

Conclusions: Despite lack of official recommendation for CH among *BRCA1* carriers, CH for uterine cancer risk-reduction is becoming more common over time. With improved uptake of genetic testing resulting in identification of an expanding population of *BRCA1/2* carriers, coupled with a growing emphasis on cancer risk-reduction strategies, data on the oncologic benefits and safety of CH are critical.

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Poster #30

Short-term organoid culture for drug sensitivity testing in high-grade serous ovarian cancer

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Objectives: It is hypothesized that Multi-Cellular Spheroids (MCS) found in ovarian cancer malignant effusions contain cells with stem cell-like properties. The objective of this study is to develop a short duration culture in conditions selected to support organoid growth that can be used as a platform for empiric drug sensitivity testing.

Methods: Ascites and pleural effusion specimens from high grade serous ovarian cancer (HGSOC) were collected. MCS were recovered from effusion fluid, cultured and recovered after 3 days of growth (Day 0). MCS were then resuspended and distributed into 96 well plates. On Day 1 (D1), drugs at single concentrations which approximate maximum plasma concentrations found when administered in the therapeutic setting, or control media were added to each well. Standard agents included Oxaliplatin, Paclitaxel, Olaparib, and combinations for dual therapy. Targeted agents included Mocetinostat, Trametinib, LY294002, AZD5363, BBI503, MK-1775, Sorafenib, APR-246, CB-5083 and Napabucasin. On Day 6 (D6), luminescence viability assays were performed using CellTiter Glo reagent and read using a Promega luminometer. Luminescence and organoid area were calculated for control media wells. The average percent inhibition for each drug was calculated and considered potentially clinically meaningful if it was greater than 50%. IC50 titrations were then performed on drugs with the greatest inhibition.

Results: Fourteen specimens from seven individual patients with HGSOC were included in this study. Between D1 and D6, organoids demonstrated 135% growth by ATP content and 187% growth by

mean organoid area. Among standard agents, Oxaliplatin was only marginally inhibitory while Paclitaxel was the most effective inhibitor of organoid viability. Among targeted agents, multiple drugs showed significant inhibitory effect (Figure 1). The IC50 for MK-1775, Sorafenib, APR-246, CB-5083 were calculated for a subset of specimens.

Conclusions: Short duration organoid culture of MCS from HGSOC malignant effusions can be used as a platform for empiric drug sensitivity testing. Using this model as a pre-treatment ex vivo assessment of a drug's anti-tumor activity could be helpful in the selection of the most active agents for each patient.

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Poster #31

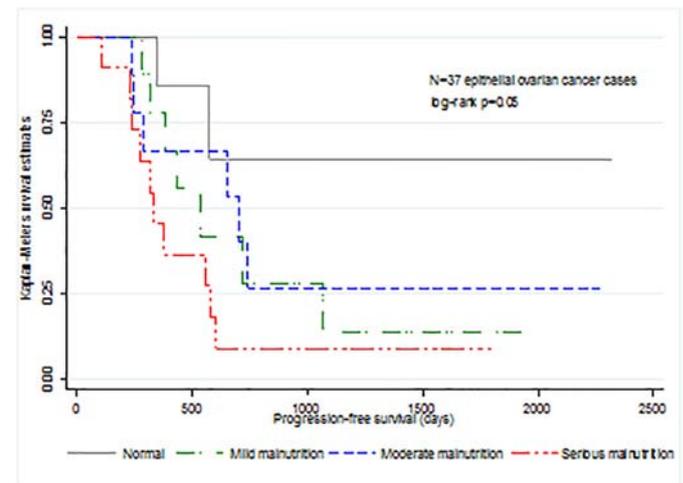
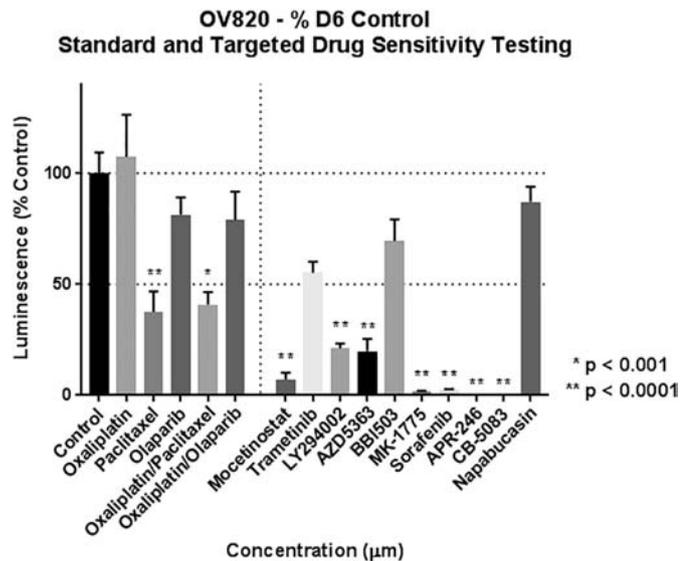
Preoperative prognostic nutritional index scores are associated with progression free survival in patients with ovarian cancer

