OBJECTIVES: Venous thromboembolism (VTE), including deep vein thrombosis (DVT) and pulmonary embolism (PE), is a common cardiovascular disorder. Acute VTE is typically managed with a short course parenteral anticoagulation followed by 3-6 months vitamin-K antagonist. Novel oral anticoagulants do not require routine anticoagulation monitoring and dose adjustments, thus potentially improving the treatment option. The cost-effectiveness of dabigatran etexilate vs. edoxaban was evaluated over six months of treatment in the UK care setting. METHODS: A life-time Markov model was used, evaluating costs and quality-adjusted lifeyears (QALYs) of recurrent VTE (VTE) and VTE-related deaths and most common adverse events during anticoagulant treatment, major or clinically relevant bleeds (MCRB). The efficacy and safety of dabigatran were based on the pooled RE-COVER treatment studies, and indirectly compared with results of The Hokusai Study for edoxaban. Utility estimates with local elicitation and long-term consequences of VTE were sourced from RE-COVER studies, and from the literature. Costs were analyzed from the perspective of the NHS and PSS. RESULTS: Following index VTE, six months treatment with dabigatran etexilate was less costly and improved patients’ quality of life when compared with six months edoxaban, assuming equal drug costs. Dabigatran projected more rVTEs overall, but less MCRB, hence the additional costs of dabigatran, assuming equal drug costs. Dabigatran projected more rVTEs overall, but less MCRB, hence the additional costs of dabigatran to be considered cost-effective at a willingness-to-pay of £30,000. Evaluating the model for treatment in a Western-European population, with efficacy and safety from corresponding sub-groups of RE-COVER studies, and The Hokusai Study, dabigatran etexilate was projected to be less expensive and to improve patients’ quality of life compared with edoxaban. CONCLUSIONS: Dabigatran etexilate was projected less costly and safer than dabigatran when administered for six months following VTE.

PCV19

DOES AZILSARTAN MEDOXIMIL – HYDROCHLOROTHIAZIDE IN PATIENTS WITH ESSENTIAL HYPERTENSION: A COST-EFFECTIVE ANALYSIS

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OBJECTIVES: The study objective was to investigate and compare the relative costs and effects of using azilsartan medoximil – chlorthalidione, a newly approved combination therapy in comparison to existing olmesartan medoximil – hydrochlorothiazide in treating mild to moderate essential hypertension, using the third party payer perspective and the risk of developing coronary heart disease (CHD) in 10 years. METHODS: A decision tree analysis was done using Tree Age Pro®. Cost evaluations included direct medical costs i.e. drug cost, cost of medical care (general physician visit, specialist visits, diagnostic and prescription medication) and cost of treatment and self-care adherence. Laboratory services over a time frame of one year. Cost values were obtained from the Red book 2010 and literature. Effectiveness was calculated by the reduction in SBP which was obtained, from various randomized controlled trials for these drugs: Incremental cost effectiveness ratio (ICER) was calculated. Monte Carlo simulation and probabilistic sensitivity analysis was done to further validate our findings. The risk of getting CHD in the next 10 years was calculated using Framingham risk score. RESULTS: Outcomes favored azilsartan (8.51 mm Hg) with a total expected cost for treatment as $4759.46 to olmesartan (6.71 mm Hg) with a total cost as $4949.48. The ICER was 105.07. Patients on azilsartan have a 12% risk and patients on olmesartan have an effective risk of developing CHD in the next 10 years. CONCLUSIONS: This study showed that patients with mild/moderate essential hypertension on azilsartan have a lower risk of developing CHD when compared to those on olmesartan. Azilsartan is a cost effective therapy compared to olmesartan, in treating mild/moderate hypertension, from a third party payer perspective.

PCV20

COST-MINIMIZATION ANALYSIS OF TINZAPARIN SODIUM AGAINST OTHER LOW-MOLECULAR-WEIGHT HEPARINS FOR PATIENTS WITH DEEP VEIN THROMBOSIS

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OBJECTIVES: It is estimated that up to 400,000 persons in Mexico are hospitalized yearly for deep-vein thrombosis (DVT). DVT refers to the presence of a thrombus in the deep vein system. The main objective was to compare the treatment costs of tinzaparin, enoxaparin and nadroparin of patients with DVT from the institutional’s inputs, the probabilistic sensitivity analysis showed that apart from sildenafil and tadalafil, there were no studies comparing monotherapy with a PDE-5 inhibitor to supportive care on therapy. At a decision-maker’s willingness to pay of less than ~$88,000 per QALY, neither add-on therapy with an ERA plus tadalafil nor add-on therapy with an ERA plus riociguat would be considered cost effective in patients with PAH in functional class II and III, relative to an ERA alone. Despite the uncertainty in the clinical inputs, the probabilistic sensitivity analysis showed that apart from sildenafil and tadalafil, the other PAH therapies had negligible probability of being the most cost effective. CONCLUSIONS: Tinzaparin is considered the most cost-effective therapy for patients with PAH in functional class II and III.

