STROKE (DVT) PCV77

COST EFFECTIVENESS ANALYSIS THE PREVENTION OF VENOUS THROMBOEMBOLISM IN IMMOBILIZED PATIENTS (PREVENT) TRIAL: THROMBOPROPHYLACTIC TREATMENT WITH DALTEPARIN VERSUS PLACEBO IN ACUTELY ILL PATIENTS

Objectives: Use of venous thromboembolism (VTE) prophylaxis among hospitalized patients is very low at approximately 42% (Goldhaber 2004). This analysis quantifies whether thromboprophylactic treatment with dalteparin in acutely ill patients is cost saving due to avoided VTE. Methods: Randomized controlled trial VTE data from the Prevention of Venous Thromboembolism in Immobilized Patients (PREVENT) trial was used to determine dalteparin and placebo VTE event rates. Costs were obtained from two published sources Oster et al. (2004) and MacDougall et al. (2006). Oster et al. reports on short term charged costs (90 days) while MacDougall et al. on long term (one year) paid costs. Costs were converted to 2008 US dollars using the CPI. Cost for dalteparin was calculated as $29.34 (2009 WAC pricing) for 5000 IU once daily for 14 days, while the cost of placebo is zero.

Results: In PREVENT, 2991 patients were randomized (1518 to dalteparin, 1473 to placebo). Dalteparin patients experienced 32 VTE events while placebo had 64. The short term cost of in-hospital VTE was $17,552 higher than matched controls (P < 0.01) and short term post-discharge VTE cost was $5765 higher than matched controls (P = 0.01) (Oster et al.), while the long term annual adjusted mean total claimed costs was $30,400 (MacDougall et al.). In aggregate, average VTE cost $1,393,914 for dalteparin patients versus $1,550,112 for placebo in the short term with a cost savings of $156,197 for patients utilizing dalteparin. The total annual costs for treating 32 VTE patients plus cost of dalteparin was $1,783,425 as compared to $2,329,132 for treating 64 VTE patients on placebo, giving an annual cost savings of $545,708 for utilizing dalteparin. Conclusions: Thromboprophylactic treatment with dalteparin reduces short term costs by $156,197 ($102.89 per person) and long term annual costs by $545,708 ($359.49 per person) in acutely ill patients at risk for VTE.

ECONOMIC ANALYSIS OF ENOXAPARIN IN COMPARISON WITH FONDAPARINUX IN THE TREATMENT OF DEEP-VENOUS THROMBOSIS (DVT)


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Objectives: The purpose was to conduct a cost-effectiveness analysis (CEA) of enoxaparin versus fondaparinux in the treatment of deep-vein thrombosis (DVT) in Poland. Methods: Data concerning efficacy and safety of compared therapies were taken from the clinical-effectiveness analysis which was based on the systematic literature review. Due to lack of statistically significant differences in comparison of enoxaparin versus fondaparinux, economic profitability estimation was performed as a cost-minimization analysis. Decision model was created by using MS Excel. Total costs of analysed therapies were estimated from the perspective of both payers in Poland (National Health Fund and patient). The minimisation analysis involved comparison of treatment with enoxaparin (1 mg/kg body mass, twice daily) versus fondaparinux (5, 7.5 or 10 mg—depending on the patient’s body mass, once daily). The time horizon of the analysis and manage PAH in pediatric class III, patients, which should be considered in order to allocate institutional resources efficiently.

A PHARMAECONOMICS ASSESSMENT OF SILDENAFIL IN THE MANAGEMENT OF PULMONARY ARTERIAL HYPERTENSION IN PEDIATRICS: THE MEXICAN CASE


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Objectives: Pulmonary arterial hypertension (PAH) is a chronic disabling condition that affects both adults and children. The aim of this study was to evaluate the cost-effectiveness of sildenafil to manage PAH in pediatrics, a group of patients who have failed previously to calcioantagonists, from the Mexican institutional perspective. Methods: A five-state Markov model was performed to estimate one year costs and health consequences (one-month cycle). Effectiveness measures were: increase in cardiac index (%) and exercise tolerance (%), as well as reduction in pulmonary vascular resistance (%), hospital length of stay (LOS, days) and discontinuation rate due to adverse events. Transition probabilities were obtained from a meta-analysis involving national and international published literature. Doses of comparison therapies were based on the sildenafil dosage (20 mg/kg/day, reference alternative). Resource use and costs were obtained from hospital records, weighted by the number of CDI hospitalisations (n = 120). A decision analytic model was built in Microsoft Excel. The model was validated according to the guidelines of the International Society for Pharmacoeconomics and Outcomes Research (ISPOR) and the USPSTF. Results: Patient associated costs for sildenafil, and bosentan were [US$13,737 (US$11,963–US$15,493) and US$20,110 (US$19,589–US$20,631), respectively.

Abstracts

COST-EFFECTIVENESS OF DALTEPARIN IN THE MANAGEMENT OF UNSTABLE ANGINA/NON-ST-SEGMENT ELEVATION MYOCARDIAL INFARCTION (UA/NSTEMI) EVENTS IN ADULT PATIENTS IN MEXICO


Medical and the National Health Service Economic Evaluation Database (NHSEED) were searched from their inception up to October 2009. Included studies were those full economic evaluations describing both costs and consequences of a) CT angiography; b) MRI; c) SPECT; and d) stress ECHO in the diagnosis of CAD. Article selection was performed by independent pairs of researchers. Target data for extraction included: study first author and year of publication, imaging tests compared, type of economic analysis, reported costs and outcomes, incremental cost-effectiveness ratio (ICER), currency, and patient characteristics (i.e., known or suspected CAD and risk of the primary outcome of interest for the present systematic review). ICER of each imaging test in relation to another test of interest being compared.

Results: A total of 12 studies were identified. Overall, of the selected strategies, stress ECHO was the most compared, followed by SPECT, and CT angiography and MRI that (despite fewer studies) CT angiography was considered cost-effective in all comparisons, however in specific situations as in the presence of high likelihood or prevalence of CAD or versus stress ECHO and MRI (no comparison was found against SPECT). Under base-case (average) situations, stress ECHO was reported to be relatively cost-effective, especially in contrast with SPECT and MRI, but not CT angiography. SPECT follows with few positive cost-effectiveness results, and MRI did not achieve any cost-effectiveness over the remaining strategies. Conclusions: Therefore, according to the published economic data from the literature, a cost-effectiveness ranking is proposed for the four analyzed cardiac imaging strategies as follows: CT angiography (in the presence of high likelihood or prevalence of CAD) > stress ECHO > SPECT > MRI.