Pediatric Constipation Diagnosis and Treatment

Features concerning for constipation:
- Decreased stool frequency
- Painful defecation of hard stools

Functional Constipation has at least TWO:
- 2 or less stools per week
- Stool withholding
- Painful or hard bowel movements
- Large-diameter stools that may obstruct the toilet
- Large fecal mass in the rectum on exam
- At least 1 episode/week of fecal incontinence

Red Flags Present
- Acute surgical abdomen
- Hirschsprung disease
- Neurologic disease
- Other systemic conditions

No Red Flags
- Lower concern for underlying process
- Functional constipation is likely
- Abdominal XRs are not helpful

See red flag info on next page

Consider:
- Obtaining labs and imaging
- Appropriate consults
- Surgery, GI, Neuro, etc.
- Admission

<6 months old:
Glycerin suppository

>6 months old:
Fecal Impaction Present
(Stool in rectum on digital exam)
Treat according to Rectal Table

Not effective within 1 hour:
- Admission
- Consider further testing

Effective
Treatment according to Discharge Medication Table

Additional Information:
- It may take up to 3 to 4 months to resolve
- Meds should be used for at least 1 month after symptoms resolve
- Provide a calendar to the family to track stools and titrate Miralax
- Give the family the Constipation Care Package from GI Kids.org
- Show the family “The Poo in You” video on YouTube

Rectal Table

<table>
<thead>
<tr>
<th>Age</th>
<th>Medication</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1 year old</td>
<td>Glycerin suppository</td>
<td>0.5 mL to 1 suppository</td>
</tr>
<tr>
<td>1 to 2 years</td>
<td>Normal saline enema</td>
<td>10 mL/kg (Max 120 mL)</td>
</tr>
</tbody>
</table>
| > 2 years    | Fleet enema (Sodium phosphate)    | 2 to 12 years:
|              | Pediatric prep (67.5 mL)          | Older than 12 years:
|              | Adult prep (133 mL)               | 2 to 11 years:
|              | 30 to 60 mL                      | Older than 11 years:
|              | 60 to 133 mL                     | 2 to 5 years old:
|              | Mineral oil enema                | 0.4 to 1.2 g/day once/twice daily |
|              |                                   | 6 to 11 years old:    |
|              |                                   | 1.2 to 2.4 g/day once/twice daily |
|              |                                   | 12 to 18 years old:   |
|              |                                   | 2.4 to 4.8 g/day once/twice daily |
|              |                                   | 3 to 12 years old:    |
|              |                                   | 5 mg daily            |
|              |                                   | Older than 12 years old: |
|              |                                   | 5 to 15 mg daily      |

Discharge Medication Table

<table>
<thead>
<tr>
<th>Medication</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Line Miralax (PEG 3350)</td>
<td>10 to 20 kg: 0.5 capful (8.5 g) daily</td>
</tr>
<tr>
<td></td>
<td>&gt; 20 kg: 1 capful (17 g) once daily</td>
</tr>
<tr>
<td></td>
<td>- Continue for at least 2 months</td>
</tr>
<tr>
<td></td>
<td>- Titrate to effect</td>
</tr>
<tr>
<td>Lactulose</td>
<td>1 to 2 g/kg/day once/twice daily</td>
</tr>
<tr>
<td>2nd Line Senna</td>
<td>2.5 to 5 mg daily</td>
</tr>
<tr>
<td></td>
<td>7 to 12 years old:</td>
</tr>
<tr>
<td></td>
<td>7.5 to 10 mg daily</td>
</tr>
<tr>
<td></td>
<td>Older than 12 years old:</td>
</tr>
<tr>
<td></td>
<td>15 to 20 mg daily</td>
</tr>
<tr>
<td>Milk of magnesia</td>
<td>2 to 5 years old</td>
</tr>
<tr>
<td>Bisacodyl</td>
<td>0.4 to 1.2 g/day once/twice daily</td>
</tr>
<tr>
<td></td>
<td>6 to 11 years old:</td>
</tr>
<tr>
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<td></td>
<td>5 to 15 mg daily</td>
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</table>
**Functional Constipation**
- Passed meconium within the first 48 hours
- Normal bowel habits as an infant
- Symptoms began between 1 and 3 years of age
- Stool withholding
- Stool pattern typically every 2 to 4 days
- Large diameter stools that may obstruct the toilet
- Pain or straining with defecation

**Hirschsprung Disease**
- Did not pass meconium within the first 48 hours
- Abnormal bowel habits as an infant
- Symptoms began as an infant
- Family history of Hirschsprung disease

**Systemic Conditions**
- Hypothyroidism or Celiac
- Delayed growth
- Failure to thrive
- Weight loss
- Crohn’s disease
- Rectal bleeding
- Weight loss
- Joint pain
- Neurologic disorder
- Lower extremity weakness
- Sacral dimple/tuft of hair
- Absent cremasteric reflex
- Congenital anomalies
- Child abuse

**Pseudo-obstruction**
- Very rare (1 in 40,000 births)
- Abnormal propulsion of GI tract
- Due to diseases that affect neurons or muscles

**Small Bowel Obstruction**
- Bilious emesis
- Severe abdominal distension
- Abdominal tenderness
- Previous abdominal surgery

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### Inpatient Cleanout Table

<table>
<thead>
<tr>
<th>Dosage</th>
<th>Rate (NG)</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miralax (PEG)</td>
<td>4 grams/kg (Max 238g)</td>
<td>25 to 40 mL/kg/hr</td>
</tr>
<tr>
<td>Golytely</td>
<td>4 L = 236g of PEG</td>
<td>25 to 40 mL/kg/hr over 4 hours</td>
</tr>
</tbody>
</table>

**Exclusion Criteria (known diagnoses):**
- Hirschsprung disease
- Short gut syndrome
- Cystic fibrosis
- Spina bifida
- Congenital heart disease
- Previous abdominal or spinal tumors
- Gut dysmotility syndromes
- Undergoing chemotherapy/radiation
- History of abdominal surgery

### References: