Abstract ID: 11479

Title: Rucaparib versus chemotherapy in patients with advanced, relapsed ovarian cancer and a deleterious BRCA mutation: Efficacy and safety from ARIEL4, a randomized phase III study

Presenting Author: Rebecca Kristeleit, MD

Objectives: Prospective studies comparing poly(adenosine diphosphate-ribose) polymerase (PARP) inhibitors with standard-of-care (SOC) chemotherapy (CT) in patients (pts) with relapsed ovarian cancer (OC) are currently limited. ARIEL4 (NCT02855944) is a phase III, randomized, open-label, international, multicenter study of the efficacy and safety of rucaparib vs SOC CT as treatment for PARP-inhibitor naïve pts with relapsed high-grade epithelial ovarian, fallopian tube or primary peritoneal cancer, who had a deleterious BRCA1/2 (BRCA) mutation and had received ≥ 2 prior CT regimens.

Methods: Pts were randomized 2:1 to oral rucaparib 600 mg twice daily or SOC CT and stratified based on progression-free interval (>=1 to <6 months = platinum resistant; >=6 to <12 months = partially platinum sensitive; >=12 months = fully platinum sensitive). Pts in the CT arm with platinum-resistant or partially platinum-sensitive disease received weekly paclitaxel 60-80 mg/m2; pts with fully platinum-sensitive disease received investigator's choice of platinum-based CT (single-agent carboplatin or cisplatin, or platinum doublet [carboplatin + paclitaxel, carboplatin + gemcitabine, or cisplatin + gemcitabine]). Pre-study-treatment plasma samples were assessed for BRCA reversion mutations. The primary endpoint was investigator-assessed progression-free survival (PFS). Secondary endpoints included objective response rate (ORR) per RECIST and safety. Each efficacy endpoint was first evaluated in the efficacy population (randomized pts with deleterious BRCA mutations excluding those with BRCA reversion mutations), stepping down to the intent-to-treat (ITT) population (all randomized pts).

Results: A total of 233 pts were randomized to rucaparib and 116 to CT (visit cutoff Sep 30, 2020); 179 (51.3%) had platinum-resistant, 96 (27.5%) had partially platinum-sensitive, and 74 (21.2%) had fully platinum-sensitive disease. A total of 23 pts (6.6%) with BRCA reversion mutations and 1 pt without a BRCA mutation were excluded from the efficacy population. Median PFS was significantly longer with rucaparib vs CT in both the efficacy and ITT populations (Table). In an exploratory analysis of pts with BRCA reversion mutations, median PFS was shorter with rucaparib (n = 13) vs CT (n = 10); 2.9 vs 5.5 months, hazard ratio 2.769 (95% CI, 0.989–7.755). ORR was not significantly different between the rucaparib and CT arms in both populations (Table). Adverse events were consistent with the known safety profiles of rucaparib and CT.

Conclusions: Patients with BRCA-mutated advanced, relapsed OC who received rucaparib had a significant improvement in PFS vs SOC CT. No new safety signals were identified. This is the first prospective report from a randomized trial demonstrating that the presence of a BRCA reversion mutation predicts for primary resistance to rucaparib.

Abstract ID: 11512

Title: A multicenter, open-label, randomized, phase III study to compare the efficacy and safety of lenvatinib in combination with pembrolizumab versus treatment of physician's choice in patients with advanced endometrial cancer

Presenting Author: Vicky Makker, MD

Objectives: Results from a phase 1b/2 study showed lenvatinib (LEN) + pembrolizumab (pembro) has efficacy in patients (pts) with advanced endometrial carcinoma following prior treatment. Here, we describe the phase III study results of LEN + pembro vs treatment of physician's choice (TPC) following platinum-based therapy in pts with advanced endometrial cancer (aEC).

Methods: Pts were randomized (1:1) to receive LEN 20 mg orally QD + pembro 200 mg IV Q3W or TPC (doxorubicin at 60 mg/m2 IV Q3W or paclitaxel at 80 mg/m2 IV QW [3 weeks on; 1 week off]). Eligible pts had aEC with 1 prior platinum-based chemotherapy regimen or up to 2 prior platinum-based chemotherapy regimens, if 1 was given in the neoadjuvant/adjuvant setting. Randomization was stratified by DNA mismatch repair (MMR) status (centrally determined); pts with proficient (p)MMR tumors were further stratified by ECOG PS, geographic region, and prior history of pelvic radiation. Primary endpoints were PFS by blinded independent central review per RECIST v1.1 and OS. Key secondary endpoints included objective response rate (ORR) and safety. A graphical approach for multiplicity to control for type 1 error was used to test PFS for pts with pMMR aEC, then pts irrespective of MMR tumor status (ie, all comers), followed by OS (pMMR aEC, then all comers) and ORR (pMMR aEC, then all comers). Efficacy analyses were conducted in randomized pts; safety analyses were conducted in pts who received treatment.

Results: A total of 827 Pts (pMMR, n = 697; dMMR, n = 130) received LEN + pembro (n = 411) or TPC (n = 416). Median follow-up was 12.2 mo for pts randomized to LEN + pembro and 10.7 mo for pts randomized to TPC (data cutoff October 26, 2020). PFS was significantly improved with LEN + pembro vs TPC in pMMR aEC (median 6.6 vs 3.8 mo; HR 0.60) and in all-comers (median 7.2 vs 3.8 mo; HR 0.56). OS was significantly longer with LEN + pembro vs TPC in pMMR aEC (median 17.4 vs 12.0 mo; HR 0.68) and in all-comers (median 18.3 vs 11.4 mo; HR 0.62). ORR was significantly greater with LEN + pembro vs TPC in pMMR aEC (30.3% vs 15.1%) and in all-comers (31.9% vs 14.7%). Additional results are in the table. Median treatment duration was 231 days with LEN + pembro and 104.5 days with TPC. Overall, any-grade treatment-emergent adverse events (TEAEs) occurred at similar rates across treatment arms. Grade ≥3 TEAEs occurred in 89% of pts with LEN + pembro and 73% of pts with TPC. In the LEN + pembro arm, 30.8% pts discontinued LEN, 18.7% discontinued pembro, and 14.0% discontinued both study treatments due to a TEAE; the most common TEAEs were hypertension (64%), hypothyroidism (57%), diarrhea (54%) and nausea (50%).

Conclusions: LEN + pembro demonstrated statistically significant and clinically meaningful improvements in PFS, OS, and ORR vs TPC both in pts with aEC that was pMMR and in pts with aEC irrespective of MMR status. The safety profile of LEN + pembro was manageable and consistent with previously reported studies.

Abstract ID: 11313

Title: Phase I study of GAS6/AXL inhibitor (AVB-500) in recurrent, platinum-resistant ovarian carcinoma

Presenting Author: Katherine Fuh, MD, PhD

Objectives: AVB-500 is a first-in-class Fc fusion protein that binds the GAS6 ligand thereby inhibiting AXL signaling. Both GAS6 and AXL are highly expressed in high-grade serous ovarian cancer (HSGOC). The purpose of this study was to evaluate safety, tolerability, and preliminary efficacy of AVB-500 in combination with pegylated liposomal doxorubicin (PLD) and paclitaxel (Pac) and determine the RP2D.

Methods: Patients were enrolled in escalating dose cohorts of AVB-500 10mg/kg to 20mg/kg at q2 weeks in combination with weekly Pac 80mg/m2D1, 8, 15 q28 days or PLD 40mg/m2D1 q28 days and assessed for safety, pharmacokinetics, pharmacodynamics, and response (via RECIST v1.1, assessed by investigator). A safety review committee reviewed each cohort prior to escalation to the next higher dose level.

Results: A total of 53 patients with platinum-resistant HGSOC ovarian adenocarcinoma (PROC) were enrolled. A total of 23 patients received Pac + AVB-500 and 30 patients received PLD + AVB-500. No patients experienced a dose-limiting toxicity (DLT). A total of 53% (28/53)of patients experienced a grade 3-4 adverse event. No grade 5 events were observed. The majority of events were related to known chemotherapy side effects. No subject discontinued study therapy due to an adverse event. Confirmed ORR with Pac+AVB-500 was 35% (8/23) and 15% (4/26) in the PLD+AVB-500 subgroup. ORR in the Pac subgroup after 1-2 prior lines was 40% with a platinum-free interval (PFI)>3 months, and 60% with a PFI of <3 months. Pac treated patients who had not been exposed to bevacizumab had a 60% ORR vs 15% in the Bev pre-treated subgroup. An exposure-response analysis identified serum AVB-500 C1D15 trough levels of >13.8mg/L as the minimal efficacious concentration (MEC). Among the Pac treated subgroup, the ORR was 39% vs 22% and median overall survival (OS) was 10.3 months vs 6.7 months in the MEC-high and MEC-low groups, respectively (Figure 1). Additionally, serum soluble AXL/GAS6 ratio was measured at baseline as an indicator of pathway activation. Among the Pac treated subgroup, the ORR was 42.9% vs 0% for those with ratios >0.773 compared to those with ratios <0.773.

Conclusions: AVB-500 is a novel Fc fusion protein that binds the GAS6 ligand and targets GAS6/AXL pathway. AVB-500was found to be safe and tolerable in this Ph1B trial in combination with Paclitaxel or PLD. The RP2D was based upon PK/PD parameters. This Ph1B trial suggesteda higher ORR in the Pac treated subgroup, particularlywith C1D15 trough levels >13.8mg/L (most consistently achieved at the 15mg/kg dose level). Exploratory analysis also suggested that improved response rates may be observed in patients who have not been exposed to bevacizumab. The serum soluble AXL/GAS6 ratio may serve as a potential biomarker of pathway activation and identify patients who most benefit from Pac+AVB-500. Further development of AVB-500 15 mg/kg Q2W in combination with Pac is warranted in PROC.

Abstract ID: 10772

Title: Randomized control trial of thermal ablation of the cervix in women living with the human immunodeficiency virus in Zambia

Presenting Author: Leeya Pinder, MD, MPH

Objectives: A randomized control trial of a battery-operated thermocoagulator for the treatment of precancerous cervical lesions is ongoing in Lusaka, Zambia. We describe preliminary results of treatment efficacy in HIV-positive women.

Methods: Visual inspection with acetic acid (VIA) screen-positive women eligible for ablative treatment are randomized to receive thermal ablation (TA), cryotherapy or large loop excision of the transformation zone (LLETZ). Demographic information is collected, including human immunodeficiency virus (HIV) status and antiretroviral therapy (ART) use. Human papillomavirus (HPV) DNA sampling for known or suspected oncogenic HPV types is performed at baseline and follow-up. Treatment efficacy is based on VIA and HPV status at 6- and/or 12-month follow-up. Side-effects, pain and client satisfaction are scored and recorded, however, these data are not included in this analysis.

Results: Of the 1,683 women who have been randomized to treatment, 994 (59%) are HIV-positive with the vast majority (97%) on anti-retroviral therapy (ART). HIV-positive women were equally distributed between treatment arms (p = 0.28). Among the 1328 (79%) eligible for follow-up, follow-up data are available on 722 women (54%), of which 383 are HIV-positive. Based on VIA results alone for cure, HIV positive women had lower overall cure rates than HIV-negative women (77% vs 88%, respectively, p < 0.001), regardless of treatment type. HIV-positive women, who were also positive for HPV 16 at baseline, had significantly lower cure rates (HPV 16 clearance and VIA negative) across all study arms, compared to HIV-negative women (73% vs 88%, respectively, p < 0.001). When all HPV types are considered, overall cure rates (clearance of baseline type-specific HPV and VIA negative) in HIV positive women decreased to 49% and did not differ based on duration of HIV infection (< 2 years, 43%; >2yrs, 55%; p = 0.072).

Conclusions: In May 2020, the 173rd World Health Assembly adopted the Global Strategy to Eliminate Cervical Cancer. This sub-analysis of data from a randomized control trial of locally ablative methods for cervical precancer highlights the challenges in eradicating this disease in women living with HIV. Investigations are underway to determine the underlying causes of these findings. (NCI Grant No. 4UH3CA202721-03)

Abstract ID: 10966

Title: Eliminating racial disparities in endometrial cancer clinical trial enrollment in the Deep South: A pathway to equity

Presenting Author: Nathaniel Jones, MD

Objectives: Major racial underrepresentation onto gynecologic oncology clinical trials has been a systemic impediment towards racial equity in care. Previous work demonstrated a 9.8-fold lower enrollment of black patients onto national Gynecologic Oncology Group (GOG) trials compared to whites. In the Deep South, multiple barriers exist that further exacerbate this disparity. Our objective was to investigate clinical trial enrollment at our institution after the implementation of patient-based programs designed specifically to enhance minority enrollment in clinical trials.

Methods: An intentional multifaceted intervention was created to address black patient enrollment onto clinical trials. A lay navigation program was established at our cancer center in conjunction with oncology care models focused on improving quality of care by layering proper education of our patients on the risks and benefits of clinical trials in cancer. A diverse lay navigation workforce was hired that mirrored the demographics of our catchment area. We performed a retrospective cohort study of all endometrial cancer patients diagnosed and treated at our institution between 2012 and 2018. Expected and observed white: black ratios of racial participation in clinical trials were calculated utilizing CDC age-adjusted endometrial cancer incidence for race.

Results: A total of 1,021 patients with endometrial cancer had adequate follow-up for evaluation of this study. Per our institutional goals for oncology care models, each new endometrial cancer patient was assigned a lay navigator with clinical trial education module required for all patients. Over the study period, 84 patients were enrolled onto clinical trials. Patients were similar in age, BMI, race, morbidity, stage and tumor histology. A total of 23 out of 277 black women (8.3%) and 61 of 718 white women (8.5%) with endometrial cancer participated in clinical trials. Accounting for age-adjusted incidence of endometrial cancer in the United States, observed enrollment of black women was statistically similar to expected enrollment (1.03 fold lower than the expected $p = 0.77$). Using regional "Deep South" data, we observed a 1.15 fold higher enrollment compared to expected enrollment for black patients ($p = 0.54$). For the entire cohort, a progression-free survival (PFS) disadvantage was demonstrated for black patients compared to whites (14 vs 20 months, respectively $p = 0.02$). Stratifying by clinical trial enrollment, PFS equity was achieved for black patients compared to white patients (13 vs 14 months, $p = 0.28$) (Figure 1).

Conclusions: Clinical trial inequities can be overcome in the Deep South with specific interventions aimed at improving care for black women. Particularly encouraging are the equal progression free survival data for those enrolled onto clinical trials regardless of race.

Abstract ID: 10910

Title: Workplace bullying, harassment and microaggressions: The results of a Women of Gynecologic Oncology (WGO) survey

Presenting Author: Sarah Temkin, MD

Objectives: A high prevalence of gender discrimination and harassment has been previously described among gynecologic oncologists. This study examined whether characteristics of leadership and departmental infrastructure impact the work environment for women gynecologic oncologists (GO).

Methods: We conducted an internet-based, institutional review board (IRB) exempt survey of female gynecologic oncologists and fellows in training who are members of a 472-member Facebook group named Women of Gynecologic Oncology (WGO). Using REDcap survey platform, members provided their demographics, practice infrastructure, personal experience with workplace bullying, gender discrimination, microaggressions, and outcome effects. Demographic, practice and work environment data were summarized using descriptive statistics. Chi-square tests were used to compare work environments by leadership and departmental infrastructure characteristics.

Results: Between 7/20/2020 and 8/19/2020, 250 of 472 (53%) WGO members participated in the study survey. Most respondents were younger than age 50 years (93.6%), White (82.2%) and non-Hispanic (94.3%). A majority were married (84.7%) and had children (75.2%). Practice environments included academic (n = 152, 61.0%), private practice (n = 31, 12.4%), and hospital employed (n = 57, 22.9%), while 89.9% supervised trainees. Most respondents reported within the department of obstetrics and gynecology (n = 193, 77.5%); of those who reported elsewhere, 20 (35.7%) reported to a department of surgery. A total of 40% reported to a woman as chair; and 87 (43.3%) had a woman division director. Only 16.1% of respondents reported having a formal faculty mentor, and 55% of mentors were female. A total of 178 (71.8%) of women felt supported by their division; 153 (61.7%) by their department; 106 (76.3%) felt their suggestions are heard. Most respondents had experienced bullying, sexual harassment and microaggressions (Table). Age, race, ethnicity, practice setting, or mentorship were not statistically significantly associated with these experiences. A total of 30 (12%) of respondents perceived gender to negatively impact the careers of their male colleagues. Compared to respondents with a male chair, those with a female chair experienced similar rates of bullying (55.0 vs 47.7%, p = .33); gender discrimination (59.1 vs 52.3%, p = 0.33); or microaggressions (83.3 vs 83.0%, p = 1.00). Division director gender, specialty or department reporting structure were similarly not statistically significantly associated with the experience of bullying, gender discrimination or microaggressions.

Conclusions: Women GOs reported high rates of workplace bullying, gender discrimination and microaggressions regardless of the characteristics of their immediate leadership. These experiences begin early in the careers of women. The sources of these behaviors are multiple and varied. Proactive and deliberate intervention to improve the work environment for women GOs are urgently needed.

Abstract ID: 11175

Title: Secondary cytoreductive surgery for recurrent ovarian cancer: Who will get the most benefit?

Presenting Author: Joo-Hyuk Son, MD

Objectives: Indications for secondary cytoreductive surgery (CRS) in ovarian cancer is often dependent on the multiple confounding factors. We aimed to evaluate the treatment outcomes of recurrent ovarian cancer and investigated the factors identifying patients who most likely benefit from the surgery.

Methods: We retrospectively reviewed medical records of patients with recurrent ovarian cancer from 2002 to 2020. Treatment outcomes and potential factors for survival were evaluated between the chemotherapy and surgery groups.

Results: A total of 262 patients with recurrent ovarian cancer were identified. The patient's median age was 53 (20-80) and 87.4% of patients had initial stage III/IV disease. Of all patient, 89 (34%) patients received 2nd CRS for the disease recurrence. The median survival was 41.0 months (95%CI, 37.4-44.5) and 88 months (95% CI, 64.2-111.7 months) in the chemotherapy and surgery groups, respectively. Patients received the 2nd CRS were more likely to be young and had no gross residual disease at primary surgery, BRCA 1/2 mutation, limited metastatic lesion, and low rate of ascites (P = 0.001, 0.001, 0.001, 0.001, 0.04 respectively). In multivariate analysis Age (P = 0.010), limited lesion (P = 0.029), and progression-free interval (PFI) >12months (P=0.001) were significant prognostic factors for survival. The positive predictive value of criteria consisted of the significant prognostic factors in predicting optimal tumor resection was 100% and 80% with single regional recurrence and limited carcinomatosis in patients with good prognostic factors.

Conclusions: Secondary CRS showed a significant survival impact in a well-selected patient population. Good performance status, PFI (> 12 months) and limited lesions (single region or >= 2 regions with limited carcinomatosis) can be considered as simplified criteria for secondary CRS in recurrent ovarian cancer.

