**Objectives:** Readmission after vascular surgery is a quality measure that will soon affect reimbursement, despite limited understanding of risk factors. This study evaluates whether regional variation in primary care utilization is associated with readmission following thoracic aortic aneurysm (TAA) repair.

**Methods:** Using Medicare claims linked to primary care utilization data from the Dartmouth Atlas, we identified 7441 patients who underwent open TAA repair from 2003-07 in nationwide hospital referral regions (HRRs). We divided HRRs into tertiles based on the annual rate of primary care visits, and used logistic regression & propensity score matching to evaluate 30-day readmission rates.

**Results:** There were 1592 (21%) patients readmitted within 30-days after open TAA repair, on average 10 days following discharge. Readmission was more likely in patients with a Charlson score $>2$, renal complications, & length of stay $>9$ days ($P<.01$). Readmission was less likely to occur in HRRs with high vs. low rates of primary care utilization (OR: 0.78; $P<.01$). In the propensity-matched cohorts, there was no difference in readmission rates following TAA repair among patients at low or moderate risk for readmission, but patients at high risk were significantly less likely to be readmitted (21% vs. 33%; $P<.01$) when TAA repair was undertaken in HRRs with high primary care utilization (Fig).

**Conclusions:** Readmission rates following TAA repair in high-risk patients were significantly lower in regions with high primary care utilization. These results highlight the importance of primary care coordination after complex vascular surgery.

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**PS122.**

**Negative Pressure Wound Therapy on Exposed Prosthetic Vascular Grafts in the Groin**

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**Objectives:** This study assessed the outcome of vacuum-assisted closure (VAC) as primary therapy for exposed prosthetic vascular grafts in the groin (Szylagi III).

**Methods:** The study included all consecutive patients with Szylagi III groin infections and exposed prosthetic graft material from 2009 to 2011. After initial wound debridement, VAC was applied using a two-layer combination, consisting of polyvinyl-alcohol and polyurethane sponges. Continuous negative pressure was set on a maximum of 50 mm Hg. All patients received complementary antibiotic therapy. The primary end point was defined as complete wound closure. Secondary end points comprised bleeding complications, amputation, and death.

**Results:** The study evaluated 15 patients with 17 Szylagi III groin infections. Mean total length of VAC therapy was 43 days (range, 14-76 days). Mean time until complete healing was 51 days (range, 24-82). Mean length of VAC therapy in the hospital was 21 days (range, 5-61 days). Eleven patients received continued VAC treatment at home for a mean length of 22 days (range, 5-69 days). Complete healing was achieved in 14 groins (82%). Three failures due to persisting infection, persisting necrosis, and a pseudomonas infection were noted. No bleeding complications, amputations, or late reinfections occurred. Median follow-up was 380 days (range, 56-939 days). Despite therapy failure, all 17 grafts were preserved.

**Conclusions:** VAC therapy on an exposed prosthetic vascular graft in the groin is safe and feasible when applying a combination of polyvinyl alcohol and polyurethane foam dressing and 50 mm Hg of continuous negative pressure, resulting in midterm graft preservation.

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**PS124.**

**Experience with a New Negative Pressure Incision Management System in Prevention of Groin Wound Infection in Vascular Surgery Patients**

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**Objectives:** Groin wound infection is an important cause of postoperative morbidity in vascular surgery patients, especially when prosthetic graft is involved. We report our experience with a new negative pressure...