Conclusion: Intraoperative transfusion was associated with increased morbidity and mortality and remained significantly predictive of septic, wound and pulmonary complications after adjustment for clinical risk factors, procedure type and complexity. Graft failure rates in BP and BV patients were significantly higher in the transfused group. Prospective studies focusing on the impact of blood transfusion on lower extremity revascularization outcomes are warranted.

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PP43.

Underlying Comorbidities are More Important than Procedure Type in Determining Outcomes Following Intervention for Critical Limb Ischemia

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Objective: Endovascular approaches for limb salvage in critical limb ischemia (CLI) offer the potential of reduced cardiovascular risk compared to open procedures. To date, no study has compared endovascular interventions regarding cardiovascular events (CVE) using a cardiac risk to open procedures. To date, no study has compared endovascular interventions in CLI patients reduced CVE when compared to open treatment, while standardizing cardiac risk using the Revised Cardiac Risk Index (RCRI).

Methods: 116 patients treated for CLI at our institution in 2005 were retrospectively identified. Outcomes were recorded at 30 days and one year after the index intervention. Data was collected on revascularization method, RCRI score, tobacco use, Rutherford classification, BMI, ambulatory status, lesion location, diabetes, dialysis dependence, anesthetic type, and need for second intervention. Outcomes included 30 day CVE rates, 1-year amputation rate, a 1-year composite index of CVE or amputation, and 1-year mortality. We performed logistic regression analysis to select significant variables. These variables were then used to build a multi-variable logistic model that also included procedure type, RCRI score and interaction terms between these variables.

Results: 62 patients were treated with an open procedure and 54 via a percutaneous approach. Basic demographic characteristics were similar between groups. There was no statistically significant difference in 30 day or 1-year CVE rates, 1-year amputation rate, or 1-year mortality when comparing percutaneous and open revascularization and controlling for all other variables (p < 0.35). Patients with higher RCRI score (OR 1.87 CI [1.19, 2.94]) and dialysis dependent (OR 2.71 CI [1.29, 5.67]) had increased 1-year mortality. Obese patients (BMI ≥ 30) (OR 4.73 CI [0.9, 24.9]) trended towards increased 30 day cardiovascular events. There was no statistically significant interaction between significant variables and type of procedure.

Conclusion: Our study shows that there was no difference in the incidence of CVE between percutaneous and open revascularization. These results suggest that baseline cardiovascular risk factors contribute more to post-intervention cardiovascular morbidity than the type of intervention.

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PP44.

Determinants of Hospital Disposition after Lower Extremity Bypass Surgery

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Objective: Analyses of resource utilization (RU) after lower extremity bypass (LEB) surgery remain based on the index hospitalization. This calculation, however, does not account for additional health care services that are often needed upon discharge. To better understand patterns of RU in LEB patients, we analyzed predictors of disposition between claudicants and patients with critical limb ischemia (CLI). We hypothesized that demographic, socioeconomic, and hospital factors, independent of clinical factors, can impact the need for services on discharge after LEB.

Methods: The 2005 Nationwide Inpatient Sample was analyzed for patients who underwent LEB for claudication or CLI. Outcomes of interest were discharge to home (routine) vs. discharge with additional services (DAC). We performed log-logistic regression analysis in multivariable models, including demographic (age, gender, race), economic (income level, insurance), clinical (comorbidities, admission status, amputations and debridements, length of hospitalization (LOS), severity of peripheral vascular disease (PVD)), and hospital characteristics (location and hospital ownership).

Results: Among 5868 LEB patients, 2379 (40.3%) were claudicants and 3489 (59.5%) had CLI. Of the 2379 claudicants, 979 (41.3%) required DAC, whereas, 2003 (57.4%) CLI patients required DAC (P=0.0001). CLI patients had greater utilization of all types of DAC, such as home health care and transfer to rehabilitation facility being the most common. Multivariable analysis showed that after controlling for PVD severity and comorbidities, independent predictors of DAC among claudicants were older age, female gender, care at a private hospital, and longer LOS. Among CLI patients, significant predictors of DAC were similar with the addition of African American race, highest-income quartile, and receiving an amputation or debridement.

Conclusion: Postoperative care of LEB patients is not complete at discharge, but often measured by routine discharge. The differential use of these services between claudicants and CLI patients shown in our study helps us understand patterns of RU among LEB patients. Furthermore, understanding predictors of DAC can ultimately help health care providers anticipate and prepare for patients who will likely require these services.

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PP45.

Assessment of Provided Care in Vascular Surgery: Comparison of Health Care Facilities by Adverse Events Registration Comparison and Adverse Events Registration

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Background: To assess the role of adverse events (AE) registries in measuring quality of care in vascular surgery. Crucial aspects of AE registration in order to compare provided care between different institutions were evaluated. Today’s medicine urges individual health care facilities and medical professionals to obtain and provide detailed insight in quality of care with the possibility to compare between institutions. AE analysis serves as a mainstay in quality assessment in surgery, but comparison of AE data between institutions can be complex.

Methods: This is the first prospective study in literature comparing 3 different AE registries in order to evaluate quality of provided care after arterial bypass graft surgery. All admissions involving AEs after infrainguinal bypass graft procedure (BGP) for PAOD from January 2000 till January 2005 in three teaching hospitals in the Netherlands were evaluated: the Red Cross Hospital (RCH) in The Hague and the St. Elisabeth Hospital (EH) in Tilburg and the Leiden University Medical Centre (LUMC). Definition of AE was identical in the institutions.

Results: In total 683 BGP’s were performed (RCH: n=296, 43%; EH: n=235, 35%; LUMC: n=152, 22%) and 709 AEs were registered. Percent age of AEs varied widely among studied health care facilities (RCH: 17%; EH: 57%; LUMC: 27%; P<0.001) There was a significant difference in indication of operation (critical limb ischemia: RCH: 59%; EH: 66%; LUMC: 77%; P<0.001), preoperative comorbidity score (ASA 3-4: RCH: 26%; EH: 74%; LUMC: 53%; P<0.001), case-mix (cardiac/pulmonary/ diabetes; RCH: 37/18/26%; EH: 49/23/36%; LUMC: 63/11/36%; P<0.001/0.02/0.05) and level of distal anatomosis (below knee: RCH: 45%; EH: 62%; LUMC: 52%; P<0.001). The facility with significantly more complex patients and operations had more AEs.

Conclusion: AE registration and evaluation provide insight in quality of care in individual institutions over time. However, indication of surgical treatment, comorbidity, case-mix and type of surgery need to be carefully weighted when comparing institutions.

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PP46.

The Impact of Limb Amputation During Follow-up on Long-term Survival in Patients Undergoing Peripheral Arterial Revascularization

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Background: The prognosis of patients with peripheral arterial disease is related to the presence and extent of underlying cardiovascular disease.

Objective: To evaluate the impact of amputation on long-term survival after peripheral arterial revascularization.

Methods: A total of 235 patients who underwent revascularization procedures (arterial bypass, angioplasty) for chronic limb ischemia were identified from a prospective cohort study. Survival was calculated using the Kaplan-Meier method, and patients were censored at last contact, death, or amputation. Differences in survival curves were assessed using log rank testing.

Results: The median follow-up period was 18 months (range 3-120). Overall, 11 patients (4.7%) experienced an amputation. The 1- and 2-year survival rates were 85% and 75%, respectively. The 10-year survival rate was 50%. Survival was significantly lower in patients who underwent amputation compared to those who did not (log rank test, P=0.01).

Conclusion: Amputation is an important predictor of long-term survival in patients undergoing peripheral arterial revascularization.