those with disease recurring in >12 mos. Artificially prolonging the platinum-free interval (PFI) with cytotoxic CT was tested in MITO-8 with poor outcomes noted. The objective of this study was to determine the impact of using non-platinum based CT in 2nd line treatment for pts with EOC recurring between 6-12 mos after completion of primary platinum-based CT at institutions where targeted therapies are routinely used in this setting.

Methods: A retrospective review of 177 pts with recurrent EOC and PFI of 6-12 mos following primary CT treated at two institutions was performed comparing those receiving platinum-based CT in the 2nd line and those not. PFI1 was defined as the date of last CT to date of recurrence. PFS2/3 were defined as start of 2nd or 3rd line CT to start of subsequent line. Survival times were summarized using the Kaplan-Meier method and compared between groups using log-rank tests.

Results: Of 177 pts included, median age at diagnosis was 62 yrs. The majority of pts were Caucasian (83%) and had high-grade serous histology (84%). Primary cytoreductive surgery (CRS) was more common (89.8% CRS vs. 10.2% iCRS). Median PFI1 was 8.2 mos (95% CI 8 – 9 mos). Second line platinum CT was omitted in 28% of pts. Bevacizumab was used in 2nd line therapy in 16% of pts and 19% received other targeted therapies. Median PFS2 for those receiving platinum CT was significantly longer than those receiving non-platinum therapy (7.1 vs 3 mos, p=0.0114). Median PFS2 was significantly longer for those receiving platinum vs. targeted therapy (7.1 vs. 3 mos p=0.0431); however, median overall survival (OS) for this comparison was not significant. Ten patients received platinum chemotherapy in 3rd line that did not in 2nd line. PFS3 by platinum status was not significant but suggests a trend toward longer PFS with platinum (4.9 vs 2.0 mos p=0.3081). Median OS was 41.4 months (95% CI 37.6 – 44.6 mos, n=176). OS for platinum in 2nd line vs. no platinum was 43.6 vs. 37.6 mos (p= 0.0174).

Conclusions: This study suggests that use of non-platinum chemotherapy and even targeted therapy to prolong PFI in pts with EOC recurring between 6-12 mos leads to worse survival. Our results confirm existing prospective data and demonstrate that even with use of targeted therapies, attempts to artificially prolong the PFI are not likely beneficial.

doi:10.1016/j.ygyno.2019.03.166

Abstract #12

Outcomes of risk-reducing surgery in women at increased risk of ovarian carcinoma

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Objectives: To describe pathologic and clinical outcomes in a large single institution series of women at risk of ovarian carcinoma (OC) who underwent risk-reducing salpingo-oophorectomy (RRSO) or primary salpingectomy (PS), with complete serial sectioning of the fallopian tubes (FTs) and ovaries.

Methods: Participants enrolled in a prospective gynecology oncology tissue bank and underwent RRSO or PS between 1999-2017. All specimens were serially sectioned per our high-risk protocol. Women were included if they had a personal or family history suggesting inherited OC, and/or mutations in OC susceptibility genes (BRCA1, BRCA2, "other OC" genes BRIP1, RAD51C, RAD51D, PALB2, BARD1, or Lynch associated genes MLH1, MSH2, PMS2, and MSH6). Medical records were reviewed for clinical characteristics. Categorical data was assessed with Fisher's exact or chi-square testing, and continuous variables with t-test.

Results: In total, 646 eligible women underwent RRSO or PS. There were 194 (30%) BRCA1, 178 (27.6%) BRCA2, 27 other OC (4.2%), and 15 (2.3%) Lynch. The remaining 232 women had surgery due to personal or family history of malignant neoplasm and had negative (14.9%) or no/unknown genetic testing (16.7%). Eighteen (2.8%) women had occult invasive or intraepithelial neoplasms at RRSO, 15 (83.3%) in the FT and 8 (44.4%) invasive. All invasive and six of ten intraepithelial neoplasms were found in BRCA1 mutation carriers. One PALB2 and three BRCA2 mutation carriers had intraepithelial neoplasms. BRCA1 mutation carriers had a 7.3% rate of occult neoplasm, higher than BRCA2 carriers (1.7%, p=0.01) and non-BRCA1 or BRCA2 carriers (0.4%, p=0.00003). Occult neoplasm occurred more frequently in BRCA1 and BRCA2 mutation carriers 45 years of age (7.0% vs 2.2%, p=0.025). On follow-up, no one with intraepithelial neoplasm was diagnosed with recurrence or primary peritoneal cancer. One woman without neoplasm at RRSO was diagnosed with primary peritoneal carcinoma 4 years later. Sixteen women underwent PS, with mean age 37 (younger than those undergoing RRSO (p<0.00001)).

