

# Patients with Thyroid Cancer Are at Higher Risk of Bankruptcy than Patients with Other Types of Cancer, or Those Without Cancer

# **Cord Sturgeon**

Ramsey S, Blough D, Kirchhoff A, Kreizenbeck K, Fedorenko C, Snell K, Newcomb P, Hollingworth W, Overstreet K. Washington state cancer patients found to be at greater risk for bankruptcy than people without a cancer diagnosis. Health Aff (Millwood) 2013;32:1143-52. Epub May 15, 2013.

#### SUMMARY • • • • • • •

## **Background**

It is well understood that medical expenses contribute to personal financial insolvency; however, the relationship between specific cancer diagnoses and the risk of bankruptcy has not been well described. This study was performed to determine the incidence and time course of bankruptcy among patients with a new diagnosis of cancer.

### **Methods**

The study evaluated persons 21 to 90 years of age from the Western District of Washington State between the years 1995 and 2009. A retrospective cohort analysis was performed using data from Surveillance, Epidemiology, and End Results (SEER) linked with LexisNexis. Matched cancer and control cohorts were identified, and these cohorts were both linked with records from the U.S. Bankruptcy Court for the Western District of Washington State. Probabilistic algorithms were used to link the SEER and LexisNexis records to the bankruptcy records. Kaplan-Meier analysis was used to determine the incidence of Chapter 7 and Chapter 13 bankruptcy filings in the two cohorts. Multivariate Cox regression was used to calculate hazard ratios for filing for bankruptcy, and the data were stratified by cancer diagnosis.

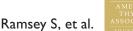
#### Results

A total of 197,840 patients with newly diagnosed cancer met inclusion criteria and comprised the experimental group; 197,840 matched controls were

identified. During the study period, 2.2% (n = 4408) of the patients with cancer filed for bankruptcy as compared with 1.1% (n = 2291) of the controls; 0.52% of the overall cancer cohort filed for bankruptcy within 1 year of the cancer diagnosis and 1.7% within 5 years. The incidence rates for bankruptcy in the first year following cancer diagnosis were calculated based on cancer type and described as incidence per 1000 person-years. The cancer diagnosis with the highest incidence of bankruptcy was thyroid cancer, at 9.3 per 1000 person-years. Other cancer types with a high incidence of bankruptcy were lung (9.1), uterine (6.8), leukemia/lymphoma (6.2), colorectal (6.2), melanoma (5.7), breast (5.7), and prostate (3.7). Patients with cancer had a significantly higher risk of bankruptcy (hazard ratio, 2.65) than persons without cancer. Patients with thyroid cancer had a hazard ratio of 3.46. Patients with cancer who were younger, were unmarried, and had thyroid cancer or lung cancer had the highest rates of bankruptcy.

#### **Conclusions**

Bankruptcy rates were higher for those persons <65 years old; 62% of the bankruptcy filings were from patients with cancer who were 40 to 64. The youngest age groups had up to 10 times the rate of bankruptcy as that of the older age groups, a finding that may be due to higher debt-to-income ratios in the younger group. Furthermore, younger patients may have health care insurance that is linked to employment status, and cancer treatment may lead to inability to work. In contrast, the income continued on next page



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of older patients is less likely to be linked to their ability to work (e.g., they may be receiving social security benefits) and they are more likely to have insurance coverage that is also not linked to employment status (i.e., Medicare). The authors surmise that patients with thyroid cancer might have lower rates of employment, lower wages, lower household income, and less access to health insurance.

#### ANALYSIS AND COMMENTARY • •

This is a sobering study that examines the personal financial burden of cancer by comparing rate of bankruptcy in a group of nearly 200,000 patients with cancer with that in a control group matched for age, sex, and ZIP Code of residence. It is well known that a cancer diagnosis can place a ponderous financial burden on the patient and furthermore that health care costs are major contributors to personal bankruptcy (1-3). The specific medical diagnoses most associated with the risk of bankruptcy, however, have not been well described. The authors of this study found that patients diagnosed with cancer are more than twice as likely to file for bankruptcy as are persons without cancer (2.2% vs 1.1%). In addition, they found that most patients who file for bankruptcy do so in the first year following the cancer diagnosis.

In 2006, The USA Today/Kaiser Family Foundation/ Harvard School of Public Health National Survey of Households Affected by Cancer found a similar rate of bankruptcy of 3% for patients with cancer (1). A surprising finding from the current study was that thyroid cancer appears to place patients at an even higher risk of bankruptcy; nearly 3.5 times higher than that for persons without cancer. This association might be partially explained by the fact that patients with thyroid cancer are at risk for lost wages because they may not be able to work during the postoperative period or during the time surrounding radioiodine ablation. Furthermore, because of the young average age for patients with thyroid cancer, these patients are more likely to have a high debt-to-income ratio, are less likely to have access to high-quality health insurance, and do not qualify for Medicare and social security benefits.

## References

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