**Title: A nationwide study of health care services provided to cancer patients in the ambulatory care settings**

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**Background:** Due to the often long and costly nature of treatment, cancer patients are vulnerable to obstacles in accessing care. Work on cancer patient’s ability to access healthcare services in ambulatory care settings is limited.

**Research question:** We examined the association between cancer diagnosis and health care services that were provided or ordered. We also assessed if insurance status affects provision of services among those with cancer and whether any age-related disparities existed.

**Methods:** A retrospective cross-sectional study was conducted using 2016-2018 National Ambulatory Medical Care Survey. Our outcomes were health care services provided or ordered. Descriptive statistics were used to assess baseline characteristics and service provision stratified by the presence of cancer and primary insurance in those with cancer. Multivariable analysis adjusting for age was conducted to examine the association between the presence of cancer and health care services provided. More analyses are being done to examine age-related differences in provision of services**.**

**Results:** 7% of approximately 1.74 billion ambulatory care visits were by patients with cancer. As compared to those without, those with cancer were significantly older (mean age: 66 vs. 46, p<0.001), non-Hispanic Whites (81% vs 69%, p<0.001), more likely to be on Medicare insurance (52% vs 24%, p<0.001) and had higher mean number of comorbidities (2.7 vs 1, p<0.001). A higher proportion of visits by cancer patients were to medical specialists (45% vs 24%, p<0.001) and for routine chronic problems (42% vs 31%, p<0.001), while patients without cancer were more likely to visit primary care (54.8% vs 27.6%). In the bivariate analysis, cancer patients were significantly more likely to receive any services (p<0.001), cryosurgery/destruction of tissue (p<0.001), wound care (p<0.001), domestic violence screening (p=0.01), and skin exam (p<0.001) and less likely to receive diet/nutrition counselling (p=0.004). Among cancer patients, a significantly higher proportion of those who were not charged or received charity care were provided with exercise counselling or a skin exam as compared to those on public or private insurance. In the multivariable analysis, cancer patients had higher odds of receiving any type of service (OR=1.21, 95% CI:1.06,1.38), wound care (OR=3.98, 95% CI:2.97,5.33), skin (OR=2.02, 95% CI:1.79,2.27) or breast exams (OR=1.91, 95% CI:1.41,2.60) and cryosurgery (OR=1.97, 95% CI:1.56,2.50),.

**Conclusions:** Cancer patients receive a wide range of services in ambulatory care settings. Although, those with cancer had higher odds of receiving any kind of services than those without cancer, there were minimal significant disparities in the provision of each service type by cancer or insurance status.