fluid restriction is a key component of an enhanced recovery after surgery (ERAS) program. Our goal was to identify correlations between intra-operative fluid volume and the rate of ARC defined by the Riffle criteria. We also aimed to determine the impact of ARC on postoperative length of stay (LOS).

Methods: Data was evaluated prospectively on consecutive patients undergoing open gynecologic surgery between 11/03/14 and 12/12/16. ERAS patients were compared with historical control patients treated under conventional pathways (pre-ERAS). The following was analyzed: intraoperative fluid balance, LOS, intraoperative transfusions, readmission, reoperation, renal and genitourinary complications, and postoperative ARC. The incidence of ARC was estimated (RIFLE criteria: Acute Renal Risk, Acute Renal Injury, or Acute Renal Failure) for each patient group with an exact 95% confidence interval. We used logistic regression methods to model the logic of the probability of ARC as a function of patient groups and other factors found to be differential between the patient groups. We started with a saturated model including all factors found on univariate analysis with p<0.25 and then used backward elimination until all remaining factors were significant with p<0.05.

Results: There were a total of 582 ERAS patients and 74 pre-ERAS patients. The incidence of ARC (by RIFLE) was 9.6% for the ERAS group [95% CI: 7.4-12.3] and 9.5% for the non-ERAS group [95% CI: 3.9- 18.5 (p=0.9999)]. Patients in the ERAS group with ARC had median LOS of 6 days (range; 2−57), while those without ARC had median LOS of 3 days (range 1 − 25) (p<0.0001). Patients in the non-ERAS group with ARC had median LOS of 6 days (range 3 − 29), while those without ARC had median LOS of 4 days (range 2 − 29) (p = 0.0754). Patients in the ERAS group received less fluids (p=0.0062) and blood products (p=0.0028) compared to non-ERAS patients.

Conclusion: The implementation of an ERAS program and perioperative fluid restriction did not result in an increased rate of ARC. Postoperative renal function compromise increases length of stay. Further studies are needed to determine cause of ARC in patients treated in an ERAS program.

Disclosure of interest: None declared.

P025
PREHABILITATION REDUCES THE EXTENT OF FUNCTIONAL DETERIORATION ASSOCIATED WITH NEOADJUVANT CHEMOTHERAPY (NAC) AND SURGERY IN PATIENTS WITH OESOPHAGO-GASTRIC CANCER

Venetia Wynter-Blyth [1,*], Laura Halliday [2], Hayley Osborn [1], Krishna Moorthy [1]. [1] *Imperial College Healthcare NHS Trust, London, United Kingdom;* [2] *Upper GI Surgery, Imperial College Healthcare NHS Trust, London, United Kingdom*

* Corresponding author.

Objectives: Patients with OG cancer are 'high-risk' surgical patients; they are often elderly, frail and require major surgery. This is compounded by the introduction of neo-adjuvant chemotherapy (NAC). The aim of this study is to assess if prehabilitation prevents or reduces the extent of postoperative functional and health-related quality of life (HRQoL) deterioration in patients with resectable oesophago-gastric (OG) cancer.

Methods: PREPARE for surgery is a multi-modal, personalised prehabilitation programme that starts prior to the commencement of NAC. Data is collected for functional, psychological and nutritional measures at 4 time points: diagnosis, completion of NAC, immediate pre-operatively and 6 weeks post-surgery. Validated measures of functional capacity are converted into a metabolic equivalent of task score (METS). Quality of life (QoL) is measured using the validated EORTC QLQ C30 questionnaire.

Results: 59 patients have enrolled into the PREPARE programme from Jan 2015 to Dec 2016. The mean age of the patients was 66 years old. There was no significant deterioration in functional capacity (METS 4.6 vs 4.2; p=0.361), overall HRQoL (75.5 vs 69.6, p=0.353) and QoL physical function (90.5 vs 82.7, p=0.117) during NAC (T1-T2). There was a significant improvement in METS from completion of NAC to immediately pre-operatively (T2-T3) (4.2 vs 5.1, p=0.001). The extent of post-operative functional decline as compared to baseline was much less than that found in the published literature: METS (4.0 to 4.3), overall HRQoL (75.5 to 71.1), and physical function QoL (90.5 to 77.4) (T1-T4).

