Constipation Management: Practical Tools for Your Practice

Speaker: Ian Leibowitz, MD, CNMC GI Chief Medical Officer
Panel Participants: Cathy Fox, MD and Soleak Sim, MD
Learning Objectives

1. Learn about best practices in constipation management in primary care
2. Learn how to incorporate a Constipation Action Plan into your EMR
3. Review red flags for referral
4. Review lessons learned from our PHN Learning Collaborative
Project Timeline

PHN: Collaborative Care Program: Constipation Project Timeline

COVID-19

FY20 Project Map

- LS #3: Red Flags for Referral TBD
- LS #4: Care Compacts TBD
- Project Wrap-up Call TBD

- Nov. Practice Team Meeting
- Team Leader Call #1 12/2019
- Team Leader Call #2 2/2020
- Team Leader Call #3 4/2020
- Team Leader Call #4 6/2020
- Sep. Practice Team Meeting
- End Project Survey

- LS#3: Kick-off Webinar 10/2/2019
- LS #2: OI 101 10/30/2019
- Baseline 2019 Chart Audit
  10+ Charts
  Add 5 charts per provider
- January 2020 Follow-up on previous charts
  Add 5 charts
- March 2020 Follow-up on Previous Chart Audit
  Add 5 more charts
- May 2020 Follow-up on Previous Chart Audit
  Add 5 more charts
- September Follow-up on Previous Chart Audit
  Add 5 more charts

- Pre-Project Survey
- PDSA Cycle Report #1
- PDSA Cycle Report #2
- PDSA Cycle Report #3

Pediatric Health Network

Children's National
Why Constipation?

We see this a lot! From July 2018 – June 2019

• 1,742 visits resulting in dx of constipation at CN ER

• 2,824 patients referred to CN Gastroenterology for constipation by primary pediatricians
## CN Gastroenterology FY20 Data

### Total Visit Count

<table>
<thead>
<tr>
<th>Dx</th>
<th>Dx code</th>
<th>Primary</th>
<th>2ndary</th>
<th>Totals</th>
<th>Approx # per month</th>
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<td>2053</td>
<td>990</td>
<td>3043</td>
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<td>Encopresis</td>
<td>F98.1</td>
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<td>9</td>
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</table>

### Unique Patient Count

<table>
<thead>
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<th>Dx code</th>
<th>Primary</th>
<th>2ndary</th>
<th>Totals</th>
<th>Approx # per month</th>
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<tr>
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<tr>
<td>Encopresis</td>
<td>F98.1</td>
<td>7</td>
<td>4</td>
<td>11</td>
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</tbody>
</table>
Opportunity for Cost Savings

• The MEPS database included a total of 21,778 children age 0 to 18 years, representing 158 million children nationally.

• An estimated 1.7 million US children (1.1%) reported constipation in the 2-year period.

• Children with constipation used more health services than children without constipation

• They incurred significantly higher costs: $3,430/year vs $1,099/year -> additional cost of $3.9 billion/year.

Health utilization and cost impact of childhood constipation in the United States.
Of Note

• Failure of therapy-over 50% at one year
• Extremely important for the pediatrician to ask about toileting habits around the time of toilet training- high risk time for children to develop stool withholding leading to constipation and encopresis!
• Three key milestones when children may be at increased risk of developing functional constipation and encopresis
  • The dietary switch to solid food
  • Toilet training
  • The start of school
Common Complications

- Pain - anal or abdominal
- Rectal fissure
- Encopresis
- Enuresis
- Urinary tract infection
- Rectal prolapse
- Social exclusion/depression/anxiety
Rome IV Criteria for Functional Constipation*

**Constipation Dx:**
Pt. experiences 1 month of at least 2 of the following:
- 2 or fewer defecations per week
- History of excessive stool retention
- History of painful or hard bowel movements
- History of large diameter stools
- Presence of a large fecal mass in the rectum

**Additional Criteria for Toilet Trained Kids:**
- At least 1 episode/week of fecal incontinence after learning toileting skills
- Hx of large diameter stools that can obstruct the toilet

