

Gender-Based Differences in Pancreatic Cancer Outcomes and Hospital Mortality Rates: A Ten-Year Review Using the US Nationwide Inpatient Sample Database

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Background: Pancreatic cancer is a highly lethal gastrointestinal cancer with a low 5-year survival rate and difficulty in early detection (1, 2, 3). A comprehensive understanding of gender-based epidemiology, comorbidities, clinical presentations, and risk factors for pancreatic cancer are of great significance for possible effective prevention and helping target future therapies (4, 5).

Methods: We identified patients with a discharge diagnosis of pancreatic cancer in the National Inpatient Sample from 2004 to 2014 using the International Classification of Diseases Clinical

Modification, 9th revision (ICD-9-CM) codes. We looked at gender-based primary epidemiology, the yearly trend in hospitalizations with pancreatic cancer, and outcomes, which included length of stay (LOS), hospital charges, and in-hospital mortality. We also performed multivariate analysis to look for the predictors of mortality.

Results: We identified 177,763 patients with a discharge diagnosis of pancreatic cancer. There was a significant increase in hospitalizations with pancreatic cancer in 2014 compared to 2004. Most of the patients were White (74.4%), had Medicare as primary insurance (58.1%), were from the Southern region (36.5%), and had a higher Charlson Comorbidity Index (CCI) (42.7% with CCI ≥ 3). Trends of the mortality rate for hospitalized individuals with pancreatic cancer in the male gender decreased from 12.2% (2004) to the lowest mortality rate of 8.09% in (2014). Interestingly, based on gender stratification, mortality rates were consistently higher in the male gender than 7.03% in females.

Conclusions: Our study showed overall downward trends for in-hospital mortality despite increasing hospitalizations with pancreatic cancer. Based on gender stratification, mortality rates were consistently higher in males.

Keywords: Pancreatic Cancer, Gender Disparity, Inpatient Mortality Rate, Length of Stay, Hospitalization Cost

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