Conclusion: Our is the first study that shows that a programme of prehabilitation can protect against the deterioration of QoL and functional capacity in OG cancer patients undergoing NAC followed by radical surgery. Prehabilitation leads to an improvement in functional capacity in the immediate pre-operative period which potentially contributes to an accelerated post-operative recovery.

Disclosure of interest: None declared.

P026
RETURN TO INTENDED ONCOLOGIC THERAPY (RIOT) AFTER SURGERY FOR GYNECOLOGIC CANCER IN AN ENHANCED RECOVERY AFTER SURGERY (ERAS) PROGRAM

Robert L. Dood [1,*], Larissa Meyer [1], Javier Lasala [2], Juan Cata [2], Gabriel E. Mena [2], Andrea Rodriguez [2], Maria Iniesta [1], Nipa Sheth [1], Gloria Salvo [1], Karen H. Lu [2], Pedro T. Ramirez [1]. [1] *Gynecologic Oncology and Reproductive Medicine, MD Anderson, Houston, United States;* [2] *Anesthesiology and Perioperative Medicine, MD Anderson, Houston, United States*

* Corresponding author.

Objectives: Return to intended oncologic therapy (RIOT) has been proposed as a novel quality indicator in oncology. Resumption of such therapies is often limited by the time to full recovery. Our goal is to measure the impact of demographic, clinical, and operative factors on RIOT in an ERAS program.

Methods: Patients who underwent open surgery for a gynecologic malignancy in an ERAS program 11/3/2014 to 10/31/16, and adjuvant therapy at MD Anderson Cancer Center were enrolled. Baseline clinical, demographic, and surgical data were measured. The impact of each covariate on the RIOT time in days was measured using non-parametric statistical tests.

Results: A total of 305 patients were identified with median age 60 years (range; 26-79) and median Charlson comorbidity index (CCI) 3 (range; 1-4). Stage III ovarian cancer was most common (28%). Median RIOT time was 29 days (range; 5-138). Age, BMI, and CCI did not have any impact on RIOT. Factors that *lessened* RIOT time were lower ECOG score, *advanced* surgical stage, and ovarian cancer. Those with *earlier* stage disease, *less* complex surgeries, and any postoperative complications were found to have the *longest* RIOT times.

Table 1
Baseline covariates and effect on RIOT

	Cohort N=305	Effect on RIOT score (p-value)
Age, *median years (range)*	60 (26-79)	0.52
BMI, *median kg/m^2(range)*	27.4 (18.2-57.1)	0.10
Charlson Comorbidity index, *median (range)*	3 (0-6)	0.88
Chronic pain diagnosis, *n=yes (%)*	24 (7.87)	0.03*
ECOG score, *median (range)*	0 (1-3)	0.04*
Hispanic ethnicity, *n=yes (%)*	37 (12.13)	0.75
LOS, *median days (range)*	3 (1-19)	0.08
Married/partnered, *n=yes (%)*	204 (66.89)	0.32
Race, *n=Caucasian (%)*	80.66	0.47
Primary cancer site, *n = Ovary/Peritoneum/Fallopian tube (%)*	175 (57.37)	<0.001*
Stage at time of surgery, *median (range)*	III (I-IV)	<0.001*
Surgical complexity score, *median (range)*	1 (1-3)	<0.001*
Surgical complication, *n=any (%)*	176 (57.70)	0.03*

Conclusion: Early stage disease and lower surgical complexity was associated with the longest RIOT times. We were not able to find an association between age, BMI, or CCI and RIOT.

Disclosure of interest: None declared.