

to the cost-effective use of appropriate drugs in managing chronic disease. The project highlighted how countries with relevant experience in evidence-informed policy making in health care can assist others in strengthening their decision-making systems.

PCV84

#### ECONOMIC EVALUATION OF IMPLANTABLE LOOP RECORDER IN THE DIAGNOSIS OF SYNCOPE, UPDATE FROM THE SPANISH NATIONAL HEALTH SYSTEM

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**OBJECTIVES:** The aim of this study was to evaluate costs and benefits of diagnosing patients with syncope of unknown aetiology with implanted loop recorders compared to clinical practice (conventional investigation) of an electrophysiology, from the Spanish National Health System perspective. **METHODS:** Based on an economic decision analysis model, the cost-effectiveness study analyses diagnostic yield results from clinical practice versus Reveal DX<sup>®</sup>, with a time horizon of one year. Clinical data and resource use was obtained from a randomised controlled trial and expert opinion. Cost data was expressed in Euros 2010. A univariate sensitivity analysis was carried out to analyze the robustness of the model by modifying the number of outpatient visits, the costs and the diagnostic yield for both strategies. **RESULTS:** The incremental cost-effectiveness Ratio of Reveal DX<sup>®</sup> versus conventional investigation was €3167 per additional diagnosis, resulting in a confidence interval of 95% of the incremental cost-effectiveness ratio of €2335–€4867 per additional diagnosis made. The results of the univariate sensitivity analyses did not change the main results from our study. **CONCLUSIONS:** Reveal DX<sup>®</sup> in the diagnosis of syncope of unknown aetiology after an initial evaluation is a cost-effective strategy compared to conventional diagnosis for the Spanish Health System, since it increases diagnostic yield at a reasonable incremental cost.

PCV85

#### PRASUGREL VS. CLOPIDOGREL IN PATIENTS WITH ACUTE CORONARY SYNDROME UNDERGOING PERCUTANEOUS CORONARY INTERVENTION: A SPANISH MODEL-BASED COST-EFFECTIVENESS ANALYSIS

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**OBJECTIVES:** In patients with acute coronary syndrome (ACS) undergoing percutaneous coronary intervention (PCI), the TRITON-TIMI 38 trial (TT38) demonstrated that treatment with prasugrel vs. clopidogrel was associated with significantly reduced rates of atherothrombotic events, though with increased risk of bleeding. The aim of the analysis was to evaluate the long-term cost-effectiveness of a 12-month treatment with prasugrel vs. clopidogrel in the trial population, excluding patients with prior transient ischemic attack or stroke, from the perspective of the Spanish health care system. **METHODS:** A Markov model was developed based on risk equations for cardiovascular death, myocardial infarction (MI) or stroke, bleeding, and rehospitalization, derived from TT38 data (N = 13,608 patients). Cost variables included were medication and hospitalizations costs. Hospital readmissions captured during TT38 in all patients from 8 countries (N = 6705) were assigned to Spanish diagnosis related groups, and were modelled to accrue over the life-time horizon. Long term survival and quality adjusted survival were estimated for the life-time of each patient. **RESULTS:** At 12 months, a difference in drug costs between prasugrel and clopidogrel of +€77 (branded clopidogrel) to +€460 (generic clopidogrel) per patient was partially offset by hospital cost savings (–€97 per patient) due principally to reduced rates of revascularization. In the longer-term, prasugrel was associated with higher total costs (+€11 to +€395 per patient), life expectancy gains of 0.07 years, due primarily to the reduced rate of MI, and 0.05 additional QALYs, resulting in incremental costs per life-year saved and per QALY gained of €164 to €5718 and €216 to €7540, respectively. Probabilistic sensitivity analysis indicated that prasugrel has a 68% to 72% probability of being more cost-effective than clopidogrel at a willingness to pay of €30,000 per QALY. **CONCLUSIONS:** Among ACS-PCI patients, these results showed prasugrel to be within the bounds of reasonable cost-effectiveness for Spain in comparison with clopidogrel.

PCV86

#### ECONOMIC EVALUATION OF DRONEDARONE IN TREATMENT OF ATRIAL FIBRILLATION IN GREECE

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**OBJECTIVES:** Atrial Fibrillation (AF) is a common cardiac arrhythmia and a significant cause of morbidity and mortality worldwide. As it is necessary to maximize value from the money spent in health care, an economic evaluation was undertaken to compare a new therapy, Dronedaron, in relation to Amiodarone, Sotalol and Propafenone already used in the Greek National Health Service (NHS) setting. **METHODS:** An international Markov model was locally adapted. The model reflects the management and the progression of AF patients through different health states in the course of their life time, including stroke, post stroke, heart failure (HF), post-HF, acute coronary symptom (ACS) post-ACS and death. Clinical and quality of life data to populate the model were derived from a variety of relevant clinical studies and