* Without objective evidence of an organic disease responsible for the symptoms
Encopresis: Constipation Associated Fecal Incontinence

• One painful stool may be enough to make children do everything possible to avoid passing stool.
• Stool accumulates, becomes harder and more painful to pass
• Rectum may enlarge, causes loss of sensation and decreased urge to defecate
• With chronic rectal distention, the internal anal sphincter relaxes and allows semi-solid stool to leak onto the perianal skin and clothing

• **Caution**- many parents may think this stool leakage is diarrhea or that stool in the underwear is just a result of poor wiping!

• The social stigma associated with encopresis can be huge. Children maybe teased at school, in public, and at home
Back to Functional Constipation

I HAVE A SURPRISE FOR YOU

IT'S POOP
Questions for All Providers to Ask

- Time of first bowel movement after delivery
- Age of onset
- Introduction of solids / weaning from breast feeding
- Stool frequency
- Consistency and size (Bristol Stool Chart)
- Pain or presence of blood
- Retentive posturing
- Soiling frequency
- Social and emotional factors
Physical Exam

- Full physical examination with special attention to the neurological exam
  - Abdominal distension is only seen with significant stool accumulation
  - Perianal exam: anterior displacement of anus, soiling, skin irritation, fissures, hemorrhoids, signs of sexual abuse
  - Lumbosacral area (hair tuft or dimple)
  - Neuromotor function in lower extremities
  - Rectal exam- including rectal tone, presence of stool in the rectal vault, child’s response to the exam
    - Can be deferred when appropriate for psychosocial reasons, but as a standard it should be done
Myths

• Fluids: Frequently recommended to parents: But, according to guidelines and studies, evidence does not support the use of EXTRA fluid

• Fiber: Almost always the first step but: 5 studies including RCT’s conclude: No significant benefit was demonstrated in terms of a reduction in laxative use or increased stool frequency associated with additional fiber intake!!!!!

• Probiotics: Both pre and pro biotics have been studied without evidence to support their use.

• Xrays: Need their own slide
X-Rays:

- Guidelines conclude: evidence does not support using abdominal radiography to diagnose constipation

- X-rays may be useful to evaluate fecal impaction when an exam is unreliable or not possible (for example: for obese or autistic patients)
Xrays:
The Constipation Cycle

- Frightening experiences related to defecation (magical thinking, inappropriate television programs, coercive toilet training)
- Autonomy:
  - Toilet phobias
  - Play activities
  - Attention deficit-Hyperactivity disorder

Fear of defecation → Stool withholding

- Painful defecation
  - Infectious colitis
  - Allergic colitis
  - Abuse
  - Trauma
  - Perianal streptococcal infection
  - Anal fissure
  - Lack of dietary fibers
  - Dehydration

Accumulation of fecal mass → Infrequent stooling
  - Small ribbon like or bulky stools
  - Abdominal pain
  - Poor appetite
  - Irritability
  - Overflow soiling

Pediatric Health Network
Treatment - The Premise
GET IT EMPTY

Patient fearful of painful stooling
- less painful stools
- less fear

Patient has decreased sensation from stool backup
- decreased stool
- increased sensation
Prognosis

• In patients referred to GI, 50% will be off laxatives in 6-12 months
• Duration of symptoms greater than 3 months before presentation has a negative impact on outcome
• 80% of patients treated early were recovered without laxatives at 6 months
• 50% of children have at least one relapse in 5 years
CONSTIPATION
next time, eat your vegetables!
Constipation Algorithm
Constipation Algorithm Patients > 1 Years Old

Pt. experiences 1 month of at least 2 of the following:
- 2 or fewer defecations per week
- History of excessive stool retention
- History of painful or hard bowel movements
- History of large diameter stools
- Presence of a large fecal mass in the rectum

Additional Criteria for Toilet Trained Kids:
- At least 1 episode/week of fecal incontinence after learning toileting skills
- Hx of large diameter stools that can obstruct the toilet

