

## Characterizing Predictors of Repeat Emergency Department Visits in Patients with a Cancer Diagnosis

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**Background:** Cancer remains the second-leading cause of death in the United States. The emergency department (ED) plays a vital role in the initial diagnosis of cancer for many patients. There are several studies on cancer identification in the ED and less on ED utilization patterns among patients with cancer. This study characterized patterns and predictors of ED visits in patients with cancer.

**Methods:** This retrospective study analyzed routine EPIC-based social determinants of health screenings for all ED visits involving patients with cancer across three urban hospitals in Northwest Indiana from January 2021-March 2025. Cancer diagnoses were identified using ICD-10. The dependent variable was number of ED visits. Data analysis comprised descriptive, bivariate (Mann-Whitney, Kruskal Wallis) and multivariate analyses (linear regression) using IBM SPSS v.31.0 ( $p < 0.05$ ).

**Results:** The sample comprised 1026 patients with cancer, with lymphoid/hematopoietic (20.0%), ill-defined/secondary (19.0%), and genitourinary (16.3%) cancers being most represented. Bivariate analysis identified statistically significant associations ( $p < 0.05$ ) between number of ED visits and age, race, language, family income, and hospital. Multivariate analysis revealed more ED visits in patients identifying as Black/African American ( $p < 0.05$ ,  $B = 0.694$ ), Other race ( $p < 0.001$ ,  $B = 2.223$ ), and receiving care at Hospital B ( $p < 0.001$ ,  $B = 0.841$ ). Age ( $p < 0.001$ ,  $B = -0.050$ ), family income ( $p < 0.005$ ,  $B = -0.104$ ), and Spanish language ( $p < 0.05$ ,  $B = -1.350$ ) were associated with fewer ED visits.

**Conclusions:** This study addresses the gap in identifying predictors of ED utilization among patients with cancer. Future efforts should validate these results in larger samples, focus on ED integration into the cancer care continuum, and support more vulnerable patient populations to minimize cancer disparities.