**Objectives** We aimed to compare clinical and survival outcomes in high grade ovarian cancer (HGOC) stratified by homologous recombination deficiency (HRD) status undergoing frontline and/or maintenance therapy.

**Methods** We performed a retrospective analysis of HGOC from April 2013 to June 2019. Clinical outcomes were analyzed by (1) germline BRCA+ (2) germline BRCA - and somatic BRCA/HRD+, or (3) BRCA/HRD-. Progression free (PFS) and overall survival (OS) were estimated using Kaplan-Meier methods and modeled via Cox proportional hazards regression.

**Results** 187 patients met inclusion criteria. 106 patients had germline BRCA mutation, 26 somatic BRCA/HRD+, and 55 BRCA/HRD-. Multivariate analysis for PFS revealed that age (HR 1.02, 95% CI 1.00–1.04, p=0.01), stage (HR 5.7, 95% CI 1.39–23.4, p=0.02), R0 resection at TRS (HR 0.41, 95% CI 0.21–0.83, p=0.01), and BRCA/HRD- status (HR 1.63, 95% CI 1.07–2.48, p=0.02) were significant factors impacting PFS. Multivariate analysis for OS revealed age (HR 1.07, 95% CI 1.03–1.10, p<0.001) and R0 resection at TRS (HR 0.19, 95% CI 0.08–0.44, p<0.001) were significant factors impacting OS. 17 of 187 patients received PARPi maintenance therapy. All harbored a germline or somatic mutation in BRCA1/BRCA2 (14) or had tumors characterized by HRD (3). Multivariate analysis for PFS revealed that PARPi maintenance therapy (HR 0.14 95% CI 0.04–0.57, p=0.006) was a significant factor impacting PFS.

**Conclusions** Germline BRCA-mutant, somatic BRCA/HRD+ HGOC was associated with improved PFS and OS regardless of primary TRS or NACT. BRCA/HRD- was a negative prognostic factor for survival in HGOC. PARPi maintenance therapy was associated with improved PFS in Germline BRCA-mutant, somatic BRCA/HRD+ HGOC.
Methods Patients undergoing resection of ovarian, uterine, or cervical cancer between 2005–2019 were identified using the NSQIP database. Body mass index (BMI), weight loss, and albumin were used to evaluate whether patients met various malnutrition criteria (severe, ESPEN1, ESPEN2, ACS, mild, albumin<3.5g/dL; figure 1). Outcomes included 30-day major post-operative complications, readmission, and reoperation. Modified Poisson regression was used to estimate the association between each definition and outcomes using risk ratios (RR) and 95% confidence intervals (CI).

Results Ovarian cancer patients meeting ESPEN2 had higher risk of readmission (RR 1.69; 1.29–2.20), reoperation (RR 2.53; 1.70–3.77), and complications (RR 1.36; 1.20–1.54; Table). Uterine cancer patients meeting ACS had increased risk of readmission (RR 2.74; 2.09–3.59), reoperation (RR 3.61; 2.29–5.71) and complications (RR 3.92; 3.40–4.53). For cervical cancer, albumin<3.5 was associated with readmission (RR 1.48; 1.01–2.19), reoperation (RR 2.25; 1.17–4.34), and complications (RR 2.59; 2.11–3.17). Albumin<3.5 was also associated with increased risk of all outcomes for ovarian and uterine cancer patients.

Conclusions The malnutrition definitions predicting the highest number of adverse post-operative outcomes varies by cancer type. Major complications, readmission, and reoperation were associated with BMI<18.5 alone for ovarian cancer (ESPEN2), with 10% recent weight loss and a normal or overweight BMI for uterine cancer (ACS), and with albumin<3.5 for all cancers. These criteria may be useful for cancer-specific pre-operative planning.

OP027/#469 ELECTRONIC PATIENT-REPORTED OUTCOME (EPRO) MEASURES IN GYNECOLOGIC ONCOLOGY: INITIAL EXPERIENCE AFTER WORKFLOW IMPLEMENTATION
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Objectives The aim of this study was to report our initial experience with a mobile app of electronic patient-reported outcome (ePRO) for patients undergoing treatment for gynecologic malignancies.

Methods The target patients were introduced to a mobile app in which they could answer to pre-selected questions. The questions included the quantification of fatigue, pain, anxiety, dizziness, hair loss, peripheral numbness, tingling, nausea, myalgia, depression, insomnia and others. Two different sets of questions were used for surgery and chemotherapy.

Results A total of 61 patients reported more than 29,000 data points. The mean ages were 53.0 ± 12.2 years old for the surgery group and 54 ± 13.2 years old for the chemotherapy group. The median numbers of app use during the course of treatment was 10 and 13 for the surgery and chemotherapy groups, respectively. The mean duration of app use to complete each report was 8 ± 13 minutes for the surgery and 7 ± 12 minutes for the chemotherapy groups. This did not differ by age groups, suggesting that there were no difficulties of using the app for any specific age group. ePRO was able to detect the occurrence of both expected and unexpected side effects. In addition, a gradual increase in the severity of side effects over the course of treatment, especially for those who received chemotherapy, could be observed.

Conclusions ePRO have a great potential to improve patient care in gynecologic oncology by providing a comprehensive documentation of symptoms and side effects.

Surgical Film Abstracts

SF001/#65 LAPAROENDOSCOPIC RADICAL TRACHELECTOMY AND PELVIC LYMHPHADENECTOMY WITHOUT UTERINE MANIPULATOR
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Introduction In face of the postponement in marital and reproductive age in the modern society, most of the patients with cervical cancer have not conceived yet or still bear fertility plans. We herein introduce the Laparoendoscopic radical trachelectomy (LRT) a surgery called radical trachelectomy through a minimally invasive approach for young patients with cervical cancer to preserve fertility without compromising the oncology outcomes.