



NUTRITION, FOOD SERVICE & DINING IN LTC

The best practices within this document are recommendations to support regulatory compliance to Ontario LTC legislation, promote optimal nutrition and hydration care and support person centered care. It is important to note, however, that residents' rights and preferences are paramount and should be respected regardless of legislation or best practice. The best practice document is based on resources and expertise from industry professionals and where applicable, are evidence-based. This is a living document that will transition with the evolution of the industry over time.

SUBJECT: HYDRATION	Revised: 2023-12-10
ONTARIO REGULATION 246/22 made under the FIXING LONG-TERM CARE ACT, 2021	
Nutritional Care and Hydration Programs	
Table of Contents:	
<ol style="list-style-type: none"> 1. Purpose & Scope 2. Key Concepts for Menu Planning 3. Practice Recommendations: <ol style="list-style-type: none"> a. Assessment and Monitoring b. Interventions 4. Home Specific Policies, Roles & Responsibilities 5. Resources & Tools 6. Evidence & References 	

1. Purpose & Scope
<ul style="list-style-type: none"> • Dehydration is estimated to be present in the majority of long-term care residents. Inadequate fluid intake may lead to increased risk of constipation, falls, longer time for wound healing, acute confusion, decreased kidney function, and increased hospitalizations.
2. Key Concepts
<ul style="list-style-type: none"> • Older adults lose their ability to recognize that they are thirsty and so need to be offered drinks frequently, at minimum with each meal, each snack and at each medication pass. Residents may also decline fluids due to their concerns about incontinence.

- Classic signs and symptoms of dehydration include: dry mucous membranes, cracked lips, furrowed tongue, sunken eyes, decreased salivation, decreased skin turgor, rapid pulse, weakness, and decrease in orthostatic blood pressure.
- Risks for dehydration are greater at times of acute illness, which include fever, vomiting and diarrhea. Dehydration concerns are greater for residents who are unable to feed themselves or have impaired cognition and functional status. Residents who require modified textured foods and fluid consistencies are also at risk of dehydration. Depression and loneliness may also be psychological risks associated with dehydration.
- Prevention of dehydration can be achieved with a minimum of 1,500 mL/day of fluid.

3. Practice Recommendations

a. Assessment & Monitoring

- Signs and symptoms and risk factors of dehydration are identified as part of the assessment process.
- For individualized assessments, there are several calculations that can be used to estimate daily fluid requirement. These include:
 - 25 to 30 mL fluid/kg body weight
 - 1000 mL fluid for first 10 kg actual body weight
 - + 50 mL/kg for next 10 kg actual body weight
 - + 15 mL/kg for each additional kg over 20 kg
- These calculations may not be appropriate for residents who have a small body size and/or for those who are obese or have renal impairment. Individual resident plans of care are based on clinical judgment and resident preferences and/or historical fluid intake.
- An accurate record should be documented of each resident's fluid intake daily, including intake at all meals, snacks and medication passes.
- Fluid intake records are regularly recorded, so they can be compared with a resident's estimated fluid requirements.
- A dehydration risk assessment should be initiated by the interdisciplinary care team to identify residents who have symptoms of dehydration or are at risk of dehydration.
- Residents exhibiting signs and symptoms of dehydration should be referred to registered dietitian (RD).

- Current level of fluid intake may be low due to palliative status, or current fluid intake is compliant with the order and plan of care for residents with fluid restrictions.
- Laboratory values that may be indicators of dehydration include:
 - serum osmolality > 295 mOsmol - most accurate test of dehydration
 - urea:creatinine ratio > or = 0.15
 - elevated sodium (Na)
 - Increased creatinine (rule out renal dysfunction)

