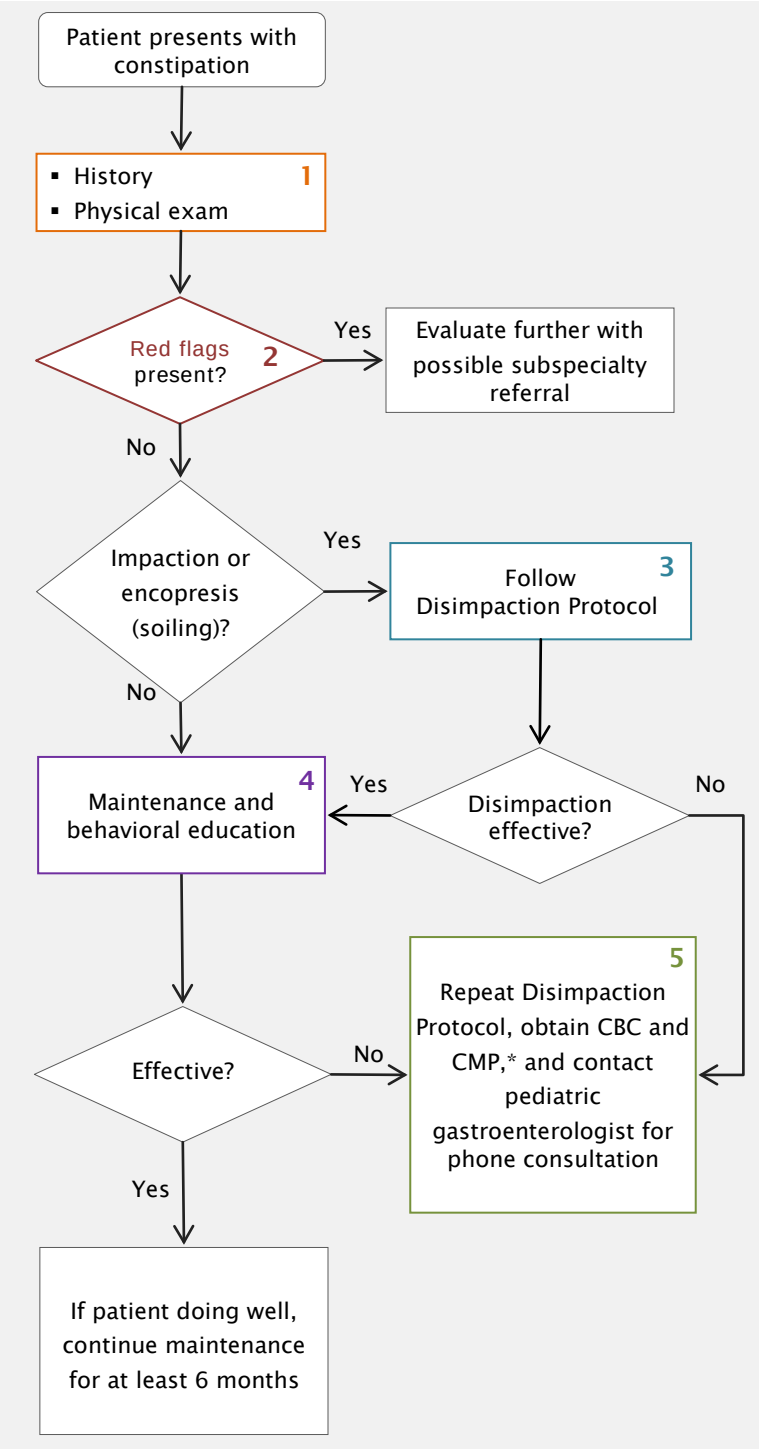
Pediatric Constipation Treatment and Referral Guidelines

Community Care OF NORTH CAROLINA

Developed in a collaboration of pediatric gastroenterologists from the Departments of Pediatrics at Carolinas Health Care, Duke University, East Carolina University, University of North Carolina, and Wake Forest University and primary care physicians from across North Carolina

This guideline, for primary care providers, explains the treatment and referral process for constipation in pediatric patients (ages 0 to 21). Constipation is either infrequent stools OR painful stools OR difficulty passing stools. A fecal impaction is a solid, immobile bulk of human feces that can develop in the rectum as a result of chronic constipation.

