

PP70. The costs of pancreatic cancer: Methodology of costing rare cancersWilson L

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Background: Pancreatic adenocarcinoma affects approximately 10 per 100,000 persons annually in the United States. Worldwide, approximately 185,000 new cases of pancreatic cancer occurred in 1995. Pancreatic cancer is generally diagnosed in advanced stages due to lack of early definitive symptoms and therefore has a high mortality rate with a 5 year survival rate of 1.3%. The median length of survival after diagnosis is only 4.1 months. Treatment with surgery and radiation often plays a palliative role rather than one to increase survival, and there is still uncertainty whether the risks of surgery outweigh the gains. There is no previous study which has looked at the societal costs of pancreatic cancer and its treatment.

Methods: We have developed a medical treatment algorithm of pancreatic adenocarcinoma diagnosis and treatment using a Delphi panel of physicians. Using population based national and state data bases, we determined the direct and indirect costs of pancreatic cancer diagnosis and treatment in the United States using a prevalence approach. Direct medical costs include hospitalization, physician visits, laboratory tests, pharmaceuticals, home care, skilled nursing facilities and hospice care. Indirect costs include morbidity and mortality. Morbidity costs include days work loss and activity days lost. The discounted present value of life time earnings lost due to early mortality was also determined. Sources of data included Medicare claims data for hospitalization, physician services, and skilled nursing facilities for those greater than 65 years, the Maryland State Hospitalization data base for hospitalizations, surgery, diagnosis, and procedures, the National Ambulatory Medical Care Survey for physician services, and the National Medical Care Expenditure Survey for both direct and indirect costs.

Results: The prevalence of pancreatic adenocarcinoma is 28,000 in U. S. Average hospital charges for pancreatic cancer patients are \$ 12,800 and \$21,500 per admission, depending on the data base chosen. Pancreatectomies cost an average of \$32,000 per admit, while admissions with palliative procedures cost much less (\$12,000). Hospital admissions during which no procedures are performed are 16.2 % of all admissions with a diagnosis of pancreatic cancer and costs only \$4,132. Physician services average \$1,600 per person annually and skilled nursing facilities averaged \$8,275 annually per admission in 1995. 3.7% of hospice patients have pancreatic cancer at an average annual costs per patient of \$4,300. The total societal costs will be presented.

Discussion: Small sample sizes available in national data sets are a problem for cost studies of rare diseases such as this, and a variety of methods are used to decrease the bias that results. Direct health care utilization and costs were obtained from a variety of data sources for each type of cost in order to provide more reliable estimates. Some direct and morbidity data was obtained by creating a single condition file of pancreatic cancer cases from the annual National Health Interview Surveys from 1988 to 1994 and following the weighting procedures developed by National Center for Health Statistics. These methodologies will be discussed.

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