costs across hernia repair and mesh type cohorts are also presented. RESULTS: Across treatment groups the majority of patients were white (67.8%), between the age of 54 years old, and had a pre-operative clinical and historical hernia repair history. All hernia repair mesh type cohorts were both predominantly male with low to moderate incidences of obesity and diabetes. Incisional hernia repair patients had the highest incidence of obesity (19.0%) and diabetes (18.5%) and could be equally either male (42.0%) or female (58.0%). Surgical preparation (SM) and anesthesia were not routinely included in all studies. TSM was used more frequently in females (60.1%) and in patients with a high incidence of obesity (22.7%) and diabetes (22.1%). No striking differences in surgical costs across the hernia repair or mesh type cohorts were observed, with average surgical costs between £2199 and £4099. CONCLUSIONS: This is the first example of extracting hernia repair patient demographics from a nationwide database. Although there are limitations to the interpretation of this data, these results are encouraging. Further development of the management, analysis and interpretation of such data is ongoing.

PMD81 DECISION ANALYTIC MODELS USED IN ESTIMATING THE COST-EFFECTIVENESS OF DRUG-ELUTING STENTS VERSUS BARE-METAL STENTS

Burgess LT1, Redekop W2, Severens JL3
Erasmus University Rotterdam, Rotterdam, The Netherlands

OBJECTIVES: To cost-effectiveness analysis (CEA) of a medical test can require extensive modeling if test results influence treatment decisions and disease progression. We applied the assessment hierarchy of Schaafsma et al. (2009) to a CEA of a high definition CT-scanner (one of the first assessments in the NICE/UK Diagnostics Guidance Programme).

METHODS: Cost-effectiveness analysis (CEA) of a medical test can require extensive modeling if test results influence treatment decisions and disease progression. We applied the assessment hierarchy of Schaafsma et al. (2009) to a CEA of a high definition CT-scanner (one of the first assessments in the NICE/UK Diagnostics Guidance Programme). We developed four steps to evaluate the cost-effectiveness of diagnostic tests: 1: accuracy assessment, 2: evaluation of added value, 3: clinical outcome assessment and 4: cost-effectiveness analysis. RESULTS: In the assessment of diagnostic tests in coronary artery disease (CAD) modeling was undertaken, since a major finding in CEAs is the uncertainty around randomized controlled trials (RCT) that capture diagnosis, prognosis and treatment. Moreover, most RCTs in the field of diagnostic test yield only information about sensitivity, specificity, and short-term complication rates. When the evaluation is limited to one arm of the high definition CT-scanner, one model, uses cost-effectiveness analysis to discuss the cost-effectiveness of using a model to estimate that the cost-effectiveness of using a meta-effectiveness of drug-eluting stents (DES) versus bare-metal stents (BMS).

CONCLUSIONS: CEAs of a medical test can be performed in various ways described by Schaafsma. If the aim is to conduct a comprehensive analysis that includes various clinical and health impacts, a synthesis of existing models to create a meta-model is one way to achieve this. These models need to be gathered together carefully to avoid invalid or irrelevant results; literature and expert opinion can assist in this endeavour. One critical pitfall is the use of models created for dissimilar patient populations.

PMD82 DRUG ELUTING BALLOON FOR THE TREATMENT OF PERIPHERAL ARTERY DISEASE: A COST-EFFECTIVENESS ANALYSIS IN ITALY

Giardina S1, Brassard P2, Busca R3, Micari A4
1Medtronic, 2SPF, 3Medtronic International Trading Srl, Tolochenaz, Switzerland, 4Villa Maria Eleonora Hospital, Palermo, Italy

