**O-020 The Fate of Patients with Large Asymptomatic Abdominal Aortic Aneurysms in the Ten Years Following Vascular Services Quality Improvement Program (VSQIP)**

**Abdominal Aortic Diseases**

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**Introduction:** The basic premise of VSQIP in management of patients with asymptomatic large AAA is reducing mortality from ruptured AAA in a sustainable way without introducing excessive procedure related mortality. The aim of this study was to report outcome of patients who were referred with large asymptomatic AAAs.

**Methods:** Patients referred to a regional vascular center with a large AAA (greater than 55 mm) between 1st January 2008 and 31st March 2018 were included. All patients underwent the nationally agreed Vascular Services Quality Improvement Programme (VSQIP) pathway which included pre operative cardio pulmonary exercise testing and contrast enhanced CT scan of aorta. Patients were classified into two groups; those managed non-operatively and those offered elective repair. Survival was assessed using Kaplan-Meier analysis. Factors associated with non-operative management were examined using multivariate analysis.

**Results:** A total of 876 patients of whom 768 were men and 108 were women with mean age of 74 years (std. dev: 7.2) and a diagnosis of a large asymptomatic AAA were assessed. One hundred and seventy four patients (19.9%) were turned down for elective repair and 702 (80.1%) underwent repair [Open: 244 (34.8%), EVAR: 458 (65.2%)] with perioperative and 30 day mortality of 1.13%. Patient who underwent repair had significantly higher survival rates compared with those who were turned down (Log rank: 45, \( P < 0.0001 \)). Anaerobic threshold < 8 ml kg\(^{-1}\) min\(^{-1}\) [OR: (95%CI): 4.01 (1.12-6.45)], Age > 80 yrs [OR (95%CI): 2.03 (1.08-3.32)], complex aneurysm morphology [OR (95%CI): 8.62 (3.01-32.23), Female gender: [OR: (95%CI): 1.63 (1.12-3.02)] were independent risk factors for being turned down for elective repair.

**Conclusion:** A significant proportion of patients with large asymptomatic AAA are turned down for elective AAA repair. These patients appear to have significantly lower survival rates than those who are treated. Information on patients turned down for elective AAA repair should be routinely reported as a denominator for operative success.

**Disclosure:** Nothing to disclose

**Figure 1.** Primary patency after endovascular and open surgical repair.

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**O-021 Treatment of Popliteal Aneurysms; A Case-Controlled Study of Endovascular and Open Repair in a National Cohort Favoers Open Surgery**

**Peripheral Arterial Disease**

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**Introduction:** Comparisons between open surgical (OSR) and endovascular (ER) repair of popliteal aneurysm (PA) is difficult since indications differ between the groups. The aim is to evaluate results of treatment in comparable cohorts of patients.

**Methods:** A national cohort of 592 legs treated for PA (2008-2012) was the basis for a nested case-control study. The 77 legs treated by ER were matched, by indication, with 154 legs treated with OSR. Medical records were collected from 29 hospitals, and images were examined in a core-lab. The popliteal vessels were evaluated for elongation and angulations.

**Results:** The ER group was older (73 vs 68 years, \( p = 0.001 \)), and had lung disease more often (\( p = 0.012 \)). Patients in the ER group were postoperatively more often treated with dual antiplatelet therapy (DAT) or anticoagulants (\( p < 0.001 \)). In an adjusted cox regression analysis, the hazard...