Acute Gastroenteritis

Acute gastroenteritis (AGE) is a self-limiting diarrheal illness typically of viral etiology. Oral rehydration therapy (ORT) is the mainstay of treatment in patients with mild to moderate levels of dehydration. ORT is easily administered in the PCP office, potentially saving the family hours of waiting in the emergency department (ED) or urgent care.

ASSESSMENT

Perform a focused history and thorough history and physical/abdominal exam (HPE). Assess hydration level using the clinical dehydration scale on next page.

Symptoms of AGE typically have a rapid onset and may be associated with fever, nausea, vomiting and abdominal discomfort. Significant diarrhea is the hallmark feature of AGE and can last up to 7 days.

DIAGNOSTIC TESTING

Routine laboratory tests are not recommended if AGE is strongly suspected and patient is hemodynamically stable and able to tolerate management outlined below. Consider renal panel and CBC if concern for surgical infectious process or severe dehydration. In severe dehydration, consider checking blood sugar before making ED referral.

MANAGEMENT

Patients presenting to the office with suspected AGE with or without mild to moderate dehydration should be trialed on ORT. The key to success is a structured and regimented approach.

Administer ORT in-office for 30 minutes, ideally with electrolyte-containing solutions or 1:1 juice to water. Encourage family participation by having the family set a timer for five minutes and administer the doses using an oral syringe or medicine cup.

If patient vomits during ORT, consider trialing ondansetron (see guidelines on back page), waiting 15 minutes and resuming ORT. Alternatively, if child is well-appearing, consider having family trial ORT at home with ondansetron.

WHEN TO REFER

Refer to the Cincinnati Children’s Emergency Department:
- If any red flags are present
- If unable to complete structured ORT even with ondansetron

For urgent issues or to speak with an emergency medicine specialist on call 24/7, call the Physician Priority Link® at 1-888-987-7997.

Tool developed by Cincinnati Children’s physician-hospital organization (known as Tri-State Child Health Services, Inc.) and staff in the James M. Anderson Center for Health Systems Excellence. Developed using expert consensus and informed by Best Evidence Statements, Care Practice Guidelines, and other evidence-based documents as available. For Evidence-Based Care Guidelines and references, see www.cincinnatichildrens.org/evidence.
Acute Gastroenteritis

**Patient Presents**

**Standard Workup**

Perform a focused history and physical/abdominal exam (HPE). Assess level of hydration using the clinical dehydration scale.

**Clinical Dehydration Scale**

<table>
<thead>
<tr>
<th>General Appearance</th>
<th>0 Points</th>
<th>1 Point</th>
<th>2 Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>Normal</td>
<td>Thirsty, restless or lethargic but irritable when touched</td>
<td>Drowsy, limp, cold or comatose</td>
</tr>
<tr>
<td>Eyes</td>
<td>Normal</td>
<td>Slightly sunken</td>
<td>Very sunken</td>
</tr>
<tr>
<td>Mucous Membranes</td>
<td>Moist</td>
<td>“Tacky” or “sticky”</td>
<td>Dry</td>
</tr>
<tr>
<td>Tears</td>
<td>Tears</td>
<td>Decreased</td>
<td>Absent</td>
</tr>
</tbody>
</table>

0 Points = No dehydration, 1–4 Points = Mild to moderate dehydration, 5+ Points = Moderate to severe dehydration

**HPE (HISTORY AND PHYSICAL EXAM) RED FLAGS**

- Bloody diarrhea
- Diarrhea lasting longer than 7 days
- Focal abdominal pain that is concerning for a surgical abdomen
- General appearance of being drowsy, limp, cold, comatose
- History of type 1 diabetes, immunodeficiency or significant gastrointestinal complications
- Patient is toxic or in severe dehydration or hypovolemic shock

**Any Red Flags?**

- Yes: Refer to ED
  - In severe dehydration, consider checking blood sugar first.
- No

**Management**

Administer ORT in-office for 30 minutes (ideally with electrolyte-containing solutions or 1:1 juice to water). Encourage family participation.

If patient vomits during ORT, consider trialing ondansetron, waiting 15 minutes and resuming ORT. Alternatively, if child is well-appearing, consider having family trial ORT at home with ondansetron.

**Ondansetron Guidelines**

- Standard ODT (oral-dissolvable tab) dosing:
  - 8–15 kg 2 mg ODT
  - 15–30 kg 4 mg ODT
  - >30 kg 8 mg ODT
- Standard liquid dosing:
  - 0.15 mg/kg

Do not use in infants <6 months.
Do not use in patients with history of cardiac disease if concern for prolonged QT or if contraindicated with other medications.

**Weight**

<table>
<thead>
<tr>
<th>Weight</th>
<th>ORT Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;10 kg</td>
<td>10 mL every 5 min x 30 min</td>
</tr>
<tr>
<td>10–20 kg</td>
<td>20 mL every 5 min x 30 min</td>
</tr>
<tr>
<td>&gt;20 kg</td>
<td>35 mL every 5 min x 30 min</td>
</tr>
</tbody>
</table>

**Consider an ED referral**

(Intractable vomiting in office despite structured ORT and/or ondansetron)

**Is patient able to complete ORT in-office or at home?**

- No
- Yes: Monitor

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