

ERAS Improves Timely Return to Intended Oncology Therapy among Gynecologic Oncology Patients Undergoing Interval Cytoreductive Surgery after Neoadjuvant Chemotherapy

Joan I. Tankou¹, Olivia W. Foley², Michele F. Anderson¹, Kevin M. Elias¹

¹Brigham and Women's Hospital, Boston, MA; ²Harvard Medical School, Boston, MA.

BACKGROUND: Neoadjuvant chemotherapy is selected for gynecologic oncology patients when poor functional status or excessive disease burden precludes complete primary cytoreduction. Return to intended oncologic treatment (RIOT), in this case resumption of chemotherapy post-operatively, has been proposed as a quality metric for this population.

OBJECTIVES: To examine whether an Enhanced Recovery After Surgery (ERAS[®]) program could reduce the time for RIOT, defined as resumption of chemotherapy within 28 days of surgery.

STUDY DESIGN: We conducted a single center retrospective cohort study of gynecologic oncology patients undergoing interval cytoreductive surgery via laparotomy after neoadjuvant chemotherapy. The pre-ERAS[®] cohort underwent surgery between 2010 through 2014. The post-ERAS[®] cohort underwent surgery in 2017 after full implementation of the ERAS[®] program.

RESULTS: The final study population included 150 pre-ERAS[®] patients and 27 post-ERAS[®] patients. The post-ERAS[®] group was a higher risk cohort as indicated by significantly higher BMI, surgical complexity, and rates of bowel surgery when compared to the pre-ERAS[®] group. At 28 days postop, 81% of patients had resumed chemotherapy in the post-ERAS[®] cohort compared to only 64% in the pre-ERAS[®] cohort (OR 2.98; 95% CI: 1.14-7.79; p = 0.03). Length of stay post-ERAS[®] decreased from a mean of 4.73±2.64 days to 3.93±1.54 days (p=0.13). There were no significant differences noted in rates of post-operative complications.

CONCLUSION: ERAS[®] resulted in significant RIOT improvement after interval cytoreductive surgery despite a higher risk surgical population. Given no difference in post-operative complications, we suspect that more timely RIOT is driven by faster return to normal function.