

Children's Wisconsin Clinical Nutrition Department

GI - IBD: Exclusive Enteral Nutrition Case Study

11 y.o. male with a PMH of IBS who presents with 3 days of worsening abdominal pain with associated diarrhea and emesis. Ultrasound obtained showed imaging consistent with appendicitis, therefore admitted to surgery service for appendectomy. Appendectomy completed on hospital day 1. During surgery a significant amount of inflammation in the distal and terminal ileum with creeping fat and friable mesentery was noted. The bowel was densely adhered to the inferior anterior abdominal wall and distal ileum was adhered. GI was consulted and a CT was performed hospital day 3. CT showed active inflammation with skip lesions concerning for Crohns disease, Enterocolic fistula extending from terminal ileum to hepatic flexure, concern for developing abscess, and dilation at ileum suggestive of partial obstruction of inflamed bowel. RD was consulted on hospital day 4 for exclusive enteral nutrition therapy.

- Anthropometrics:

HEIGHT, WEIGHT, BMI	Measured Weight	BMI
10/8/2021	56 kg (95%ile, Z= 1.65)	23.31 kg/m ²
10/7/2021	56.2 kg (95%ile, Z= 1.66)	23.4 kg/m ² (94%ile, Z= 1.59)
10/5/2021	57 kg (96%ile, Z= 1.72)	23.73 kg/m ²
10/4/2021	58.7 kg (97%ile, Z= 1.82)	24.43 kg/m ² (96%ile, Z= 1.75)
3/26/2021	57 kg (97%ile, Z= 1.94)	26.06 kg/m ² (98%ile, Z= 2.01)

- Minimal PO intake since admission. Prior to admission patient typically had a good appetite with 3 meals/day + snacks and drank water and juice.

What do you recommend for 100% exclusive enteral nutrition?

REE x 1-1.2 (based on overweight/obesity guidelines) = 30-36 kcal/kg (1680-2020 kcal/day)

Goal to drink 7-8 Pediasure Grow and Gain daily, or 5 Pediasure 1.5 daily. If unable to meet goal volumes, provide PO/NG. Requires an additional 10 oz water with Pediasure grow and gain to meet 100% maintenance fluid needs or 34 oz water with Pediasure 1.5.

What may patient have in addition to formula?

With EEN providing 100% nutrition needs, may drink water, sugar-free flavored water, and have clear, hard candy in addition to formula. No other oral intake.

How long should the patient be on exclusive enteral nutrition?

8-12 weeks