

The rate of empty packets appeared to stabilize after approximately 30 procedures.

**Conclusions:** The odds of a SLN dissection without a lymph node identified on pathological analysis postoperatively decreases with increasing number of procedures performed. This phenomenon appears to stabilize after 30 procedures, suggesting the completion of a learning curve period.

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#### Abstract #6

##### Prevalence and predictors of HIV screening in invasive cervical cancer, an AIDS-defining illness: A 10-year retrospective cohort study

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**Objectives:** Invasive cervical carcinoma (ICC) is associated with an HIV prevalence of >0.1%. Opt-out HIV screening is recommended and cost-effective for cancer populations exceeding this threshold. HIV status is also prognostic for cancer-specific survival, but compliance with HIV screening is poor in the US and abroad. In order to determine the need for a quality improvement intervention in our Gynecologic Oncology (GO) Division, the current state of HIV testing was assessed.

**Methods:** Women treated for ICC of any stage between 2007 and 2017 at two institutions were identified by cancer registry. Women with incomplete data for age, race, ethnicity, payer, histology, stage, pregnancy, and HIV testing status, or with lack of a newly diagnosed ICC or GO evaluation were excluded. Multivariate logistical regression was performed to assess predictors of completed HIV screening.

**Results:** Of 1184 patients identified, 354 were eligible. All exclusions resulted from incomplete data. No patients had a diagnosis of pre-existing HIV. HIV screening was completed within 30 days of GO evaluation, either as a documented event or a laboratory finding, for newly diagnosed ICC in 26/354 (7.3%) women. HIV screening was documented within the preceding 12 months in 9/354 (2.5%) non-pregnant women, while an additional 1/354 (0.3%) had screening associated with pregnancy antecedent to her diagnosis. On multivariate analysis, race, ethnicity, histology, and payer status were not associated with screening. Every 5-year increase in age was associated with a lower chance of screening (OR 0.87, 95%CI 0.76 – 0.99,  $p=0.037$ ), as was earlier stage at diagnosis (OR 0.38, 95%CI 0.18–0.78,  $p=0.009$ ). Active pregnancy at the time of cancer diagnosis was predictive of screening (OR 9.3, 95%CI 1.3 – 68.1,  $p=0.028$ ).

**Conclusions:** Despite CDC recommendations for HIV screening in AIDS-defining cancers, compliance remains poor. In our centers, earlier age, advanced stage and active pregnancy at diagnosis were predictive of greater compliance with screening. These data will inform a tailored intervention to improve compliance with HIV screening in our population.

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#### Abstract #7

##### Optimization of acute healthcare resource utilization using cervical cancer care navigation

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**Objectives:** During the treatment of advanced cervical cancer with primary chemoradiation (pCRT) unplanned health care needs often arise due to treatment side effects or acute medical complications. In safety net hospitals with limited resources, these issues are addressed in the emergency department (ED) or urgent care (UC)

setting which can be unnecessarily taxing on the health care system and the patient. The aim of this study is to investigate the impact of cervical cancer care navigation on resource utilization to meet acute episodic care needs of patients with cervical cancer undergoing pCRT.

**Methods:** A decision tree analysis was performed to compare resource utilization associated with acute episodic care needs of patients with cervical cancer undergoing pCRT whose care was provided through a cervical cancer care navigation program (CCNP). Data for the navigated cohort were abstracted from a prospectively collected CCNP database at a tertiary care, public, safety net hospital. Acute episodic care needs were defined as any health care needs requiring an unscheduled care encounter, including genitourinary symptoms, prescription refills, acute pain or suspected infections. A theoretical un-navigated comparison cohort was constructed using published data on health care utilization and practice patterns at our institution. Costs were identified from the institution's chargemaster.

