

Rapid Increase in the Rates of Vertebral Fracture Repair Surgeries in the United States from 2006 to 2014

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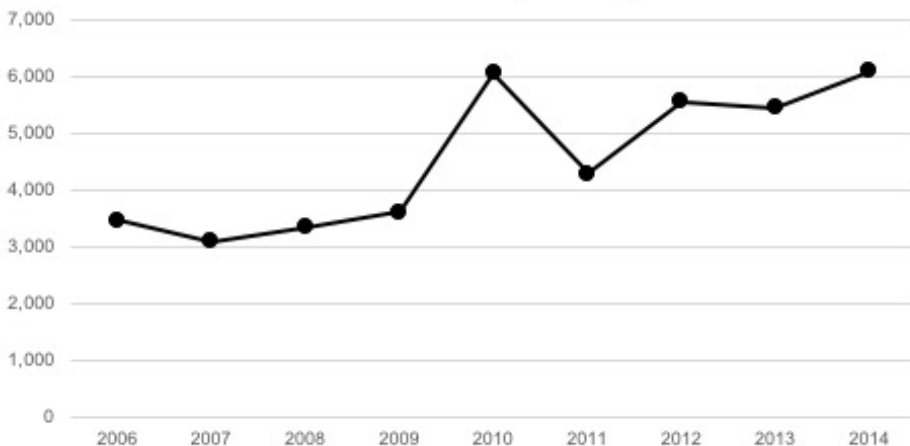
Purpose: The primary hypothesis of this study is that the annual volume of surgeries performed for vertebral fractures (VFX) has increased over the 9 year study period.

Methods: The National Inpatient Sample (NIS) database was analyzed for the operative treatment of VFX from 2006-2014. Outcome data were determined for the procedure based on the ICD-9 CM code 03.53, which includes all operative treatment of vertebral fractures except kyphoplasty and vertebroplasty.

Results: An estimated 40,877 VFX repair surgeries were performed in the United States from 2006-2014. The number of procedures per year increased 76% during the course of the study period with a mean of 4542 surgeries per year (range, 3085-6085). Mean LOS decreased 30% over the same period with a yearly LOS mean of 12.0 days per patient (range, 9.3-13.9 days). The mean percentage of patients with routine discharge was 39% (range, 34-46%). The mortality rate of operative intervention for VFX was 2.5% (range, 1.9-3.3%). The cost of VFX repairs increased 5.2% overall (mean: \$47,235; range, \$42,104-\$52,884). Charges have increased 50.3% over the study period (mean: \$163,147; range, \$116,507-\$188,897).

Conclusion: Operative management of vertebral fractures has increased by 76% in the U.S. from 2006-2014 to 6,085 surgeries per year in 2014. LOS has decreased by 30% over the same time period, and yet both costs and charges have increased. On average 61% of patients were either discharged to a skilled nursing facility or had home nursing.

Number of Vertebral Fracture Repair Surgeries in the U.S.



The FDA has stated that it is the responsibility of the physician to determine the FDA clearance status of each drug or medical device he or she wishes to use in clinical practice.