Ischemic Stroke: Hospital Outcomes in California, 2014-2015

Executive Summary

Every year approximately 795,000 adult Americans suffer a stroke, and a stroke death occurs every four minutes1. Stroke is the most common cause of adult long-term disability in the United States and a life-changing event that places a heavy burden on patients, families, and caregivers. This report focuses on the most common type of stroke, ischemic stroke, which occurs when an artery supplying blood to the brain becomes blocked. This report does not provide information on hemorrhagic stroke, which is caused by a leaking or burst blood vessel. For ischemic strokes, timely interventions are critical to: reverse the damage; reduce mortality, morbidity and disability; and improve survivor quality of life.

This report provides information on the quality of ischemic stroke care at California acute care hospitals from January 1, 2014 to September 30, 2015, and provides performance ratings for 267 hospitals on two outcome measures—risk-adjusted 30-day mortality and risk-adjusted 30-day hospital readmission. The outcome measures are statistically adjusted to account for differences in patient severity of illness at different hospitals, which allows for fair comparisons across all hospitals.

This is the fourth report on the quality of ischemic stroke care at California acute care hospitals produced by the Office of Statewide Health Planning and Development (OSHPD). The first report, “Ischemic Stroke: Hospital Outcomes in California, 2011-2012,” was published in April 2015. The second report, based on 2012-2013 data, was published in October 2015, and the third report, based on 2013-2014 data, was published in September 2016. The information is intended to help consumers make more informed healthcare decisions, help payers and employers spend their healthcare dollars more wisely, and provide hospitals performance benchmarks they can use in their review of internal processes of care and quality improvement activities.

Technical Details

Additional information about these quality measures can be found in the OSHPD Technical Note for Producing Ischemic Stroke: Hospital Outcomes in California, 2014-2015 and the Ischemic Stroke Outcomes Validation Study in California, 2006-2009.

Stroke Mortality and Readmission Results

Access the ischemic stroke 30-day mortality and 30-day readmission ratings for all California-licensed hospitals:
Ischemic Stroke Ratings Table

Key Findings

Thirty-Day Mortality Findings

• There were 65,789 ischemic stroke hospitalizations in California between January 1, 2014 and September 30, 2015. Of these, 6,454 patients died within 30 days of hospital discharge for a statewide 30-day mortality rate of 9.8 percent, down from 10.0 percent in the 2013-14 report. Of these deaths, 3,108 (48.2 percent) occurred while the patient was in the hospital.
• Of the 267 hospitals in the report, 11 (4.2 percent) were rated significantly “Better” and 14 (5.2 percent) were rated significantly “Worse” than the state average.
• The average risk-adjusted mortality rate for the 14 hospitals rated "Worse" (18.8 percent) was more than three times higher than the average rate for the 11 hospitals rated "Better" (5.5 percent).
• Among 11 hospitals rated “Better,” six hospitals were from Los Angeles County. Seven hospitals (Glendale Adventist Medical Center – Wilson Terrace, Cedars Sinai Medical Center, Santa Monica – UCLA Medical Center and Orthopedic Hospital, Sherman Oaks Hospital, Ronald Reagan UCLA Medical Center, Mills-Peninsula Medical Center, and Kaiser Foundation Hospital – Rehabilitation Center Vallejo) rated “Better” in the 2013-14 report were again rated “Better” in 2014-15. Eight hospitals (Community Regional Medical Center – Fresno, San Joaquin Community Hospital, Antelope Valley Hospital, Kaiser Foundation Hospital – Panorama City, Madera Community Hospital, Ukiah Valley Medical Center, Desert Regional Medical Center, and San Joaquin General Hospital) rated “Worse” in the 2013-14 report were again rated “Worse” in 2014-15.

Thirty-Day Readmission Findings

• There were 62,681 ischemic stroke discharges included in the readmissions analysis (alive at discharge with valid Social Security numbers) between January 1, 2014 and September 30, 2015. Of these, 7,394 patients were readmitted within 30 days for a statewide 30-day readmission rate of 11.8 percent. There was a gradual and continuous reduction from 12.8 percent as seen in the 2011-12 report.
• Of the 265 hospitals included in the readmission analysis, three were rated significantly “Better” (1.1 percent) and six were rated significantly “Worse” (2.3 percent) than the state average.
• The average risk-adjusted readmission rate for the six hospitals rated “Worse” (16.9 percent) was almost three times higher than the average rate for the three “Better” rated hospitals (5.8 percent).
• There was no statistically significant correlation between hospital 30-day mortality rates and 30-day readmission rates, but one hospital (Antelope Valley Hospital) performed “Worse” on both measures.
• Among the six hospitals rated “Worse,” four hospitals were from Los Angeles County. One hospital (Sutter Medical Center – Sacramento) was rated “Better” and one hospital (Oroville Hospital) was rated “Worse” in both the 2014-15 and 2013-14 reports.