**Results:** A total of 615 articles were identified from the literature search. After removal of excluded studies and duplicates, 6 RCT studies were available for analysis. Four of the 6 RCTs restricted their inclusion criteria to patient deemed at high risk for complications. For this meta-analysis, ciNPT usage demonstrated a statistically significant reduction in the incidence of SSI relative to traditional dressings in patients undergoing vascular surgery with groin incisions.

**Conclusion:** Pre-operative anaemia significantly increases the rate of complications and length of hospital stay following surgical revascularisation for CLI. It is also associated with higher 1-year mortality. Consequently, optimisation of baseline Hb may improve these outcomes in this high risk non-elective group of patients.

**Disclosure:** Nothing to disclose.

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**O-031 The Impact of Anaemia on The Clinical Outcomes of Infra-Inguinal Bypass for Critical Limb Ischaemia**

**Peripheral Arterial Disease**

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**Introduction:** Anaemia in elective cardio-vascular surgery has been shown to have a detrimental impact on clinical outcomes and survival. Non-elective caseload is high in vascular surgery and the timely revascularisation in critical limb-ischaemia (CLI) significantly contributes towards this workload. The outcomes are hugely significant to the patient. Equally a 2017 Delphi consensus identified that improving outcomes in CLI are a top ten research priority. As such, this tertiary centre cohort study evaluates the impact of anaemia on CLI revascularisation outcomes.

**Methods:** All infra-inguinal bypass operations for CLI between 2016 and 2018 were identified from a prospectively maintained database. Anaemia was defined as a pre-operative haemoglobin (Hb) of less than 120g/dL. ROC analysis was performed to support this cut-off Hb. Pre-, intra- and post-operative metrics were analysed to understand if anaemia impacted on clinical outcome. Comparative statistics and regression analyses were performed.

**Results:** 124 bypasses for CLI were included. 45 were anaemic with an average Hb of 105 (9.5) vs. the non-anaemic 141.7 (14.7) group.

Baseline comparisons were equivalent for age, gender, comorbidity and medications, as were the duration of surgery and intra-operative blood loss.

Post-operatively there was a greater rate of wound infection ($p=0.036$) and myocardial infarction ($p=0.02$) in the anaemic group. Regression analysis demonstrated that anaemic patients were 9(OR) times more likely to have an MI.

The mean length of stay was longer in the anaemic group (26.8 (22.6) vs. 14(15.9) days ($p=0.001$).

1-year mortality was also higher in the anaemic group($p=0.037$) and OR of 3.6(1.02 - 12.8)($p=0.046$). Anaemia and length of stay significantly correlated with 1-year mortality.

There was no difference in 30-day mortality or limb loss. A Hb of 111 was the most sensitive and specific critical Hb for both MI and 1-year mortality.

**Conclusion:** Anaemia significantly impacts wound infection rates and length of stay postoperatively in CLI patients undergoing infra-inguinal revascularisation.

**Disclosure:** Alexander Gombert received travel grants from vascular surgery with groin incisions.

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**O-032 Platelet Aggregation Inhibitor Prescription for Peripheral Arterial Disease in the Netherlands**

**Peripheral Arterial Disease**

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**Introduction:** We conducted a cohort study among patients newly diagnosed with PAD between 2010-2014. ‘Newly diagnosed’ was defined as a recorded ICPC-code for PAD, a PAD-specific WCIA examination code or a PAD diagnosis recorded as free text episode in the GP records and no previous PAD diagnosis record plus no prescription of P2Y12-inhibitors or aspirin in the preceding year. To define the patient journey, at least 1-year database history and follow-up relative to the index date was required. Data were obtained from the PHARMO Database Network, a population-based network of electronic pharmacy and both primary and secondary healthcare setting records in the Netherlands. The
source population for this study comprised almost 1 million individuals.

**Results:** Between 2010-2014, we identified 3.677 newly diagnosed PAD patients. Most patients (91%) were diagnosed in primary care, and in primary care at the end of the study (83%). Almost half of all patients (49%) had no anticoagulant therapy (vit. K antagonist or DOAC). Mono-APT was dispensed as aspirin (40% of patients) or P2Y12-inhibitors (2.5% of patients). Dual-APT (DAPT) combining aspirin with a P2Y12-inhibitor was dispensed to 8.5% of the study population.

**Conclusion:** Half of all patients with newly diagnosed PAD are not treated conform (international) guideline recommendations on thromboembolism prevention through APT. At least 33% of all patients with newly diagnosed PAD do not receive any antithrombotic therapy. Evaluation and improvement of APT prescription and thereby improved prevention of (secondary) cardiovascular events is warranted. We advise all physicians to inquire if PAD patients receive APT and if not, to investigate if there is a valid reason to omit prescribing these medicines.

**Disclosure:** Nothing to disclose

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**O-033 Single Centre, Mid-term Clinical Outcomes of Supervised Exercise for Claudication**

**Peripheral Arterial Disease**

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**Introduction:** Peripheral arterial disease (PAD) causes a significant reduction in physical activity and quality of life. NICE guidelines recommend all patients with claudication should be offered best medical therapy (BMT) and enrolled into a supervised exercise programme (SEP). Despite good evidence of efficacy in patients with claudication, SEP provision varies across UK trusts and is largely dependent on local NHS budget constraints. Though SEP has been shown to be effective in improving outcomes such as claudication distance; little is known on long term outcomes and interventions such as revascularisation. We aimed to analyse the mid to long term clinical outcomes of patients enrolled in SEP.

**Methods:** This is a single centre retrospective cohort study. 228 patients were identified from 2014 to 2018. Electronic computer records and clinical letters were interrogated for key demographic and clinical outcome information. All major lower limb clinical outcomes were analysed. Collected data was analysed using SPSS v25, survival was analysed using Kaplan-Meier method.

**Results:** Of 228 patients, 34 were excluded due to insufficient clinical details. Mean age was 68.8 years (+/- 10.4) with a M:F ratio of 2.6:1. Hypertension (91%) and ischaemic heart disease (45%) were the most common comorbidities followed by Diabetes (26%). Almost 90% of patients were on a combined antiplatelet agent and statin. 90% of the cohort were either current smokers or ex-smokers. Patients completed an average of 21 SEP sessions, however 28% of the cohort attended an insufficient number of sessions to qualify as completing SEP.

Mean claudication distance prior to commencing SEP was 158.1m (+/- 175.2) which increased to 548.2m (+/- 1244.4) on completion; with 69.7% showing an improvement. Of 194 participants in SEP 10% went on to have revascularisation with only 0.5% requiring major lower limb amputation.

Survival analysis showed 86.5% of population to be free from intervention and major adverse limb events at 36 months’ post programme.

**Conclusion:** SEP in our cohort improved claudication distance with only a small minority progressing to require revascularisation during their time in the programme. SEP patients experienced prolonged benefits in the mid to long term with only 14.5% experiencing a major adverse limb event at 36 months. SEP patients and are at low risk of requiring major lower limb amputation. More should be done to make SEP available to all patients suffering with PAD across the UK given the evidence of improved outcomes.

**Disclosure:** Nothing to disclose