Red flags for Potential Referral:
- Poor weight gain
- Bloody Stool
- Lumbosacral tufts or dimples
- Abnormal muscular exam
- History of delayed passage of meconium
- Vomiting

Constipation Dx:
- Polyethylene Glycol 1g/kg/day × 2 days
- 5-leaf chocolate square (normal) 1-2 squares daily × 2 days
- If insufficient stool after day 1, increase second day by 1 additional square (1.5 to 2 squares)
- Alternating 4-6 laxatives 0.25-0.75mg/kg/day

Follow diarrheah guide
Is the Pt. Is Impacted? <2 stools/week, or palpable mass on rectal or abdominal exam +/- overflow incontinence

Yes

Pt. dx with constipation

No

Refer to Ped. GI

Maintenance Regimen. Can continue maintenance for up to 1 year before re-evaluation. Can continue for several years on maintenance.**

Follow Disimpaction guidance

Follow Disimpaction guidance

Follow Disimpaction guidance

Additional Criteria for Toilet Training Kit:
- At least 2-ply diaper week of fecal incontinence after learning toileting skill.
- Its large diameter stool that can obstruct the toilet.

**Avoid wearing during toilet training or stressful transitions. If functional withholding behavior, consider maintenance up until toilet training completed.

Additional Notes:
- Pt. experience a month of at least 2 of the following:
  - 2 or more defections per week
  - History of enuresis
  - History of painful or hard bowel movements
  - History of large diarrhea stools
  - Presence of large fecal mass in the rectum

Consider "Pros and Cons" video
- Daily Stool Softener
  - Polyethylene Glycol 65-105 g/day OR
  - Lactulose 1-2.5 g/day OR
  - Magnesium Hydroxide 5-10 g/day OR

Alternative to Fa Lee: Bisacodyl (tablet) 0.25 mg/kg/day up to 10 mg daily (3-4 times)

ON RECTAL:
- Between 2-4 yrs of age: Normal saline or mineral oil enema 60 ml x 1, can repeat if needed.
- >4 yrs: Normal saline or mineral oil enema 120 ml x 1, can repeat if needed.
- Oral preferred over rectal for patient with functional retention. Referral to GI will aggravate retention behavior.

Referenced by 1 additional square (3.5 to 2 squares)
Disimpaction at Home
Goal: substantial stool output

**ORAL:**
- Polyethylene Glycol 3g/kg/day × 2days
- **PLUS**
  - Ex-lax chocolate square (senna) ½ - 1 square daily × 2days
    - if insufficient stools after Day 1, increase second day ExLx dosage by 1 additional square (1.5 to 2 squares)
  - (Alternative to Ex-lax: Bisacodyl/Tab/suppository 0.25mg/kg/day up to 10mg daily × 3days)

**OR RECTAL:**
- Between 2-6 yrs of age: Normal saline or mineral oil enema 60 ml x 1, can repeat if needed.
- >6yrs: Normal saline or mineral oil enema 120 ml x 1, can repeat if needed.
  - (Oral preferred over rectal for patient with functional retention. Rectal tx will aggravate retention behavior.)

Was treatment effective
- No
  - Refer to Ped. GI
- Yes

Follow Disimpaction guidance
- Yes
  - No further corrected
- No
  - Relapse: Is pt. old enough to be toilet trained?
  - Yes
    - No further treatment
  - No
    - Refer to Ped. GI

Maintenance
Can continue for up to 6 months before recheck, can continue years on maintenance.
Maintenance Regimen

Goal: >2 stools/week, no pain, no soiling

Diet:
- Normal Fiber intake for age
- Normal hydration for age
- Behavioral Tools if Toilet Trained
- Tracking calendar, toileting schedule
- Consider "Poo and You" video
- Daily Stool Softener
- Polyethylene Glycol 0.4-1.0 kg/kg/day OR
- Lactulose 1-3 ml/kg/day OR
- Magnesium Hydroxide 1-3 ml/kg/day

