

breast disease, lobular carcinoma, patients undergoing breast cancer surgery with 2 CPT codes with ambiguous category placement and septic patients at time of surgery. For each intervention, a total of 16 complications were clustered into 8 groups and examined over the 13-year period. ALN management was categorized as follows: no intervention on ALNs, or ALN surgery (SLNB or ALN dissection (ALND)). Chi-square tests were performed for demographic and complication rate analysis. Smoothed linear regression and non-parametric Mann- Kendall test assessed complication trends. Uni-variate and multivariate logistical regression were computed to associate odd's ratio for comorbidities, surgical predictors and patients demographics. RESULTS/ANTICIPATED RESULTS: A total of 226,899 patients met the inclusion criteria. Annual breast surgery trends changed as follows: PM 45.6% to 45.9 (p=0.21), M 36.8% to 25.5% (p=0.001), M+R 15.7% to 23.6% (p=0.03) and OS 1.8% to 5.0% (p=0.001). Analyzing the patient cohort who underwent breast conservation, categorical analysis showed a decreased use of PM alone (96% to 90%) with an increased use of OS (4% to 10%). For the patient cohort undergoing mastectomy, M alone decreased (69% to 52%); M+R with muscular flap decreased (9% to 2%); and M+R with implant placement increased (20% to 41%) – all 3 trends p<0.0001. The rate of ALN management has changed as follows: SNLB or ALND significantly increased in mastectomy patients from 53.6% to 69.5% (SS 1.5%, R2 0.69, p < 0.01), while it changed little in the BCS population: 22.5% to 26.4% (SS 0.4%, R2 0.18, p=0.09). Complication rates have steadily increased in all mastectomy groups (p< 0.05) but not in BCT. Cumulative complication rates between surgical categories were significantly different in each complication cluster (all p<0.0001). Overall complication rates were: PM: 2.25%, OS: 3.2%, M: 6.56%, M+MF: 13.04% and M+I: 5.68%. The most common predictive risk factors were mastectomy interventions, increasing operative time, ASA class and BMI, smoking, recent weight loss, history of CHF, COPD and bleeding disorders (all p<0.001). Patients who were non-diabetic, younger (<60) and treated as outpatient all had protective OR for an acute complication (p<0.0001). DISCUSSION/SIGNIFICANCE OF IMPACT: The modern era of breast surgery is identified by the increasing use of reconstruction for patients undergoing breast conservation (in the form of OS) and mastectomy (in the form of M+R). Despite national recommendations for the management of axillary lymph nodes in patients undergoing breast surgery for DCIS, nearly 30% of cases continue to be mismanaged: more than 30% of patients with DCIS undergoing mastectomy fail to receive SLNB, and more than 26% of DCIS patients undergoing BCS are still receiving axillary lymph node surgery. Our study provides data showing significant trends that will impact the future of both breast cancer surgery and breast training programs. We also provide data comparing nationwide acute complication rates following different breast cancer surgeries that can be used to inform patients during surgical decision making.

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### Do cancer survivors understand their risk factors for recurrence and the value of coordinated care between an oncologist and a primary care physician? A survey of endometrial and cervical cancer patients

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OBJECTIVES/SPECIFIC AIMS: To evaluate gaps in knowledge for women who are cancer survivors regarding the impact of

comorbidities and lifestyle behaviors on endometrial and cervical cancer risk, and to assess prevalence of established care with a primary care physician (PCP) among patients and evaluate acceptability of referral to a PCP METHODS/STUDY POPULATION: Single institution cross-sectional study examining all women aged 18 or older with a diagnosis of cervical or endometrial cancer who present for care by a gynecologic oncologist at Barnes-Jewish Hospital/Washington University in St. Louis School of Medicine. Patients will be invited to complete a survey specific to cancer diagnosis that includes questions on participant background and socio-demographic information, knowledge of risk factors for their specific cancer site, and whether or not the patient has a primary care provider and the acceptability of referring RESULTS/ANTICIPATED RESULTS: Majority of women will be unaware of how comorbidities affect cancer risk and treatment outcomes. For women without a PCP, we anticipate that they will be accepting towards the notion of being referred to one for establishing care. DISCUSSION/SIGNIFICANCE OF IMPACT: Pilot information from this study will 1. Allow providers to improve cancer survivorship care plans by increasing collaboration between PCPs and oncologists to provide ongoing care, and 2. Afford information for providers on where gaps in knowledge exist so as to better education patients.

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### Examining the association between inpatient opioid prescribing and patient satisfaction.

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OBJECTIVES/SPECIFIC AIMS: Research overview: Providing patient-centered care is increasingly a top priority in the U.S. health-care system.1,2 Hospitals are required to publicly report patient-centered assessments, including results from the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) patient satisfaction surveys.3 Furthermore, clinician and hospital reimbursements are partially determined by performance on patient satisfaction measures.3 Consequently, hospitals and clinicians may be incentivized to improve patient satisfaction scores over other important outcomes.4 Paradoxically then, the pursuit of patient-centered care may lead clinicians to fulfill patient requests for unnecessary and potentially harmful treatments.5 Opioid prescribing during hospitalizations may be particularly affected by clinicians' seeking to optimize patient satisfaction scores.6,7 Satisfaction with pain care is an important predictor of overall patient satisfaction in the HCAHPS surveys,8,9 and clinicians report increased pressure to fulfill patient requests for immediate pain-relief.10,11 Therefore, clinicians may prescribe opioids to avoid receiving lower patient satisfaction scores.12,13 Furthermore, clinicians lack clear guidance on opioid prescribing for some populations, including non-surgical inpatients, who represent almost half of all hospitalizations.14 To reduce clinicians' incentive to prescribe opioids as a means of achieving patient satisfaction, the Center for Medicare and Medicaid Services (CMS) temporarily removed questions related to patient satisfaction with pain care from the clinician and hospital reimbursement formulas beginning in 2018.15 Importantly, prior research16-20 has not rigorously tested the hypothesis implied by the CMS policy change: that certain opioid prescribing practices in inpatient pain care are associated with higher patient satisfaction. Objectives: The purpose of this study was to evaluate the association between the receipt/dose of opioids during non-surgical hospitalizations and