Conclusions: Women with BRCA1 mutations were significantly more likely to have occult neoplasm at RRSO. One patient with high grade tubal intraepithelial neoplasia was a PALB2 mutation carrier, suggesting a similar pathogenesis to BRCA-related FT carcinoma and the need for serial sectioning in all women at increased OC risk. PS with delayed oophorectomy may become more common for risk reduction but still represents a small fraction of cases.

doi:10.1016/j.ygyno.2019.03.167

Abstract #13

Interval debulking surgery is not worth the wait: A National Cancer Database study comparing primary cytoreductive surgery versus neoadjuvant chemotherapy

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Objectives: In recent clinical trials neoadjuvant chemotherapy (NACT) followed by interval debulking surgery was not inferior to primary cytoreductive surgery (PCS) followed by chemotherapy as initial treatment for advanced stage epithelial ovarian cancer. Better understanding of PCS and NACT outcomes will facilitate patient selection for these treatments. The aim of this study is to compare PCS and NACT surgical and survival outcomes in a large national database.

Methods: Data was extracted from The National Cancer Database for ovarian cancer from 2004 to 2015. Only patients with advanced FIGO stage (III-IV) epithelial ovarian cancer and known sequence of treatment were included: PCS=26,717 and NACT=9,885. Residual disease after treatment was defined based on recorded data: R0 was defined as microscopic or no residual disease; R1 was defined as macroscopic residual disease. No size of residual disease was available. Multivariate Cox proportional hazard ratio was used for survival analysis. To compare 30 and 90-day mortality between groups, multivariate logistic regression analysis was utilized. Outcomes were adjusted for significant covariates.

Results: Patients who underwent PCS had better survival than patients that underwent NACT, even after adjusting for age, comorbidities, year of diagnosis, grade, stage and residual disease after surgery (p<0.001). PCS patients with R0 residual disease had the best median survival (62.6 months). NACT patients with R1 residual disease had the worst median survival (29.5 months). There was no difference between those with PCS and R1 (38.9 months) and those who received NACT and had R0 (41.8 months), HR: 0.93 (0.87, 1.0), after adjusting for age, comorbidities, year of diagnosis, grade and stage. NACT patients had 3.5 times higher 30-day mortality after surgery than

PCS patients (95% CI: 2.37, 5.39). 90-day mortality was similar for PCS and NACT patients in the multivariate analysis, HR: 1.23 (0.99, 1.51).
Conclusions: Based on this study, all patients with advanced stage epithelial ovarian cancer should be offered PCS. Tumor burden should not preclude PCS. Only patients not fit for surgery due to comorbidities should be treated with NACT.

doi:10.1016/j.ygyno.2019.03.168

Abstract #14
Comparison of treatment and outcomes between medical oncology and gynecologic oncology as adjuvant chemotherapy provider in an advanced ovarian cancer population

