required to assist stakeholders in performing procedures most likely to improve functional status for CLI.

**Author Disclosures:** R. L. Kruse: Nothing to disclose; G. F. Petroski: Nothing to disclose; T. R. Vogel: Nothing to disclose

**RR24.**

**Improvement of Walking Distance by Ramipril in Patients With Intermittent Claudication Is Partly Due to Its Ability to Reduce Arterial Stiffness: Results from a Randomised Controlled Trial**

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**Objectives:** We have previously shown that the angiotensin converting enzyme inhibitor, ramipril, improved walking distance and reduced arterial stiffness in patients with intermittent claudication. In this analysis on the same cohort of patients, we investigated whether ramipril’s ability to improve walking distance is dependent on its ability to reduce arterial stiffness.

**Methods:** 33 patients (25 males; mean age, 65 ± 7.8) with intermittent claudication were randomised to receive ramipril (n = 14) or placebo (n = 19) for 24 weeks in a double-blind fashion. Walking distance was assessed using a standard treadmill test (1.6 mph at 10% incline) and arterial stiffness indices were assessed using the SphygmoCor device.

**Results:** After 24 weeks, ramipril improved maximum treadmill walking distance; adjusted mean change difference (95% confidence interval); by 130.5 metres (61.8 to 199.2 metres) longer than placebo (P = .001) and improved treadmill intermittent claudication distance by 121.9 metres (55.9 metres to 187.8 metres) longer than placebo (P = .001). Ramipril reduced carotid femoral pulse wave velocity (PWVcf) by −1.47 m/s (−2.4 m/s to −0.57 m/s) compared to placebo (P = .002) and reduced augmentation index (AIx) by −10.8% (−14.1% to −7.5%) compared to placebo (P < .001). Changes in walking distance from baseline showed significant inverse correlations with changes in indices of arterial stiffness (PWVcf, r = −.43, P = .021; AIx, r = −.50, P = .006; AIx adjusted to 75 beats/minute, r = −.45, P = .039). Correlations remained significant after adjusting for heart rate and mean arterial pressure.

**Conclusions:** Ramipril improves walking distance in patients with intermittent claudication. This improvement is partly due to ramipril’s ability to reduce arterial stiffness.

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**RR25.**

**Exposure of Femoral Vessels Using a Lateral to Sartorius Muscle Approach Decreases Deep Groin Wound Infections in Operations for Peripheral Arterial Disease**

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**Objectives:** To compare the incidence of deep groin wound infections between patients having peripheral arterial disease (PAD)-related operations with standard groin incision (SGI) vs those having exposure of the femoral vessels via an approach lateral to sartorius muscle (LSM).

**Methods:** Consecutive patients (n = 604) who underwent PAD-related operations were matched on propensity score (PS) calculated as their probability to have either the SGI or the LSM approach on the basis of operative characteristics, demographics and comorbidities. Primary endpoint was the incidence of deep groin wound infections. Single level random effects logistic and Poisson regressions were performed to analyze outcomes.

**Results:** After PS matching the groups were well-balanced on all major covariates except for that of groin reoperation; therefore, the final regression models were all adjusted for this predictor. The incidence of deep groin wound infection was lower in the LSM group (2 vs 6.3%; OR, 0.1; P = .016). An interaction term between LSM approach and reoperation approached statistical significance (P = .07) and individual interaction component analysis indicated that the beneficial effect of the LSM approach was mainly in the patients undergoing groin reoperations. Superficial infections (OR, 0.83; P = .88), intra-operative blood loss (median, 275 vs 350 cc; IRR, 1.04; P = .75), operative time (median, 4.6 vs 4.9 hours; IRR, 1.01; P = .875), and incidence of perioperative death and MI (OR, 1; P = .99) were similar between the SGI and LSM groups respectively. Postoperative length of stay (median, 6 vs 8 days; IRR, 1.3; P = .052) was slightly higher in the LSM group.

**Conclusions:** Patients having femoral vessel exposure via a lateral to sartorius muscle approach have a substantially lower risk of deep groin infections, particularly if undergoing reoperation.

