



# Enhanced Recovery After Surgery (ERAS) vs. Conventional Protocols in Open Abdominal Hysterectomy: A Comparative Study

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## ABSTRACT

**Objective:** This study evaluates and compares postoperative recovery outcomes in women undergoing open abdominal hysterectomy using either the conventional recovery protocol (CRP) or the early recovery after surgery (ERAS) protocol. The objective is to assess the impact of ERAS on hospital stay duration, pain management, ambulation, and complications. **Methods:** A prospective comparative study was conducted on 100 women undergoing open abdominal hysterectomy for benign gynecological conditions. Patients were divided into two groups: 50 managed with CRP and 50 with ERAS. The primary outcome measures were postoperative pain scores, time to ambulation, length of hospital stay, postoperative nausea and vomiting (PONV), and surgical site infection (SSI).

**Results:** Patients in the ERAS group had significantly improved recovery outcomes. Their hospital stay was shorter ( $3.2 \pm 1.1$  days vs.  $5.8 \pm 1.4$  days for CRP), ambulation was achieved earlier ( $8 \pm 3$  hours vs.  $24 \pm 6$  hours), and postoperative pain scores were lower (VAS score:  $4.8 \pm 1.1$  vs.  $7.2 \pm 1.3$ ). Additionally, ERAS patients experienced fewer complications, with lower rates of PONV (16% vs. 30%) and SSI (4% vs. 12%).

**Conclusion:** The ERAS protocol enhances postoperative recovery after open abdominal hysterectomy by reducing hospital stay, improving pain control, and decreasing complications. These findings support the implementation of ERAS as a standard approach to improve patient outcomes and reduce healthcare burdens.

**Keywords:** Hysterectomy, ERAS, Early Recovery, Conventional Recovery Protocol

## INTRODUCTION

Hysterectomy is one of the most frequently performed gynecological surgeries, often required for conditions such as uterine fibroids, endometriosis, and abnormal uterine bleeding. Despite being a routine procedure, postoperative recovery remains a major challenge, with significant pain, delayed ambulation, and potential complications. Conventional recovery protocols (CRP) involve prolonged fasting, delayed mobilization, and reliance on opioid analgesia, which can contribute to slower recovery and increased hospital stay.

Enhanced Recovery After Surgery (ERAS) protocols, developed to optimize perioperative care, focus on multimodal analgesia, early ambulation, and reduced fasting durations. These strategies have been successfully implemented in colorectal and orthopedic surgeries but require further validation in gynecological procedures such as hysterectomy. This study aims to compare the postoperative recovery outcomes of ERAS versus CRP in women undergoing open abdominal hysterectomy.

## RESULTS

Table 1 summarizes key postoperative recovery parameters for both groups.

Parameter	CRP Group	ERAS Group
Hospital Stay (days)	$5.8 \pm 1.4$	$3.2 \pm 1.1$
Time to First Ambulation (hours)	$24 \pm 6$	$8 \pm 3$
Postoperative Pain (VAS Score)	$7.2 \pm 1.3$	$4.8 \pm 1.1$

*Table 2 presents the frequency of postoperative complications in both groups.*

Complication	CRP Group	ERAS Group
Nausea/Vomiting	15 (30%)	8 (16%)
Surgical Site Infection	6 (12%)	2 (4%)

## **DISCUSSION**

The findings of this study indicate that ERAS protocols significantly enhance postoperative recovery following open abdominal hysterectomy. The substantial reduction in hospital stay duration aligns with previous research suggesting ERAS reduces healthcare costs and optimizes resource utilization. Earlier ambulation and lower pain scores in the ERAS group demonstrate the effectiveness of multimodal analgesia and early mobility in improving patient outcomes.

Pain management in the ERAS group was achieved using non-opioid analgesics, reducing opioid-related side effects such as nausea and constipation. The lower incidence of postoperative nausea and vomiting (PONV) and surgical site infection (SSI) supports the hypothesis that early mobilization and reduced fasting contribute to better postoperative recovery.

While ERAS has demonstrated significant benefits, challenges remain in implementation, including the need for multidisciplinary coordination and patient adherence. Further studies are required to evaluate long-term outcomes and optimize ERAS protocols for gynecological surgeries.

## **CONCLUSION**

ERAS significantly improves postoperative recovery outcomes following open abdominal hysterectomy compared to conventional recovery protocols. It reduces hospital stay, enhances pain management, and lowers the risk of complications. Given these findings, ERAS should be considered as a standard approach in perioperative care for hysterectomy patients. Future research should focus on refining ERAS protocols for wider application in gynecological surgeries.

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