

Determinants of Financial Distress in Cancer Patients Receiving Radiation Therapy

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Introduction. Financial toxicity is an important source of morbidity and mortality in cancer patients. We hypothesize that patients who received radiation therapy may experience financial distress after treatment.

Methods. Patients were recruited from a single institution from October 2022 to July 2023. Financial distress was measured using the validated Comprehensive Score for Financial Toxicity (COST) questionnaire. Lower COST score (0-44) indicates higher financial distress. COST was prospectively collected in all patients prior to radiation therapy and among patients who presented for follow-up on January 2023 or July 2023. Worsening financial distress was defined as a change in COST of 3 points or more. Baseline demographic and clinical information were abstracted from the medical record. Univariate and multivariate analysis was used to identify patient and treatment factors associated with worsened financial toxicity.

Results. 84 patients were identified who had completed pre-radiation and at least one follow-up COST. The median pre-radiation COST was 26 (range 1-44, IQR 21-33). The median change in score was +2 ($p < 0.01$), indicating less financial distress. Overall, 13% of patients had worsening financial distress. On univariate analysis, older age ($p = 0.02$), concurrent chemotherapy ($p = 0.02$) and greater travel time ($p = 0.09$) were associated with worsening financial distress. Type of radiation, type of cancer, and pre-treatment COST were not associated. Concurrent chemotherapy was borderline significant ($p = 0.06$) on multivariable analysis.

Conclusions. Only a minority of patients experienced worse financial toxicity after radiation therapy. Providers should evaluate for potential financial toxicity in older patients, patients getting multi-modality therapy, and those who live greater distances from the treatment facility.