Constipation Algorithm



*CMP, comprehensive metabolic panel; CBC, complete blood count

1 History and Physical Exam

1. Evaluate deep tendon reflexes
2. Perform a rectal exam
3. Look for lumbosacral anomaly

2 Red Flags

- Fever
- Vomiting
- Poor feeding
- Bloody diarrhea
- Failure to thrive
- Anal stenosis
- Tight empty rectum
- Perirectal abscess

3 Disimpaction Protocol†

1. Start colonic lavage with polyethylene glycol 3350 (PEG – Miralax/Glycolax)

   - Administer 8 oz every 15 minutes until finished as follows:
     - o <5 years old or mild symptoms: 8 capfuls in 64 ounces of liquid
     - o ≥5 years old or severe symptoms: 16 capfuls in 64 ounces of liquid
   - For school-aged children, start on Friday night
   - If results are unsatisfactory, repeat the process the next day. Parents should call the physician if still unsatisfactory.

2. Provide parents with home clean-out protocol.

†*Adapted from the UNC Hospitals disimpaction protocol. Alternative protocols containing combinations of Miralax, magnesium citrate, senna, and/or bisacodyl can also be effective and can be used in consultation with a pediatric gastroenterologist.*

4 Maintenance and behavioral education

- Balanced diet of whole grains, fruits, and vegetables
- Fluids (especially apple, pear, prune, and peach juices)
- Exercise
- Behavioral education
- Parent education (see box at right)
- Medication, as needed (see table below). Miralax is preferred.

Medication	Dosage*
PEG 3350 (Miralax, Glycolax)	1 capful in 8 oz of clear fluid, 1 to 2 times/day
Lactulose (70% solution)	1 to 3 mL/kg/day in divided doses
Sorbitol (70% solution)	1 to 3 mL/kg/day in divided doses
Magnesium hydroxide (Milk of Magnesia)	
▪ 400 mg/5 mL	1 to 3 mL/kg/day of 400 mg/5 mL
▪ 800 mg/5 mL	0.5 to 1.5 mL/kg/day of 800 mg/5 mL
▪ 311 mg tablets (Phillips' chewable tablets)	3 to 5 years old: 2 tablets as a single daily dose† 6 to 11 years old: 4 tablets as a single daily dose† >12 years old: 8 tablets as a single daily dose† †*taken at bedtime or in divided doses*
Magnesium citrate (16.17% solution)	1 to 3 mL/kg/day in single or divided doses (max dose 4 mL/kg per dose x 3 doses in 24 hrs)
Mineral oil	>1 year old: 1 to 3 mL/kg/day
Senna	
▪ 8.8 mg sennosides/5 mL	2 to 6 years old: 2.5 to 7.5 mL/day 6 to 12 years old: 5 to 15 mL/day
▪ 15 mg sennosides/ chocolate square (chocolate Ex-Lax)	6 to 11 years old: one square once daily ≥12 years old: one square twice daily

*Age range for these dosages is 0-18 unless otherwise indicated.

What to Tell to Families

1. Give parents written home management instructions.
2. Tell parents that the child is to sit on toilet 2 to 3 times daily, 5 to 10 minutes each, for "protected time to have a BM." Ensure that smaller children have step stool so feet touch solid base.
3. Emphasize that parents should use positive reinforcement, not punishment.
4. Explain encopresis to the parent and child.
5. Explain that the role of milk is controversial, and a trial of stopping milk may be considered.
6. Explain the importance of the child having 5 servings of fruits and vegetables a day and plenty of fluids.
7. Set definitive follow-up appointment within several weeks to assess progress and provide encouragement and guidance. Encourage follow-up phone calls to remain on track.

5 Referral Instructions

Provide the pediatric gastroenterologist with the following information:

A. History
- Delay in passage of meconium (for infants only)
- Stool consistency
- History of withholding
- Family stressors
- Change in environment
- What treatment has been provided (include medications)

B. Exam findings (rectal exam, neurological exam, and appearance of lumbosacral spine)

C. Laboratory tests
- TSH and T4 free (if indicated by growth delay)
- Lead (if in house built before 1978, exposed to lead paint, or lead screening questionnaire is positive)
- Complete blood count (CBC) or hemoglobin
- Comprehensive metabolic panel (CMP)
- Kidneys, ureters, bladder (KUB) and celiac panel are **not** required for referral to subspecialist

D. Growth Charts

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