Insurance Status Independently Predicts Mortality after Treatment of Sarcomas

Eugene S. Jang¹, Bradley Hammoor¹, Chung Min Chan², Andre R. Spiguel², C. Parker Gibbs², Mark T. Scarborough², Wakenda K. Tyler¹

¹Columbia University Medical Center, Department of Orthopaedic Surgery, New York, NY. ²University of Florida Health, Department of Orthopedics and Rehabilitation, Gainesville, FL

Methods

• SEER-Medicare linkage data was obtained for 7,056 patients undergoing treatment for bone and soft tissue sarcomas in the extremities diagnosed from 2006-2013
• Insurance status was defined as the payer of record at the time of the first claim related to the patient’s cancer
• Insurance status was pre-classified by the Centers for Medicare and Medicaid Services (CMS) as:
  • Medicaid
  • Medicare
  • Private
  • Self-Pay
  • Other Government Insurance, or Uninsured
• A Cox proportional hazards model was used to assess the contributions of insurance status and other demographic factors to overall survival

Results

• Patients with Medicaid insurance as their primary insurer had a 28% higher mortality rate, even when accounting for other confounders, compared to patients with private insurance (HR 1.28, 95% CI 1.03-1.60, p=0.026)
• There was an 18% higher mortality rate in the uninsured on univariate analysis
• Other independent predictors of mortality on multivariate analysis included: age; Charlson comorbidity index; education level; tumor stage; distance traveled for care; and Cancer Center status of treating hospital
• When insurance status was accounted for, income, race, and metropolitan / rural status were no longer associated with higher mortality

Conclusions

• Medicaid insurance is associated with a 28% higher mortality rate in sarcoma patients in the U.S., even when accounting for age and comorbidities
• This group included those who were uninsured until qualifying for Medicaid by virtue of their cancer diagnosis
• The results of this study suggest that being uninsured/underinsured is a persistent barrier to care for Americans of all races, income levels, and geographic locations
• Closing the uninsured gap, and expanding Medicaid coverage in order to ensure uniform access to care, are public policy strategies which may help mitigate this disparity in sarcoma care

References