Abstract ID: 11103

Title: Patients with endometrial intraepithelial neoplasia do not need routine lymph node sampling

Presenting Author: Devon Abt, MD

Objectives: The use of sentinel lymph node (SLN) protocols in endometrial cancer has emerged as a standard of care for staging invasive endometrial cancers, while in endometrial intraepithelial neoplasia (EIN), their role is not well defined. We sought to identify preoperative characteristics that may predict the presence of concurrent endometrial cancer at the time of hysterectomy in order to identify who may benefit from nodal assessment at the time of hysterectomy.

Methods: Using billing codes for EIN or complex endometrial hyperplasia, we identified all patients with a pre-operative diagnosis of EIN from 2010 through 2020. Those who subsequently underwent surgical management (i.e. minimally invasive or open hysterectomy +/- adnexal surgery and +/- lymph node dissection) were included in this analysis. Patients were excluded if they opted for medical management or if subsequent pathology review indicated an alternative preoperative diagnosis. Data was abstracted from medical records. Data are presented as n (%) and median (interquartile range); we used modified Poisson regression to calculate risk ratios (RR) and 95% confidence intervals (CI).

Results: Of the 492 patients with a diagnosis of EIN, 378 patients underwent hysterectomy. Surgical pathology revealed 275 (73%) had EIN or no residual disease, and 103 (27%) had endometrial cancer. Age (p = 0.003), race (p = 0.02), and concurrent diagnosis of hypertension (p = 0.02) were significantly associated with the presence of endometrial cancer on final pathology. Notably, the median pre-operative endometrial thickness was significantly greater in the endometrial cancer group [14mm (10-19)] than in the EIN group [11mm (8-16); p = 0.002]. When dichotomizing endometrial thickness, patients with a preoperative endometrial stripe ≥15mm were 1.77 times more likely to have endometrial cancer than those with an endometrial stripe <15mm (95% CI: 1.24-2.54). The corresponding RR for those with a preoperative endometrial stripe ≥20mm was 1.97 (95% CI: 1.34-2.90). A total of 5 patients (1.3%) were diagnosed with stage IB (>50% myometrial invasion) disease, 30 (8%) patients had tumors > 2cm, 1 (0.3%) had grade 3 histology, and 3 (0.8%) had lymphovascular space invasion (LVSI). In this cohort, only 10 (3%) of patients underwent lymph node evaluation at time of surgery based on intra-operative factors, including frozen section.

Conclusions: In a large cohort of patients with a preoperative diagnosis of EIN, 27% were found to have invasive carcinoma, but very few patients had pathologic features portending increased risk of nodal metastasis. Even fewer met intraoperative criteria for lymph node evaluation. Increasing endometrial thickness may be a useful pre-operative marker to identify who is at higher risk for concurrent endometrial cancer and could be considered a criterion for use of a sentinel lymph node algorithm in patients with EIN. Prospective studies are warranted.

Abstract ID: 10538

Title: Hysterectomy with a general gynecologist versus gynecologic-oncologist in the setting of complex atypical hyperplasia: A cost-effectiveness analysis

Presenting Author: Sarina Chaiken, BA

Objectives: The standard of care for patients with endometrial complex atypical hyperplasia (CAH) is a total hysterectomy. The underlying risk of finding endometrial cancer at the time of hysterectomy is as high as 43%. Both general gynecologists and gynecologic oncologists perform total hysterectomies. However, some patients with endometrial cancer found at the time of hysterectomy require a lymph node dissection (LND), a procedure typically done only by gynecologic oncologists. Patients who have a hysterectomy for CAH with a general gynecologist and are found to have cancer may require a second surgery with a gynecologic oncologist. In this study, we examined the cost-effectiveness of hysterectomy by general gynecologists versus gynecologic oncologists for CAH patients.

Methods: We designed a decision-analytic model using TreeAge to compare outcomes between CAH patients who received hysterectomy by a general gynecologist versus a gynecologic oncologist. Our theoretical cohort contained 200,000 patients, the approximate number of patients with new CAH diagnoses per year in the United States. Our outcomes were costs, quality-adjusted life years (QALYs), LND, LND as a second surgery, surgical site infection, and perioperative mortality. We assumed that cancer-related care and outcomes were identical for both groups except for the morbidity and mortality directly related to a second surgery for LND. We applied a cost of frozen section to the gynecologic oncologist branch. Probabilities of perioperative mortality and surgical site infection were the same regardless of surgeon specialty and were applied twice for those who underwent two surgeries. We derived all values from the literature and discounted QALYs at a rate of 3%. To assess the robustness of our model, we performed univariate sensitivity analyses.

Results: In our one-year theoretical cohort of 200,000 patients with CAH, the hysterectomy with a gynecologic-oncologist strategy was associated with a decrease in 10,744 second surgeries for LND, 546 surgical site infections, and 76 perioperative mortalities (Table 1). The hysterectomy with a general gynecologist strategy was associated with a decrease in 77 LNDs due to perioperative mortalities prior to subsequent LND. Hysterectomy with a gynecologic oncologist was the dominant, cost-effective strategy as it saved $210 million and increased QALYs by 1,138. In our sensitivity analyses, hysterectomy with a gynecologic oncologist was cost-saving and increased QALYs over a wide range of probabilities and costs for LND, surgical site infection, and perioperative mortality.

Conclusions: In our model, hysterectomy with a gynecologic oncologist for patients with CAH was associated with cost savings and increased QALYs. Our study suggests that patients undergoing hysterectomy for CAH should consider surgery with a gynecologic oncologist rather than a general gynecologist to reduce costs and outcomes associated with a second surgery.

Abstract ID: 10334

Title: Uptake and outcomes of sentinel lymph node mapping in women with atypical endometrial hyperplasia

Presenting Author: Shayan Dioun, MD

Objectives: Patients with atypical endometrial hyperplasia (CAH) are at significant risk for underlying, concurrent endometrial cancer. However, given the morbidity of lymphadenectomy (LND), patients with CAH have historically not undergone nodal assessment. Lack of data on nodal status presents a clinical challenge for women found to have occult endometrial cancer. The introduction of sentinel lymph node (SLN) mapping for endometrial cancer has reduced the morbidity of nodal evaluation however little is known about the use and outcomes of SLN mapping in women with CAH. We examined the utilization, morbidity, and cost of SLN mapping in women undergoing hysterectomy for CAH.

Methods: Women with CAH who underwent a hysterectomy from 2012-2018 in the Premier Healthcare Database were examined. Patients with an international classification of diseases (ICD) code for endometrial cancer were excluded. Performance of lymph node dissection was classified as SLN mapping, LND or no nodal evaluation based on procedural billing codes and CPT codes. Adjusted regression models were developed to examine the association between SLN mapping and perioperative morbidity, mortality and cost.

Results: Among 10,266 women who underwent hysterectomy for CAH, SLN mapping was performed in 620 (6.0%), LND in 38 (5.2%), and no lymphatic evaluation in 9,108 (88.7%). During the study period, SLN mapping increased from 0.8% in 2012 to 14.0% in 2018 (17.5-fold), while the rate of LND rose from 5.7% to 6.4% (1.1-fold increase) (P < 0.001) (Figure 1). In a multivariable model, residence in the western U.S., treatment by high-volume surgeons and use of robotic-assisted hysterectomy were associated with performance of SLN mapping (P < 0.05 for all). The overall complication rate was 5.2% in those who underwent SLN mapping, 6.9% for those who underwent LND and 6.8% in those who did not undergo nodal evaluation (P = 0.28). There were no differences in individual complications, transfusion requirements, or perioperative mortality (P > 0.05) across the groups. The median hospital cost in women who underwent SLN mapping ($9673) and LND ($9754) were substantially higher than in those who did not undergo nodal assessment ($8435) (P < 0.001). When stratified by route of hysterectomy, performance of SLN mapping was associated with a significant increase in cost among women who underwent laparoscopic hysterectomy ($2138; 95% CI, $1456 to $2820) but not for those who underwent a robotic-assisted procedure ($29; 95% CI, -$394 to $453).

Conclusions: Performance of SLN mapping is increasing rapidly for women with atypical endometrial hyperplasia. While SLN mapping is not associated with increased perioperative morbidity or mortality, performance of the procedure significantly increases hospital costs.

Abstract ID: 10883

Title: Does COVID-19 compromise SGO member well-being?

Presenting Author: Caitlin Carr, MD

Objectives: To assess the well-being of members of the gynecologic oncology healthcare team during the coronavirus disease-19 (COVID-19) pandemic using validated survey assessments of professional fulfillment, burnout, anxiety, and depression among Society of Gynecologic Oncology (SGO) members.

Methods: From June 15th-July 1st 2020, SGO members received a web-based survey consisting of the following validated measures: Professional Fulfillment Index (PFI); Generalized Anxiety Disorder (GAD-2 screener and PHQ-7); Patient Health Questionnaire (PHQ-2 screener and PHQ-9) and Impact of Event Scale-Revised (IES-6). Univariate and multivariate regression analyses were performed to identify factors associated with professional fulfillment, burnout, anxiety, and depression.

Results: Among the 254 SGO member respondents (approximately 12%), 58% (147) were ≤45 years, 73% (183) identified as female, and 76% (192) were gynecologic, medical, or radiation oncologists. COVID-19 institutional burden was reported as high/very high (23%, 59), moderate (44%, 110), or low (31%79). Most respondents provided direct patient care (96%, 242), including 22% (52) reported caring for COVID-19 patients. Personal history of COVID-19 infection was reported in 16% (41) of repondents. Among 232 PFI respondents, 58% (134) and 41% (95), respectively, met cutoff values for decreased professional fulfillment and burnout. Of those who completed the GAD (246) and PHQ (251) ultrascreeners, 25% (62) and 17% (42) screened positive for anxiety and depression, respectively. Among these, 41% (21/51) and 27% (10/37) reported potentially clinically significant anxiety and depression, while 18% (9/51) and 32% (12/37) of participant scores correlated with potentially severe depression. A total of 37% (97) reported significant trauma-related stress based on IES-6 scores predictive for post-traumatic stress disorder (PTSD). After multivariate adjustment, decreased professional fulfillment and burnout were significantly associated with screening positive for depression (p = 0.005, p = <0.001) and anxiety (p = <0.0001, p = <0.001). Positive depression screening was significantly associated with male gender (p = .027), while positive anxiety screening was associated with female gender (p = 0.007). Nurses, physician assistants and other non-physician health care professionals were more likely to screen positive for depression in comparison to physician oncologists (p = .022). When adjusted by demographic variables such as age, race, gender, burden of COVID infection, caring for COVID-19 patients, profession, history of anxiety or depression), no association was found with respect to levels of professional fulfillment or burnout.

