

[NON-182] Golytely and NPO guidelines: Go lightly or hold back?

Abdallah C, Kaplan R, Hannallah R  
Children's National Medical Center , Washington , DC, USA

---

**Introduction:** Golytely or PEG-3350 is a polyethylene glycol (PEG) electrolyte osmotic laxative solution developed in 1980. The administration of Golytely, either by mouth or via nasogastric tube, is known to be an effective method for bowel preparation. In the absence of data documenting the optimal NPO policy after Golytely infusion, considerations to different reports in the literature are described.

**Description:** In children, the amount of PEG- electrolyte solution administered is based on body weight and is usually 25 to 40 ml/kg of body weight per hour until rectal fluid is clear. Common adverse events include nausea, vomiting and abdominal fullness. Less common complications include hypothermia, perforation, Mallory–Weiss syndrome, angio-oedema, bronchospasm, pulmonary aspiration and pulmonary edema (1). There are reports of life-threatening complications and mortality related to the aspiration of PEG (2). In children, aspiration has been reported after infusion of PEG by nasogastric tube (3-5). Under anesthesia, there has been documented aspiration of Golytely in the animal model (6).

**Discussion:** Golytely appears as a clear liquid, is isoosmolar and has buffering properties, however if aspirated, PEG is a non-absorbable material and may lead to respiratory complications such as acute respiratory distress syndrome and pulmonary edema. Corticosteroid administration should be considered in the initial treatment for PEG aspiration. Its removal by bronchoscopy and bronchoalveolar lavage is most important to prevent progression of the disease and parenchymal lung damage. Recently, some pediatric gastroendoscopists have requested that patients continue to receive Golytely close to the preprocedural scheduled time; others are willing to wait few hours after the last intake.

**Conclusion:** In the absence of specific data, different considerations including chemical attributes and administered volume of the PEG containing solution and the condition/age of the patients as well as the anesthesia technique may make NPO guidelines after administration of PEG containing solutions such as Golytely, challenging and not uniform within institutions.

**References:**

- 1- *Respirology* 2008; 13: 152-154.
  - 2- *Neth. J. Med.* 2006; 64: 196-198
  - 3- *Ann. Pharmacother.* 1993; 27:1044-7
  - 4- *Arch. Dis. Child.* 2002; 87: 537
  - 5- *Arch. Dis. Child.* 2002; 86: 209
  - 6- *J. Vet. Intern. Med.* 2004: 18(5); 642-6
-