

horizon of the trial. Sensitivity analysis suggested that the results were most sensitive to the cost of an angiography, the utility values estimated, and the price of cilostazol. **CONCLUSIONS:** Cilostazol is expected to be a cost-effective treatment for intermittent claudication patients in Scotland.

**PCV83****COST-EFFECTIVENESS OF ENDOVASCULAR VERSUS CONVENTIONAL ABDOMINAL AORTIC ANEURYSM REPAIR AT ONE YEAR; RESULTS OF A RANDOMIZED TRIAL**

Buskens E<sup>1</sup>, Prinssen M<sup>1</sup>, Blankensteijn JD of behalf of the DREAM trial group.<sup>2</sup>

<sup>1</sup>University Medical Center Utrecht, Utrecht, The Netherlands;

<sup>2</sup>Radboud University Nijmegen Medical Center, Nijmegen, The Netherlands

**OBJECTIVE:** Reduced hospital stay and intensive care unit stay after endovascular aneurysm repair (EVAR) compared to open repair (OR) of abdominal aortic aneurysms (AAA) are expected to result in reduced costs of AAA repair. The cost and cost effectiveness of OR and EVAR in the first postoperative year were compared in a randomised trial. **METHODS:** In a multicenter randomised trial comparing OR and EVAR we randomly assigned 149 patients to OR and 151 to EVAR. Complications, costs and cost-effectiveness were determined one year after surgery. The uncertainty surrounding the cost-effectiveness ratios (iCER) was addressed by bootstrapping. **RESULTS:** Ten patients had died in the OR group and 9 in the EVAR group (chi-square  $p = 0.8$ ). In the OR group, 32 patients had one or more severe complications and in the EVAR group, 27 patients (chi-square  $p = 0.5$ ). EVAR was associated with €4,480 additional direct costs per patient (€18,138 versus €13,659) and a decrease in QALY of 0.72 as compared with 0.73 (difference 0.01 year, 95% CI -0.04–0.06). With regard to event free survival over 85% of the bootstrap estimates EVAR indicated favourable health outcomes for EVAR, but against prohibitively higher costs. From a health economic perspective OR is preferred. **CONCLUSION:** In patients suitable for both treatments, EVAR is not cost-effective in the first postoperative year.

**PCV84****SURGICAL TREATMENT OF ABDOMINAL AORTIC ANEURYSM: ANALYSIS OF OPERATING COSTS. ENDOVASCULAR TREATMENT VERSUS TRADITIONAL SURGERY**

Palmieri B<sup>1</sup>, Ponzì P<sup>2</sup>, Scivales A<sup>2</sup>, Puttini M<sup>1</sup>, Caprari F<sup>2</sup>

<sup>1</sup>Azienda Ospedaliera Ospedale Niguarda Cà Granda, Milan, Italy;

<sup>2</sup>Medtronic Italia, Sesto San Giovanni (MI), Italy

**OBJECTIVES:** Open Surgery (OS) of abdominal aortic aneurysms (AAAs) is a major surgical procedure with elevated morbidity and a low but definite mortality. Endovascular repair (EVAR) has now emerged as a minimally alternative to OS, and its effectiveness has now been reported in the literature with reduced peri-operative mortality and complication rates. The aim of this study was to compare the full cost of the two treatments. **METHODS:** A prospective, observational study was conducted in a Vascular-Surgery Division from October 2003 to April 2004. Data for patients undergoing treatment of an AAA were collected. Cost assessment was carried out from the hospital perspective according to the Activity Based Costing principles. **RESULTS:** Data for 44 patients were gathered: 73% underwent OS and 27% EVAR. The mean age was 66.7 ( $\pm 16.7$ ) years and 7% of the patients were female. Comorbidity rates were similar in the two treatments group. There was no difference in mean hospital length of stay (LOS) between the two options (ten days). Mean post-operative LOS was 6.5 days ( $\pm 4$ ), with significant difference between the two groups (OS  $7.5 \pm 4$

vs. EVAR  $3.5 \pm 0.6$ ,  $p < 0.0001$ ). Intensive therapy was necessary only for OS patients (28%). The study revealed that the overall mean cost to treat an AAA, irrespective of the technique used, was €11,578.34 (€11,063.31 OS vs. 12,971.56 EVAR). A sub-analysis was performed for complicated patients alone and the mean cost was €13,487.46, with a difference between the two treatments tending almost to zero. The use of post-operative resources differed between the two treatments, resulting in differences for the mean post-operative costs (€5,686.07 for OR vs. €2,185.49 for EVAR). **CONCLUSIONS:** Stent graft treatment of AAAs has been shown to be effective in reducing the amount of nursing assistance, LOS and the need for intensive therapy at the post-operative stage.

**PCV85****CLINICAL OUTCOME AND COST-EFFECTIVENESS OF DIFFERENT BYPASS MATERIALS IN VASCULAR SURGERY**

Eidt D<sup>1</sup>, Roll S<sup>2</sup>, Vauth C<sup>1</sup>, Greiner W<sup>3</sup>, Willich SN<sup>2</sup>,

Von der Schulenburg J<sup>1</sup>

<sup>1</sup>University of Hannover, Hannover, Germany; <sup>2</sup>Charité University

Medical Center, Berlin, Germany; <sup>3</sup>Bielefeld University, Bielefeld,

Germany

**OBJECTIVES:** Bypass surgeries to circumvent occluded arteries are common procedures not only in cardiac surgery but also for occlusions in lower extremities or thorax. Different materials for the bypass procedures are available: venous, arterial and synthetic; each with different properties, advantages and costs. The objective is to assess and compare the effectiveness and benefit of various bypass materials in leg bypass surgery from a medical and economic perspective. **METHODS:** A systematic review of the literature was performed using established electronic data bases including Medline, Embase, Cochrane Library and others for literature from 1999–2004 in English and German. Of 4526 articles originally retrieved, 630 were examined in detail. **RESULTS:** The systematic review of literature resulted in two systematic reviews and eleven randomized trials comparing the medical effects of different bypass materials in leg bypass surgery. Primary patency (defined as the presence of a patent graft without any additional intervention) is the main outcome measure from a medical perspective. From an economic perspective different bypass materials are evaluated insufficiently. Therefore a model has been developed to determine cost-effectiveness of different bypass materials including the cost of the prosthetic material and operation time. For long-term results complication rates have to be considered as well. **CONCLUSIONS:** From a medical perspective autologous material is the superior choice compared to prosthetic materials in leg bypass surgery. According to the developed model the cost-effectiveness of different bypass materials depends on the costs and structure of the hospital. The experience of the surgeon is an important factor.

**PCV86****THE ECONOMIC BURDEN OF EXPERIENCING MAJOR COMPLICATIONS DURING PERCUTANEOUS CORONARY INTERVENTION**

Long KH, McMurtry EK, Bailey KR, Naessens JM, Jacobson KM, Rihal CS

Mayo Clinic College of Medicine, Rochester, MN, USA

**OBJECTIVES:** Technological advances have enabled percutaneous coronary intervention (PCI) to be applied to expanding indications. However, escalating costs are of concern to patients, providers and payers. This study assessed the incremental medical costs of treating major in-hospital procedural complications incurred by patients undergoing PCI. **METHODS:** We con-