Conclusions: Our preliminary findings suggest that the majority of SGO members are not professionally fulfilled during the first wave of the COVID-19 pandemic, which represents data that differs from pre-COVID era findings, and indicates a significant impact on professional well-being. Though we observed no association between burden of COVID-19 infection or caring for COVID-19 patients with anxiety, depression, professional fulfillment, or burnout, respondents scores indicated moderate to severe anxiety and depression, and over one-third met IES-6 criteria shown to be correlative to the diagnosis of PTSD. The longevity of these effects is of particular concern. The next phase of our study will re-survey SGO members during the second wave of the pandemic. Findings from this work can target interventions to improve SGO member well-being during current and future threats to psychological resilience.

Abstract ID: 10732

Title: Professional fulfillment and burnout among physicians at a large NCI-designated Comprehensive Cancer Center

Presenting Author: Monica Vetter, MD

Objectives: We sought to assess composite physician wellness and burnout at a large NCI-designated Comprehensive Cancer Center and to determine the association of performance on the Stanford Professional Fulfillment Index (PFI) with career satisfaction.

Methods: This was a cross-sectional study of physicians employed at the James Cancer Hospital at The Ohio State University in December of 2019 using a 115-question instrument that included the PFI, demographics and other validated measures of wellbeing and compassion. The PFI is a validated 16-item survey that measures burnout and professional fulfillment using a five-point Likert scale. Data were analyzed using independent t-tests, ANOVAs, and Pearson's correlations.

Results: A total of 173 physicians responded (46.6% response rate) with 141 respondents completing at least 75% of the survey. Sixty-three percent were males (n=89), 70% between the ages of 30-49 (n=98), and 29% with between 5-10 years of clinical practice (n=41). Respondents worked a mean of 62 hours per week (range 8-120, Med=60) with over half of the cohort providing direct clinical care for >50% of this time (58%, n=82). Thirty-four percent of respondents were medical oncologists (n=48), 32% were surgeons (n=45), 20% were hospital-based (radiation oncology, anesthesiologists, and hospitalists (n=28), and 14% self-classified as other (n=20). 87% of respondents were married/partnered (n=123) with a majority of partners/spouses in a nonmedical field or out of the workforce (n=76, 54%). Most respondents had children at home (n=85, 60%).There were no relationships between PFI subscale scores and collected demographic data (Table 1). All PFI subscales were significantly correlated with all categories of personal/professional support. Support from administration demonstrated the strongest correlation with both Professional Fulfillment and Burnout. PFI Burnout was significantly correlated with average hours worked per week. Higher scores on PFI Professional Fulfillment were associated with a willingness to encourage their children to pursue medicine and a report that they would again pursue medicine as a career; higher PFI Burnout scores produced the opposite effect. Finally, all PFI scales were significantly correlated with a likelihood of leaving their current practice within two years.

Conclusions: There were no differences between PFI performance and traditional demographic variables, however an increase in hours worked per week was associated with higher rates of reported exhaustion, disengagement and overall burnout. Participant attitudes toward medicine as a profession highlight the role of professional fulfillment and burnout in how personal and professional decisions are made. Additionally, we found that performance on the PFI was associated with a likelihood of leaving the institution. These findings could identify a cohort of physicians who would benefit from additional intervention and support.

Abstract ID: 11357

Title: Cost-effectiveness of hyperthermic intraperitoneal chemotherapy at primary cytoreduction of epithelial ovarian cancer based on residual disease status

Presenting Author: Courtney Penn, MD

Objectives: Hyperthermic intraperitoneal chemotherapy (HIPEC) has been shown to confer an overall survival (OS) benefit in a cost-effective manner when used at interval cytoreductive surgery after neoadjuvant chemotherapy for advanced ovarian cancer. Regarding the use of HIPEC at primary cytoreductive surgery (PCS), a recent multicenter retrospective cohort study demonstrated an OS advantage compared to PCS alone in women with stage III epithelial ovarian cancer (EOC). The objective of this study was to evaluate the cost-effectiveness of HIPEC in this setting.

Methods: A decision analytic cost-effectiveness model of the US health care sector using simulated patients with stage III primary epithelial ovarian cancer was developed for three scenarios: 1) patients with optimal cytoreduction, 2) patients with suboptimal cytoreduction, and 3) all patients regardless of residual disease status. The base case for each model compared two surgical strategies: 1) PCS versus 2) PCS with HIPEC. Model inputs including median survival time, Kaplan-Meier estimates of OS, and costs were obtained from published studies. The time horizon was three years. The primary outcome was incremental cost-effectiveness ratio (ICER) in US dollars per life-year saved (LYS).

Results: Assuming a willingness-to-pay threshold of $100,000 per LYS, PCS with HIPEC could be considered cost-effective in all three scenarios compared with PCS alone. The ICER was $9,789/LYS in optimally cytoreduced patients, $18,164/LYS in suboptimally cytoreduced patients, and $7,854/LYS for all patients regardless of residual disease burden.

Conclusions: PCS with HIPEC appears to be a cost-effective strategy for patients with advanced epithelial cancer with all ICERs far below the willingness-to-pay threshold. This warrants further investigation of HIPEC in these clinical settings.

Abstract ID: 10970

Title: Integrated multi-omic analyses reveals clinical relevance of endometrial cancer cell line models

Presenting Author: Nicholas Bateman, PhD

Objectives: Endometrial cancer (EC) cell lines models established from diverse ancestral backgrounds and reflective of in situ disease characteristics are necessary to support preclinical investigations with broad generalizability. We performed multi-omic analyses of EC cell line models established from women representing diverse ancestries and compared these with clinical and molecular profiling data from the TCGA UCEC patient cohort to assess the relevance of models to in situ clinical and molecular disease characteristics.

Methods: Whole genome sequencing (WGS), transcriptome (RNAseq) and proteome (LC-MS/MS and RPPA) analyses were performed for primary cell line models established from endometrioid EC patients (NCI-EC1, ACI-80, ACI-181, ACI-52, ACI-61 and ACI-68) as well as commercial EC models (MFE-296, SNG-M, HEC1A, RL95-2, Ishikawa, AN3-CA, KLE). Microsatellite instability (MSI) was determined from WGS data using MSISensor2 and standard ancestry estimates by comparison with reference populations from the 1000 Genomes Project. Hierarchical cluster analyses was performed using Pvclust and differential analyses using LIMMA. TCGA UCEC clinical and transcriptome data (n = 371 patients) were downloaded from the TCGA UCEC manuscript supplement or cbioportal.org and odds ratio significance was assessed using Fisher's exact test (p < 0.05).

Results: EC cell line models are MSI-high except ACI-61, ACI-68 and KLE cells which are microsatellite stable. Standard ancestry estimates showed most cell lines are from women of European ancestry except Ishikawa, HEC1A and SNG-M which are of East Asian ancestry and NCI-EC1, ACI-181 and ACI-80 which are of African ancestry. Unsupervised hierarchical analysis of proteome data revealed distinct clusters comprising MFE-296, AN3-CA, ACI-68, ACI-61, NCI-EC1 cells (cluster 1) and ACI-80, ACI-52, HEC1A, SNG-M, RL95-2, KLE, ACI-181 and Ishikawa cells (cluster 2). Differential analyses showed elevated levels of mesenchymal markers (eg, vimentin) and lower levels of epithelial markers (eg, E-cadherin) in cluster 1 versus 2 cells. Correlation of transcript-level data with TCGA UCEC patients showed all cell lines are significantly correlated with endometrioid versus mixed/ uterine serous carcinoma tumors except NCI-EC1, ACI-52, HEC1A and KLE cells. Most cell lines significantly correlated with MSI-H patient tumors and largely trended as being correlated with tumors harboring high mutational loads, except ACI-68 and KLE cells. Cluster 2 cell lines are largely correlated with tumors exhibiting low somatic copy-number alterations except KLE, Ishikawa and HEC1A cells and are significantly correlated with tumors classified as hormonal versus mitotic or immunoreactive molecular subtypes except KLE cells.

Conclusions: We describe EC cell line models established from women of diverse patient ancestries including those from women of African descent (i.e. NCI-EC1, ACI-181 and ACI-80 cells) that represent novel preclinical resources to investigate ancestry-linked molecular alterations underlying racial disparities between European and African-American women diagnosed with EC. We further define EC cell line models correlating with endometrioid tumors that exhibit more epithelial-like (elevation of E-Cadherin) as well as hormonal characteristics that will benefit preclinical investigations of endometrioid EC disease biology.

Abstract ID: 10946

Title: Towards a 'hot' tumor phenotype: DKN-01 sensitizes the tumor micro-environment via pro-immune cell cytokine release in vitro and ex vivo

Presenting Author: Jhalak Dholakia, MD

Objectives: The Wnt/-catenin pathway has been associated with a 'cold' tumor microenvironment (TME) in ovarian cancer that allows for unregulated tumor progression. We characterized the impact of inhibiting DKK1 - a Wnt pathway target gene - on immune-related molecular responses in ovarian cancer.

