



We performed a cross-sectional study involving 504 patients who underwent outpatient and 10,328 patients who underwent inpatient brain biopsies and were registered in the State Ambulatory Surgery Databases (SASD) and State Inpatient Databases (SID) respectively for 4 US States (New York, California, Florida, North Carolina).

The secondary outcomes were 30-day postoperative readmissions to any hospital for any reason, and the charges of the inpatient or outpatient brain biopsy.

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graph TD; A[SID and SASD patients] --> B[10,832 patients with appropriate ICD-9-CM and CPT-10 codes]; B --> C[504 patients undergoing ambulatory brain biopsies]; B --> D[10,328 undergoing inpatient brain biopsies];
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SID and SASD patients

10,832 patients with appropriate ICD-9-CM and CPT-10 codes

504 patients undergoing ambulatory brain biopsies

10,328 undergoing inpatient brain biopsies

There was no difference in the rate of 30-day postoperative readmissions among inpatient and outpatient procedures. The rate of neurologic complications resulting in readmissions was extremely low (2.8% for outpatient vs. 2.0% for inpatient procedures). Increasing age was the only factor associated with increased readmissions. The setting of the biopsy did not have a significant effect on readmission rate.

A box plot comparing the number of visits for Inpatient and Outpatient groups. The y-axis is on a logarithmic scale from 1 to 1,000,000. The Inpatient group has a median of approximately 10,000 visits, with a box from 6,000 to 13,000 and whiskers from 3,000 to 25,000. The Outpatient group has a median of approximately 15,000 visits, with a box from 8,000 to 30,000 and whiskers from 4,000 to 70,000. Both groups have outliers: Inpatient has one at 90,000 and Outpatient has one at 400,000.

Group	Min	Q1	Median	Q3	Max	Outliers
Inpatient	3,000	6,000	10,000	13,000	25,000	90,000
Outpatient	4,000	8,000	15,000	30,000	70,000	400,000

Access to ambulatory brain biopsies appears to be more common for patients with private insurance and fewer comorbidities, in the setting of lower volume hospitals. We did not encounter any gender or racial disparities regarding access to outpatient brain biopsies. Further investigation is needed in the direction of mapping these disparities in resource utilization.