

Reduced length of hospital stay in colorectal surgery after implementation of an enhanced recovery protocol

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BACKGROUND: Enhanced recovery after surgery (ERAS) is a multimodal approach to perioperative care that combines a range of interventions to enable early mobilization and feeding after surgery. We investigated the feasibility, clinical effectiveness, and cost savings of an ERAS program at a major U. S. teaching hospital.

METHODS: Data were collected from consecutive patients undergoing open or laparoscopic colorectal surgery during 2 time periods, before and after implementation of an ERAS protocol. Data collected included patient demographics, operative, and perioperative surgical and anesthesia data, need for analgesics, complications, inpatient medical costs, and 30-day readmission rates.

RESULTS: There were 99 patients in the traditional care group, and 142 in the ERAS group. The median length of stay (LOS) was 5 days in the ERAS group compared with 7 days in the traditional group ($P < 0.001$). The reduction in LOS was significant for both open procedures (median 6 vs 7 days, $P = 0.01$), and laparoscopic procedures (4 vs 6 days, $P < 0.0001$). ERAS patients had fewer urinary tract infections (13% vs 24%, $P = 0.03$). Readmission rates were lower in ERAS patients (9.8% vs 20.2%, $P = 0.02$).

DISCUSSION: Implementation of an enhanced recovery protocol for colorectal surgery at a tertiary medical center was associated with a significantly reduced LOS and incidence of urinary tract infection. This is consistent with that of other studies in the literature and suggests that enhanced recovery programs could be implemented successfully and should be considered in U.S. hospitals.