Methods: Data was collected from human cell lines, ascites collected from patients with HGSOC, and tissue from patient tumor samples treated with a DKK-1 inhibitor (DKN-01.) Ascites from 10 high grade serous ovarian cancer (HGSOC) patients were isolated, cultured in vitro, and treated with control or 0.5uL/mL DKN-01 for 48 hours. Cell lysates were collected for multiplex cytokine/chemokine array. Human ES2 epithelial ovarian cancer (EOC) cells were cultured in vitro and treated with control or DKN-01; RNA-sequencing was performed to characterize differential gene expression changes in response to treatment. We also performed H&E staining of human tumor tissue from six patients with recurrent gynecologic malignancies (EEC, MMMT, EOC), pre- and post-DKN-01 monotherapy.

Results: DKK1 blockade via DKN-01 was associated with an enhanced pro-inflammatory response as exhibited by enhanced inflammatory cytokine/chemokine gene expression and secretion; these findings were associated with improved local immune cell presence. In human ascites, there was a >20% increase in IL-8, CCL5 and CCL4 cytokines in response to DKN-01; these cytokines are associated with enhanced leukocyte, T cell, NK cell, and monocyte recruitment. Additionally, there was a >20% increase in CXCL9 and EGF cytokines (both associated with T cell activation), and GM-CSF (associated with pro-inflammatory/anti-tumor M1 macrophage polarization) in response to DKN-01. RNA-seq analysis of human ovarian tissue from patients with DKN-01 treatment showed a statistically significant increases in gene expression of pro-inflammatory chemokines CXCL8 (p < 0.001) and IL-18BP (p < 0.05) compared to matched controls.

Conclusions: DKK1 blockade facilitates a pro-inflammatory TME via increased local immunostimulatory cytokine production and release, providing a mechanism of action for improved clinical outcomes for gynecologic cancer patients by creating a 'hot' TME. Based on these findings, further studies are needed to investigate how DKK-1 inhibition could prime the TME to sensitize ovarian cancer to immune checkpoint blockade.

Abstract ID: 11154

Title: Progestin significantly inhibits carcinogenesis in the mogp-TAg mouse model of fallopian tube cancer

Presenting Author: Omar Nelson, PhD

Objectives: Recent studies suggest the fallopian tube epithelium (FTE) harbors the precursor for high grade ovarian cancer (HGSC), creating opportunities for targeting the FTE for ovarian cancer prevention. Preclinical evidence supports progestins as ovarian cancer preventives, but the effect of progestins on the FTE has not been well characterized. *In vitro* and primate models suggest that progestins clear genetically damaged cells in the ovarian epithelium and endometrium by activating molecular pathway such as apoptosis. The mogp-TAg transgenic mouse develops neoplastic lesions such as p53 signatures and serous tubal intraepithelial carcinoma (STIC) in the fallopian tube (FT) in a similar manner to that described in human fallopian and ovarian cancers. In this study, we investigated the inhibitory effects of the progestin-Depo-medroxyprogesterone acetate (DMPA) on FT carcinogenesis in the mogp-TAg mouse.

Methods: Mogp-TAg mice (10 per group) at 5 weeks of age were injected with vehicle or the progestin Depo-medroxyprogesterone acetate-DMPA (1mg/mouse). The mice were euthanized at 8 and 12 weeks of age and the reproductive tract was removed. H&E stained sections were used to histologically and pathologically characterize the FTs following treatment. In addition, immunohistochemistry and immunofluorescence were used to characterize lesions and the cell death pathway.

Results: There was an increase in the number of FT epithelial and stromal p53 positive cells from 5 to 12 weeks of age in the vehicle treated mice. Histologically, the FT of the vehicle treated mice developed adenocarcinoma and/or epithelial/smooth muscle hyperplasia at 8 and 12 weeks of age. Compared to the vehicle-treated mice, the FT of the DMPA treated mice were significantly smaller at 8 weeks (p < 0.005) and 12 weeks (p < 0.0005) of age. In addition, there was normal distribution of ciliated cells, less nuclear pleomorphism and epithelial tufting, and a significantly lower proliferative index (Ki67) (p = 0.001) in 8 week DMPA treated mice compared to vehicle. Accumulation of p53 in the FT was significantly reduced in DMPA(p < 0.000005) treated mice at 8 weeks compared to vehicle. There was significantly more cleaved caspase-3 in the FT of the DMPA-treated group compared to the vehicle group.

Conclusions: DMPA treatments significantly reduced the tumor burden and aberrant p53 expression in the FT of mice compared to vehicle treated animals. Our data support the hypothesis that progestins have a cytocidal effect, clearing genetically damaged cells from the fallopian tube potentially via apoptosis. These data provide evidence supporting the hypothesis that progestin may be used for prevention of ovarian cancer.

Abstract ID: 10417

Title: Interim analysis of the immune-related endpoints of the mismatch repair deficient (dMMR) and proficient (MMRp) endometrial cancer cohorts from the GARNET study

Presenting Author: Bhavana Pothuri, MD, MS

Objectives: Dostarlimab is a humanized programmed death (PD)-1 receptor monoclonal antibody that blocks interaction with the PD-1 ligands. GARNET (NCT02715284) is a phase 1 study assessing antitumor activity and safety of dostarlimab monotherapy in patients (pts) with solid tumors. Here, we report efficacy endpoints by irRECIST based on investigator assessment (IA) for the endometrial cancer (EC) cohorts.

Methods: This is a multicenter, open-label, single-arm, dose-escalation and cohort-expansion study. Here, we report on 2 independent expansion cohorts of pts with recurrent or advanced EC (dMMR EC and MMRp EC, determined by immunohistochemistry [IHC]) that progressed on or after a platinum-based chemotherapy regimen. Pts received 500 mg dostarlimab IV Q3W for 4 cycles, then 1000 mg Q6W until disease progression, discontinuation, or withdrawal. The primary endpoints of objective response rate (ORR) and duration of response (DOR) by blinded independent central review (BICR) using RECIST v1.1, and safety have been reported previously.1 Immune-related endpoints (irORR and irDOR by irRECIST) are based on IA, and are prespecified secondary endpoints.

Results: In total, 126 dMMR and 145 MMRp pts identified by IHC were enrolled and dosed. Of these, 103 dMMR and 142 MMRp pts had measurable disease at baseline by BICR, and sufficient follow-up time (6 mo) for the primary efficacy analyses. 110 dMMR and 144 MMRp pts had measurable disease at baseline by IA and sufficient follow-up time (6 mo) and were included for efficacy analysis of irORR and irDOR; some additional pts were considered to have measurable disease at baseline by IA.Efficacy data based on irRECIST are shown in the table. irORR was 45.5% in dMMR pts, and 13.9% in MMRp pts.

Conclusions: Efficacy endpoints reported by RECIST v1.1 and irRECIST show similar results. irDCR was particularly of interest in the MMRp cohort, a group with a poorer prognosis. The potential benefit seen in this single-arm trial awaits confirmation in ongoing randomized controlled studies.References - Oaknin, A, et al. Annals of Oncology (2020) 31 (suppl_4): S1142-S1215. 10.1016/annonc/annonc325. LBA36.Funding: GlaxoSmithKline

Abstract ID: 11273

Title: Comprehensive genomic profiling (CGP) via peripheral blood liquid biopsies identifies therapeutically relevant genomic alterations in tubo-ovarian and peritoneal cancer

Presenting Author: Natalie Danziger, BS

Objectives: Analysis of circulating tumor DNA (ctDNA) extracted from peripheral blood liquid biopsies is a less-invasive alternative to traditional solid tumor tissue testing. In this study, we analyzed a large cohort of liquid biopsies collected from advanced tubo-ovarian and peritoneal cancer patients to determine the clinical utility and landscape of potentially actionable genomic alterations.

Methods: CGP by a hybrid-capture based sequencing assay was performed on blood samples from 574 patients with primary ovarian, fallopian tube, or peritoneal cancer. Short variant alterations, rearrangements, and copy number gains were interrogated across exons from 70 genes and introns from 7 genes; gene deletions were not evaluated. Microsatellite instability (MSI) was also assessed by the assay. An additional cohort assayed by an expanded gene panel and an analysis of paired liquid and tissue samples will be presented.

Results: A total of 527 ovarian primary, 36 fallopian tube primary, and 11 peritoneal primary cancers were analyzed. Patients had a median age of 68 years (range 22-89+). There were 202 serous carcinomas, 7 carcinosarcomas, 7 clear cell carcinomas, 6 endometrioid carcinomas, 4 mucinous carcinomas, 1 carcinoma of mixed histology, and the remainder of the cases (n = 347) had no specified histologic subtype. A total of 508 (89%) patients had at least 1 genomic alteration detected by the assay. The most frequently altered genes were *TP53* (74%) consistent with high-grade carcinomas, *CHEK2* (24%), *ATM* (14%), *BRCA1* (7%), *NF1* (7%), *PIK3CA* (6%), *BRCA2* (5%), and *KRAS* (5%). Patients often harbored more than one alteration in *TP53, CHEK2,* and *ATM* (48%, 22%, and 16% of altered cases respectively). Alterations in *BRCA1/2* were detected in a total of 71 patients (12.3%). 8/71 cases (11.3%) had multiple alterations in either *BRCA1* or *BRCA2*, and these alterations were consistent with known reversion mechanisms that restored *BRCA1/2* function and conferred resistance to PARP inhibitors (PARPi). Follow-up was available for one of these patients, who had *BRCA2* alterations and had received 10 months of PARPi therapy prior to the collection of their liquid biopsy. A second patient showed acquisition of a second, likely reversion *BRCA1* alteration on their liquid biopsy from a solid-tissue CGP test performed 22 months prior. Rearrangements in genes associated with approved targeted therapies were detected in *FGFR2* (n = 3), *RET* (n = 1), *ROS1* (n = 1), and *ALK* (n = 1). Other potentially targetable genes altered in this cohort included *ERBB2* (1%), *BRAF* (1%), and *PALB2* (1%). Additionally, one case was found to be MSI-high.

