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COST-EFFECTIVENESS ANALYSIS OF ROSUVASTATIN IN TREATING PATIENTS TO LDL-C ATP III GOALS. A MEXICAN PERSPECTIVE OF THE STELLAR TRIAL

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OBJECTIVE: To compare the cost-effectiveness of rosuvastatin (RSV) with those of atorvastatin (ATV), pravastatin (PRA) and simvastatin (SIM) in achieving National Cholesterol Education Program Adult Treatment Panel III (NCEP ATP III) goal by lowering low-density lipoprotein cholesterol (LDL-C) levels.

METHODS: The study was conducted from the perspective of private payers in Mexico. Clinical data were obtained from STELLAR trial, in which 2268 adult patients received a fixed dose of RSV 10, 20, 40 or 80 mg/day for 6 weeks; ATV 10, 20, 40 or 80 mg/day; SIM 10, 20, 40, 80 mg/day; or PRA 10, 20 or 40 mg/day. In Mexico only RSV 10 and 20 mg are commercialized, hence the analysis was done with the latter doses. Annual costs (treatment and maintenance) were based on acquisition costs for the drug as reported by NADRO (local wholesalers) on March 2006. Cost effectiveness was assessed with the net monetary benefit approach (NMB) and a 1-year time horizon. Results were graphed out using the cost-effectiveness acceptability curve. A sensitivity analysis was conducted to consider the effect of price discounting in the Mexican Market. RESULTS: RSV is found to be more effective and less costly than ATV, SIM and PRA at reducing LDL-C. RSV at 10 mg/day was the most cost effective statin when addressing the ATP III goals ($0 to $601.43 (Swedish diabetic sub-group). Niaspan® treatment effects were discounted life expectancy (0.20 years) compared to statin alone. The sensitivity analysis revealed RSV 10 and 20 mg/day were the most cost-effective statins for the substantial price decreases of alternative statins scenario. CONCLUSIONS: In order to achieve NCEP ATP III LDL-C goals, RSV 10 and 20 mg/day provided the greatest value for money compared with ATV, PRA and SIM in Mexico.

PCV30

COST-EFFECTIVENESS OF ROSUVASTATIN FOR CARDIOVASCULAR PREVENTION IN HIGH-RISK POPULATIONS IN SWEDEN

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OBJECTIVE: Effective cholesterol-lowering therapy is needed in order to reduce the risk of cardiovascular disease in patients with high levels of LDL-cholesterol, especially in high-risk groups such as patients with diabetes or a history of heart disease. Clinical trials have showed that rosuvastatin is an effective cholesterol-lowering medication, but it is also important to assess its cost-effectiveness. METHODS: The cost-effectiveness of cholesterol-lowering therapy with rosuvastatin compared to atorvastatin, simvastatin, and pravastatin was estimated with a Markov model of cardiovascular disease. The model simulated the occurrence of revascularization procedures, myocardial infarction, and stroke. Health effects were measured in terms of quality adjusted life years (QALYs). RESULTS: Cholesterol-lowering therapy with rosuvastatin was found to be cost-saving and associated with better effects (QALYs) compared to atorvastatin and pravastatin. For patients with prior heart disease and no additional risk factor incremental cost per QALY gained of rosuvastatin 10 mg compared to simvastatin 20 mg was 825,000 SEK for 70 year-old men, and 901,000 SEK for 70 year old women. For patients with both coronary heart disease and diabetes the cost-effectiveness ratios compared to simvastatin were 415,000 SEK per QALY for 70 year-old men, and 459,000 SEK per QALY for 70 year-old women. CONCLUSION: The results indicate that cholesterol-lowering therapy with rosuvastatin is cost saving compared to atorvastatin and pravastatin among patients with prior coronary heart disease or diabetes. Compared to simvastatin cholesterol-lowering therapy with rosuvastatin could be cost-effective under certain conditions, in particular in high risk patients with two or more risk factors for cardiovascular disease.

PCV31

HEALTH ECONOMIC ASSESSMENT OF RAISING HDL-C WITH PROLONGED-RELEASE NICOTINIC ACID (NIASPAN®) WHEN ADDED TO STATIN THERAPY IN PATIENTS WITH DYSLIPIDEMIA AND TYPE 2 DIABETES: AN ANALYSIS FOR SWEDEN

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OBJECTIVE: To evaluate, in the Swedish setting, the cost-effectiveness of raising low high-density lipoprotein-cholesterol (HDL-c) with Niaspan® on top of statin-based therapy, in type 2 diabetes (T2D) patients with persistently low HDL-c levels. METHODS: We used a simulation model made of 2 decision analytic sub-models. The first sub-model (second order Montecarlo simulations) generated patient's cohort and simulated lipid changes after treatment. Baseline cohort characteristics were taken from a Pan-European Survey on HDL-c prevalence (Swedish diabetic sub-group). Niaspan® treatment effects were taken from the ARBITER II study. Patients with low HDL-c (≤1.03 mmol/L) on statin treatment received either add-on Niaspan® (1 g/day) or continued statin alone. The second sub-model (Markov) calculated the risk of coronary heart disease events based on Framingham risk formulae. Direct medical costs (SEK) were accounted from a third-party payer perspective. Annual discount rates of 3% were applied to costs and clinical benefits. Simulations were run to capture patient lifetimes. RESULTS: Niaspan® + statin was associated with an increase in discounted life expectancy (0.20 years) compared to statin alone. Direct medical costs were on average SEK34,320 higher in the Niaspan® + statin group leading to an Incremental Cost-Effectiveness Ratio of SEK169,696 per Life Year Gained (ICER < SEK190,000/LYG is highly cost-effective). CONCLUSION: In the Swedish setting, raising HDL-c with the addition of Niaspan® to statin treatment increases life expectancy and is highly cost-effective compared to statin monotherapy in T2D patients with dyslipidemia and persistently low HDL-c.

PCV32

COST-EFFECTIVENESS OF CLOPIDOGREL IN MYOCARDIAL INFARCTION WITH ST-SEGMENT ELEVATION: EUROPEAN MODEL RESULTS BASED ON CLARITY AND COMMIT

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OBJECTIVE: Several health economic studies have shown clopidogrel to be cost-effective in preventing ischemic events in non-ST-segment elevation myocardial infarction (NSTEMI) and unstable angina. The objective of this study was to evaluate the long-term cost-effectiveness of clopidogrel in ST-segment elevation MI (STEMI) based on data from the CLARITY and...