Maritime Child Health
IWK Health
The Pediatric Pulse
Keep your finger on the pulse of what's happening in pediatric medicine
December 2025

Gastroenteritis

Gastroenteritis is a common illness, usually self-limiting and is most often caused by a virus. Acute gastroenteritis is the most common cause of vomiting in children and is often associated with abdominal pain, cramping and diarrhea with or without fever. During the course of illness many children are unable to tolerate fluids and solids. Those with persistent vomiting and diarrhea are at risk of dehydration and electrolyte imbalances.

ASSESSING DEHYDRATION:

- Dehydration assessment is the cornerstone of management in acute gastroenteritis.
- Practitioners can use a clinical scale such as the Clinical Dehydration Scale (CDS) to determine severity of dehydration.

Clinical Dehydration Scale

	0	1	2
General appearance	Normal	Thirsty, restless, or lethargic but irritable when touched	Drowsy, limp, cold, sweaty
Eyes	Normal	Slightly sunken	Very sunken
Mucous membranes*	Moist	Sticky	Dry
Tears	Present	Decreased	Absent

*Mucous membranes include the moist lining of the mouth and the eyes.

Score of 0 = no dehydration

Score of 1 to 4 = some dehydration

Score of 5 to 8 = moderate to severe dehydration

- **No/Minimal Dehydration (0):** No clinical signs present - urine may be slightly darker and mildly reduced.
- **Mild/Moderate Dehydration (1-4):** Less frequent urination, sunken eyes, dry oral mucosa, and decreased activity.
- **Severe Dehydration (5-8):** Tachycardia, tachypnea, oliguria/anuria, lethargy, sunken eyes, and dry oral mucosa.

TREATMENT DEPENDS ON HYDRATION STATUS:

- No/minimal dehydration - can be managed at home. If vomiting is present, taking small amounts of fluids frequently can lead to successful oral intake.
- Mild/moderate dehydration - treated in the emergency department. Replace fluid deficit by giving 50-100ml per kg of oral rehydration solution (ORS) or Pedialyte/G2 by mouth within 2-4 hours of presentation to the ED. This is done by giving small volumes frequently.

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TREATMENT OF SEVERE DEHYDRATION:

- Requires immediate intravenous (or intraosseous) rehydration with Normal Saline or Ringer's Lactate administered rapidly (over 10-20 min) to restore hemodynamic stability.
- **May require 60ml/kg, administered as 20ml/kg boluses over the first hour.**
- Measure glucose, electrolytes and renal function. Treat hypoglycemia if present - < 2.6mmol/L treat with **5ml/kg D10W IV push**, and recheck glucose in 5-10 min.
- Reassess vital signs and hydration status before and after each bolus.

ONDANSETRON:

- A single, oral dose of ondansetron is safe and enhances the success of oral rehydration in children with mild/moderate dehydration. ODT is preferrable.
- Weight based dosing: 8-15 kg give 2mg PO
  > 15-30 kg give 4mg PO
  > 30 kg give 8mg PO
- The following are **not recommended**: IV ondansetron, dimenhydrinate, antidiarrheal medications and avoid the empirical use of antibiotics.

MAITENANCE FLUID:

- Oral fluids should be reintroduced as soon as possible. If unable to tolerate ORT after boluses, may need to initiate maintenance IV fluids with isotonic/balanced crystalloid including adequate dextrose/potassium as required (D5NS+20-40 mmol/L KCL). A blood gas and electrolytes can help guide IV fluid choice.

CRITERIA FOR ADMISSION:

- Caregivers require/would benefit from hospital-based supports.
- Dehydration and intractable vomiting, oral fluid refusal, or inadequate oral intake.
- Concerns for other possible illnesses complicating the clinical course.
- Worsening diarrhea or dehydration despite adequate volumes of fluid.
- Severe dehydration or significant electrolyte abnormalities.
- Young age, persistent irritability or drowsiness, progressive symptoms.

On admission continue to monitor vital signs, hydration status, glucose, electrolytes, and ability to tolerate oral fluids.

DISCHARGE:

Patients are ready for discharge when they are tolerating oral fluids and demonstrate improved clinical status. Normalization of vital signs.

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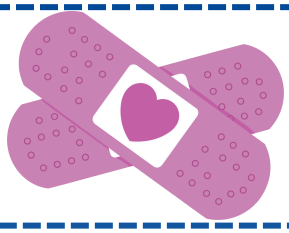
RCH Clinical Practice Guideline
Gastroenteritis

TREKK Bottomline Recommendations
Gastroenteritis

Comfort Corner



We are working to improve pain management across the Maritimes!

Are you a front line health care provider, located within the Maritimes, that is passionate about pain care and would like to collaborate with regional staff to:

- Advance Patient Comfort
- Improve Outcomes
- Receive Education
- Reduce Patient Safety Events
- Build Awareness

Click or scan the QR code to join our team of interdisciplinary Pain Champions with a focus on education and awareness for treating and assessing all types of pain across the lifespan. Each month we work together to learn, share and problem solve pain management scenarios.

Connect with us by emailing painchampions@iwk.nshealth.ca

References

TREKK (2025). *Bottomline Recommendations: Gastroenteritis.* https://trekk.ca/search?query=gastroenteritis

Canadian Pediatric Society (2018). *Emergency department use of oral ondansetron for acute gastroenteritis-related vomiting in infants and children*. https://cps.ca/en/documents/position/diagnosis-and-management-of-sepsis-in-the-paediatric-patient

American Academy of Pediatrics (2008). *Validation of the Clinical Dehydration Scale for Children with Acute Gastroenteritis*. https://publications.aap.org/pediatrics/article/122/3/545/72267/Validation-of-the-Clinical-Dehydration-Scale

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