

There is debate within the community of surgery over the benefit/need to have patients participate in a bowel preparation prior to colorectal surgery. If your surgeon has ordered a bowel preparation with oral antibiotics, here are the nursing considerations to be mindful of, as well as the patient education points that should be emphasized.

Why Bowel Preps with Oral Antibiotics are important in colectomy cases:

- ◇ MSQC recommends mechanical bowel prep with oral antibiotics as a strategy to reduce SSI. Propensity matching analysis of MSQC colectomy cases demonstrated that full mechanical bowel prep with oral antibiotics is superior to no prep at all in reducing the occurrence of SSI.^{1,2}
- ◇ Nonabsorbable oral (with parenteral) administration of antibiotics reduces bacterial loading of the colon and wound fat contamination, both of which contribute to postoperative wound infection.⁴
- ◇ Mechanical bowel prep with oral antibiotics does not increase the risk of *C difficile* infection and may contribute to a decreased incidence of postoperative ileus.^{1,3}
- ◇ Bowel preparation for laparoscopic colectomies can make handling of the bowel easier, potentially reducing operative times. Additionally, a clean colon can aid in the identification of bowel lesions since palpation of colorectal lesions can be hindered by laparoscopy.⁵

Notes for the Nurse:

- ◇ Inform patients of the rationale behind bowel preparation as a means of reinforcing teaching related to timing—patients will need to understand what they are doing and *why* so it makes sense to them—this will help with retention of information and compliance with protocols. Possible script:
“The day before your surgery you will need to begin your bowel preparation. The first step is cleansing of the bowel which will involve taking laxatives. After completing the cleanse, you will begin to take the oral antibiotics that have been prescribed for you. This second step will help to prevent infection by lowering the bacterial count in your colon during surgery.”
- ◇ In addition to completing a mechanical bowel preparation with oral antibiotics, patients will be expected to participate in presurgical carbohydrate loading and hydration, so the patient’s absolute understanding of the sequencing and timing of these interventions is crucial. Be certain to emphasize the surgeon-prescribed timing of bowel preparation in relationship to the last oral solid intake then use the teach back technique to confirm comprehension of information, and provide written instructions for patients to take with them.
- ◇ Optimizing hydration, as part of the ERP Preoperative Optimization protocol set, should be reinforced with bowel preparation instruction. This is to ensure that the patient understands and participates in measures to replace fluid loss to maintain optimal hydration before surgery.

References:

1. Englesbe MJ, Brooks L, Kubus J, Luctefeld M, Lynch J, Senagore A, Eggenberger JC, Velanovich V, Campbell DA. A statewide assessment of surgical site infection following colectomy: the role of oral antibiotics. *Ann Surg.* Sep 2010; 252(3): 514-520.
2. Kim EK, Sheetz KH, Bonn J, DeRoo S, Lee C, Stein I, Zarinsefat A, Cai S, Campbell DA, Englesbe MJ. A statewide colectomy experience: the role of full bowel preparation in preventing surgical site infection. *Annals of Surgery.* Feb 2014; 25 (2): 310-314.
3. Krapohl GL, Phillips LR, Campbell DA, Hendren S, Banerjee M, Metzgar B, Morris A. Bowel prep for colectomy and risk of clostridium difficile infection. *Dis of the Colon & Rectum.* 2011; 54(7): 810-817.
4. Lewis RT. Oral versus systemic antibiotic prophylaxis in elective colon surgery: a randomized study and meta-analysis send a message from the 1990s. *Can J Surg.* June 2002; 45(3): 173-180.
5. Sajida A, Figueredo EJ, Oelschlager BK, Pellegrini CA, Harkins HN. Laparoscopic colectomy. *Med Gen Med.* May 2007; 9(2): 37-43. Available from URL: <http://www.Ncbi.nlm.nih.gov/pmc/articles/PMC1994841>.