Disimpaction at Home
Goal: stool-related output

ORAL:
- Polyethylene Glycol 1-2 kg/kg/day ≥2 days
- PLUS
  - 4-8 oz of chocolate square (senna) 1-8 tablet daily
    - If insufficient stool after day 1, increase dosage by 1 additional tablet (1.5 to 2 tablets)
  - Alternative to ORAL: Bisacodyl (suppository 325 mg up to 10 mg/kg/day or 1 tablet)

OR RECTAL:
- Between 2-6 yrs of age: Normal saline or mineral oil 5-10ml, can repeat if needed.
- >6 yrs: Normal saline or mineral oil enema 120 ml, can repeat if needed.
- Oral preferred over rectal for patients with tenesmus, rectal in will aggravate retention

**Avoid wearing during toilet training or stressful transitions. If stool withholding behavior, consider maintenance of toilet training protocol.**
Constipation Algorithm Patients > 1 Years Old

- Is the Pt. impacted?
  - < 1 stool/week, or palpable mass on rectal or abdominal exam + overflow incontinence
    - Yes
    - No

Diarrhea at Home
Goal: substantial stool output

- ORAL:
  - Polyethylene Glycol kg/day > 2 days
  - PLUS:
    - 1-2 L x 3-4 days
    - 3-4 L x 3-4 days

Maintenance Regimen
Goal: > 2 stools/week, no pain, no soiling

- Normal hydration for age
- Normal caloric intake for age
- Behavioral tools if toilet trained
- Tracking calendar, toileting schedule

**Maintenance Regimen. Can continue maintenance for up to 1 year before re-evaluation. Can continue for several years on maintenance.**

Relapse in Therapy: Is Pt. compliant?

- No
  - Follow disimpaction guidance
- Yes
  - Has disimpaction been done previously?
    - No
      - Follow disimpaction guidance
    - Yes
      - Refer to Ped. GI

Symptoms Improved?
- > 2 stools/week, comfortable, no soiling
  - Yes
  - Follow disimpaction guidance
  - NO
  - Refer to Ped. GI
Recommended Follow-Up

• After cleanout: A telemedicine, telephone or in person follow-up visit within 10 days of a prescribed cleanout
• Follow-up for all patients in at least one month
Constipation Algorithm
Children < 1 Yr.
Constipation Algorithm Patients < 1 Years Old

- Do of Constipation?
  - Complete Pt. history and physical exam
  - Red flags for referral:
    - Failure to thrive
    - Abdominal distention
    - Projectile or bilious vomiting
    - No passage of meconium in first 24 hours
    - Lethargy, irritability, or feeds
    - Dehydration, fever, or jaundice
    - Irritable or constipated infant, no stool in 3 days
  - Yes:Consult with Pediatric GI or Pediatric Surgeon

- Pt. < 6 months of age:
  - Premixed 1:1 tsp per day, straight or mixed in bottle, esophageal g-tube, suppository (age to three months)

- Pt. 6 months of age:
  - Verify family education and diet

Constipation Dx.:

Pt. experiences 1 month of at least 2 of the following:
- 2 or fewer defecations per week
- History of excessive stool retention
- History of painful or hard bowel movements
- History of large diameter stools
- Presence of a large fecal mass in the rectum
Constipation Algorithm Patients ≤ 1 Years Old

**Constipation Data:**
Pt. experiences a month of at least 2 of the following:
- fewer than 3 bowel movements per week
- history of excessive straining
- History of use of enemas, suppositories, or colonics
- History of large diameter stools
- Presence of a deep rectal mass in the rectum

**Pts. 6-12 months of age**
- Verify family education and diet
  - Symptoms Improved
    - **Yes**: Continue for 4 to 6 weeks then reassess
    - **No**: Prescribe:
      - Polyethylene Glycol 0.4-1.0 g/kg/day, or
      - Lactulose 1 ml/kg/day, or
      - Magnesium Hydroxide 1 ml/kg/day.

