in Acute Kidney Injury (AKI) rate of about 40%. Aim of this study is to perform an economic evaluation of GDP strategy with respect to TP in UK and US. **METHODS:** A Discrete Event Simulation model was developed to compare TP and GDP strategy in patients undergoing CPB. The patient's pathways from operation to discharging from hospital was simulated: AKI incidence, in-hospital mortality, hospital length of stay, transfusions were correlated to probability to achieve high DO2 target using published correlations. National perspective was adopted to calculate costs associated to each event while GDP strategy was exploited considering card and data management system (DMS) cost per patient. **RESULTS:** GDP strategy saved more than 3 days in hospital and 11% of AKI episodes. The cost-saving is 2,821 £ in UK and 3,206 $ in US; the cost of card and DMS (79 £ in UK, 110 $ in US) is completely offset by savings in hospital stay that result the main driver in cost (2,886 £ in UK, 3,222 $ in US). Deterministic sensitivity analysis shows that the total savings are mainly influenced by hospital LOS, cost per day both in ICU and in ward, and nadir haematocrit during CPB. **CONCLUSIONS:** GDP seems to improve significantly the main outcomes related to CPB surgery, when compared to TP techniques. Additional costs due to perform GDP strategy have no impact on the total cost since completely offset by the savings in hospital cost.

PCV54

CAN A CVD POLYPILL SAVE MONEY IN THE 'REAL WORLD'?

Laba TL[1], Hayes A[2], Jan S[1], Rodgers A[1], Patel A[1], Cass A[3], Reid C[4], Tonkin A[4], Usherwood T[2], Webster R[1]

[1]*George Institute for Global Health, University of Sydney, Camperdown, Australia,* [2]*University of Sydney, Camperdown, Australia,* [3]*Menzies School of Health Research, Darwin, Australia,* [4]*Monash University, Melbourne, Australia*

OBJECTIVES: The use of polypills in the prevention of cardiovascular disease is mooted to reduce costs compared with current practice, yet there is very little prospectively-collected data to support this claim. The present study compares the 'real-world' costs of a polypill strategy against usual care among Australians with established cardiovascular disease or at high estimated cardiovascular risk. **METHODS:** A 'within trial' cost analysis from the Australian health system perspective of polypill-based care versus usual care with separate medications was conducted using data from the pragmatic randomised controlled trial Kanyini Guidelines Adherence to Polypill (Kanyini GAP) and linked health service and medication claims data. The primary outcome, estimated with generalised linear models, was mean health service and pharmaceutical expenditure, per patient per year. All costs during the trial, conducted from 2008-2012, were inflated to $AUD 2012 prices. **RESULTS:** A statistically significantly lower mean pharmaceutical expenditure of $989 (95%CI 648 to 1331) per patient per year in the polypill arm compared to usual care (P<0.001, adjusted, excluding polypill cost). No significant differences were observed in annual non-hospital health service expenditure ($40, 95%CI -202 to 281 per patient). **CONCLUSIONS:** This study provides evidence that a cardiovascular disease polypill strategy has the potential to produce significant cost-savings to health systems. At an estimated reimbursement cost of $1 per day for the polypill, these savings would have amounted to over $600 per patient per year. Cost-savings would accrue to patients also, given fewer prescription charges. Linking health service and medication claims data with data from a pragmatic randomised controlled trial has provided an avenue to assess the real-world cost implications of introducing this new technology into clinical practice.

PCV55

STUDY OF COSTS OF THE CARDIAC AND DIABETES MELLITUS PATIENT IN A CARDIOLOGY HOSPITAL OF HIGH COMPLEXITY

Costa MGSD[1], Santos MS[2], Tura BR[2], Goulart MC[2], Cintra MACT[2], Senna KMS[1]

[1]*INC, Rio de Janeiro, Brazil,* [2]*National Institute of Cardiology, Rio de Janeiro, Brazil*

