COST-UTILITY ANALYSIS FOR STATINS IN MEXICO


Social Security Mexican Institute, México D.F., México D.F., Mexico

OBJECTIVES: The purpose of this research is to estimate atorvastatin, simvastatin and pravastatin incremental cost-utility ratios in Mexican patients with hypercholesterolemia in secondary prevention and ages between 45–70 years. METHODS: A Markov model was used with five final outcomes: angina pectoris (AP), myocardial infarction (MI), cerebrovascular disease (CVD), absence of cardiovascular events and death. The follow-up period was five years, applying a 5% cost-utility discount rate. The perspective was that of the National Health System (only direct medical costs). The utility measure was obtained by applying a survey to Mexican cardiologists with clinical experience and with the aid of survival tables published in the literature. The quality-adjusted life-years (QALYs) were constructed for each final outcome. Cost per event was obtained by reviewing patient clinical records and expert opinion. The sensitivity analysis was univariate and probabilistic and acceptability curves were constructed. RESULTS: Annual average medical care costs per event were: US$9906 for AP, US$8510 for MI, US$4720 for CVD, US$2093 in the absence of cardiovascular events, and US$13,744 in the case of death. The quality-adjusted life years for MI were 1.2 years, for AP 2.9 years, for CVD 1.0 years, in the absence of cardiovascular events 4.4 years, and in case of death 0.0 years. For atorvastatin, the expected cost for treatment during the follow-up period was US$10,713, for simvastatin US$15,873 and for pravastatin US$14,193. Finally, QALYs for atorvastatin, simvastatin and pravastatin during that same period were 3.8; 3.5 and 3.7 years, respectively. CONCLUSIONS: Atorvastatin turned out to be dominant in Mexico and offered the treatment with more cost-utility for patients with hypercholesterolemia in secondary prevention, followed by pravastatin and simvastatin. Stochastic sensitivity analysis showed the same results.

COMPLIANCE WITH STATIN TREATMENT: THE EFFECT OF SWITCHING TO ANOTHER STATIN AFTER TREATMENT INITIATION

Thiebaud P1, Nichol MB1, Patel BV2

1University of Southern California, Los Angeles, CA, USA; 2MedImpact Healthcare Systems, Inc, San Diego, CA, USA

OBJECTIVES: To determine how switching to a new statin after treatment initiation affects new statin users’ compliance and persistence, and to evaluate switching rates among five statins: atorvastatin, fluvastatin, lovastatin, pravastatin, and simvastatin. METHODS: The sample includes 24,035 patients over the age of 18 who were continuously eligible for two-years. These patients are all new statin users as defined by a one-year wash out period before the first statin prescription. Patients with only one claim or with claims covering more than 30 days of supply were excluded. Their compliance is measured with the medication possession ratio (MPR) and their persistence with the duration of continuous therapy. Logistic regression (simple or weighted with propensity score for drug treatment assignment) was used for compliance and censored regression for persistence. RESULTS: Switching negatively impacts persistence (~14.5% duration of continuous therapy) vs. no switch (p < 0.0001).