. Bring in extra staff for support if required.
- D. Assist as required to serve fluids, provide sponge baths, move residents to cooler parts of the building.
- E. Ensure cooling areas are set up with in the RHA's.
- F. Ensure this plan is being adhered to.

5. Symptoms of Heat Related Illness and Appropriate Actions

Table 1 - Heat Stroke

Physiological Malfunction:

- Sudden failure of the thermoregulatory system
- Inadequate circulatory transfer of heat from the core
- Failure of the drive for sweating

Signs And Symptoms:

- Absence of sweating or dry skin (not a necessary diagnostic criterion)
- Unexpected, irrational behaviour
- Convulsions
- Coma or decreased level of consciousness
- High core (rectal) temperature (40°C or 104°F)

Immediate Treatment:

- Immediate, aggressive, and effective cooling (fans and water, cold water bath, etc.)
- Transport to an appropriate medical facility as soon as possible for subsequent care

Table 2 - Heat Exhaustion

Physiological Malfunction:

- Dehydration from water (or, in rarer cases, electrolyte) depletion
- Elevated core temperature in the range of 38-40°C

Signs and Symptoms:

- Excessive dry mouth, thirst
- Concentrated urine (colour and odour)
- Uncoordinated muscular function
- Dizziness, light headedness
- Headache
- Fatigue or muscle weakness
- Weak pulse
- Nausea

Immediate Treatment:

- Rest in a cool environment
- Fluid replacement, which may include small quantities of semi-liquid food, if conscious

Table 3 - Heat Syncope

Physiological Malfunction:

- Pooling of blood in body extremities
- Reduced blood flow to the brain

Signs And Symptoms:

- Sudden weakness or fatigue
- Pallor (pale skin, especially face)
- Blurred vision and reduced visual field (grey-out)
- Syncope or fainting (black-out, momentary effect lasting no more than 30 seconds)

First Aid:

- Assist resident to lie down
- Provide drinking water or other fluid as tolerated

Table 4 - Differentiation of Heat Exhaustion and Heat Stroke

	<u>Heat Exhaustion</u>	<u>Heat Stroke</u>
Temperature	38° - 40°C (typically)	Greater than 40.6°C
State of Consciousness	Conscious (usually); possible syncope if not kept supine (because of orthostatic hypotension)	Withdrawal, stupor, or unconsciousness
Orientation*	Mild confusion but usually orientated	Marked confusion and disorientation if conscious
Blood Pressure	Reduced difference between systolic and diastolic pressure; marked drop in pressure on standing	Increased difference between systolic and diastolic pressure
Pulse Beats / Minute	Less than 150 beats/min.	Greater than 160 beats/min.
Skin and Sweating	Pale and cool; pronounced sweating	Hot and flushed usually little or no sweating

Other Symptoms	Fatigue, nausea, irritability, headache, dizziness	Severe headache, convulsions
* Not useful in the case of residents who are normally confused.		

6. References

- 6.1 Fixing Long Term Care Act, 2021 O Reg 246/22 s 23
- 6.2 Amendments to Ontario Regulation 79/10 (Regulation) under the Long-Term Care Homes Act, 2007 (LTCHA), May 2021
- 6.3 https://www.ccohs.ca/oshanswers/phys_agents/max_temp.html