PCV23

REAL-WORLD OUTCOMES OF ACUTE ISCHEMIC STROKE PATIENTS IN THE MEDICARE POPULATION

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OBJECTIVES: To characterize Medicare patients with acute ischemic stroke (AIS) and describe healthcare resource utilization and associated direct costs during one-year pre-admission and follow-up period. To characterize Medicare patients with acute ischemic stroke from the institutional’s perspective, the probabilistic sensitivity analyses were performed. RESULTS: The following outcomes were estimated: Total Ischemic Stroke (non-fatal mild, non-fatal moderate, non-fatal severe, fatal), apixaban and edoxaban. Major effects of using azilsartan medoximil – chlorthalidone, a newly approved combination therapy in comparison to existing olmesartan medoximil – hydrochlorothiazide in treating mild to moderate essential hypertension, using the third party payer perspective and the risk of developing coronary heart disease (CHD) in 10 years. METHODS: A decision tree analysis was done using Tree Age Pro®. Cost evaluations included direct medical costs i.e. drug cost, cost of medical care (general physician visit, specialist visits, diagnostic and prescription medication) and cost of treatment and self-care adherence. Laboratory services over a time frame of one year. Cost values were obtained from the Red book 2010 and literature. Effectiveness was calculated by the reduction in SBP which was obtained, from various randomized controlled trials for these drugs: Incremental cost effectiveness ratio (ICER) was calculated. Monte Carlo simulation and probabilistic sensitivity analysis was done to further validate our findings. The risk of getting CHD in the next 10 years was calculated using Framingham risk score. RESULTS: Outcomes favored azilsartan (8.51 mm Hg) with a total expected cost for treatment as $4759.46 to olmesartan (6.71 mm Hg) with a total cost as $4949.48. The ICER was 105.07. Patients on azilsartan have a 12% risk and patients on olmesartan have an effective risk of developing CHD in the next 10 years. CONCLUSIONS: This study showed that patients with mild/moderate essential hypertension on azilsartan have a lower risk of developing CHD when compared to those on olmesartan. Azilsartan is a cost effective therapy compared to olmesartan, in treating mild/moderate hypertension, from a third party payer perspective.

PCV21

COST-UTILITY ANALYSIS OF APIXABAN IN PATIENTS WITH ATRIAL FIBRILLATION (AF) AT THE PERUVIAN SOCIAL SECURITY (ESALUD)

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OBJECTIVES: To evaluate the cost-utility of apixaban vs warfarin in patients with atrial fibrillation (AF) from the Peruvian Social Security (EsSalud) perspective. METHODS: A validated Markov decision model was adapted from EsSalud’s perspective. For efficacy and safety inputs, the model is based on data from the ARISTOTLE trial and clinical trials of warfarin therapy for AF. Resource utilization and costing of events were estimated using a reference hospital’s billing records and validated local experts. Costs of procedures were obtained from secondary official EsSalud tariffs. The costs of medications were obtained from SEACE. All costs are presented at 2014 nuevos soles. A discount rate of 3.5% was used for both costs and effects. RESULTS: The primary outcome was the cost-effectiveness of apixaban vs warfarin in patients with AF treated at EsSalud. The primary outcome measure was the number of quality adjusted life years (QALYs) associated with treatment. Transition probabilities, based on the relative risk of improving and worsening in functional class with treatment versus placebo, were derived from a concurrent network meta-analysis. Utility values and costs were obtained from published data and clinical expert opinion. Extensive deterministic sensitivity analyses and probabilistic analysis were conducted. RESULTS: For monotherapy versus supportive care in the base case, ridalifi was considered the most cost-effective therapy in functional class I and III. Tadalafil was also less costly and more effective than supportive care in functional class I and III; however, sildenafil was dominant over tadalafil. There were no studies comparing monotherapy with a PDE-5 inhibitor to supportive care on therapy. At a decision-maker’s willingness to pay of less than ~$88,000 per QALY, neither add-on therapy with an ERA plus tadalafil nor add-on therapy with an ERA plus riociguat would be considered cost effective in patients with PAH in functional class II and III, relative to an ERA alone. Despite the uncertainty in the clinical inputs, the probabilistic sensitivity analysis showed that apart from sildenafil and tadalafil, the other PAH therapies had negligible probability of being the most cost effective. CONCLUSIONS: Tinzaparin is considered the most cost-effective therapy for patients with PAH in functional class II and III.