Mortality Following Hip Fracture Repair in California Hospitals, 2013 - 2014

Executive Summary
This report provides performance ratings on hip fracture surgical repair for 301 California acute care hospitals during 2013-2014. Hip fracture is a serious and costly public health concern with approximately 20,000 hip fractures occurring each year in California. The burden of hip fracture is likely to grow in coming years because of California’s aging population.

The performance benchmark used in this report is the hospital risk-adjusted 30-day mortality rate. Mortality rates are risk-adjusted using a statistical technique that allows for fair comparisons of hospital performance even though some hospitals treat sicker patients. The report is based on data submitted to the Office of Statewide Health Planning and Development (OSHPD) by licensed acute care hospitals and on death certificate records submitted to the California Department of Public Health.

Technical Details
Additional information about this quality measure can be found in the OSHPD Technical Note for Producing Mortality Following Hip Fracture Repair in California Hospitals, 2013-2014 and the Hip Fracture Repair Outcomes Validation Study in California.

Hip Fracture Repair Mortality Results
Click the link below to access the hip fracture repair 30-day mortality ratings of all California-licensed hospitals: Hip Fracture Repair Risk-Adjusted 30-Day Mortality Results, 2013-2014

Key Findings:
Between January 2013 and December 2014, a total of 38,069 patients (age 65 and above) were admitted to California hospitals with a hip fracture that required surgical repair. Of these patients, 1,989 patients (5.2 percent) died within 30 days of admission, either in the hospital or following discharge. The 30-day mortality rate slightly decreased from 5.4 percent (2,057 deaths occurred among 38,183 hip fracture repair patients) between January 2012 and December 2013.

- About half (53 percent) of the deaths occurred after hospital discharge but within 30 days of admission.
- A total of 301 hospitals reported hip fracture repair cases for this time period. Quality ratings were calculated for 250 hospitals, and their risk-adjusted mortality rates (RAMRs) ranged from zero to 15.43 percent. Ratings were not reported for the remaining 51 hospitals that had fewer than 30 hip fracture repair cases because the low number of cases made their ratings less reliable.
- Two hospitals (El Camino Hospital and Long Beach Memorial Medical Center) performed significantly “Better” than the state average. Their risk-adjusted mortality rates were 1.5 percent and 1.8 percent respectively.
- Five hospitals (Bakersfield Memorial Hospital, Desert Regional Medical Center, Hemet Valley Medical Center, Kaiser Foundation Hospital – Fresno, and Torrance Memorial Medical Center) performed significantly “Worse” than the state average. Their risk-adjusted mortality rates range from 8.6 percent to 11.3 percent. Desert Regional Medical Center and Hemet Valley Medical Center were also rated as “Worse” in 2012-2013.
• A total of 243 hospitals were rated as “Average”, or not significantly different from the state average. Three hospitals (Community Regional Medical Center - Fresno, Marian Regional Medical Center - Arroyo Grande, and San Joaquin Community Hospital) were improved to “Average” in 2013-2014 from “Worse” in 2012-2013.

• Risk of death increased sharply with age, with patients 85-94 year old three times more likely to die than 65-74 year old patients, and those 95 or older 5.6 times more likely to die within 30 days, all else being equal. Males were nearly twice (1.9 times) as likely to die after the operation as females.

• Approximately 31 percent of hip surgery patients were diagnosed with dementia, and their risk of death was about two times that of patients without dementia. Nearly 17 percent of patients undergoing surgery had congestive heart failure, which increased their risk of death by 67 percent compared to other patients. About 2.5 percent of patients had cancer, and the risk of death was 1.9 times that of patients without cancer. Other common, important conditions that increased patient risk of death included being hospitalized in the prior 12 months (1.53 times more likely) and chronic obstructive pulmonary disorders (1.47 times more likely).

The large differences seen in hospital mortality rates, after accounting for severity of illness in each hospital’s patients, suggest there were important differences in clinical practices between hospitals. The Validation Study and current medical literature\(^1,2\) indicate there are best practices in patient care that can reduce patient short-term mortality. All hospitals caring for patients with hip fracture repair should implement evidence-based practices supported by the professional medical community. Hospitals with poor outcomes should review their clinical processes to identify and correct any shortcomings.

OSHPD also publishes the Agency for Research and Quality (AHRQ) Inpatient Mortality Indicator for Hip Fracture. Some of the key differences between the OSHPD and the AHRQ measures are provided in the Technical Note for Producing Mortality Following Hip Fracture Repair in California Hospitals, 2013-2014.

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