**Pts. < 6 months of age**
- Parent/infant feeding issues
  - Occasional gritty in stools (up to twice/month)
  - Symptom improved
    - **Yes**: Continue
    - **No**: Refer to Pediatric Gastroenterologist

**Real Flags for Referral**
- Failure to thrive
- Abdominal distension
- Projectile or large stools containing mucus
- Failure to thrive
- History of oral contraception

Pediatric Health Network
Constipation Algorithm Patients < 1 Years Old

1. Do of Constipation?
   - Yes: Complete Pt. History and Physical Exam
   - No: Continue

2. Symptoms Improved?
   - Yes: Re-evaluation, Education, Check adherence
   - No: Symptoms Improved

3. Re-evaluation, Education, Check adherence?
   - Yes: Symptoms Improved
   - No: Refer to Pediatric GI

4. Refer to Pediatric GI?
   - Yes: Continue for 1-2 months, then wean as tolerated
   - No: Continue

5. Consult with Pediatric GI or Pediatric Surgeon?
Constipation Action Plan
Constipation: Cleanout Action Plan

The first step to treating your child’s constipation is a good cleanout with a stool softener and a stimulant laxative.

Then, in the “maintenance phase”, your child will take a daily dose of stool softener for at least several months to a year. Treating constipation can take a long time, but we’ll follow along with you to be sure your child gets back to a normal stool pattern of passing soft stools comfortably every day or every other day.

Part One: Cleanout Phase

Do the clean out when there is access to a bathroom for 24-48 hours. The goal is to have several bowel movements that are loose or watery. Your child will take two medicines.

Start on Friday if your child is in school. Give the first dose on Friday afternoon and the second dose on Saturday morning if needed.

- **Cleanout medicine 1: Stool softener – polyethylene glycol (Miralax, Glycolax or PEG)**
  Polyethylene glycol brings water into the bowels. Mix the polyethylene glycol with the amount of clear liquid recommended. You may use clear liquid such as juice, water or tea. Have your child drink lots of liquids when they are on these medications to prevent dehydration.

- **Cleanout medicine 2: Stimulant laxatives – Senna or bisacodyl**
  See the charts on the next page for your child’s medicines and doses. Give as directed.

Plan to repeat this cleanout in one week.
Part Two: Maintenance Phase to keep bowels regular

Long-term daily stool softener given for at least 6 to 12 months

As soon as your child completes the first cleanout, give polyethylene glycol once daily as indicated in the maintenance dosing chart below. It needs to be taken daily for at least 6 to 12 months and often longer. Mix the medicine with liquid, such as juice, tea or water. It’s very important to mix the medicine with the full amount of liquid suggested. You can increase or decrease the dose as needed to achieve mashed potato consistency stools.

Toileting Routine and Diet Recommendations

To help make stooling comfortable and regular, we recommend you help your child with this routine:

- Toileting habits: If possible, sit on the toilet 2-3 times a day after meals for at least 5 minutes without lots of distractions — avoid games, books and electronics as much as possible.
- Toileting position: Knees should be hip level and feet flat against the ground or on a footstool to relax buttocks.
- Diet: Your child does not need excess fiber or water, but should drink enough water or liquids so that the urine is clear and eat a healthy diet with 5 servings a day of fruits/vegetables plus 2 servings of fiber (whole grains, bran, barley).

To help your child understand all of this, Watch "The Poo in You" video on You Tube with your child. It’s great!

Follow Up Visit Recommendations

Please schedule a follow up within _________ days.

☐ Telephone Call
☐ Telemedicine Visit
☐ Office Visit

This Can Be Challenging!