Conclusions: CGP via liquid biopsies identified actionable alterations in metastatic or recurrent ovarian, fallopian tube, and peritoneal carcinomas across various histologic subtypes. The mutational landscape included alterations that supported the tissue diagnosis as well as potentially targetable alterations by both FDA-approved and investigational agents in clinical trials, inlcuding *BRCA1/2* mutations that conferred sensitivity and/or explained resistance to PARPi therapy. These results support the

clinical utility and integration of liquid biopsy in guiding the treatment of advanced tubo-ovarian and peritoneal cancers.

Abstract ID: 11267

Title: Transcriptomic immune profiling: A precision path forward for immunotherapy in patients with cervical cancer?

Presenting Author: John Wallbillich, MD

Objectives: Immunotherapy has emerged as a promising intervention in metastatic or recurrent cervical cancer, but response rates have been modest, albeit with some durable responses. To date, immune profiling and pathway characterization via whole transcriptome sequencing (WTS) has been limited to sampled tumors from newly diagnosed, mostly early stage disease. In the current study, we sought to use WTS-based immune profiling to develop a more representative analysis of the cervical cancer population receiving immunotherapy.

Methods: Cervical cancer tumor samples were analyzed using next-generation sequencing and whole exome sequencing (NGS: NextSeq, 592 Genes and NovaSEQ, WES), immune-histochemistry (IHC), and WTS (NovaSeq) (Caris Life Sciences, Phoenix, AZ). PD-L1 expression was tested by IHC using standard protocol (PD-L1+ threshold: CPS $\geq$1). Microsatellite instability (MSI) was tested by fragment analysis, IHC and NGS. Tumor mutational burden (TMB) was measured by counting all somatic mutations found per tumor (TMB-high: $\geq$ 10 mutations per MB). Immune cell infiltration was calculated by QuantiSeq. *TP53* mutations were used as a proxy indicator for non-HPV tumors. Statistical significance was determined using chi-square and Wilcoxon rank sum test and adjusted for multiple comparisons using Benjamini & Hochberg and Bonferroni, respectively (significance threshold: adjusted p-value < 0.01).

Results: 930 patients with cervical cancer underwent profiling from 2008-2020. Median age was 52 years. 449 (48.3%) patients had metastatic disease. Among FDA-approved companion markers of response to immunotherapy, the most commonly present was PD-L1+ (83.5%). Compared to adenocarcinoma, squamous cell carcinoma (SCC) had a more robust immune signal, with increased: PD-L1+, TMB-high status, infiltration of multiple types of immune cells (neutrophils, CD8+ T cells, regulatory T cells), as well as increased expression of multiple immune checkpoint genes (see Table 1). PD-L1+ status was significantly associated with increased macrophage M1 (3.51% vs 2.04%), CD8+ T (0.7% vs. 0%) and regulatory T (2.4% vs 1.3%) cell infiltration, yet decreased NK (2.6% vs 3.2%) cell infiltration. TMB-high was associated with significantly increased infiltration of neutrophils and CD8+ T cells. Older ($\geq$63 yrs;) patients had significantly more somatic *TP53* mutations (25.2% vs 10.1%, indicating more non-HPV tumors with increasing age) and dendritic cell infiltration compared to younger patients (Table 1).

Conclusions: Cervical SCC had a higher immune signal than adenocarcinoma: increased immunotherapy biomarkers (PD-L1 and TMB), immune cell infiltration, and upregulation of immune checkpoint genes. Non-HPV status and dendritic cell infiltration increased with advanced age. The variety of signals noted in this analysis suggests that transcriptomic immune profiling should be further investigated in the push to better predict which patients with cervical cancer might benefit most from immunotherapy.

Abstract ID: 10933

Title: Listening to our peers so we can listen to our patients: A survey of racism experienced by gynecologic oncologists

Presenting Author: Renee Cowan, MD

Objectives: To examine the role of race and ethnicity in the professional experiences and development of physicians in gynecologic oncology.

Methods: We conducted a survey of US physician members of the Society of Gynecologic Oncology. Participants were queried about demographics, perceived role of their self-identified race and ethnicity on daily professional activities, development, and experiences with discrimination. Responses were collected on a continuous scale from 0-100, where 0 is strongly disagree and 100 is strongly agree. For the analysis, we dichotomized the continuous response to a binary outcome where the collected response > 50 is 1, and 0 otherwise. All survey responses and demographic and outcome questions were analyzed descriptively using frequency (percent). The outcome questions were also summarized by whether participant self-identified as White/non-White, and chi-square and Fisher's exact tests were performed to test independence.

Results: The survey was sent to 1455 members; 21% (309) responded. A total of 80 respondents were excluded because none of the outcome questions were answered. Of the 229 remaining respondents, 69% (159) were female. A total of 78 percent (178) identified as White/Caucasian, 11% (26) as Black, 1% (2) as American Indian or Alaska Native, 10% (22) as Asian, and 5% (11) as Hispanic/Latino. Median age was 42 years (range, 30-82). A total of 14 (32) were trainees. Demographics can be found in Table 1. Non-white respondents (NW) were more likely to report negative experiences in their medical training and/or professional career ($p < 0.01$) and experiences with discrimination at work ($p < 0.01$) as a result of their racial/ethnic background. NW were also more likely to report their race/ethnicity affected interactions with their peers or trainees, staff, and patients ($p = 0.004$). When asked about race/ethnicity contributing to inconsistent professional expectations, there was no reported difference between White and NW participants ($p = 0.2$). However, NW were more likely to suspect their racial/ethnic background negatively impacted their ability to be promoted or considered for job opportunities ($p < 0.001$) and felt their actions/outcomes were unfairly critiqued because of their race/ethnicity ($p < 0.001$). More NW participants reported feeling like an outsider in social interactions at work ($p = 0.004$) and often felt they could not relate to their colleagues ($p = 0.002$). However, there was no difference among respondents regarding reported social and professional support within and outside the workplace ($p = 0.9$ and $p = 0.5$, respectively) or with difficulty finding mentorship ($p = 0.6$). A total of 85% of respondents, regardless of race, felt there is a need for increased diversity amongst gynecologic oncologists, and 66% indicated they were comfortable talking about issues of race; 65% believed race often negatively influences the care minority patients receive; 71% of felt compelled to protect minority patients; and 68% felt compelled to protect minority trainees. There was no statistically significant difference between White and NW participants for any of these questions.

Conclusions: Gynecologic oncologists appear to have different professional experiences associated with their race/ethnicity. NW respondents more commonly report negative and discriminatory experiences. However, in this national survey, gynecologic oncologists across all race/ethnicities recognize the inequalities and disparities that exist and appear to be motivated to address them.

Abstract ID: 10303

Title: Churn and catastrophe: Insurance loss and high spending among patients with gynecologic cancer in the United States in the era of the Affordable Care Act

Presenting Author: Benjamin Albright, MD, MS

Objectives: Although often considered a static characteristic in oncology research, insurance coverage is dynamic in reality, potentially changing month-to-month. The Affordable Care Act (ACA) was passed in 2010 with aims of stabilizing and expanding insurance markets, and reducing financial burden, particularly for the poor and sick. We sought to assess insurance churn and catastrophic health expenditures (CHE) among patients with gynecologic cancer in the era of the ACA.

Methods: Retrospective study of 2006-2017 Medical Expenditure Panel Survey (MEPS) respondents under age 65 reporting care in the given year related to a gynecologic cancer diagnosis. MEPS is an annual survey representative of the civilian, non-institutionalized US population. Weights were applied to estimate national rates of insurance churn (loss/change of coverage) and CHE (family out-of-pocket health spending > 10% family income), and differences between subgroups and over time were assessed by the adjusted Wald test.

Results: A total of 684 MEPS respondents under age 65 reported care related to a gynecologic cancer diagnosis in 2006-2017, representing an estimated average annual population of 533,000 persons (95%CI 462,000-603,000), which was majority White (87.0%) and non-Hispanic (85.5%). Relative to the overall under 65 US population, patients with gynecologic cancer reported higher rates of low-income (family income ≤250% federal poverty level; 45.1% vs 32.2%; p < 0.001) and employment disruption (15.2% job change/loss, 55.3% part-year unemployment, 38.6% full-year unemployment, vs 10.5%, 44.1%, and 32.4% respectively; p < 0.05 for all). In the era of the ACA since becoming law in 2010, patients with gynecologic cancer reported high annual rates of insurance churn: 8.8% (95%CI 5.2-12.5) with loss of insurance, 18.7% (95%CI 13.6-23.8) with change in insurance, 21.7% (95%CI 16.5-26.9) uninsured for at least one month, and 8.4% (95%CI 5.7-11.0) uninsured for entire year. The gynecologic cancer population also experienced high rates of catastrophic spending, with 12.8% (95%CI 8.9-16.7) reporting CHE by out-of-pocket expenses alone, and 28.0% (95%CI 21.6-34.4) when including premium spending. Non-white and Hispanic patients collectively reported elevated rates of insurance churn (25.9% insurance change, 30.2% any uninsurance, vs 16.3% and 18.7% respectively for non-Hispanic whites, p < 0.05 for both), but no difference in rates of CHE. Patients from low-income families faced significantly higher risk of CHE (22.7% vs 3.0% expenses alone, p < 0.001; 35.3% vs 20.8% including premiums, p = 0.01). Full-year Medicaid coverage was more protective from CHE compared with full-year private coverage (overall 15.3% vs 31.3%, p = 0.02; low-income 11.5% vs 62.1%, p < 0.001). In assessment for impact of the ACA comparing full ACA implementation in 2014-17 with pre-ACA years 2006-09, we observed trends towards lower rates of CHE among low-income gynecologic cancer patients after implementation, but no significant differences.

