

old of £30,000. **CONCLUSIONS:** At a willingness-to-pay threshold of £20,000 per QALY, all NOACs are cost-effective compared with warfarin. There is considerable uncertainty between the different NOACs, but apixaban (5mg bd) had the highest expected incremental net benefit and the highest probability (60%) of being most cost-effective first line anticoagulant for the prevention of stroke in AF, primarily due to lower rates of intracranial haemorrhage, other clinically relevant bleeding, and myocardial infarction.

PCV104

IS EDOXABAN COST-EFFECTIVE FOR NON-VALVULAR ATRIAL FIBRILLATION PATIENTS TREATED WITH VITAMIN K ANTAGONISTS IN SPAIN?

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OBJECTIVES: To assess the cost-effectiveness of edoxaban versus acenocoumarol (VKA treatment) in the prevention of stroke and systemic embolic events in patients with non-valvular atrial fibrillation (NVAF) in Spain. **METHODS:** A Markov model was developed and adapted to the Spanish setting to simulate the evolution of NVAF patients throughout their lifetime. The Cycle length was 1 month and different health states such as stroke, bleeding and other cardiovascular complications were defined to mimic NVAF natural history. Drug's safety and efficacy outcomes were obtained from the Phase III trial. The analysis was conducted from the Spanish National Health System (NHS) perspective. Edoxaban and acenocoumarol costs were calculated according to recommended doses. The costs of NVAF complications and disease management costs were obtained from available Spanish published sources. An annual discount of 3% for costs and health outcomes was applied. **RESULTS:** Edoxaban resulted on average with 0.337 quality-adjusted life-years (QALYs) gained and 0.285 life years gained (LYG) compared with acenocoumarol. Due to the projected longer survival of patients, edoxaban could generate more costs per patient than acenocoumarol from the NHS perspective, but the incremental cost-effectiveness ratio (ICER) for edoxaban was highly cost effective, at 7,888€ per LYG and 6,671 € per QALY gained. To evaluate study robustness subgroup analyses (such CHADS₂>3 score and percentage of well controlled patients), and probabilistic sensitivity analyses were performed. Those analyses confirmed the ICERs for edoxaban to be cost-effective when applying the commonly accepted cost effectiveness threshold in Spain. **CONCLUSIONS:** Edoxaban is cost-effective compared with acenocoumarol from the NHS perspective in the prevention of stroke and systemic embolic events in patients with NVAF in Spain.

PCV105

COST-EFFECTIVENESS ANALYSIS OF BEMIPARIN USED AS ACUTE TREATMENT FOR DEEP VEIN THROMBOSIS WITHOUT PULMONARY EMBOLISM

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OBJECTIVES: Deep venous thrombosis (DVT) and pulmonary embolism (PE) comprise venous thromboembolism (VTE), the third most common cardiovascular illness after acute coronary syndrome and stroke and a raising public health concern due to its morbidity and mortality and higher costs. Acute and long term treatments help to avoid complications. We assessed the costs and effectiveness of different regimens for treatment of DVT without PE under the perspective of the Mexican public health system. **METHODS:** A seven-pathway decision tree allowed comparison of five competing strategies. Acute treatment for 7 days involved bempiparin 115UI/Kg once daily (BEM), enoxaparin 1.5mg/Kg once daily (ENO-OAD), enoxaparin 1.0 mg/Kg twice daily (ENO-BID), nadroparin 100UI/Kg twice daily (NAD) or unfractionated heparin administered as 80UI/Kg initial bolus followed by continuous infusion at a rate of 18/UI/Kg/hour (UFH). Long-term treatment consisted of daily doses of warfarin 5 mg given orally during 83 days (VKA). Direct medical costs included acquisition of medicines, care of further VTE episodes, and managing of adverse events/complications. Resource use was based on published literature and expert's opinion. Local unit costs and diagnosis-related groups (DRG) costs were gathered. Effectiveness is expressed in terms of VTE-free patients and deaths avoided per 1000 treated. Deterministic and probabilistic sensitivity analyses were conducted. **RESULTS:** Acute treatment with BEM was the most-effective intervention with benefits ranging from 33 VTE-free patients and 7 deaths avoided (Vs. ENO-OAD and ENO-BID, respectively) to 64 VTE-free patients and 21 deaths avoided (both Vs. NAD) per 1,000 treated. BEM followed by warfarin was also the less costly regimen leading to overall cost-savings varying between MXN\$3,067,626 (Vs. NFH) and MXN\$7,084,142 (Vs. NAD) per 1,000 treated. Model results were robust to plausible changes in main parameters. **CONCLUSIONS:** Bempiparin may present a cost saving alternative over the use of other low molecular weight heparins or UFH as initial therapy for patients affected by DVT without PE.

PCV106

ECONOMIC EVALUATIONS OF NEW ORAL ANTICOAGULANTS FOR THE PREVENTION OF VEIN THROMBOEMBOLISM AFTER TOTAL HIP OR TOTAL KNEE REPLACEMENT

