Inclusion criteria:
- Vomiting and/or diarrhea, ONSET WITHIN ONE WEEK, not due to chronic disease, with or without fever or abdominal pain
- Age ≥ 6 months
- Negative UPT if of childbearing age

Exclusion criteria:
- Toxic appearance
- Diarrhea > 7 days or bloody diarrhea
- Bilious emesis
- Acute surgical abdomen
- Immunocompromised
- Comorbid cardiac, GI, or renal disease
- Known hyponatremia (<130) or hypernatremia (>155)
- Known hypoglycemia (<50) or hyperglycemia (>200)
- Age < 6 months

Consider differential diagnoses:
- Testicular/Ovarian torsion
- Intracranial pathology
- UTI
- Strep pharyngitis
- Pneumonia
- Myocarditis
- Intussusception
- Bowel obstruction or appendicitis

Clinical assessment:
- Baseline weight
- Signs/Symptoms of dehydration

Determine dehydration status:
- None/Minimal
- Moderate
- Severe

4 Point Dehydration Assessment Tool:
- Ill appearance
- Dry mucous membranes
- Absent tears
- Capillary refill > 2 seconds

<table>
<thead>
<tr>
<th># of features present</th>
<th>Degree of dehydration</th>
<th>% fluid deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>None/Minimal</td>
<td>&lt;5</td>
</tr>
<tr>
<td>1–2</td>
<td>Moderate</td>
<td>5–10</td>
</tr>
<tr>
<td>3–4</td>
<td>Severe</td>
<td>&gt;10</td>
</tr>
</tbody>
</table>
This guideline should not replace clinical judgment.

PCDU: Pediatric Clinical Decision Unit
is a 24hr Observation Unit

Clinical Guideline
Gastroenteritis

Initial Assessment

If no contraindications, give ondansetron for recent vomiting:
- < 8kg: 0.15mg/kg (liquid)
- < 15 kg: 2mg (liquid)
- > 15 kg: 4mg ODT

Wait 20 minutes before PO challenge/ORT
Consider need for IV if severe

Determine extent of dehydration
Using the 4 Point Dehydration Assessment Tool

None/Minimal Dehydration

Moderate Dehydration

Severe Dehydration

PO challenge

Start Oral Rehydration Therapy (ORT)
See ORT education sheet for specifics

Tolerates PO challenge
(If fails, consider formal ORT vs. d/c with PO trial at home.)

Start Oral Rehydration Therapy (ORT)
See ORT education sheet for specifics

IV: 20-40ml/kg NS bolus
OR
NG: 20ml/kg Pedialyte/ORT
Each over 1 hour
*Point of Care Glucose
(*Hold BMP tube if IV obtained )

Tolerates ORT
Does not tolerate ORT

ORT Failure Criteria:
- > 1 emesis
- ORT Refusal > 30 minutes

Does not tolerate ORT

Admit to Inpatient/PCDU

Tolerates ORT

Discharge

Consider Rx for ondansetron

Discharge criteria
- Tolerating ORT
- Stable vital signs
- ORT education, handout given
- Outpatient follow-up delineated
- Prescriptions sent (if applicable)

Discharge criteria
- Tolerating ORT
- Stable vital signs
- ORT education, handout given
- Outpatient follow-up delineated
- Prescriptions sent (if applicable)

Admission criteria (any of the below):
- Persistent signs of dehydration despite IV hydration
- Severe electrolyte abnormalities
- Significant ongoing losses
- Inability to tolerate adequate PO hydration

For questions concerning this guideline, contact:
chorclinicalguidelines@vcuhealth.org

First approved: August 2018
Last updated: August 2021
Next expected update: August 2024

chrichmond.org
Gastroenteritis Guideline

Executive Summary

Children’s Hospital of Richmond at VCU Gastroenteritis Workgroup

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Pediatric Hospital Medicine: Jolene Carlton, CPNP
Pediatric Hospital Medicine: Megan Coe, MD
Pediatric Hospital Medicine: David Marcello III, MD
Pediatric Emergency Medicine: Jonathan Silverman, MD
Pediatric Emergency Medicine: Amanda Krepp, RN
Pediatric Emergency Medicine Nursing Practice Council (consulting): Celia Hanson, RN, CPEN