Conclusions: Gynecologic cancer patients face high rates of insurance churn, with over one in five reporting uninsurance for least one month every year, and catastrophic health spending, with over one in four reporting CHE annually. Low-income patients face the highest risks of CHE, and are better

protected with Medicaid coverage as compared to private insurance. There was no significant impact of the ACA, but small sample size limited estimate precision and power to detect small changes.

Abstract ID: 10340

Title: Towards gender equity in procedure compensation: How far have we come in 20 years?

Presenting Author: Rosa Polan, MD

Objectives: Discrepancies in the reimbursement of gender-specific procedures have been reported since the beginning of the fee-for-service model. Procedure-based reimbursement is mediated by both work relative value unit (wRVU) and a specialty-specific compensation rate. Whether gender-based discrepancies in reimbursement have improved over time and which of these factors, wRVUs assigned per procedure or dollars per RVU, are the driver of these discrepancies in unknown. We aim to describe how wRVUs for gender-specific procedures have changed over time and to compare time-based compensation for gender-specific procedures.

Methods: Using the National Surgical Quality Improvement Program (NSQIP) 2015-2018 we compared operative time and wRVUs for twelve pairs of gender-specific procedures. Only cases with a primary current procedural terminology (CPT) code and without any other procedure or concurrent procedure CPT codes were included in the analysis. Procedures were matched to be anatomically and technically similar. We further compared procedure assigned RVUs in 2015 to those assigned in 1997. We also evaluated procedure-based compensation. Procedure compensation was determined using median dollars per RVU for Urology and Gynecology provided in SullivanCotter's 2018 Physician Compensation and Productivity Survey. This was compared with specialty-specific McGraw-Hill per RVU data from 1994. Wilcoxon rank sum test was used to examine associations.

Results: A total of 12,120 patients underwent 6,217 male-specific procedures and 5,903 female-specific procedures between 2015-2018. Male-specific procedures had a median wRVU of 25.2 (IQR 21.4-25.2), significantly higher than the median wRVU of 7.5 (IQR 7.5-23.4) for female-specific procedures (p<0.001). Evaluation of wRVUs for paired procedures matched by technical complexity (e.g. exenteration for prostate versus cervix cancer) revealed that in 6 cases (50%), male versus female procedures had higher wRVUs. This is a change from 1997 when the majority (75%) of male-specific procedures had higher assigned wRVUs. Male-specific procedures were longer, lasting a median of 79 minutes more than female-specific procedures (male 136 mins [IQR 98-186] versus female 57 mins [IQR 25-125], p<0.001). Comparing gender-specific procedures by wRVU/hr female-specific procedures were reimbursed at a higher rate (10.6 RVU/hr [IQR 7.2-16.2] versus 9.7 RVU/hr [IQR 7.4-12.8], p<0.001) than male-specific procedures. However, when compensation was accounted for, male-specific procedures were better reimbursed ($599/hr [IQR $457-790] versus $555/hr [IQR $377-843], p<0.001). Overall, per procedure wRVUs for male-specific surgeries have increased 13% over the past two decades while per procedure wRVUs for female-specific surgeries have increased 26%. Reimbursement for male-specific procedures has decreased 8% ($67.30 to $61.65 per RVU) while reimbursement for female-specific procedures has increased 14% ($44.50 to $52.02 per RVU) over the past 20 years.

Conclusions: Over the past two decades increases in wRVUs for female-specific procedures and specialty-specific per RVU reimbursement have resulted in more equitable reimbursement for female-specific procedures compared with male-specific procedures. However, even with these changes, our findings support an overall lower relative value of work and reimbursement for procedures performed for women-only when compared with equivalent procedures performed for men-only.

Abstract ID: 10717

Title: Patients with recurrent gynecologic cancers and Wnt activating mutations demonstrated greater clinical benefit when treated with DKN-01 therapy

Presenting Author: Rebecca Arend, MD, MSPH

Objectives: Dickkopf-1 (DKK1) modulates Wnt signaling, promotes tumor growth through a CKAP4-AKT signaling pathway and contributes to an immune suppressive tumor microenvironment. DKN-01 (D), a neutralizing DKK1 antibody has demonstrated safety and clinical activity in advanced gynecologic malignancies. Prior literature has reported an association of *CTNNB1* mutations and an aggressive biology and shorter survival in endometrioid endometrial cancer. We previously demonstrated *Wnt* activating mutations were associated with higher DKK1 tumoral expression in advanced gynecologic malignancies.

Methods: Pts with recurrent gynecologic cancers [endometrial (EEC), ovarian (EOC) and carcinosarcoma (MMMT)] were treated with D as monotherapy (mono) or in combination with paclitaxel (pac) in a phase 2 basket trial (NCT03395080) whereby ≥50% must have had a *Wnt* signaling alteration. Here we report on the subgroup of pts with Wnt activating mutations (CTNNB1, RNF43, APC). Clopper-Pearson confidence intervals were used to study the association of *Wnt* activating mutations with clinical benefit (CR, PR or SD); Kaplan-Meier estimates/Cox-PH models were used for analyses of progression free survival (PFS) and overall survival (OS).

Results: A total of 111 pts enrolled; 52 pts treated with D mono; 59 pts treated with D + pac. Mean number of prior therapies was 3.6 (range 1, 11) and 3.9 (range 1, 10) for D mono and D + pac, respectively. A total of 108 pts (97%) with available genetics; 23 pts (21%) had *Wnt* activating mutations [CTNNB1 (n = 17), RNF43 (n = 5), APC (n = 3)]. *Wnt* activating mutations were more common in EEC (n = 17/54, 31%) than EOC (n = 2/33, 6%) and MMMT (n = 4/24, 17%). Median duration of treatment with D was 6 cycles in pts with *Wnt* activating mutations compared with 3 cycles for pts without *Wnt* activating mutations. A total of 15 of 23 (65%) evaluable pts with *Wnt* activating mutations had clinical benefit [1 PR, 14 SD; durable SD (> 4 months) in 11 of 14 pts (48%)] compared with 34 of 76 (45%) evaluable pts [1 CR, 2 PR, 31 SD; durable SD (> 4 months) in 12 of 31 SD pts (16%)] without *Wnt* activating mutations. All 4 pts with an objective response had a *PIK3CA* mutation. Pts with *Wnt* activating mutations had longer PFS [median 5.5 mos; 95% CI (1.8, 6.0)] and OS [median 22.2 mos; 95% CI (7.3, NE)] compared with pts without *Wnt* activating mutations [median PFS 2.0 mos; 95% CI (1.8, 3.1)] and OS (median 9.9 mos; 95% CI (6.9, 12.5)].

Conclusions: D has single agent activity in a subgroup of pts with *Wnt* activating mutations, historically identified as a poor prognostic group, whereby they experienced greater clinical benefit and longer survival compared with pts without *Wnt* activating mutations. A notable finding was that all responding pts had PIK3CA mutations. This study is ongoing and updated results will be presented.

Abstract ID: 10408

Title: Phase II OVARIO Study of niraparib + bevacizumab therapy in advanced ovarian cancer following front-line platinum-based chemotherapy with bevacizumab

Presenting Author: Melissa Hardesty, MD, MPH

Objectives: Niraparib improves progression-free survival (PFS) in newly diagnosed, recurrent, and heavily pretreated ovarian cancer (OC) in patients (pts) after platinum-based chemotherapy in all biomarker-defined subgroups. Bevacizumab-induced hypoxia can drive genomic instability by altering DNA damage repair pathways, including homologous recombination (HR), and it is hypothesized to sensitize tumors to poly(ADP-ribose) polymerase inhibition. OVARIO (NCT03326193) is a single-arm, open-label study evaluating niraparib + bevacizumab treatment in advanced OC after response to first-line (1L) platinum-based chemotherapy + bevacizumab.

Methods: All pts with newly diagnosed high-grade serous or endometrioid stage IIIB-IV OC who had a complete response (CR), partial response, or no evidence of disease (NED) after 1L platinum-based chemotherapy + bevacizumab were eligible. Pts receiving neoadjuvant chemotherapy (NACT) or primary debulking surgery were eligible. All pts underwent tissue testing for HR deficiency (HRd) or proficiency (HRp) at enrollment. Bevacizumab dosage was 15 mg/kg q3w up to 22 cycles, including time on 1L chemotherapy. Niraparib, 300 or 200 mg qd, based on baseline body weight and platelet count, was started within 12 weeks of completing 1L treatment and continued for 3 years or until progressive disease or unacceptable toxicity. The primary endpoint was PFS rate at 18 months from treatment initiation of niraparib + bevacizumab maintenance.

Results: The study completed enrollment at 105 pts. Most pts were stage III (79%), had serous histology (95%), received NACT (63%), and had CR/NED at the completion of 1L (63%). Overall, 47% of pts were HRd, including HRd-*BRCA* mutated and HRd-*BRCA* wild-type. The niraparib starting dose was 200 mg in 78% of pts. At 6 and 12 months, PFS rates were 90% and 75%, respectively. At 12 months, the most common grade >=3 related treatment-emergent adverse events were thrombocytopenia, anemia, and hypertension (49% of pts had pre-existing hypertension). Further safety data and PFS rates at 18 months will be presented at the meeting.

