

**BURDEN OF REPEAT ADMISSIONS AMONG PATIENTS WITH CRITICAL LIMB ISCHEMIA**

Oral Contributions
Room 209 C
Saturday, March 18, 2017, 9:04 a.m.-9:14 a.m.

Session Title: Highlighted Original Research: Vascular Medicine and the Year in Review
Abstract Category: 40. Vascular Medicine: Non Coronary Arterial Disease
Presentation Number: 905-12

Authors: *Shikhar Agarwal, Badal Thakkar, Karan Sud, Geisinger Medical Center, Danville, PA, USA*

Background: Readmissions constitute a major healthcare burden among critical limb ischemia (CLI) patients. We aimed to study the incidence of readmission and factors affecting readmission in CLI patients.

Methods: We obtained data from the Healthcare Utilization Project sponsored State Inpatient Database. We used data from the states of Florida (2009-2013), New York (2010-2013) and California (2009-2011), as these states provided data on repeat admissions. Data were merged with the directory available from the American Hospital Association to obtain detailed information on hospital related characteristics. Geocoding analysis was performed to evaluate the impact of travel-time to the hospital upon readmission rate.

Results: Overall, 695,782 admissions from 212,241 patients were available for analysis. Of these, 245,687 were primary CLI admissions (principal diagnosis of CLI). Readmission rates at 30 days and 6 months were 26.3% and 53.2% respectively. Median (IQR) time to readmission was 36 (10-110) days. Compared to surgical revascularization (30day: 23.2%; 6 mo: 46.5%), endovascular revascularization was associated with higher readmission rates (30day: 26.3%; 6 mo: 53.8%).

The major predictors of 6 month readmission included age, female gender, black race, prior amputation, emergency admission, Charlson comorbidity score and need for home health care on discharge. Admissions covered by private insurances had the least readmissions compared to Medicaid/no insurance and Medicare populations.

Travel time to the hospital was inversely associated with readmission rates [OR (99%CI) for log-transformed travel time: 0.86 (0.84-0.89)]. However, greater travel time to the hospital was associated with higher in-hospital mortality suggesting delayed presentation of those CLI patients that lived further away from healthcare facility. Furthermore, length of stay (LOS) during index hospitalization was directly associated with the incidence of readmission [OR (99%CI) for log-transformed LOS: 1.28 (1.22-1.34)].

Conclusions: Readmission among patients with CLI is high. Several demographic, clinical and socioeconomic factors play important roles in predicting readmissions.