OBJECTIVES: There is a growing prevalence of diabetes mellitus (DM) among chronic diseases in the world. Currently there are over 135 million people with diabetes worldwide with estimates reaching 300 million in 2025. Developing countries concentrate two thirds of these patients and it is known that the economic burden of chronic diseases generate high costs for the health system and social welfare as a function of mortality and premature disability. The objective of the study was to investigate the impact on hospital costs of treating a patient with ischemic heart disease and DM, compared with cardiac patients without DM, in a cardiology hospital of high complexity Ministry of Health in Brazil. **METHODS:** observational study of historical cohort of 421 diabetic heart disease (CD) and non diabetic (CND), from January 2009 to March 2010 in cardiology hospital of high complexity of the Unified Health System (SUS) in Brazil. Were only covered the direct medical costs of hospitalizations. The costs of the study population (CD and CND) were grouped into surgery, and clinical treatment obtained by two different approaches (top-down and bottom-up estimates), and subsequently analyzed and compared using R software version 3.0. **RESULTS:** No differences between groups were observed. Cost of surgery: CND = U. S. $ 2937.55 and U. S. $ 3024.51 = CD (p = 0.319). Medical Treatment: CND = U. S. $ 685.09 and U. S. $ 304.11 = CD (p = 0.218). Values are expressed as medians. **CONCLUSIONS:** studies analyzing these conditions separately describe high expenses resulting from the treatment of diabetes and cardiovascular disease. We can infer from the results of this study that the diabetic patient cardiac does not generate a significant financial impact for a cardiology hospital of high complexity.

PCV56

A COST COMPARISON ANALYSIS OF MEDTRONIC'S STENT GRAFT SYSTEM TO COMPETITION FOR ENDOVASCULAR ANEURYSM REPAIR FOR ABDOMINAL AORTIC ANEURYSMS

Mallow PJ[1], Baniewicz J[2], Williams JM[2], Au-Yeung A[2]

[1]*CTI Clinical Trial and Consulting, Cincinnati, OH, USA,* [2]*Medtronic, Inc, Mounds View, MN, USA*

OBJECTIVES: To perform a cost comparison analysis of Medtronic's current stent graft system compared to currently competing stent graft systems for endovascular aneurysm repair (EVAR) of abdominal aortic aneurysms (AAA). **METHODS:** A simulation model was constructed using Microsoft Excel. The perspective of the model was a hospital in the United States (US). Clinical data was obtained from US pivotal studies for the Medtronic stent system and the competing stent systems. The competition arm (Competition) was created by pooling the pivotal study data for the current stent systems manufactured by Gore, Endologix, and Cook. Cost data was obtained from the Premier database (2011-2012) and augmented with the published literature. All costs were adjusted to 2013 dollars. The model estimated the costs associated with the following utilization outcomes: procedure time, transfusion rate, intensive care unit (ICU) length of stay (LOS), and general ward LOS. The following adverse events were considered: myocardial infarction, respiratory failure, acute renal failure, stroke/TIA, and second endovascular procedure within 12 months of the initial procedure. Sensitivity analysis was performed to assess the impact of imputed data, and one-way sensitivity analysis was performed for each parameter. **RESULTS:** The expected costs for a hospital related to the above utilization and adverse event were $8,463 for Medtronic's stent graft system and $11,380 for the Competition. Fifty-six percent of the $2,917 difference was attributable to improved utilization associated with Medtronic's stent graft compared to the Competition. Adverse events and secondary endovascular procedures accounted for 25% and 19% of the difference, respectively. These results were robust to alternative sensitivity analyses. **CONCLUSIONS:** This analysis suggested that Medtronic's current stent graft is associated with cost savings compared to Competition for the above parameters. Future research is necessary to examine if these results are maintained based upon a head-to-head clinical study of EVAR stent systems.

PCV57

HOSPITALIZATIONS AND COSTS IN PATIENTS WITH IMPLANTABLE CARDIOVERTER DEFIBRILLATORS: ASSOCIATION OF LONG VERSUS STANDARD DETECTION INTERVALS

Borghetti F[1], Proclemer A[2], Arenal A[3], Kloppe A[4], Lunati M[5], Ferrer JBM[6], Hersi A[7], Gulaj M[8], Wijffels MCEF[9], Santi E[10], Manotta L[11], Beccagutti G[1], Campo C[11], Gasparini M[12]

