

Management of Pediatric Constipation

Constipation is a common problem among the pediatric population affecting up to one-third of children between the ages of 6 and 12.¹ Normally, infants have approximately 4 stools per day which gradually declines to an average of 1-2 stools per day by age 4; however, regular stooling patterns may vary greatly between patients.² Events such as toilet training, changes in diet, stressful events, and a child's frequent postponing of defecation can contribute to the development of constipation. Children who intentionally delay defecation may experience encopresis (fecal incontinence).

The most recent guidelines for the evaluation and treatment of pediatric constipation have been developed by the North American Society for Pediatric Gastroenterology, Hepatology and Nutrition.² A thorough history and physical is recommended for all patients including a stool test for occult blood in all infants and children with abdominal pain, failure to thrive, or a significant family history of colon cancer. Major treatment options are highlighted in the box below.

Polyethylene glycol 3350 (Miralax® or GlycoLax®) became available over-the-counter (OTC) March 1, 2007. Due to its OTC availability, effective April 15, 2007, Idaho Medicaid no longer covers this product.

Treatment Recommendations²

- Treatment should include dietary changes, behavior modification, and medication therapy if needed.
 - Dietary treatment includes increased intake of fluids. Prune, pear, and apple juice which contain sorbitol are all recommended. Patients should consume a balanced diet including whole grains, fruits, and vegetables.
 - An important behavior modification to promote regular bowel habits is unhurried time on the toilet after meals.
 - Medications used to treat pediatric constipation include glycerin suppositories, polyethylene glycol, lactulose, magnesium hydroxide, sorbitol, and mineral oil. Occasional short-term treatment with stimulant laxatives such as senna and bisacodyl may be needed.
- All laxatives are considered equally efficacious with choice of treatment based upon safety, cost, ease of administration, and practitioner experience.

*Idaho Drug Utilization Review Program
Educational Leaflet for Physicians, Pharmacists, and other Healthcare Practitioners*

Selected Treatments for Pediatric Constipation³⁻⁶			
DRUG	Available OTC?	COST*	COMMENTS
Glycerin suppositories	Yes	\$1.28/12 infant/child suppositories \$4.69/50 adult suppositories	Preferred in infants.
Polyethylene glycol 3350 (Miralax®, GlycoLax®)	Yes	\$10.99/bottle (238g) \$19.99/bottle (255g) \$37.99/bottle (527g)	Tasteless and dissolves completely in a variety of liquids. May be more palatable than other medications.
Lactulose (Enulose®, others)	No	\$20.01/bottle (473mL) \$60.02/bottle (1419 mL)	Taste may not be palatable for some children. May be mixed with fruit juice, milk, water, or citrus-flavored carbonated beverages.
Magnesium hydroxide (Phillips Milk of Magnesia®, others)	Yes	\$4.99/bottle (355mL) \$7.99/bottle (769mL)	Children may not tolerate. Has a chalky or bitter taste. Infants and patients with kidney dysfunction are at risk for developing electrolyte abnormalities.
Sorbitol 70%	Yes	\$10.99/bottle (473mL) \$21.97/bottle (946mL)	May cause flatulence and abdominal cramping. Packaged for pharmaceutical compounding, but may be obtained through selected pharmacies for OTC use.
Mineral oil	Yes	\$1.74/bottle (473mL)	Avoid in patients less than 5 years due to risk of aspiration pneumonia. May cause leakage and staining of underwear. May administer cold or mixed with chocolate milk or orange juice.
Senna (Senokot®, others)	Yes	\$4.57/bottle (74mL) \$9.99/100 (8.6mg tablets)	Liquid may be administered with fruit juice or milk. Best limited to less than 2 weeks duration. May cause severe diaper rash. Abdominal cramping may occur.
Bisacodyl (Dulcolax®, others)	Yes	\$4.47/4 suppositories \$3.49/50 (5mg tablets)	Best limited to less than 2 weeks duration. Abdominal cramping, diarrhea, and hypokalemia may occur.

*Cost from www.drugstore.com where possible (accessed April 2007)

References

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