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OBJECTIVES: The objectives of this systematic review were to identify published economic analyses of new oral anticoagulants (NOACs) for primary venous thromboembolism (VTE) prophylaxis following total hip replacement (THR) and total knee replacement (TKR) surgeries and to summarise the modelling techniques used and cost-effectiveness results. **METHODS:** Electronic searches of MEDLINE, EconLit, and the Cochrane Library were performed from January 2008 to February 2015 using a combination of Medical Subject Headings and free-text terms that were grouped into the following categories: population (including terms for thromboembolism and orthopaedic surgery), intervention (including terms for apixaban, dabigatran, edoxaban, and rivaroxaban), and study design (including terms for economic analy-

ses). **RESULTS:** Sixteen economic analyses were included; all studies used decision-tree structures to model acute prophylaxis, and 13 included a chronic-phase Markov module to capture long-term complications and recurrent VTE events. The model structures generally captured the important events needed to accurately estimate differences in costs and outcomes between different treatment strategies. Eleven studies included rivaroxaban, 9 studies included dabigatran, 3 studies included apixaban, and no studies included edoxaban. The analyses that compared a NOAC with low molecular-weight heparin (LMWH) predominantly resulted in the NOAC dominating LMWH for patients with both THR and TKR. The results of analyses that compared NOACs with each other suggested that dabigatran is the least cost-effective option. There is limited evidence directly comparing rivaroxaban with apixaban, but our results suggested that rivaroxaban dominates apixaban for patients with TKR in the United Kingdom. **CONCLUSIONS:** Economic analyses of NOACs for primary VTE prophylaxis following THR and TKR surgeries show reasonable consistency in the model structures used and events captured. The results strongly suggest that NOACs are cost-effective alternatives to LMWH. Dabigatran appears to be the least cost-effective NOAC. However, more research is needed to assess the cost-effectiveness of apixaban and edoxaban.

PCV107

COST-EFFECTIVENESS OF FERRIC CARBOXYMALTOSE IN PATIENTS WITH IRON DEFICIENCY AND CHRONIC HEART FAILURE IN AUSTRIA

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OBJECTIVES: Iron deficiency (ID) is highly prevalent in chronic heart failure (CHF) patients and imposes a significant disease burden for CHF patients with enormous impact on their outcome. Two pivotal studies (FAIR-HF and CONFIRM-HF) showed that the iron deficiency with ferric carboxymaltose (FCM), an i.v. iron, results in clinical meaningful benefits. The purpose of this study was to evaluate the cost-effectiveness of FCM versus no-treatment and oral iron supplementation in CHF patients with iron deficiency w/o anemia. **METHODS:** We developed a Cost-Utility-Model to simulate disease progression in CHF patients using different strategies of iron deficiency management. Markov modelling techniques were used to estimate disease progression, based on health states, defined by NYHA classes and death. Monte Carlo simulation accounted for uncertainty. The model includes 5 states and monthly transitions. Probabilities were derived from clinical and epidemiological studies. The cohort definition was adapted from the FAIR-HF study. Direct costs (NYHA, inpatient, outpatient and iron treatment costs) from published sources were used and expressed in 2014 Euro from the payer's perspective. QALYs and total costs were projected over a 4-year time horizon and discounted at 5% p.a. **RESULTS:** Over a 4-year timeframe, costs and outcomes associated with FCM would amount to 18,797.39 € and 2.46 QALYs. Costs associated with oral treatment are 17,307.06 € and 2.37 QALYs (ICER per QALY gained: €16,921.62). Costs and outcomes associated with no-treatment are 17,934.15 € and 2.3 QALYs (ICER per QALY gained: 5,411.23 €). Due to a delayed disease progression in the FCM group NYHA costs are lower than with oral replacement and no-treatment. **CONCLUSIONS:** Iv iron treatment with FCM compared with oral iron in iron deficient CHF patients is clearly below the CE threshold of €22,200-€33,300/QALY typically used by the UK NICE and hence can be considered a cost efficient treatment strategy.

PCV108

COMPARISON OF OVERALL COSTS BETWEEN ALPROSTADIL AND LIMB AMPUTATION IN PATIENTS AFFECTED BY PERIPHERAL ARTERIAL DISEASE STAGES III AND IV IN MEXICO

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OBJECTIVES: Peripheral arterial disease entails increased mortality besides a significant economic and humanistic burden, especially in patients with critical limb ischemia (CLI; stages III and IV). Prostanoids are usually indicated to those unsuitable for interventional therapy. We aimed to assess the overall costs of alprostadil (prostaglandin E1) as treatment for CLI compared with amputation from the perspective of the Instituto Mexicano del Seguro Social (IMSS). **METHODS:** Based on published literature, information derived from an expert panel, and local official sources of unit costs and other parameters, we evaluated three categories of costs: acquisition and administration of alprostadil given 40µg twice a day for 28 days; surgery, hospital stay, and rehabilitation after amputation; incapacity, prosthesis, and pensions in assumed current workers. We conducted the analysis for a time frame of one year using a decision tree developed in Microsoft Excel®. We gathered the effectiveness of alprostadil from a clinical trial. All costs are expressed in 2014 Mexican pesos (MXN). We performed a deterministic sensitivity analysis. **RESULTS:** Excluding the prosthesis costs, total direct medical costs of alprostadil were MXN 4006 (5.8%) lower than the direct medical costs expected with limb amputation (MXN 65,490 Vs. MXN 69,496). When costs due to incapacity, prosthesis, and pensions in the workforce subpopulation were included into the analysis, the net difference in favour of alprostadil reached MXN 8,864 (MXN 66,577 Vs. MXN 75,441) which is equivalent to an overall cost reduction of 11.8%. Deterministic sensitivity analysis showed the model is quite sensitive to the acquisition and intra-arterial costs of alprostadil. **CONCLUSIONS:** Acquisition and administration costs of alprostadil may be offset by the overall savings in direct medical costs and in payments due to incapacities and pensions.

PCV109

PHARMACOECONOMIC ANALYSIS OF VARIOUS TREATMENT STRATEGIES FOR PATIENTS WITH CHRONIC VEIN INSUFFICIENCY OF THE LOWER LIMBS

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OBJECTIVES: Determining pharmacoeconomic efficiency of actovegin in complex therapy of complicated chronic venous disease of lower extremities. **METHODS:**