[1]*Medtronic Italia, Sesto San Giovanni (MI), Italy,* [2]*Azienda Ospedaliero Universitaria S. Maria della Misericordia, Udine, Italy,* [3]*Hospital General Universitario Gregorio Marañón, Madrid, Spain,* [4]*Berufsgenossenschaftliches Universitätsklinikum Bergmannsheil, Bochum, Germany,* [5]*Azienda Ospedaliera Niguarda Ca' Granda, Milano, Italy,* [6]*Hospital de Txagorritxu, Vitoria (Álava), Spain,* [7]*College of Medicine, King Saud University, Riyadh, Saudi Arabia,* [8]*MSWiA Hospital, Bialystok, Poland,* [9]*St. Antonius Ziekenhuis Hospital, Nieuwegein, The Netherlands,* [10]*MEDTRONIC Clinical Research Institute, Roma, Italy,* [11]*MEDTRONIC Clinical Research Institute, Sesto S. Giovanni, Italy,* [12]*Humanitas Research Hospital, IRCCS, Rozzano (MI), Italy*

OBJECTIVES: ADVANCEIII trial showed that a long detection programming reduces all delivered therapies as well as inappropriate shocks in patients implanted with implantable cardioverter defibrillator (ICD). The purpose of this Advance III secondary analysis was to assess the impact of long detection on hospitalizations (H), length of stay (LOS) and associated costs for the health care system. **METHODS:** 1902 patients enrolled in the ADVANCEIII Trial: 948 patients randomized to long detection (NID 30/40) and 954 to short setting (NID 18/24). All hospitalizations were reviewed and classified according to ICD9CM codes and, consequently, to the corresponding Diagnosis-Related Groups (DRGs). Costs correspond to the specific public tariffs for the DRGs applied. The prospective was of a single-payer agent (Italian Ministry of Health). **RESULTS:** Over a median period of 12 months, rates of overall and cardiovascular hospitalizations (CV) were lower in the long detection group (43.8*100 pts/years (39.6-48.4) vs 52.3*100 pts/years (47.7-57.3), IRR: 0.84 (0.73-0.96) p=0.005,32.7*100 pts/years (29.1-36.7) vs 40.3*100 pts/years (36.2-44.6), IRR (95% CI): 0.81 (0.69-0.95) p=0.004 respectively). Patients programmed with a long detection had shorter LOS (overall H: 407days (394-421) vs 470 days (456-484), IRR: 0.87 (0.83-0.91) p<0.001; CV: 298 days (287-309) vs 368 days (356-381), IRR: 0.81 (0.77-0.85) p<0.001) and lower mean hospital cost per patient-year compared with patients with nominal programming (overall H: 1.311 € (1.309 € - 1.314 €) versus 1.528€ (1.525€ - 1.530€) IRR: 0.86 (0.86-0.86) p<0.001; CV: 1.100 € (1.098 € - 1.103 €) versus 1.339 € (1.337 € - 1.342 €) IRR: 0.86 (0.86-0.86) p<0.001). **CONCLUSIONS:** A long detection window was associated with a reduction in hospitalization rates, total length of stay and cost per patients both for all-causes and cardiovascular related events.

PCV58

ECONOMICS AND CLINICAL EVALUATION OF ENDOVASCULAR AND SURGICAL TREATMENT OF PATIENTS WITH DISABILITY OF SUPERFICIAL FEMORAL ARTERY

Kamensky V, Ivlev I

Czech Technical University in Prague, Kladno, Czech Republic

OBJECTIVES: The rising cost of treatment of peripheral arterial disease and the growing incidence of this disease led to economic analysis of arterial disease. With the increasing price of modern instrumentation, it is appropriate to evaluate not only clinical efficiency, but also intervention economics. This study aims to create a recommendation for choosing the most effective treatment based on both economic data and clinical outputs of the disabled superficial femoral artery. **METHODS:** The methods chosen were reviewed from clinical outputs for treatment effectiveness, multiple-criteria decision-making for the synthesis of treatment effects, analysis of costs at the selected interventions and cost-effectiveness analysis. **RESULTS:** The four clinical outputs used in the study as a criterion by the research of the clinical studies were primary patency, technical success, patient survival and limb salvage at the year of operation. The weights of each criterion, and the preferences of the interventions were counted. The sequence of interventions was set by the AHP method: PTA (35.6%), PTA/S (33.9%) and bypass (30.6%) and method of weighted sum: PTA/S (56%), bypass (55%) and PTA (42%). From the view of both health insurance payer and health care provider, where the direct medical expenditures were included, the order of intervention was the same: PTA, bypass and PTA/S. The cost-effectiveness was calculated for both, and the PTA intervention achieved the best results. Incremental expenditures by unit of effect was calculated for each effect: ICER or the domination of one intervention over another was set. Ratio of the ICER was generally higher for PTA/S compared to bypass. In the sensitive analysis was determined the influence of