b. Interventions

- The following suggestions / strategies can be implemented to help decrease the risk of dehydration:
 - Regular rounds with a hydration cart
 - Offer drinks that are known to be preferred by the individual
 - Offer foods that are known to be high in fluids such as soup, applesauce, Jello, ice cream, or yogurt etc., that may not be captured as part of daily fluid intake
 - Offer drinks before/after bathing, toileting, brushing teeth, social activities
 - Encourage drinks at each meal and snack - at each meal include water, milk, choice of juice, choice of tea or coffee
 - Offer fluids more often during mealtimes for people with limited appetites
 - Encourage at least 60 ml drink at each medication pass
 - Identify at-risk residents, e.g.: refusing fluids, febrile, on diuretics so they can be more closely monitored
 - Record fluids at meals and snacks and at med-pass and supplement intake to check for daily adequate intake
 - Assess independent intake as well
 - Offer insulated water jugs to residents in their rooms
 - Ensure fluids are offered at all activities as well as meals, snacks and with medication
 - Encourage families and visitors to offer fluids when visiting
 - Develop a hydration program that involves the interdisciplinary care team, e.g.: “Sip and Go” program so that anyone entering a resident’s room can offer a sip of water
- Consult with physician or pharmacist to identify medications that can cause risk of dehydration.
- Hypodermoclysis can be a convenient and a cost-effective for residents who are dehydrated as an alternative to hospitalization. Hypodermoclysis is the administration of isotonic fluids via a subcutaneous infusion for mild rehydration or the prevention of dehydration and can be an effective alternative to hospitalization. This requires a Physician’s order.
- Provide education for all staff including signs, symptoms and risk factors related to dehydration, and the importance of working together as a team to identify and immediately treat dehydration, as well as continual provision, monitoring and recording of fluid intake.

- Encourage families and visitors to offer fluids when visiting.

4. Home Specific Policies, Roles & Responsibilities

- Each home should develop a policy related to hydration, including the times, quantities and provision of beverages offered throughout the day.
- The policy should ensure that there is a system in place to monitor residents at risk of dehydration so that prompt action is taken.
- Procedures are established for monitoring and documenting signs and symptoms of dehydration for each resident.
- Procedures for documentation and corrective actions are established when fluid intake does not meet resident's individual requirements or when there is a change in the resident's hydration status.
- The policy should include steps to manage residents with consistently low fluid intake that do not exhibit clinical signs of dehydration or have refused interventions to increase fluid intake.
- The policy should include these key points:
 - Residents' individual fluid needs are established / calculated upon admission and a minimum of quarterly. Including considering the resident's usual and historical fluid intake and preferences or if fluid restriction is required for the individual
 - Ensure there is a system in place to immediately notify the RD, nutrition manager (NM) and food/nutrition staff if a resident is at risk of dehydration.
 - Ensure the use of a referral tool that includes dehydration.
 - Work with the Interdisciplinary care team to establish root cause.
 - Take prompt action, implement individual interventions.
 - Continue to monitor additional interventions for those residents who require them.
 - Document in the progress notes and update the resident's plan of care.
 - Communicate any changes to the NM and food/nutrition staff for implementation at point of service.
- Ensure there is a policy and procedure in place related to hot weather.
- Utilize these best practices to guide your home specific policies, roles and responsibilities. Home specific policies take precedence over this document.

5. Resources/Tools

CADTH. (2017). Prevention of Dehydration in Geriatric Patients in Long-Term Care: Guidelines. CADTH Rapid Response Report: Summary of Abstracts.

<https://www.cadth.ca/sites/default/files/pdf/htis/sep-2014/RB0710%20Dehydration%20in%20Elderly%20Final.pdf>

Keller, H. (2020). Strategies to improve hydration of residents with dysphagia in nursing homes. The RIA. Youtube.com

<https://www.youtube.com/watch?v=RGblJjG-jGU>

Woodward M. (2013). Guidelines to Effective Hydration in Aged Care Facilities. Heidelberg Repatriation Hospital, Australia. Page 4 - 5

https://www.mcgill.ca/familymed/files/familymed/effective_hydration_in_elderly.pdf

6. Evidence & References

Keller, H., Beck, A., Namasivayam, A. Improving Food and Fluid Intake for Older Adults Living in Long-Term Care: A Research Agenda. JAMDA <http://dx.doi.org/10.1016/j.jamda.2014.10.017>

https://www.researchgate.net/publication/269283485_Improving_Food_and_Fluid_Intake_for_Older_Adults_Living_in_Long-Term_Care_A_Research_Agenda