

Prospective implementation of enhanced recovery after surgery to radical cystectomy at the University of Alberta Hospital

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Disclosures: None

Objectives

To determine if implementation of a Cystectomy Enhanced Recovery Pathway (CERP) improved clinical outcomes at the University of Alberta Hospital.

Introduction

Enhanced recovery after surgery (ERAS) pathways have been introduced in surgical oncology to facilitate postoperative recovery. Patients undergoing radical cystectomy and urinary diversion for bladder cancer may be ideal candidates for an ERAS pathway, as the potential for surgical stress and postoperative serious adverse events is high.

Results

The experimental groups did not differ significantly in median age, sex or TNM risk group, with the exclusion of lymph-node positive patients. A higher portion of node positive patients were found in the non-CERP cohort compared to the CERP cohort. Clinical outcomes were measured with the following endpoints: length of hospital stay, 30-day mortality, amount of serious adverse events (defined as Clavien grade 4 and above) and 30-day readmission to hospital. At the conclusion of the statistical analysis the length of stay differed significantly between the groups. The median length of stay was 9 and 13 days for the CERP and non-CERP groups, respectively. It was found that the CERP had significantly reduced the occurrence of serious adverse events, with 3 events for 48 patients, compared to 6 events for 51 patients in the non-CERP cohort. There was no evidence that the CERP reduced the amount of 30-day mortality or 30-day readmission to hospital. Limitations for this study include its non-randomized design, the amount of urinary incontinence in the study group and length of hospital stay being an imperfect measure for improved clinical outcomes. Due to the amount of urinary incontinence, the study results may not apply to continent urinary diversions.

Figure 1: CERP

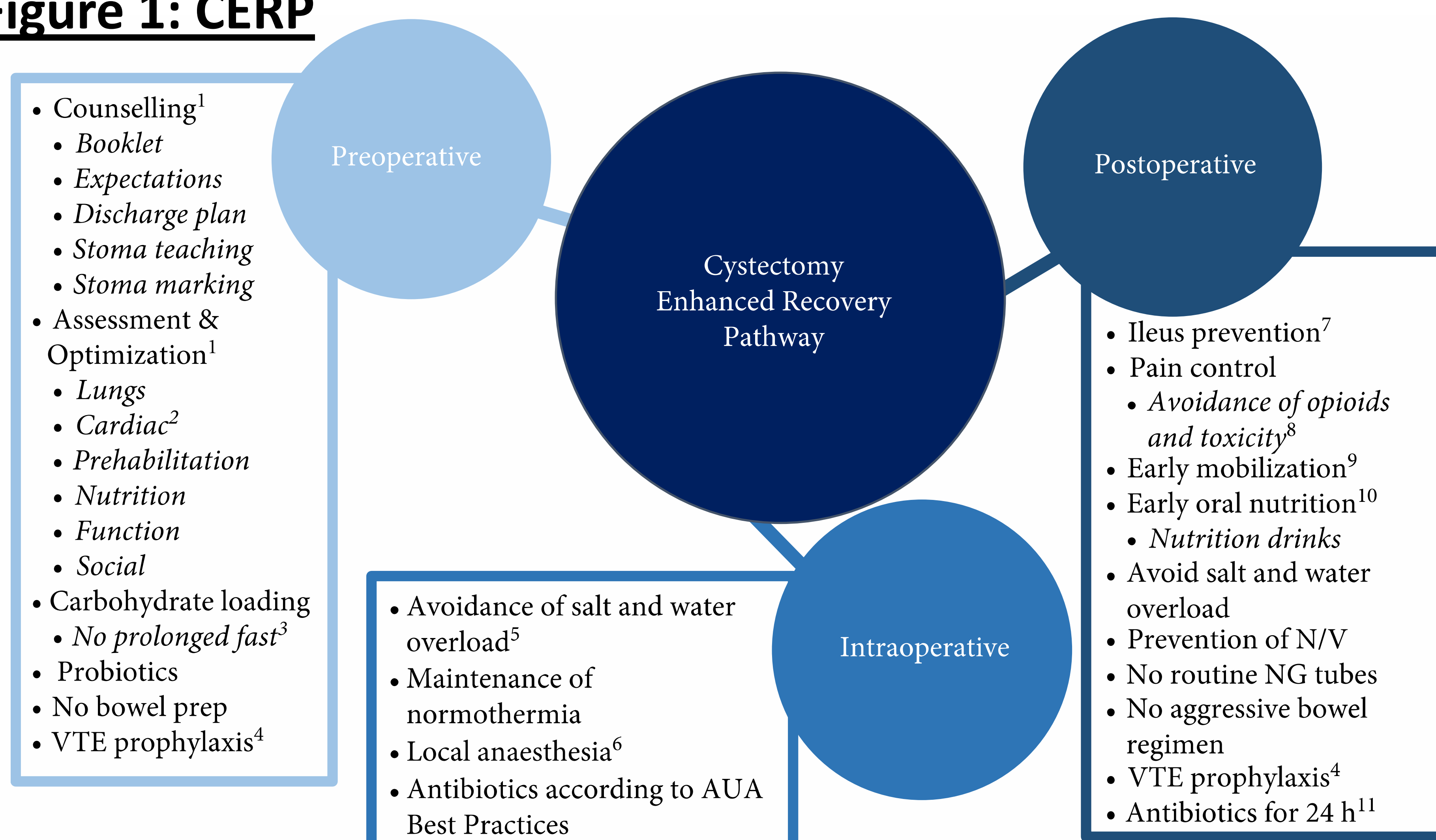


Table 2: Clinical outcomes

Variable	Non-CERP (N=51)	CERP (N=48)	P value
LOS - median (range)	13 (9-16)	9 (7-12)	<0.05
30-day mortality - no. (%)	0 (0)	0 (0)	NS
30-day SAE - no. (%)	6 (12)	3 (6)	<0.05
30-day readmission to hospital - no. (%)	8 (16)	9 (19)	NS

Table 2 Legend

LOS: Length of stay, SAE: Serious adverse events, NS: Not significant

Conclusions

The study determined if implementation of a CERP improved clinical outcomes at the University of Alberta Hospital. The pathway was associated with decreased length of stay and decreased serious adverse events with no increase in perioperative mortality or readmission to hospital. Cystectomy Enhanced Recovery Pathways provide an opportunity to improve bladder cancer quality of care.