Cancer Epidemiology, Biomarkers & Prevention

ABSTRACTS • 40th Annual Meeting • American Society of Preventive Oncology, Blackwell Hotel, Columbus, Ohio, March 13-15, 2016

The following are the 17 highest-scoring abstracts of those submitted for presentation at the 40th Annual ASPO meeting held March 13–15, 2016, in Columbus, OH.

How Have Breast Cancer Screening Intervals Changed Since the 2009 USPSTF Guideline Update?

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Background: Beginning in 2009, the U.S. Preventives Services Task Force (USPSTF) breast cancer screening guidelines recommended biennial mammography screening for women aged 50–74 years, and shared-decision making for women aged 40–49 years. We evaluated changes in screening interval after release of the 2009 recommendations. Methods: We compared screening intervals over the period between 2006 and 2012, expecting that the screening interval would lengthen over this time period, using data from the Breast Cancer Surveillance Consortium on 909,972 screening mammograms among 351,271 women aged 40–89 years. We stratified intervals based on whether the exam at the end of the interval occurred before or after the 2009 USPSTF decision. Differences in mean interval length by woman-level characteristics were compared using linear regression. Results: Contrary to expectations, the mean interval length (in months) minimally decreased after the 2009 USPSTF guideline compared to prior. Among women aged 40–49 years, the mean interval length decreased from 17.3 months to 17.1 months (difference −0.16, 95% confidence interval [CI] -0.30 to -0.01). Similar small reductions were seen for most age groups. The largest decreases in interval length in the post-USPSTF period were observed among women with a first-degree family history of breast cancer (difference −0.68, 95% CI, −0.82–−0.54) or a 5-year breast cancer risk ≥ 2.5% (difference −0.58, 95% CI, −0.73–−0.44). Conclusions: The 2009 USPSTF guideline update did not lengthen the average mammography screening interval among women routinely participating in mammography screening. Future studies should evaluate whether breast cancer screening intervals lengthen towards biennial intervals following new national 2015 breast cancer screening recommendations, particularly among women under 50 years.

Published online March 4, 2016
doi: 10.1158/1055-9965.EPI-16-0079

Patient Navigation Associated with Decreased 30-Day All-Cause Readmission

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Background: Oncology patient navigation (PN) programs have been developed to improve outcomes and reduce disparities. Limited data exist to describe the effect of PN on important clinical outcomes, such as readmission, post cancer diagnosis. Methods: We conducted a retrospective cohort study of adults (≥18 yrs) diagnosed with first primary cancer from Jan 2013-Nov 2014 at a multi-site academic community based cancer institute. "Nearest-neighbor with caliper" propensity-score (PS) matching was used to match PN to similar not navigated (NN) patients. Patients had ≥3 mo follow-up post cancer diagnosis. 30d all-cause readmission (ACR) was any inpatient admission within 30d of discharge from index hospitalization (IH). IH was the first inpatient admission ≤12 mo post cancer diagnosis. When IH ended in transfer to another acute care facility, ACR was calculated from final discharge from acute care. Deaths during IH and discharges against medical advice were excluded from ACR analysis. Multivariable random effects and conditional logistic regression models evaluated associations between PN and length of hospital stay (LOS) and ACR. Results: 10532 patients were eligible (2592 PN; 7940 NN). 4324 PS-matched patients (2162 PN/NN) were included, with balanced demographic (age, sex, race, ethnicity, insurance, marital status, employment, rurality) and tumor characteristics (site, stage, grade, vascular invasion, metastases) and overall health (comorbidity index, inpatient admission 12mo before cancer diagnosis) between groups. There were 4156 total inpatient admissions ≤12 mo post cancer diagnosis. 1190 PN and 958 NN had ≥1 inpatient admission (55% vs 44% $P < 0.01$). Controlling for principle diagnosis, procedures performed, and charges, LOS was slightly shorter in PN than NN (log LOS $\beta = -0.05$ [5% shorter stay] $P = 0.05$). Among those with eligible IH, 17% PN and 21% NN were readmitted ≤30 d. Controlling for principle diagnosis, procedures performed, and LOS during IH, PN had lower odds of ACR (OR = 0.66 95% CI, 0.48–0.92). Conclusion: In a large, diverse PS-matched cohort, PN patients had shorter LOS and lower odds of ACR. Results suggest PN improves care transition and clinical outcomes for cancer patients after inpatient admission. Additional analyses will explore subgroup differences.

Published online March 4, 2016
doi: 10.1158/1055-9965.EPI-16-0082