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Vascular Medicine

HOSPITAL VOLUME AND OUTCOMES IN PERIPHERAL VASCULAR INTERVENTIONS IN THE UNITED STATES

Oral Contributions
Room 3
Sunday, March 15, 2015, 11:45 a.m.-11:57 a.m.

Session Title: Highlighted Original Research: Vascular Medicine and the Year in Review
Abstract Category: 44. Vascular Medicine: Endovascular Therapy
Presentation Number: 908-10

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Background: There is lack of data on the impact of hospital volume on the length of stay (LOS) and cost of hospitalization following peripheral vascular intervention.

Methods: We queried the Healthcare Cost and Utilization Project's Nationwide Inpatient Sample (NIS) between 2000-2011 using the, ICD-9 for peripheral vascular disease of lower limbs. We used procedural code 39.90, 00.55 for stenting and 39.50 for angioplasty. All procedures performed in patients >=18 years were included. Annual hospital volume was calculated using unique identification numbers every year and then divided into quartiles for analysis. Cost to charge ratio files were merged with NIS to calculate cost of care. Cost was adjusted for inflation in reference to 2011.Hierarchical mixed effects linear regression models were generated to adjust for confounding variables.

Results: We identified a total of 137,811 procedures (weighted n = 673,588).The average LOS was 5.15±0.01 days and cost of care was $20,120±51. Emergent/urgent admissions and Charlson score ≥ 2 were associated with increased LOS and hospitalization cost. A higher hospital volume was independently predictive of both shorter LOS (-2.01 days, 95% CI -2.21 - -1.81, p <0.001 for the highest quartile) and lower hospitalization cost(-$806, 95% CI -1351 - -262, p=0.04 for the highest quartile)(Figure).

Conclusion: In our study, higher hospital volume was significantly predictive of reduced length of stay and hospitalization cost following peripheral vascular interventions.