

Title: ENHANCED RECOVERY AFTER SURGERY: DOES THE PROVISION OF AN IMMUNE-MODULATING PROTEIN SUPPLEMENTS IMPROVE POST-OPERATIVE OUTCOMES?

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Objectives: It is widely known that patients undergoing surgery with poor nutritional status are at greater risk for post-operative complications such as increased length of stay (LOS), surgical site infections (SSI), and readmission. This study determined if the provision of an immune-modulating protein supplement via grant-funded efforts (Impact AR®, Nestle™) prior to surgery improves clinical outcomes versus patients who purchased the supplement out-of-pocket.

Design: A cross-sectional, retrospective study was conducted to compare grant-funded (GF) and self-pay (SP) cohorts. Clinical outcomes were collected from an MUSC database. Self-reported survey of dietary compliance was also studied in the GF group.

Methods and Instruments: Since 2014, all patients undergoing gastrointestinal surgery are instructed to drink Impact AR® prophylactically (3 cans/day for 5 days). SSI, LOS, and 30-day readmission rates were compared between the GF group (n=120) and the SP group (n=120). Returned surveys from the GF group were collected at their post-surgical visit.

Results: Eighty-three percent of the GF cohort reported drinking $\geq 2/3$ of the prescribed regimen, with 71.6% reporting perfect compliance. Mean and standard deviation of LOS in the GF group vs. SP group was 6.37 ± 5.5 days vs. 8.30 ± 7.9 days ($p=0.03$), respectively. The incidence of 30-day readmission and SSI were 14.2% and 15.1% in the GF group vs 32.5% and 29.2% among the SP group.

Conclusion: Previous studies support this data by showing the benefits of immune-modulating protein supplementation. A no-cost provision of Impact AR® for surgical patients is beneficial in preventing post-operative complications, which potentially decreases the financial burden of healthcare costs.

Conflict of Interest: None

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