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“Oral carbohydrate administration prior to colorectal surgery: Practice change outcomes and economic analysis”

Abstract

Difference in recovery times has been an interest of mine for many years. I observed that an open heart surgery routinely recovered and discharged on the third post-op day, while a colorectal patient often required a hospital stay of five to ten days. I began researching recovery methods of colorectal patients. I found enhanced recovery techniques like decreased narcotic, use of NSAID’s, early ambulation, and the use of medications that assist with bowel peristalsis are being employed nationally. Other techniques are now starting to be used with positive results. One of these is Carb-loading. Carb-loading is the oral intake of a small amount of carbohydrates (CHO) prior to surgery. The fasting state of patients awaiting colorectal surgery directly increase the stress response of the body. Studies have shown a decrease in mean hospital days for patients who are given Maltodextrin prior to surgery when compared to patients who have no oral intake prior to surgery. A thorough search of literature revealed several research studies on the benefits of Carb-loading. These articles provided information about the results associated with Carb-loading as an enhanced recovery technique and safety issues involved with oral intake prior to colorectal surgery. A retrospective chart review was conducted at my practice site over a three-month period. This provided a needs assessment to determine how many patients would be candidates for Carb-loading prior to colorectal surgery. Inclusion criteria were ASA classification of 3 or less, ages 18 to 65, and undergoing non-emergent colorectal surgery. The retrospective chart review yielded 24 patients meeting inclusion criteria. The mean length of stay was 4.46 days. With a benchmark average savings of 1.1 days found in the literature review, my practice site could save up to $156,816 in a one-year period if Carb-loading was employed. After sharing this information with surgeons at my clinical site, three of the four surgeons interviewed asked for more information and all four said they would consider a change in practice.