Chirurgia (Bucur). 2025;120(2):159-168
http://dx.doi.org/10.21614/chirurgia.3118

Impact of Enhanced Recovery after Surgery Program Implementation. Our Results

Victor Constantin Ștefănescu[1,2], Andreea-Marilena Ionescu[3], Sabrina Florentina Florea[1,2,3], Mihai Alexandru Vasile[3], Vlad Bătăilă[4], Daniel Cochior[5,6]
[1]First Department of General Surgery, Dr. Carol Davila Central Military Emergency University Hospital, Bucharest, Romania
[2]Medicine Doctoral School, Titu Maiorescu University of Bucharest, Bucharest, Romania
[3]Department of General Surgery, Medlife Medical Park Hospital, Bucharest, Romania
[4]Clinical Cardiology Department, Bucharest Clinical Emergency Hospital, Romania
[5]Department of Medical-Clinical Disciplines, Faculty of Medicine, Titu Maiorescu University, Bucharest, Romania
[6]Department of General Surgery, Monza Clinical Hospital, Bucharest, Romania

Abstract

Background: The Enhanced Recovery After Surgery (ERAS) program is a multimodal, evidence-based perioperative care pathway to improve postoperative recovery. This study evaluates the impact of ERAS implementation on clinical outcomes, with a focus on length of stay (LOS) and postoperative complications in patients undergoing colorectal surgery.

Methods: We conducted a retrospective-prospective cohort study involving 231 patients who underwent elective colorectal surgery between 2016 and 2023. Patients were divided into two groups: pre-ERAS (n=84, 2016–2019) and ERAS (n=147, 2020–2023). The primary outcome was LOS, while secondary outcomes included postoperative complications and blood transfusion requirements. Statistical comparisons were made using the Student's t-test and the chi-square test, with significance defined as $p<0.05$.

Results: ERAS implementation was associated with a significant reduction in LOS - from 10.3 days to 5.5 days ($p<0.01$). Although the overall complication rate did not differ significantly ($p=0.15$), fewer patients in the ERAS group experienced complications (10.5% vs 18.1%). No significant differences were found in rates of anastomotic leaks, surgical site infections, or postoperative transfusion.

Conclusion: The ERAS protocol significantly reduced hospital stays without increasing postoperative morbidity in colorectal surgery patients. These findings support the clinical value and feasibility of the protocol.

Keywords: enhanced recovery after Ssurgery, colorectal surgery, length of stay, postoperative complications, minimally invasive surgery