INTRODUCTION: The Patient Protection and Affordable Care Act was passed to narrow disparities and improve the quality of health care in the United States. The Agency for Healthcare Research and Quality patient safety indicators (PSIs) and the Centers for Medicare and Medicaid Services hospital-acquired conditions (HACs) are quality metrics tracked in healthcare institutions. The effects of insurance status on PSIs and HACs were analyzed using the Nationwide Inpatient Sample (NIS) database for brain tumor patients. METHODS: The NIS was queried for hospitalizations between 2002 and 2011 involving brain tumor patients. The incidence for each PSI and HAC was determined by ICD-9 codes. The independent variable was primary payer status. Because of the age restriction with Medicare, comparisons were made between Medicaid/self-pay and private insurance. Logistic regression modeling was used to estimate the effects of insurance status on individual PSIs, HACs, and patient outcomes. RESULTS: Overall, 113,797 PSIs and 15,810 HACs occurred in 548,727 brain tumor patients, an estimated national incidence of 20.7% and 2.9% respectively. Medicaid/self-pay patients had a higher PSI incidence compared to private insurance patients (20.6% versus 18.6%). Medicaid/self-pay patients also had a higher incidence of HACs (2.2% versus 1.9%). After controlling for patient and hospital factors, Medicaid/self-pay patients were estimated to experience 3.6% more PSIs per patient than private insurance (p = 0.0042). In addition, Medicaid/self-pay patients were estimated to experience 12.6% more HACs per patient (p = 0.0001). The greater incidence of PSIs and HACs correlated with increased length of stay and worse discharge outcomes and in-hospital mortality in the Medicaid/self-pay patient population. CONCLUSIONS: Significant variability exists in the incidence of PSIs and HACs in brain tumor patients based on insurance status. The cause of these differences should be studied prospectively to begin the process of improving quality metrics in vulnerable patient populations.