Approved (August 2021)

Pediatric Emergency Medicine Quality Committee: Rashida Woods, MD
Chief of Pediatric Emergency Medicine: Frank Petruzella, MD, MS
Chief of Pediatric Hospital Medicine: David Marcello III, MD

CHoR Clinical Guidelines Committee: Jonathan Silverman, MD, MPH
Ashlie Tseng, MD

CHoR Quality Council, Executive Sponsor: Matthew Schefft, DO, MSHA
Dory Walczak, MS, RN, NE-BC, CPHQ

References

King CK, Glass R, Bresee JS, Duggan C; CDC: Managing Acute Gastroenteritis Among Children: Oral rehydration, maintenance, and nutritional therapy. MMWR 2003; 52 [No. RR 16]; 1-16

Steiner M, Dewalt D, Byerley J. Is this child dehydrated? JAMA. 2004;291(22):2746-2754


Citation

Title: Gastroenteritis Guideline
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David Marcello III, MD
Jonathan Silverman, MD

Amanda Krepp, RN
Celia Hanson, RN, CPEN

Date: August 2021

Retrieval website: http://www.chrichmond.org/clinicalguideline-Gastroenteritis

Example:

What is Dehydration?
- Occurs when you lose more water (and salt) from your body – like from vomiting or diarrhea – than you are able to replace by drinking liquids.

What are the early signs of dehydration?
- Thirst
- Decrease in urination
- Absence of tears with crying
- Feeling weak or dizzy with standing
- Dry mouth

Any or all might be present.

What are more severe signs of dehydration?
- Weakness or lethargy (unable to awake from sleep)
- Irritability, listlessness
- Sunken eyes
- Fast/rapid breathing
- Fast/rapid heart rate

If any of these signs are present, seek medical attention or call 911.

What is an oral rehydration solution (ORS)?
- A liquid that contains sugar, salt, and other electrolytes that your child's body needs.

Name brand ORS fluids
- Pedialyte
- Infalyte
- Rehydralyte

Alternative: cut Gatorade with water (half and half) OR if breastfeeding, continue as tolerates.

Suggestions to help your child recover
- Avoid undiluted fruit juices and carbonated or sugary drinks
- Avoid greasy or spicy foods
- If formula feeding child, consider using lactose-free formula in cases of prolonged diarrhea
- Avoid antidiarrheal medications
- Can try yogurt or over-the-counter probiotics like Culturelle (not covered by insurance or Medicaid)

How to give ORS fluids for rehydration:
- Use a spoon or syringe to give small amounts frequently, 1-4 tsp (5-20mL) every 5-10 minutes.

< 20lbs
- Give 1 teaspoon (5mL) of liquid every 5 minutes

≥ 20lbs
- Give 2 teaspoons (10mL) of liquid every 5 minutes

- If no vomiting after 20-30 mins, may double the original amount given
- If vomiting and unable to tolerate, stop for 20-30 mins and try again

*see worksheet

When to stop: when signs of dehydration no longer present.

Then proceed to the following for the remainder of your child's illness:
< 20lbs: 60-120mL (2-4 oz) for every episode of vomiting or diarrhea
≥ 20lbs: 120-140mL (4.5 oz) for every episode of vomiting or diarrhea.
### Oral Rehydration at Home

#### < 20 lbs

<table>
<thead>
<tr>
<th>Oral Rehydration Therapy</th>
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<tbody>
<tr>
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If vomits, rest for 20-30 minutes, then try again

If no vomiting after 20 minutes, double the original amount given

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After tolerating fluids for 30-60 minutes, assess patient for discharge.

#### > 20 lbs

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**ORT worksheet for ED/IP <20 lbs**

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For infants:
- If breast feeding, continue to breast feed as your infant tolerates. Once tolerating larger amounts of pedialyte (or other rehydration solution) you can try ½ formula and ½ pedialyte before moving back to full formula feeds.
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| 20mL     | 20mL | 20mL | 20mL | 20mL | 20mL | 20mL |
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