Please don’t hesitate to call our office if you have any questions or concerns.
**First Part: 2 day Cleanout Phase – Use stool softener and a stimulant laxative**

**Cleanout Medicine 1: Stool softener – polyethylene glycol (Miralax, Glycolax or PEG)**

**Stool Softener**

<table>
<thead>
<tr>
<th>Medicine Name</th>
<th>How Often</th>
<th>Child’s Weight (kg)</th>
<th>Child’s Weight (lbs)</th>
<th>Miralax Dose</th>
<th>Mix with Clear Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyethylene glycol (Miralax, Glycolax or PEG)</td>
<td>4 ounces every 15 minutes or 8 ounces every 30 minutes until complete</td>
<td>10 to 19.9 kg</td>
<td>22 to 43 lbs</td>
<td>2 – 3 capfuls</td>
<td>8 – 12 ounces</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20 to 29.9 kg</td>
<td>44 to 65 lbs</td>
<td>4 – 5 capful</td>
<td>16 – 20 ounces</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30 to 39.9 kg</td>
<td>66 to 87 lbs</td>
<td>5 – 7 capfuls</td>
<td>20 – 28 ounces</td>
</tr>
<tr>
<td></td>
<td></td>
<td>40 to 49.9 kg</td>
<td>88 to 109 lbs</td>
<td>7 – 9 capfuls</td>
<td>28 – 36 ounces</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50 to 69.9 kg</td>
<td>110 to 154 lbs</td>
<td>9 – 12 capfuls</td>
<td>36 – 48 ounces</td>
</tr>
<tr>
<td></td>
<td></td>
<td>70 kg and over</td>
<td>Over 154 lbs</td>
<td>3 g/kg/day</td>
<td>4 ounces for 17 grams</td>
</tr>
</tbody>
</table>

1 Capful = 17 grams. Use the cap that comes on the medicine bottle.

Dosing: 3 grams/kilogram/day

Each capful should be mixed with 4 ounces of liquid
Pediatrician Panel

Cathy Fox, MD and Soleak Sim, MD
Constipation Action Plan is embedded into EMR

- Links to Action Plan as PDF that can be printed and discussed with family during visit
- Or sent via portal if on telemed or phone call
Constipation Action Plan is embedded into EMR

- Includes checkboxes for documentation of cleanout and maintenance doses
- Shows up in note for quick documentation of details of plan

### Cleanout Medicine 2: Stimulant Laxative – choose either Senna or Bisacodyl

<table>
<thead>
<tr>
<th>Medicine Name</th>
<th>How Often</th>
<th>Child’s Weight (kg)</th>
<th>Child’s Weight (lbs)</th>
<th>Doses by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polystyrene glycol</td>
<td>4 ounces every 15 minutes or 8 ounces every 30 minutes until complete</td>
<td>10 to 15.9 kg</td>
<td>22 to 34.5 lbs</td>
<td>Y 2-3 capsfuls in 8-12oz</td>
</tr>
<tr>
<td></td>
<td>1 capful = 27 grams. Use the cap that comes on the medicine bottle.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dosing 3 grams/1 kilogram/day</td>
<td>Each capful should be mixed with 4 ounces of liquid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cleanout Medicine 2: Stimulant Laxative – choose either Senna or Bisacodyl</td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**Image:**
- **Image 60x-4 to 348x49**: Represents the interface of the Constipation Action Plan embedded into EMR.
- **Image 66x81 to 615x441**: Part of the interface showing checkboxes for documentation of cleanout and maintenance doses.

**Footer:**
- **Pediatric Health Network**
- **Children’s National**
Constipation Action Plan as part of visit note and care plan

**PHYSICAL EXAM 15 MIN 11/05/20**

**Provider:** SIM, SOLEAK M.D.  **Status:** Archived

**Document**

- Discussed concerns about exercise: promote physical activity

**PLAN**

- **Constipation, unspecified**
  
  **Care Plan**
  
  **Goal:** daily soft stools without soiling, dry overnight
  
  **Other Health Concerns:**
  
  Enuresis
  
  **Instructions:**
  
  - constipation plan from Pediatric Health Network provided and reviewed - start medications for cleanout and continue through maintenance phase - also reviewed possible enuresis given stool in underwear - encouraged to watch the Poo in You video with Wolfe - hope that improved stooling during the day will also decrease nighttime wetting (reviewed relationship between the two) - send updates via portal

- Patient education about an action plan - Constipation Action Plan with Med Chart given and reviewed