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Objectives: Prognostic nutritional index (PNI) is an independent prognostic factor for survival in colorectal, gastric, pulmonary, and pancreatic malignancies; however, data are limited in gynecologic cancer patients. We aimed to assess the clinical significance of PNI in ovarian cancer outcomes.

Methods: A single-institution, retrospective chart review was performed for patients with primary epithelial ovarian carcinoma. PNI categories were defined as: normal ≥ 50 , mild malnutrition = 45-49.9, moderate malnutrition = 40-44.9, serious malnutrition < 40. Wilcoxon rank-sum tests, Pearson correlation coefficients, Kaplan-Meier plots, and log-rank tests assessed the independent relationship between PNI, overall survival (OS), and progression free survival (PFS).

Results: Of 147 charts reviewed, 37 patients had complete PNI data. Mean age at diagnosis was 62.8 (range 21-81 years). Most had serous pathology (70.3%) and were stage IIIC (54.1%) at diagnosis. For the overall cohort, median PFS and OS were 895 and 1,297 days, respectively. Patients with normal PNI scores had significantly longer PFS compared to those in the moderate and serious malnutrition groups ($p=0.03$; Figure 1). OS was also highest in the normal PNI group (4.8 years) and lowest in those with serious malnutrition (2.5 years), though this was not statistically significant ($p=0.13$). We also observed a non-statistically significant association between malnutrition and increased immediate post-operative complications, experienced by 8 of 12 patients with severe malnutrition compared to 1 of 7 patients with normal PNI.



Conclusions: PNI is associated with differences in both short and long-term outcomes in patients with epithelial ovarian carcinoma. This information may be useful in predicting survival, and may facilitate improved patient stratification, risk assessment, and medical optimization. Future studies with larger populations are needed to confirm these findings.

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Poster #32

The effect of New Hampshire State legislation changes on opioid prescribing practices for gynecologic oncology surgery in a tertiary care setting

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Objectives: The objective of this study is to determine the impact of HB 1423, legislation requiring participation in the state prescription drug monitoring program (PDMP), on opioid prescribing practices for acute postoperative pain control following gynecologic oncology surgery.

Methods: Patients who underwent gynecologic surgery for a cancer diagnosis between January 2016 to June 2016 (pre-HB 1423) and April 2017 to September 2017 (post-HB 1423) were included in this retrospective study. As new legislation was passed on January 1, 2017, a 6-month washout period prior to adaptation and 3-month period afterwards was included. The mandatory changes included completion of a risk stratification tool and querying the PDMP for each patient, as well as completing a narcotic-specific consent form prior to prescribing narcotics. The primary outcome is the amount of opioids prescribed in morphine milligram equivalents (MME) upon hospital discharge following surgery. Each opioid prescription at time of discharge was converted into MME; the mean MME was calculated and compared between the pre-legislation group and post-legislation group. Student's t-test and Chi-square analysis were used to compare demographic variables between groups.