**Results:** Fifty navigated cervical cancer patients required 123 encounters to meet acute episodic care needs that arose during pCRT. Cancer care navigation aided in the initial triage of 82% of these encounters which were then routed to non face to face encounters (36%), overbooked clinic visits (16%), infusion center visits (10%), UCvisits (2%), direct hospital admissions (8%) and ED visits (10%). The total cost associated with acute episodic care needs of the navigated patient cohort \$352,839. In the non-navigated model cohort, 85% of these encounters occur in the emergency department or an urgent care setting increasing the cost to \$493,264. With the cost of navigation being \$709 per patient, the cost savings for navigation is \$140,424 or 28%. Sensitivity analysis revealed a sustained 5% cost savings with CCNP if all patients in the comparison cohort went to UC and 34% savings if all went to ED.

**Conclusions:** Cervical cancer care navigation provides improved health care resource utilization while allowing patients to be cared for at the most cost effective venue within their respective health care system.

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#### Abstract #8

##### HPV knowledge and child vaccination rates among mothers with a personal history of gynecologic cancer

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**Objectives:** Vaccination against certain HPV subtypes has been available for over a decade. Research supports that vaccination prevents HPV infection and subsequent cervical cancer. Nevertheless, vaccination rates remain low. Prior studies have assessed HPV vaccination rates and knowledge acquisition among different populations. However, to date no studies have investigated the relationship between maternal gynecologic cancer history and HPV vaccination rates for their children. We aimed to determine if maternal HPV vaccination knowledge, rates of provider counseling, and rates of child vaccination differed between women with and without a personal history of gynecologic cancer.

**Methods:** A web based anonymous survey was administered to all members of the research registry "Research for Her™" with at least one child. Women with children born before 1980 or after 2010 were excluded. Baseline knowledge of HPV was assessed via a multiple-choice questionnaire addressing topics such as HPV transmission, vaccination criteria, and HPV-associated malignancies.

**Results:** One hundred and forty women completed the survey. Ninety-nine women (71%) met inclusion criteria. Thirty-four women had a personal history of gynecologic cancer (uterine, ovarian, cervical or breast), and 65 had no cancer history. Vaccination rates were lower in

the children of women with a personal history of gynecologic cancer when compared to children of women without cancer (29% vs 45%,  $p=0.044$ ). Rates of physician counseling were similar for both groups (59% vs 52%). Women who were counseled by physicians were more likely to vaccinate their children against HPV than women who received no provider counseling (43% vs 7% in women with a gynecologic cancer history,  $p=0.001$ , and 58% vs 24% in women without a cancer history,  $p=0.0004$ ). Baseline knowledge regarding HPV infection was similar in both groups.

**Conclusions:** In this cohort of patients, women with a personal history of gynecologic cancer vaccinated their children less often than mothers without a history of cancer, despite having similar baseline HPV knowledge and rates of provider counseling. In this study, rates of provider counseling were low. However, when counseling was completed, mothers were significantly more likely to vaccinate their children. Interventions to promote effective HPV counseling, and studies to assess the additional factors contributing to low HPV vaccination rates in this population are needed.

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#### Abstract #9

##### Disparities in performance of lymph node dissection for women with early stage cervical cancer in Louisiana

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**Objectives:** Racial and socioeconomic disparities in the delivery of cervical cancer (CC) care have been well established. Current guidelines recommend lymph node dissection (LND) as part of the primary surgical treatment of stage IA to IB CC, with the exception of IA1 without LVI. LND is also a consideration when imaging prior to radiation reveals bulky lymphadenopathy. The goal of this study was to evaluate whether age, race or socioeconomic status was associated with disparities in the performance of LND for women with Stage IA and IB CC in Louisiana.

**Methods:** 399 women diagnosed with stage IA and IB CC between 2010-2014 from the Louisiana Tumor Registry were analyzed by patient age at diagnosis, race, and insurance status and whether the patient had sentinel or retroperitoneal lymphadenectomy performed as part of the primary treatment of CC. Univariate analysis was performed.

