

# CLINICAL PATHWAY: Gastroenteritis and Dehydration

THIS PATHWAY  
SERVES AS A GUIDE  
AND DOES NOT  
REPLACE CLINICAL  
JUDGMENT.

If there is a clinical suspicion for Multi-System Inflammatory Syndrome in Children (MIS-C), please follow the **MIS-C Clinical Pathway**.

Clinical suspicion would include:  
Fever  $\geq 100.4$  F for  $\geq 24$  hours AND any one of the following:

- GI: **abdominal pain, diarrhea, vomiting**
- CV: chest pain, arrhythmia, **signs of shock**, hypotension
- Mucocutaneous: **rash**, oral changes, conjunctivitis, extremity swelling/peeling
- Resp: cough, shortness of breath, difficulty breathing
- Neuro: altered mental status, headache, irritability

(Bolded symptoms are most common presenting symptoms)

*Dehydration Assessment Tool	
Signs	Points
Ill appearance	1
Dry mucous membranes	1
Absent tears	1
Capillary refill > 2 seconds	1
Total (add points)	
1 = mild dehydration (<5% fluid deficit)	
2 = moderate dehydration (5-10% fluid deficit)	
3-4 = severe dehydration (>10% fluid deficit)	
Other signs/symptoms of dehydration to consider: Tachycardia, decreased urine output	

**Inclusion Criteria:**  
Age  $\geq 6$  months, vomiting and/or non-bloody diarrhea of recent onset not due to chronic disease, with or without fever/abdominal pain

**Exclusion Criteria:**  
Age < 6 months, toxic appearance, diarrhea > 7 days or bloody diarrhea, bilious emesis, acute surgical abdomen, comorbid cardiac or GI or renal disease, metabolic disease, hx closed head injury, ventriculoperitoneal shunt, previously known or current hyponatremia (<130) or hypernatremia (>150), previously known or current hypoglycemia (<60) or hyperglycemia (>200)

**Initial Assessment:**

- Perform history and physical examination
- Determine level of dehydration using Dehydration Assessment Tool \*
- Ondansetron ODT PO** 2 mg (<15 kg), 4 mg ( $\geq 15$  kg) **OR**  
**Ondansetron IV** 0.15 mg/kg (max 8 mg/dose), if no contraindications

**Standing Nurse Order:**

- RN may administer Ondansetron per nursing treatment protocol

Mild/Moderate  
(Oral rehydration)

Mild/Moderate  
(IV rehydration)

Severe

The following tests and treatments are **NOT** routinely indicated for the treatment of routine gastroenteritis:

- Stool studies
- Anti-diarrheals
- Anti-microbials
- BRAT diet
- Clear liquid diet
- Probiotics

**Oral Rehydration Therapy (ORT)**  
(Enfalyte® or Gatorade®)

- Provide 1 mL/kg (max 30 mL) q5min and reassess at 30 min
- Provide ORT education to families (**Appendix A**)

**IV Rehydration**

- 20 mL/kg NS bolus (max 1 Liter); repeat to a max of 60 mL/kg (reassess between boluses to ensure fluids not worsening condition)
- Consider checking POC glucose and/or ISTAT electrolytes
- Trial of oral fluids after IV hydration to determine if discharge criteria met

**IV Rehydration**

- 20 mL/kg NS bolus (max 1 Liter); repeat to a max of 60 mL/kg (reassess between boluses to ensure fluids not worsening condition)
- Obtain POC glucose and ISTAT electrolytes
- If non-responsive hypovolemic shock, consult PICU for admission

**Tolerated ORT?**  
(no emesis after ondansetron, no excessive diarrhea, successfully taking ORT)

**Meets Admission Criteria?**  
(significant ongoing losses, persistent signs of dehydration, electrolyte abnormalities, inability to tolerate PO, AKI)

Begin IV rehydration and follow pathway under "Mild/Moderate (IV rehydration)"

**ED Ongoing Care**

- Start continuous IVFs: D5 NS @ 1.5x maintenance
- Admit to PHM

**Admission PHM Care**

- Evaluate fluid deficit and ongoing losses to determine need for additional fluids above maintenance rate
- IVF choice: D5 NS; add KCl if has urinated (may consider alternative fluid composition if electrolyte abnormalities)
- Recheck electrolytes if on IVFs >24-48 hrs
- Consider repeating labs if AKI, hypoglycemia, electrolyte abnormalities
- Continue **Ondansetron ODT PO** 2 mg (<15 kg), 4 mg ( $\geq 15$  kg) **OR** **Ondansetron IV** (0.15 mg/kg, max 8 mg/dose) q8hr PRN nausea, vomiting if effective. May consider alternative anti-emetic if indicated.
- Consider consulting Nephrology if AKI does not resolve with rehydration therapy
- Start PO trial with regular diet when patient clinically ready and wean IVFs as losses decrease and PO improves
- At any point if develops non-responsive hypovolemic shock, consult PICU or activate MET for transfer

**Discharge Criteria:**  
No signs of dehydration, tolerating adequate PO without need for IVFs, no hypoglycemia or other electrolyte abnormalities, caregivers understand discharge instructions, PCP follow up appointment arranged if possible

**Medications:**  
Consider **Ondansetron ODT PO** 2 mg (<15 kg), 4 mg ( $\geq 15$  kg) q8hr PRN

**Discharge Instructions:**  
Return to PCP or ED if not tolerating fluids, signs of dehydration, lethargy, development of bilious or bloody emesis, development of severe and/or bloody diarrhea

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**CLINICAL PATHWAY:**  
**Gastroenteritis and Dehydration**  
**Appendix A: Oral Rehydration Therapy (ORT) Record Sheet**

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**Gastroenteritis/Dehydration Oral Rehydration Record Sheet**

**Patient Weight (kg): \_\_\_\_\_**

**Amount of fluid to be given (1mL/kg to max of 30mL): \_\_\_\_\_**

**Please give your child \_\_\_\_\_ mL of fluid every 5 minutes by either syringe or cup and record in the sheet below**

<b>Time (minutes)</b>	<b>Amount of fluid taken (mL)</b>	<b>Number of times vomiting</b>	<b>Number of times diarrhea</b>
<b>5</b>			
<b>10</b>			
<b>15</b>			
<b>20</b>			
<b>30</b>			
<b>35</b>			
<b>40</b>			
<b>45</b>			
<b>50</b>			
<b>55</b>			
<b>60</b>			