  - Polyethylene glycol 3350 (MIRALAX), Use 4-5 capful in 16-20oz of liquid. Give 1 time in afternoon and repeat the following morning as part of cleanout
  
  - Polyethylene glycol 3350 (MIRALAX), Use 1-1 1/2 Capful, mix in 4-8 oz of liquid ONCE DAILY as part of maintenance

**OTHER**

- Return in 1 year for well child evaluation
Capital Area Pediatrics Constipation Action Plan

*Embedded in our Electronic Medical Record

**HPI template**
- Helpful in educating/reminding self of pertinent questions
- Red flags

**A/P with constipation diagnosis**
- typical plan
- Medications

**CAP CAP**
- Letter
- Sent to patient via portal or printed at time of visit
# HPI Template

**Constipation > 1 year old ✓**

**HPI**

### Description of symptoms
- Have symptoms been present for 1 month or longer? ✓
- Does defecation occur 2 or fewer times per week? ✓
- History of excessive stool retention?
- History of painful or hard bowel movements?
- History of large diameter stools?
- History of large diameter stools that obstruct the toilet?
- If toilet trained, at least one episode per week of fecal incontinence?

### Red Flags
- no red flags
- poor weight gain
- blood in stool
- history of lumbosacral tufts or dimples
- history of delayed passage of meconium
- vomiting

### Context
- normal toileting function
- no stool withholding behavior
- no history of IBS
- recent diet change
- abnormal toileting function
- soiling of underwear
- stool withholding behavior

### Alleviating Factors
- having bowel movement
- Miralax
- Milk of Magnesia
- suppository
- enema
- prunes
- stool softener
- high fiber diet

### Associated Symptoms
- no fever
- no abdominal pain
- no excess gas
- no nausea
- no vomiting
- no heartburn
- no change in appetite
- no blood in stool
- no mucus in stool
- no black or tarry stools
- no weakness
- no urinary symptoms
- fever
- abdominal pain
- excess gas
- rash
- nausea
- heartburn
- decrease in appetite
- mucus in stool
- black or tarry stools
- weakness
- bloating
- cramping
- urinary incontinence
- increased urinary frequency
- decreased urinary frequency
- urinary urgency

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**Pediatric Health Network**

[Children's National]
Assessment and Plan

constipation
K59.00 Constipation, unspecified

Meets diagnostic criteria for constipation: 1 month of at least 2 of the following criteria
2 or fewer stools per week / history of excessive stool retention / painful or hard BM / large diameter stools / fecal mass
No red flags, no fecal impaction
GOAL: > 2 stools / week, no pain, no soiling
Diet: Normal fiber and hydration for age
Follow-up in 2 weeks.

polyethylene glycol 3350 17 gram/dose oral powder
Take (0.4 - 1 gm/kg/day) daily in 6-8 oz of water | 1 510 gm jar(s) | no refills | CVS/Pharmacy #1389
⚠️ 1 allergy 1 moderate
Constipation Action Plan
Impact on Constipation Management

1. Improved documentation of plan
   • Check boxes for medication doses and follow up instructions
   • 2-page plan, detailed and clear explanations for family
   • Lots of information in short period of time
   • Helpful when issue comes up in PE or "by the way"

2. Improved "buy in" from patients and families
   • More receptive to higher doses of Miralax
   • Improved compliance
   • Improved follow up and continuity
   • Telemedicine very helpful

3. Emphasis on treatment and not diet
   • Improved understanding on my part
   • More success with picky eaters- fewer battles and less wasted time/energy
   • Less belly pain, less constipation
Project Data & Next Steps
Utilization of Constipation Action Plan