**Results:** Of the 189 women with IA CC, 47 (24.9%) had a LND. Age, race and insurance status were not significantly associated with undergoing LND. Of the 210 women with stage IB CC, 128 (61%) had a LND. Age was not significantly associated with LND in this group. White women (WW) were more likely than black women (BW) to undergo LND (64.9% vs. 50%,  $p = 0.04$ ). Those who had private insurance (PI) were more likely to undergo LND than those with Medicaid (M) or the uninsured (UI) (66.9% PI vs. 53% M & UI,  $p = 0.04$ ). When the Stage IA and IB CC groups were combined, WW were more likely to have a LND than BW (47.2% vs. 35.5%,  $p = 0.04$ ). For Stage IA and IB CC, 48.3% of women with PI had a LND compared to 32.3% of those with M or who were UI ( $p = 0.05$ ).

**Conclusions:** White and privately insured women with stage IA-IB CC are more likely to undergo a lymph node dissection as part of their initial cervical cancer treatment than black women or women who are either uninsured or have Medicaid. The reasons for these disparities are complex and beyond the scope of this analysis. However, further exploration of these patterns and the reasons for them is warranted to understand and correct any bias in care offered that might result in disparate outcomes.

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#### Abstract #10

##### Patient self-reporting as a low-intensity intervention for symptom management in ovarian cancer: An exploratory analysis of GOG-259

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**Objectives:** Women with recurrent ovarian cancer experience many cancer and treatment-related symptoms. The purpose of this analysis, using data from GOG-259 - "The WRITE Symptoms Study," was to evaluate which symptoms were most amenable to step-wise intensity symptom management interventions.

**Methods:** GOG-259 is a 3 arm randomized controlled trial in women with recurrent ovarian cancer comparing patient self-reporting (PSR) alone (low-intensity) to PSR with a web-based intervention (medium-intensity) to PSR with a web-based intervention guided by a nurse-interventionist (high-intensity). We identified the top ten target symptoms across patients and analyzed within (t-test) and between (ANCOVA) group differences from baseline to 12 weeks for each target symptom using burden and controllability scores from the validated Symptom Representation Questionnaire (SRQ). We then identified the least intensive intervention necessary to achieve statistically significant improvements over time for each target symptom.

**Results:** Of the 486 women, the mean age was 59 years (24-90) and 411 (85.3%) were receiving chemotherapy. The top 10 target symptoms selected by patients in all 3 arms were fatigue, constipation, peripheral neuropathy, pain, sleep disturbances, weight gain, abdominal bloating, memory problems, anxiety, and nausea. Patients receiving only PSR for peripheral neuropathy, abdominal bloating, memory problems, and nausea achieved similar improvements (within group  $p.10$ ) in burden and stable controllability scores compared to those in the higher intensity arms. In addition to improvements in burden, patients participating in the medium-intensity intervention for fatigue, sleep disturbance, and weight gain demonstrated changes in controllability that were superior to PSR only and equivalent to the high-intensity intervention. Finally, women receiving the high-intensity intervention for constipation achieved superior improvements in burden and controllability compared to those in the less intense interventions.

**Conclusions:** We recommend PSR as standard care for patients with ovarian cancer. It provides safety monitoring of symptoms and is an active low-intensity intervention for common symptoms. Certain symptoms (e.g. constipation, fatigue) require higher intensity symptom management with a web-based symptom management module and even 1:1 nurse support. These findings can guide efficient high-value symptom management support decisions for cancer and treatment-related symptoms.

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#### Abstract #11

##### Extending the platinum-free Interval: The impact of omitting 2nd line platinum chemotherapy in intermediate platinum-sensitive ovarian cancer

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**Objectives:** Patients (pts) with platinum-sensitive epithelial ovarian cancer (EOC) experiencing recurrence between 6-12 months (mos) after primary platinum chemotherapy (CT) have worse prognosis than