

## Does Milk of Magnesia Impact LOS After Major Colorectal Resection

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### Background

- Milk of magnesia (MoM), a magnesium hydroxide based oral laxative, has been reported to accelerate return of bowel function following surgery.
- However, there is insufficient evidence regarding the impact of MoM on postoperative recovery after colorectal surgery.
- The aim of this study is to determine the impact of milk of magnesia on postoperative length of stay in patients undergoing colorectal surgery.
- We hypothesized that MoM is associated with a reduction of length of stay (LOS) after colorectal surgery.

### Methods

- All patients who underwent colorectal resection without an ileostomy between 2015 and 2018 at the Cleveland Clinic, Department of Colorectal Surgery were included in this retrospective study.
- Patients were divided into two groups based on whether they took MoM postoperatively or not, according to surgeons' prescribing preferences.
- Consecutive patients who received MoM were included in the MoM group, while consecutive patients who did not receive MoM served as the control group.
- Age, gender, ASA class, preoperative comorbidities, procedure type, surgical approach, operative time, length of stay, readmission, postoperative complications, and mortality were evaluated and compared between the groups.

### Results

- A total of 3,292 patients were included; 523 (15.9%) patients were prescribed MoM. Patients in the MoM group were significantly older, had higher BMI, and ASA class, higher proportion of surgeries for cancer and surgeries with colostomy construction cases, cancer cases, proctectomy cases and higher ASA class patients than the control group.
- Postoperative complications were comparable. On multivariable linear regression MoM use was associated with a 13.7% reduction in LOS (MoM group 4.00 [2.00; 8.00], control group 5.00 [3.00; 8.00] p = 0.006).

	Control Group n=2,769 (84.1%)	MoM Group n=523 (15.9%)	P
Age	53.0 (16.8)	58.4 (15.8)	<0.001
Sex (female)	1,325 (48%)	261 (50%)	0.42
BMI, kg/m <sup>2</sup>	26.1 [22.7;30.5]	27.2 [23.4;32.2]	0.001
Cancer	828 (30%)	199 (38%)	<0.001
Proctectomy	1914 (69%)	388 (74%)	0.02
ASA (3-4)	1913 (69%)	401 (76%)	<0.001
Surgical Approach (MIS*)	692 (25%)	139 (26%)	0.47
Surgery time (hours)	2.73 [1.6;4.2]	2.65[1.7;3.9]	0.56
Population after ERP	1439 (52%)	246 (47%)	0.04
Emergency	61 (2%)	20 (4%)	0.04
Colostomy creation	142 (5%)	54 (10%)	<0.001
Intraoperative Complication	156 (6%)	27(5%)	0.76
Ileus	273 (10%)	57 (11%)	0.52
Anastomotic Leak	22 (0.8%)	6 (1%)	0.43
Readmission	228 (8%)	47 (9%)	0.63
Mortality	12 (0.4%)	3 (0.6%)	0.72
Length of Stay	5.00 [3.00;8.00]	4.00 [2.00;8.00]	0.12

### Conclusions

- Milk of magnesia as adjunct medication in the postoperative period following colorectal surgery was associated with a reduced LOS, without an increase in postoperative complications
- Given its low cost and excellent safety profile, we therefore recommend routine use of milk of magnesia as part of an enhanced recovery after colorectal surgery.