OBJECTIVES: Conventional balloon angioplasty for treatment of femoropopliteal arterial disease is associated with a high restenosis rate 12 months post-procedure. Many studies have shown that DESs may substantially reduce restenosis. This suggests that DES may decrease number of revascularizations and therefore be a cost-effectiveness treatment for peripheral arterial disease (PAD). This study evaluated the economic impact of using a drug-eluting balloon (DEB) for treatment of femoropopliteal arterial disease. METHODS: A decision tree model has been developed to compare two alternative treatment strategies for superficial femoral artery disease (SFA): standard balloon angioplasty (PTA) and provisional stenting versus DEB. Cost for initial hospital care and the long term management of the disease, including reinervention, has been accounted for according to National Health Care Service and societal perspectives. Probabilities have been retrieved by available literature review of RCT and from an observational study on DEB that evaluated risk of target lesion revascularization (TLR) at 1 year. Uncertainty around the model parameters was assessed using univariate and multivariate sensitivity analyses. RESULTS: Specific procedure costs (including angioplasty balloon, DEB, stent, contrast medium) were 1500€ in both groups because incremental cost for use of DEB was offset by reduction of number of stents used in the DEB arm. No difference has been noted also for hospitalization. Given a 1 year TLR rate of 8.7% and 14% for DEB and stenting respectively, DEB resulted a cost-saving strategy for the treatment of superficial femoral artery disease. Results were sensitive to hypothesis on number of stents and DEB used and their related cost. CONCLUSIONS: PTA of femoropopliteal arterial disease using DEB appears to be a clinical improvement for treating TLR and potentially cost saving strategy compared to use of DEB in the Italian Health Care System.

PMD83 USING FIVE EXISTING MODELS TO COMPREHENSIVELY MODEL THE COST-EFFECTIVENESS OF A HIGH DEFINITION CT SCAN IN A CORONARY ARTERY DISEASE POPULATION: A NICE DIAGNOSTIC GUIDANCE PROJECT

Burgess LT1, Redekop W2, Westwood M3, Lachinsky S4, Severens JL5, Armstrong N2, Sculpher MJ6, Walker S7, McKenna C2, Al M1
1Erasmus University Rotterdam, Rotterdam, The Netherlands, 2Kleinman Systematic Reviews Ltd, York, UK, 3University of York, York, UK, 4HealthSource Corporation, Bethesda, MD, USA, 5Esper Inc., New York, NY, USA

OBJECTIVES: Nighttime urinary frequency (nocturia), common in patients with overactive bladder (OAB), negatively impacts sleep quality. Three sleep-related patient-reported questionnaires were assessed with regard to ability to discriminate between patients with and without OAB. METHODS: Adult men and women with OAB symptoms for at least 3 months (>8 micturitions per day; ≥2 micturitions per night; and ≥6 urgency episodes over 3 days per bladder diary) and without OAB symptoms (control group) completed several sleep questionnaires: Stanford Sleepiness Scale (measuring sleepiness over 5 days), Epworth Sleepiness Scale and OAB-Sleep questionnaire (N-QoL). t-tests were performed between groups. RESULTS: A total of 43 participants with OAB and 10 healthy controls were enrolled. Mean age and proportion of men were similar in the OAB and control groups (63.7 ± 5.5 years old [P = 0.31], and 46.2% vs 40.0% male [P = 0.53]). Rainey cognitive impairment status, and overall health were similar between groups (all P > 0.25). Mean scores on the Stanford Sleepiness Scale across the 5 days were significantly higher in the OAB group than the control group at time of awakening (3.0 ± 2.0, P = 0.0003) and at 7:00 pm (5.5 ± 1.9, P = 0.0006), indicating greater sleepiness. Epworth Sleepiness Scale mean scores were also significantly higher in the OAB group than the control group (10.5 vs 4.1, respectively, P = 0.0001), indicating greater daytime sleepiness. On the N-QoL, participants with OAB had significantly more "clinically important" symptoms (control group) completed several sleep questionnaires: Stanford Sleepiness Scale (measuring sleepiness over 5 days), Epworth Sleepiness Scale and OAB-Sleep questionnaire (N-Qol). t-tests were performed between groups. RESULTS: A total of 43 participants with OAB and 10 healthy controls were enrolled. Mean age and proportion of men were similar in the OAB and control groups (63.7 ± 5.5 years old [P = 0.31], and 46.2% vs 40.0% male [P = 0.53]).