

Macrogol (PEG) 3350 with or without electrolytes – ENTERAL Newborn Use Only

2018

Alert	The use of macrogol (polyethylene glycol) 3350 with or without electrolytes is based on expert opinion with minimal studies assessing the safety and efficacy in the neonatal population. The electrolyte containing formulations should be dissolved in recommended amount of water to prepare an iso-osmolar solution.
Indication	To soften stool and assist with antegrade passage of stool through the bowel. (To be prescribed in consultation with Paediatric Surgeon/Paediatric Gastroenterologist).
Action	Polyethylene glycol (PEG) is an osmotic agent causing retention of water in the stool resulting in a softer stool with more frequent bowel motions. An initial response is usually seen within 2–4 days. Macrogol is not significantly absorbed from the GIT.
Drug Type	Large polymer with osmotic activity.
Trade Name	<ol style="list-style-type: none"> 1. Macrogol (PEG) 3350 without electrolytes Herron ClearLax 17 g sachet VivaLAX 17 g sachet 2. Macrogol (PEG) 3350 with electrolytes Movicol Lemon-Lime 13.125 g sachet Movicol Junior 6.9 g sachet
Maximum Dose	1.5 g/kg/day
Presentation	<p>Macrogol (PEG) 3350 without electrolytes Herron ClearLax 17 g sachet contains macrogol 3350: 17 g VivaLAX 17 g sachet contains macrogol 3350: 17 g</p> <p>Macrogol (PEG) 3350 with electrolytes Movicol Junior 6.9 g sachet contains macrogol 3350: 6.563 g, sodium chloride 175.4 mg, potassium chloride 23.3 9 mg, sodium bicarbonate 89.3 mg. Movicol Lemon-Lime 13.125 g contains macrogol 3350: 13.125 g, sodium chloride 350.7 mg, potassium chloride 46.6 mg, sodium bicarbonate 178.5 mg per sachet</p>
Dosage/Interval	Dose can vary based on indication and response. Faecal impaction: PEG with or without electrolytes orally 1–1.5 g/kg/day for 3–6 days (maximum of 6 consecutive days). ¹ Maintenance: PEG with or without electrolytes starting dose: 0.4 g/kg/day, (dose range 0.2–0.8 g/kg/day). ¹
Route	Oral or via stoma
Preparation/Dilution	As per individual sachet guidelines: Herron ClearLax: dissolve 17 g sachet in 20 mL unchilled water. Movicol Lemon-Lime (13.125 g): Dissolve in 125 mL of unchilled water. Movicol Junior (6.9 g): dissolve 6.9 g sachet in 62.5 ml of unchilled water.
Administration	Macrogol (PEG) 3350 – oral Administer orally. Can be instilled into stoma directly if advised by Paediatric Gastroenterologist or Paediatric Surgeon.
Monitoring	May need electrolytes and fluid balance monitoring if prolonged or frequent use.
Contraindications	Hypersensitivity to any component, such as polyethylene glycol. Bowel obstruction, known or suspected.
Precautions	Can cause electrolyte imbalance with prolonged, frequent or excessive use. Oral medications taken within an hour of administration may be flushed from the GIT without absorption.
Drug Interactions	Nil

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Adverse Reactions	Diarrhoea, especially at high doses. Abdominal cramping, nausea, vomiting, abdominal distension. Urticaria, suggestive of an allergic reaction, has been reported.
Compatibility	Not available
Incompatibility	Not available
Stability	Oral solution: Discard remaining after use.
Storage	Room temperature.
Special Comments	Macrogol 3350 should not routinely be used in infants <6 months unless recommended by a Paediatric Gastroenterologist or Paediatric Surgeon.
Evidence summary	<p>Efficacy The combination of PEG 3350 with electrolytes (PEG+E) has been shown to be effective for treating chronic constipation and faecal impaction in adults and children.¹⁻³</p> <p>Safety When the powder is dissolved in the correct volume of water, the resulting solution is iso-osmolar with respect to colonic extracellular fluid and therefore does not draw fluid into the colon from the body. In randomised, controlled trials in children, adverse event rate was similar to placebo and most commonly involved mild abdominal discomfort.³</p>
References	<ol style="list-style-type: none"> 1. Evaluation and treatment of functional constipation in infants and children: evidence-based recommendations from ESPGHAN and NASPGHAN. Tabbers MM, DiLorenzo C, Berger MY, et al. J Pediatr Gastroenterology Nutr. 2014 Feb; 58(2):258-74. 2. Macrogol 3350 plus electrolytes for chronic constipation in children: a single-centre, open-label study. Hardikar W, Cranswick N, Heine R. J Paediatr Child Health. 2007 Jul-Aug; 43(7-8):527-31. 3. Polyethylene glycol 3350 plus electrolytes for chronic constipation in children: a double blind, placebo controlled, crossover study. A Thomson, H Jenkins, W Bisset et al. Arch Dis Child 2007; 92:996–1000. 4. http://www.perrigo.com.au/upload/product/document/CLE03327F_HPRG.pdf.

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