Percent of Patients Provided a Constipation Action Plan

<table>
<thead>
<tr>
<th>Practice</th>
<th>Baseline</th>
<th>Month 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>69%</td>
<td>100%</td>
</tr>
<tr>
<td>B</td>
<td>20%</td>
<td>90%</td>
</tr>
<tr>
<td>C</td>
<td>29%</td>
<td>90%</td>
</tr>
<tr>
<td>D</td>
<td>50%</td>
<td>90%</td>
</tr>
<tr>
<td>E</td>
<td>52%</td>
<td>50%</td>
</tr>
<tr>
<td>F</td>
<td>25%</td>
<td>42%</td>
</tr>
<tr>
<td>G</td>
<td>62%</td>
<td>50%</td>
</tr>
<tr>
<td>H</td>
<td>100%</td>
<td>90%</td>
</tr>
<tr>
<td>I</td>
<td>0%</td>
<td>60%</td>
</tr>
<tr>
<td>K</td>
<td>0%</td>
<td>6%</td>
</tr>
<tr>
<td>M</td>
<td>60%</td>
<td>50%</td>
</tr>
<tr>
<td>N</td>
<td>52%</td>
<td>16%</td>
</tr>
</tbody>
</table>

Aggregate

Baseline and Month 2
Recommended Intervention: Medication

Initial Visit Recommended Interventions - Medication

- Practice A: 73% Baseline, 80% Month 2
- Practice B: 50% Baseline, 43% Month 2
- Practice C: 60% Baseline, 59% Month 2
- Practice D: 78% Baseline, 60% Month 2
- Practice E: 90% Baseline, 57% Month 2
- Practice F: 93% Baseline, 93% Month 2
- Practice G: 80% Baseline, 93% Month 2
- Practice H: 78% Baseline, 100% Month 2
- Practice I: 93% Baseline, 100% Month 2
- Practice J: 75% Baseline, 75% Month 2
- Practice K: 40% Baseline, 76% Month 2
- Practice L: 75% Baseline, 75% Month 2
- Practice M: 75% Baseline, 40% Month 2
- Practice N: 75% Baseline, 76% Month 2
- Aggregate: 75% Baseline, 76% Month 2

Pediatric Health Network

Children’s National
Recommended Intervention: Diet

**Initial Visit Recommended Interventions - Diet**

<table>
<thead>
<tr>
<th>Practice</th>
<th>Baseline</th>
<th>Month 2</th>
</tr>
</thead>
<tbody>
<tr>
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<td>80%</td>
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<tr>
<td>B</td>
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</tr>
<tr>
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</tr>
<tr>
<td>D</td>
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<tr>
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<td>33%</td>
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<tr>
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</tr>
<tr>
<td>M</td>
<td>50%</td>
<td>54%</td>
</tr>
<tr>
<td>N</td>
<td>0%</td>
<td>49%</td>
</tr>
</tbody>
</table>

Aggregate

**Pediatric Health Network**
Initial Visit: Recommended Interventions

Initial Visit Recommended Interventions - Cleanout

Practice A  Practice B  Practice C  Practice D  Practice F  Practice G  Practice H  Practice I  Practice K  Practice M  Practice N  Aggregate

Baseline  Month 2

0% 0% 0% 0% 0% 0% 0% 6% 0% 0% 14% 0% 21% 0% 14% 14% 0% 0% 44% 50% 60% 20% 18% 43% 40% 50% 67% 25% 20% 43% 60% 40% 40% 14% 32%
Follow Up Recommendations: Aggregate Data

Follow Up Recommendations
Follow Up Visit: Aggregate Data

PCP
GI Referral
ED Referral
Symptoms Resolved
As Needed
Not Documented

Baseline
Month 2
Next Steps

• Resources will be posted on pediatrichealthnetwork.org and be available for all pediatricians to utilize

• If practices have an interest in utilizing these tools as a practice quality improvement project, please reach out to us

• PHN has connected with CNH ER to incorporate these tools into their discharge instructions. If you would like these tools shared with your local ER or urgent care center, please reach out to us

phn@childrensnational.org
Multidisciplinary Functional Pain Program

• **Goal**: Provide complex patients with evaluation and treatment for their abdominal pain

• **Resources**: Gastroenterology (motility), nutrition, psychology, pain management

• **Future**: Breath testing for SIBO, methane, lactose, exercise

• **Candidates**: IBS, Functional dyspepsia, intractable nausea, chronic abdominal pain
Thank you!