Conclusions: Safety of the niraparib + bevacizumab combination was consistent with the known side effects of each drug as monotherapy, and the preliminary data suggest that the combination is efficacious.ClinicalTrials.gov number: NCT03326193

Abstract ID: 10415

Title: An open-label phase II study of dostarlimab (TSR-042), bevacizumab (bev), and niraparib combination in patients (pts) with platinum-resistant ovarian cancer (PROC): Cohort A of the OPAL trial

Presenting Author: Joyce Liu, MD, MPH

Objectives: Preclinical evidence suggests that PARP inhibition (PARPi), anti-PD-1 therapy, and anti-angiogenic therapies have interactions that may support synergistic antitumor activity in pts with PROC. This phase 2 study evaluated activity of combination therapy with the PARPi niraparib, the PD-1 inhibitor dostarlimab, and bev in pts with PROC.

Methods: Eligible pts had high-grade, platinum-resistant (progressed ≤6 mo after completion of ≥ 4 cycles of platinum-based chemo), recurrent epithelial ovarian, fallopian tube, primary peritoneal cancer, or recurrent carcinosarcoma of the ovary (high-grade mixed histology permitted). Pts had 1–2 prior lines of anticancer therapy for OC, and no prior therapy with an anti-PD-1/-L1 or PARPi. Pts received a regimen of 500 mg dostarlimab Q3W x 4, then 1000 mg Q6W + 15 mg/kg bev Q3W + niraparib 300 mg or 200 mg (for weight <77 kg or platelet count <150,000/μL at screening) QD until discontinuation. The primary endpoint was investigator-assessed objective response rate (ORR) per RECIST v1.1. Secondary objectives were progression-free survival (PFS), safety, and disease control rate (DCR). A posthoc analysis by biomarker (*BRCA* mutation [*BRCA*m] status, homologous recombination repair mutation [HRRm], and combined positive score [CPS; a measure of intratumoral and immune infiltrate PD-L1 expression], prior lines of therapy, and prior bev use) was performed.

Results: A total of 41 pts were enrolled and dosed. Median age was 66 years old. A total of 2 pts did not have a postbaseline scan and were not included in the response-evaluable population (n = 39). Tumor *BRCA* status: 4 (10%) pts had *BRCA*m, 32 (82%) pts had *BRCA* wild-type (wt), and 3 (8%) pts were unknown (unk). A total of 7 (18%) pts had HRRm, 29 (74%) pts wt, and 3 (8%) pts unk. ORR was 17.9% (95% CI 8.7–31.1; 0 confirmed complete responses [CR], 7 confirmed partial responses [PR]); DCR was 76.9% (23 stable disease, 7 PR, 0 CR). Median PFS was 7.6 mo (95% CI 4.2–10.6). Best percentage change in target lesion size by biomarker status is shown in the figure. ORR was similar across subgroups based on prior lines of therapy, tumor *BRCA*, or HRR status. However, ORR was lower in pts who had received prior bev (prior bev ORR 6% [95% CI 0.3–25.0]; no prior bev ORR 27% [95% CI 12.6–46.8]).The most common grade ≥ 3 treatment-emergent adverse events (TEAEs) were hypertension (22.0%), fatigue (17.1%), and anemia (17.1%). A total of 6 pts (14.6%) developed grade ≥ 3 small intestinal obstruction, all assessed as not related to study drug; 1 pt developed a grade 4 bowel perforation that was assessed as related to bev. The most common serious treatment-emergent adverse effects (TEAE) were thrombocytopenia (7.3%), anemia (4.9%), and hypertension (4.9%). A total of 34.1% of pts discontinued 1 of the 3 study drugs due to a TEAE. No TEAE resulted in death.

Conclusions: Conclusion: Triplet therapy with niraparib, dostarlimab, and bev is tolerable and demonstrated clinical activity in pts with PROC, most of which were *BRCA* or HRR wt. AEs were as expected.Clinical trial identification: NCT03574779Funding: GlaxoSmithKline

Abstract ID: 10898

Title: Niraparib maintenance therapy in patients with platinum-sensitive recurrent ovarian cancer and a time-to-progression after penultimate platinum-based chemotherapy of 6-12 or >12 months: A subgroup analysis of the phase III NORA trial

Presenting Author: Qidan Huang, MD

Objectives: To determine the efficacy and safety of niraparib maintenance therapy in Chinese women with platinum-sensitive recurrent ovarian cancer (PSROC) who experienced disease progression 6-12 or >12 months after their penultimate platinum-based chemotherapy.

Methods: The double-blind, placebo-controlled, phase III NORA trial enrolled 265 Chinese women with PSROC (NCT03705156), with eligible patients randomised (2:1) to receive oral niraparib (300 mg/day, or patients with bodyweight <77 kg or platelet count <150×103/µL received 200 mg/day) or matched placebo. The primary study endpoint was progression-free survival (PFS), assessed by blinded independent central review (BICR) using the Response Evaluation Criteria in Solid Tumours (RECIST) v1.1. Adverse events (AEs) were recorded and graded using the Common Terminology Criteria for Adverse Events (CTCAE) v4.03. Time-to-progression after penultimate platinum-based therapy is thought to indicate sensitivity to platinum-based treatment. Therefore, this sub-analysis evaluated the PFS and safety of niraparib maintenance therapy in two groups of patients with PSROC; those with disease progression 6-12 months and >12 months after their penultimate platinum-based therapy. A Cox proportional hazards model was used to calculate hazard ratios (HR) and corresponding 95% confidence intervals (CI).

Results: Of the 265 patients included in the NORA study, 84 (31.7%) had disease progression 6-12 months after the penultimate therapy (niraparib, n = 56; placebo, n = 28), and 181 (68.3%) had progression >12 months after the penultimate therapy (niraparib, n = 121; placebo, n = 60). At baseline, among patients with progression after 6-12 or >12 months, respectively, 88.1% (74/84) and 59.1% (107/181) had FIGO Stage IIIC or IV disease at initial diagnosis, respectively, and other baseline characteristics were well balanced between the 2 groups. Niraparib led to a longer median PFS versus placebo in patients with disease progression 6-12 months after their penultimate therapy (11.2 vs 3.7 months; HR = 0.31; 95% CI, 0.17-0.55, p < 0.0001), and among patients with progression >12 months after their penultimate therapy (18.4 vs 5.5 months; HR = 0.33; 95% CI, 0.22-0.51, p < 0.0001). A similar result was observed among patients with and without germline BRCA mutations (Table). Niraparib was generally well tolerated in both patient subgroups.

Conclusions: Niraparib maintenance treatment provides a similar PFS benefit versus placebo in patients with a time-to-progression after their penultimate platinum-based chemotherapy of 6-12 or >12 months, regardless of germline BRCA mutation status, and is generally well tolerated in these patient populations.

Abstract ID: 10901

Title: Efficacy and safety of niraparib maintenance therapy in patients with platinum-sensitive recurrent ovarian cancer with complete or partial response to the last platinum-based chemotherapy: A subgroup analysis of the phase III NORA trial

Presenting Author: Jiaxin Yang, MD

Objectives: To evaluate the efficacy and safety of niraparib maintenance therapy among patients with platinum-sensitive recurrent ovarian cancer (PSROC) who achieved a complete or partial response (CR or PR) to the last platinum-based chemotherapy.

Methods: The double-blind, placebo-controlled phase III NORA trial enrolled 265 Chinese women with PSROC who achieved a CR or PR (evaluated by investigators) to the last platinum-based chemotherapy (NCT03705156). All patients were required to have received ≥ 2 prior lines of platinum-based therapy, with the most recent round including ≥ 4 cycles of carboplatin, cisplatin or nedaplatin. Eligible patients were randomised (2:1) ≤ 8 weeks after the last chemotherapy to receive oral niraparib (300 mg/day or 200 mg/day for patients with bodyweight < 77 kg or platelet count <150×103/μL) or matched placebo. The primary study endpoint was progression-free survival (PFS) assessed by blinded independent central review. Adverse events (AEs) were recorded and graded using the National Cancer Institute Common Terminology Criteria for Adverse Events (CTCAE) v4.03. This sub-analysis investigated treatment outcomes and safety of niraparib in patients who achieved a CR or PR to the last platinum-based chemotherapy. Survival data were summarised using the Kaplan-Meier method, and a Cox proportional-hazards model was used to calculate hazard ratios (HRs) with corresponding 95% confidence intervals (CI).

Results: Of the 265 patients enrolled, 133 (50.2%) achieved a CR (niraparib, n = 86; placebo, n = 47), and 131 (49.4%) achieved a PR (niraparib, n = 90; placebo, n = 41) to the last platinum-based chemotherapy. At baseline, among patients with a CR or PR, 64.7% (86/133) and 71.8% (94/131) had FIGO Stage IIIC or IV disease at initial diagnosis and 43.6% (58/133) and 32.1% (42/131) had germline BRCA mutations, respectively. Niraparib treatment led to a longer median PFS versus placebo in both the CR (NR vs 5.75 months; HR = 0.26; 95% CI, 0.15-0.45, p < 0.0001) and PR (8.54 vs. 3.68 months; HR = 0.33; 95% CI, 0.21-0.52, p < 0.0001) groups, and provided a PFS benefit among patients with a CR or PR regardless of germline BRCA mutation status (Table). The most common grade ≥3 TEAEs in patients receiving niraparib who achieved a CR or PR were neutrophil count decreased (23.3 and 17.8%), anaemia (17.4 and 11.1%), and platelet count decreased (9.3 and 13.3%).

Conclusions: Of the patients enrolled in the NORA trial, 50.2% achieved a CR to the last platinum-based chemotherapy. Compared with placebo, niraparib maintenance therapy provided a PFS benefit to patients with a CR or PR, regardless of germline BRCA mutation status, and was generally well tolerated.