

## Effect of Institution Volume on Mortality and Outcomes in Osteoporotic Hip Fracture Care

**Authors :** J. Milton, C. Uzoigwe, O. Ayeko, B. Offorha, K. Anderson, R. G. Middleton

**Abstract :** Background: We used the UK National Hip Fracture database to determine the effect of institution hip fracture case volume on hip fracture healthcare outcomes in 2019. Using logistic regression for each healthcare outcome, we compared the best performing 50 units with the poorest performing 50 units in order to determine if the unit volume was associated with performance for each particular outcome. Method: We analysed 175 institutions treating a total of 67,673 patients over the course of a year. Results: The number of hip fractures seen per unit ranged between 86 and 952. Larger units tendered to perform health assessments more consistently and mobilise patients more expeditiously post-operatively. Patients treated at large institutions had shorter lengths of stay. With regard to most other outcomes, there was no association between unit case volume and performance, notably compliance with the Best Practice Tariff, time to surgery, proportion of eligible patients undergoing total hip arthroplasty, length of stay, delirium risk, and pressure sore risk assessments. Conclusion: There is no relationship between unit volume and the majority of health care outcomes. It would seem that larger institutions tend to perform better at parameters that are dependent upon personnel numbers. However, where the outcome is contingent, even partially, on physical infrastructure capacity, there was no difference between larger and smaller units.

**Keywords :** institution volume, mortality, neck of femur fractures, osteoporosis

**Conference Title :** ICCTOS 2022 : International Conference on Current Trends in Orthopaedic Surgery

**Conference Location :** Baku, Azerbaijan

**Conference Dates :** October 06-07, 2022