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Objectives: Significant survival advantages have been reported for patients who undergo initial cytoreductive surgery with gynecologic oncologists (GO). However, data are scarce regarding differences in outcomes based on the subspecialty of the physician who administers adjuvant chemotherapy.
Methods: We retrospectively reviewed charts of advanced stage (IIIC-IVB) epithelial ovarian cancer patients who received any of their treatment at our NCI-CCC institution between 1/1/2001-12/31/2015. Patients were separated into two cohorts based on the physician who administered their adjuvant chemotherapy: GO or medical oncologist (MO). The cohorts were compared in sociodemographic, clinicopathologic and treatment characteristics using Fisher's exact for categorical variables and t-test for continuous variables.
Results: Of 534 total patients, 368 (68.9%) initiated their adjuvant chemotherapy with a GO versus 166 (31.1%) with a MO. Patients were well-matched in age at diagnosis (p=0 .05), BMI (p=0.79), educational background (p=0.85), race (p=0.93), marital status (p=0.06), histological subtypes (p=0.57), grade (p=0.61), stage (p=1.0), debulking status (p=0.054), total lines of therapy (p=0.43) and platinum sensitivity (p=0.92). Patients in the GO group more often had the following: a drive >50 miles (p=0.04), private insurance (p=0.017), worse ECOG scores (p=0.035), higher Mayo surgical complexity score (p=0.042), and positive lymph nodes (p=0.031). Patients who initially sought treatment with a MO more frequently received neoadjuvant chemotherapy (14.4% vs 1.6%, p
Conclusions: In similar groups of patients, there were a greater proportion of patients with no evidence of disease or alive with disease for those receiving treatment with a GO. These data suggest that the subspecialty of the physician delivering chemotherapy may affect differences in outcomes after initial cytoreductive surgery and warrants further investigation.

doi:10.1016/j.ygyno.2019.03.169

Abstract #15
Disparate care in primary treatment of advanced ovarian cancer: Do we maintain equipoise?

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Objectives: Since 2010, multiple randomized trials have demonstrated equivalent survival with fewer adverse outcomes following neoadjuvant chemotherapy (NACT) as compared to primary cytoreductive surgery (PCS) for women with advanced stage ovarian cancer. Since then, a larger proportion of women are undergoing neoadjuvant chemotherapy, yet little is known about the characteristics of these women. The aim of this project was to evaluate whether treatment approach (NACT versus PCS) was associated with socioeconomic status, race/ethnicity or geographic distance from a gynecologic oncologist.
Methods: We performed a retrospective chart review of all women with stage III or IV ovarian, fallopian tube or peritoneal cancer receiving PCS or NACT at an urban academic medical center from 2011-2016. Descriptive analyses were performed using chi-squared, Student's t-test, or Wilcoxon log-rank.
Results: A total of 241 women were identified, and complete data was available for 149 women. Within this subset, 54 women (36%) received NACT while 95 women (64%) underwent PCS. The median age was 62 (IQR 47-77) years and the most common histology was serous (77%); these did not vary significantly by treatment course. The majority of women were white (71%), but women who received neoadjuvant chemotherapy were more likely to be Latina (17% vs. 11%) or African American (7% vs 1%, p=0.024). There was no difference in primary language, type of insurance or distance from an academic medical center between the two groups. Adjuvant chemotherapy after cytoreductive surgery varied by treatment group, with those receiving NACT more likely to receive every 3 weeks carboplatin/paclitaxel (52 vs 27%), whereas the PCS group more frequently received dose dense chemotherapy (9% vs 17%), IV/IP chemotherapy (6 vs 24%) or enrolled in a clinical trial (0 vs 9%, p<0.0001).
Conclusions: We identified disparities in treatment for ovarian cancer by race/ethnicity. Disparities in outcome for gynecologic cancer are well documented, but the etiologies for these disparities are less elucidated. When there are practice changes in a field of medicine, there is the possibility for differential care, especially in underserved populations. Future research should focus on the significance of decision making in the community, how differences in treatment may impact ovarian cancer outcomes, and identification of interventions that may reduce disparate care.

doi:10.1016/j.ygyno.2019.03.170

Abstract #16
A comparison of molecular tumor profiles from hispanic and non-hispanic women with ovarian cancer

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Objectives: Ethnic background has been associated with differences in ovarian cancer survival. Molecular profiling by next generation sequencing (NGS) has afforded the opportunity to examine somatic mutations, amplifications, and abnormalities in protein expression on an individual level. Little data exist about variations in NGS results by ethnicity. Our objective was to compare molecular tumor profiles of Hispanic (HS) and Non-Hispanic (NH) women with ovarian cancer.
Methods: Women from our institution with ovarian cancer whose tumors had undergone molecular profiling from April 2014 to October 2017 were identified. Data were collected from these reports along with tumor histology and germline testing results. Statistical analyses were done using Fisher's Exact Test and Chi-square, with significance set at p< 0.05.
Results: Data were available for 71 women, 37 (52.1%) of whom were Hispanic and 34 (47.9%) of whom were Non-Hispanic. Epithelial