Results: Of the 288 patients who underwent gynecologic surgery for a cancer diagnosis, 141 patients were pre-legislation change and 145 patients were post-legislation change. There was no significant difference in age, BMI, procedure type, estimated blood loss (EBL), use of regional pain control, or length of hospital stay between the two groups. There was also no significant difference in patients with chronic pain, history of illicit drug use or chronic narcotic use. A significant difference was observed between the amount of opioids prescribed pre-legislation and post-legislation, 180.9 +/- 14.5 MME compared to 66.6 +/- 5.8 MME respectively ($p < 0.0001$). Moreover, a significant difference was seen in the amount of opioids prescribed for both open and laparoscopic procedures. Among patients undergoing open procedures, there was a 55% reduction in MME prescribed post-legislation. Similarly, there was a 67% decrease in opioids prescribed for patients' status post laparoscopic surgery ($p < 0.0001$). The number of patients that were discharged without a prescription increased post-HB 1423 adaptation from 5.4% to 11.7% of patients following an open procedure, and 8.6% to 18% of patients following laparoscopic surgery.

Conclusions: Opioid prescribing practices for acute postoperative pain control in gynecology oncology patients changed significantly following adaptation of the New Hampshire State Legislation. Further studies are needed to determine the impact of these legislative changes on patient satisfaction, rates of continued opioid use after surgery, and rates of opioid addiction state-wide.

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Poster #33

Factors associated with operating room times in robotic gynecologic oncologic surgery

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Objectives: Operating room time is an expensive and limited resource in the hospital. Robotic surgery has become a mainstay of gynecologic oncologic surgery; however, prolonged operative times are a known limitation. This study assesses factors associated with "position-and-prep" time and operative time in gynecologic oncologic surgery.

Methods: A retrospective cohort study was performed including all gynecologic oncologic patients undergoing robotic surgery between June 2016 and May 2018 at a single, academic health center across three hospitals. Patient, provider and facility factors were extracted from a central electronic medical record system. The primary outcomes were "position-and-prep time" (the interval between completion of anesthesia induction and skin incision) and operative time (skin incision to skin closure). χ^2 tests and ANOVA tests were used for selected comparisons. Univariate and multivariate linear regression was used to assess for factors associated with longer times. All analyses were performed using STATA, Version 15.1

Results: A total of 796 robotic surgeries were performed in the study period by eight gynecologic oncologists. Patients had a mean age of 56.6 years (± 12.7 years) and a mean BMI of 31.9 kg/m² (± 8.6 kg/m²). 7.8% of the population was morbidly obese (BMI ≥ 40 kg/m²). 88.9% of the cases were total or radical hysterectomies. The mean position-and-prep time was 23.8 minutes (± 27.9 min) and the mean operative time was 168.2 min (± 65.7 min). The mean prep times differed significantly across the 3 locations: 18.7 min, 22.3 min and 41.3min ($P < 0.001$). Operative times were also significantly different across locations: 151.7 min, 168.0 min, 203.0 min ($P < 0.001$). Compared to patients with a BMI < 40 kg/m², morbid obesity was not associated with prep time ($P = 0.40$); however, it was significantly associated with longer operative times ($P < 0.001$). In multivariate regression accounting for location, morbid obesity and number of surgeons/trainees in the case, hospital location was the only predictor of prep time ($P < 0.001$). Factors associated with increased operative time in multivariate regression included performance of hysterectomy ($P < 0.001$), performance of lymphadenectomy ($P < 0.001$), location ($P < 0.001$), morbid obesity ($P = 0.006$) and increased number of surgeons ($P < 0.001$).

Conclusions: There was significant variation in prep time and operative time for gynecologic oncology robotic surgery across hospitals in a single academic institution. Position-and-prep time seems to be driven by immeasurable processes by the individual facility or surgeons. In addition to surgery type and morbid obesity, the surgical personnel, including attending surgeon and trainees, were associated with increased operative time. Operating room efficiency may be increased by collaboratively improving processes and techniques across facilities and surgeons.

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Poster #34

Flatus: Flatus after undergoing surgery: Creation of a nomogram to predict postoperative ileus after gynecologic oncologic exploratory laparotomy

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