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**RR26.**

**Adaptation to Amputation: The Effect of Social Integration on Outcomes After Major Lower Extremity Amputation**

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**Objectives:** Major Lower Extremity (MLE) amputation is a profound change in a patient’s life. We seek to determine the role of social integration in outcomes after
amputation. The impact of social context is tested by including patients from the US and Tanzania (TNZ).

Methods: MLE amputees were recruited from US and TNZ sites in a prospective study. Data collected included demographic, social integration (CHART), walking function (Six Minute Walk Test) and QoL (EQ5D). \( \chi^2 \) and ANOVA tests were used to assess association between social integration and outcomes. Multivariable logistic regression analysis, was performed to assess the role of social context.

Results: Of the 90 enrolled patients, 50 (56%) were from the US, 58 (64%) were male, with a mean age of 64.4 years. Patients with high social integration had a trend toward improved function defined by a score of 171 meters or better (36% v 66% v 74%; \( P = .055 \)) and significantly higher mean EQ5D scores (0.65 v 0.70 v 0.79; \( P = .021 \)). Findings were more dramatic in the US sub-group for both function (17% v 38% v 74%; \( P = .008 \)) and QoL (0.52 v 0.58 v 0.79; \( P = .001 \)). In a multivariate analysis, the TNZ site was not associated with less favorable function (\( P = .783 \)) or QoL (\( P = .364 \)).

Conclusions: In the US population, increased social integration is associated with both improved function and quality of life outcomes among amputees. This effect is attenuated in TNZ, likely due to differences in social context. Steps should be taken to identify and aid amputees with poor social integration in the US and factors associated with low function elsewhere.

![Image](image.png)


RR27.

SFA Intervention Surveillance: Where Is the Benefit?
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Objectives: While many vascular surgeons follow the algorithm of postoperative bypass vascular evaluation including non-invasive flow studies (NIFS) and bypass graft duplex (BGD) at 1, 3, 6 months and annually thereafter, the data surrounding this recommendation is low. It has been shown that routine BGD scanning following autogenous lower extremity bypass has not proven to be cost-effective. The TASC II document recommends a biannual assessment of exercise NIFS for 2 years postoperatively as level C evidence. Superficial Femoral Artery (SFA) Percutaneous Transluminal Angioplasty/Stent (PTA/S) trials have required similar schedules of postprocedure evaluation. We chose to evaluate the benefit of postprocedure imaging.

Methods: We undertook a retrospective review of a prospective database looking at SFA intervention. The number of follow up visits, frequency of changes in exam, changes in postprocedure NIFS and BGD were analyzed.

Results: 104 patients had SFA interventions (46 PTA, 46 PTA/stent, 8 atherectomy, 4 PTA/lysis). Initial studies (NIFS and/or BGD) within 1-7 weeks showed a change (ABI < .7 and/or 4:1 peak systolic velocity ratio) in 3.1% of cases, at 3 months an additional 41% showed change (RR > 1.0; \( P < .05 \)); at 6 months only an additional 8% showed change (RR < 1.0; \( P > .05 \)). Kaplan Meier analysis revealed a lack of significance at the 1 year mark and beyond due decreased follow up.

Conclusions: Of the 547 postprocedure perfusion assays performed in these 104 patients the statistically significant interval appears to be at the 3 month post-procedure visit. While the initial study acts as a baseline the utility of further testing does not appear to add significant additional information on a cohort basis. Like algorithms for distal bypass there did appear to be better correlation when coupled with return of symptoms and change in physical exam.

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RR28.

Predictors of Major Amputation With Patent Bypass Grafts
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Objectives: Despite patent bypass grafts, some patients receive major amputations (MA). We analyzed the frequency and predictive factors leading to MA in the presence of patent lower extremity bypass grafts (LEB).

Methods: Data from PREVENT III, a large prospective randomized trial of 1404 patients who underwent LEB for critical limb ischemia (CLI) was queried for outcomes. The primary endpoint was MA with patent (PMA) or