registries including: ATHENA, AFTER, DIONYSOS, AFFIRM and synthesizing analyses undertaken by academic experts. Resource utilization and cost data were derived by means of a large and representative panel of local experts, who utilized patient data files and data which came from a sample of NHS hospitals. Data refer to the year 2010 and all outcomes were discounted at a rate of 3.5%. The model is probabilistic to account for uncertainty and mean estimates are reported with corresponding uncertainty intervals. **RESULTS:** Mean total treatment costs were: Dronedaron: €12,931 (95%UI: 12,065–€12,495); Amiodarone: €8893 (95%UI: €8685–€9100); Sotalol: €6,185 (95%UI: €5901–€6509); Propafenone: €8433 (95%UI: €8229–€8642). The incremental cost-per-life-year-gained with Dronedaron versus Amiodarone was: €2236 (95%UI: 1897–€2615), versus Sotalol: €2576 (95%UI: €2442–€2822 and versus Propafenone: €2718 (95%UI: €2497–€3395). The incremental cost-per-quality-adjusted-life-year gained with Dronedaron versus Amiodarone was: €3275 (95%UI: 2730–€3838), versus Sotalol: €4319 (95%UI: €4130–€4510) and versus Propafenone: €3138 (95%UI: €2571–€4004). **CONCLUSIONS:** The newly available treatment Dronedaron appears to be a cost-effective alternative to other already existing therapies, used in the management of Atrial Fibrillation patients in the Greek NHS.

PCV87

#### USING VALUE OF INFORMATION ANALYSIS IN COMBINATION WITH AN EARLY STAGE MODEL OF COREVALVE FOR SEVERE AORTIC STENOSIS TO INFORM FUTURE RESEARCH NEEDS

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**OBJECTIVES:** Aortic Stenosis (AS) is a severe cardiovascular condition the treatment of which often involves a major operation. For a subgroup of patients medical management (MM) is the only treatment option due to procedural risk. A transcatheter aortic valve implantation device “CoreValve,” is a novel procedure, is less invasive and allows for the implantation of a replacement valve in this patient group. Since information is not yet available on key clinical parameters, we modified an existing early stage economic model to perform a value of information (VoI) analysis to inform the prioritization of future research. **METHODS:** The underlying model used in the analysis is a 10-year Markov model was developed in Microsoft Excel. Treatment options were CoreValve and MM with parameters derived from published literature. All costs were taken from the most recent published sources. Decrements were applied to age-specific EQ-5D population norms to generate QALYs. A probabilistic sensitivity was used to inform the global Expected Value of Perfect Information (EVPI) calculation. Deterministic one way analyses were used to select the variable groups and individual parameters on which partial EVPI (EVPPI) calculations were performed. Annual incident population estimates were derived from information in a large national database. **RESULTS:** Assuming a decision horizon of 10 years, an annual incident population of 4052 and a willingness to pay threshold of £30,000 per QALY gained the EVPI is £11.3 million. EVPPI estimates were generated for costs, utilities, overall survival (MM patients) and treatment effects. Of these, the VoI for baseline mortality and long term mortality reduction were greatest (£21,364,000 and £8,151,000 respectively). The VoI for all others was negligible. **CONCLUSIONS:** Further information on long term survival would have the greatest impact on decision uncertainty. Thus, a new clinical trial may not be required and a registry may be more appropriate.

PCV89

#### COST-EFFECTIVENESS OF DRONEDARONE FOR THE TREATMENT OF ATRIAL FIBRILLATION IN THE UK

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**OBJECTIVES:** To evaluate the cost-effectiveness of dronedarone for the treatment of atrial fibrillation (AF) compared to current antiarrhythmic drugs (AADs), from a UK NHS perspective. **METHODS:** A cost-utility analysis was performed, for which an individual patient lifetime discrete event simulation model was constructed. The model predicted a patient's course for a treatment pathway based on the current National Institute for Health and Clinical Excellence (NICE) AF guidelines and compared treatment with amiodarone, sotalol and Class 1c agents to dronedarone. The model consisted of seven AF-related events; AF recurrence, acute coronary syndromes, stroke, congestive heart failure, treatment discontinuation, AF status change and mortality. Between events patients resided in four health states; normal sinus rhythm, permanent AF with uncontrolled symptoms, permanent AF with controlled symptoms and death. Patient's baseline event risks were estimated from the non-active comparator arm of the ATHENA trial then adjusted for treatment effects based on a mixed treatment comparison. Cost data were elicited from existing literature and UK reference costs. Quality of life estimates were based on data from the AFTER cohort. Cost-effectiveness was measured in cost per quality adjusted life-year (QALY) gained. Costs and QALYs were discounted at 3.5%. One-way and probabilistic sensitivity analyses (PSA) were performed. **RESULTS:** Dronedaron was shown to be cost-effective with incremental cost-effectiveness ratios of £2,406 versus amiodarone, £1,911 versus sotalol and £18,737 versus Class 1c agents. One-way sensitivity analysis showed that treatment effect on mortality was the key driver of cost-effectiveness. PSA results estimated that dronedaron was cost-effective at an acceptability threshold of £20,000 on 95% of occasions compared to amiodarone and sotalol and on 60% of occasions compared to Class 1c agents. **CONCLUSIONS:** The results of this analysis demonstrate that in the UK setting dronedaron is a cost-effective treatment of AF compared to current AAD treatment.