Outcomes for cardiac valve procedure patients are affected by insurance status
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The type of primary insurance patients carry affects outcomes of cardiac valve operations in the United States according to a study in the May issue of the *Journal of the American College of Surgeons*. As a result, the type of primary insurance should be considered as an independent risk factor during preoperative risk stratification and planning, the researchers reported. They found that uninsured and Medicaid patients incur worse unadjusted and risk-adjusted outcomes following cardiac valve operations compared with those who carry private insurance.

In addition, the researchers found that uninsured and Medicaid payer status independently increases the risk of adjusted in-hospital mortality and the likelihood of postoperative complications even after accounting for socioeconomic status, hospital-related factors and several measures of co-morbid disease that are frequently encountered in low-income patient groups. In addition, Medicaid patients accrued the longest average hospital stay and highest total costs.

"The study findings indicate that primary payer status should be considered as an independent risk factor during preoperative patient risk evaluation," said the study's lead author, Damien J. LaPar, MD, with the University of Virginia Health System. "Our study findings highlight complex socioeconomic and health system-related factors that could be targeted to improve patient outcomes after cardiac valve operations."

From 2007 to 2008, the number of uninsured Americans rose by 600,000. Patients covered by government assistance insurance programs (ie, Medicaid and Medicare) increased by 4.4 million and the number of Americans covered by private insurance decreased by one million.

Previous research findings have shown that Medicaid and uninsured patients have worse outcomes than privately insured patients after medical admissions. However, while there have been studies on insurance status as a predictor of disease and the differences in allocation of surgical treatment as a function of payer status, no study has fully examined the impact of primary payer status among patients undergoing cardiac valve procedures, nor have they been evaluated in a national database.

The study evaluated 477,932 patients undergoing cardiac valve operations over a six-year period using discharge data from the Nationwide Inpatient Sample database. Patients in each payer group had different demographics: income and risk factors, and risk adjustment identified the independent effect of payer status.

After adjusting for risk factors, payer status remained a highly significant predictor of mortality. Specifically, uninsured, Medicaid, and Medicare status showed a 100 percent, 70 percent, and 36 percent increase in the odds of in-hospital death, respectively, compared with private insurance. A review of multiple variables for postoperative complications identified uninsured, Medicaid and Medicare payer status as important independent predictors of morbidity as well.

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