

**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

OP024/#182

#### FINDINGS AND OUTCOMES IN A POST-VACCINATION COHORT OF YOUNG WOMEN UNDER 25 YEARS ATTENDING A TERTIARY COLPOSCOPY SERVICE

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**Objectives** In 2007, human papillomavirus (HPV) vaccination was rolled out in Australia, with a high uptake of 73%, and a consequent reduction in high-grade dysplasia in young women. The aim was to provide descriptive data on post-vaccination women below 25 years between 2008 and 2017, prior to the change in cervical screening guidelines.

**Methods** A retrospective cohort analysis of women under 25 attending a tertiary colposcopy clinic.

**Results** 3128 women with a median age of 22 (range 14–24) years were identified. When comparing overall worst histology result, vaccinated women were less likely to have a high grade abnormality than unvaccinated women (RR 0.78, 95%CI 0.67–0.90, p=0.0006). Amongst those with high grade abnormalities, there was no significant difference in rates of CIN2 or CIN3 between vaccinated and unvaccinated women (RR 0.81, 95%CI 0.62–1.05, p=0.1086).

**Conclusions** This study provides baseline data on young women under the previous cervical screening program, following the introduction of the HPV vaccine.

OP025/#128

#### COMPREHENSIVE PERIOPERATIVE CARE PROGRAM TO IMPROVE SAME-DAY DISCHARGE AFTER MINIMALLY INVASIVE GYNECOLOGIC ONCOLOGY SURGERY

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**Objectives** Same-day discharge (SDD) after minimally invasive hysterectomy for gynecologic conditions has been shown to be safe and feasible. We designed and implemented a quality improvement perioperative program to improve SDD rate from 30% to 75% over a 12-month period.

**Methods** We included 102 consecutive patients undergoing minimally invasive hysterectomy at a single cancer centre during the 12-month implementation period. A pre-intervention cohort of 100 patients was identified for comparison of clinicodemographic variables and perioperative outcomes. We developed a comprehensive perioperative care program based on Early Recovery after Surgery (ERAS) principles and met bi-weekly for plan-do-study-act (PDSA) cycles. Patients were followed for 30 days after discharge. We used a run chart to monitor the effects of our interventions and conducted a multivariate analysis to determine patient factors or interventions associated with SDD.

**Results** SDD rate increased from 29% to 75% after implementation (p<0.001). The post implementation cohort was significantly younger (59 vs. 65yrs; p=0.025) and had shorter operative times (180 vs. 211 minutes; p<0.001) but the two groups were similar in BMI, comorbidity, stage, and intraoperative complications. There was no difference in 30-day perioperative complications, readmissions, reoperations, emergency department visits, or mortality. The most common reason for overnight admission post intervention was nausea and vomiting (16%). Overall, 89% of patients rated their experience as 'very good' or 'excellent', and 87% felt that their post-operative length of stay was adequate.

**Conclusions** Following implementation of a perioperative quality improvement program, our interventions significantly improved SDD rates while maintaining low 30-day perioperative complications and excellent patient experience.

OP026/#45

#### MALNUTRITION AS A RISK FACTOR FOR POST-OPERATIVE MORBIDITY IN GYNECOLOGIC CANCER: ANALYSIS USING THE NATIONAL SURGICAL QUALITY IMPROVEMENT PROGRAM (NSQIP) DATABASE

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**Objectives** Malnutrition increases risk of post-surgical morbidity in gynecologic malignancies. We assessed whether different malnutrition definitions are suitable for predicting morbidity in each cancer type.