effective. Univariate sensitivity analyses showed that changes in the costs of atriovas-
tatin, and in treatment duration have the biggest impact on the results. Subsequent
probabilistic analyses will be used to further explore uncertainties around the
estimates.

PCV86

COST-UTILITY ANALYSIS OF RIVAROXABAN COMPARED WITH ENOXAPARIN IN PREVENTION OF VENOUS THROMBOEMBOLISM AFTER TOTAL HIP REPLACEMENT IN SLOVAKIA

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OBJECTIVES: To estimate the cost effectiveness of rivaroxaban against enoxaparin
for the prophylaxis of venous thromboembolism (VTE) in patients after total hip replacement (THR) in Slovakia from payer perspective. METHODS: A cost-utility model based on results of large randomized controlled trial (RECORD 1) was devel-
oped. In RECORD 1, patients received 35 days prophylaxis with rivaroxaban or enoxaparin. Rivaroxaban reduced total VTE (composite: any DVT, non-fatal PE, all-cause mortality) by 70% versus enoxaparin after 35 days prophylaxis. The model was divided into three parts: prophylaxis, post-prophylaxis, and long-term complica-
tions. The first two parts represents acute phase and were modeled as a decision tree. Third part represents the long-term complications and was developed as a Markov model. The first part of the model is populated by RECORD 1 trial, while published epidemiological and clinical data estimating the incidence of further VTE events after a thrombotic syndrome beyond the trial period were used in second and third part of the model. Local cost data was based on published price lists, clinical guidelines, product labels and expert opinion. VTE related utilities were used from literature. Effectiveness was measured in quality-adjusted life years (QALY). Time horizon was set at 5 years and payers perspective was used. Discount rate was 7% per year for costs and effects according to Ministry of Health (MoH) guidelines for health eco-
nomic evaluation valid in 2008. One-way and probabilistic sensitivity analyses were performed. RESULTS: Rivaroxaban was cost-effective versus enoxaparin, with an incremental cost per QALY of €96.72.10. This is significantly below officially pub-
lished €26,500 QALY threshold for willingness to pay in Slovakia. Over 1,000 samples of probabilistic sensitivity analysis, 633 simulations were below a threshold of €26,500. CONCLUSIONS: Rivaroxaban is a cost-effective alternative to enoxapa-
rin for the prevention of VTE following THR in Slovakian setting.

PCV87

COST-EFFECTIVENESS OF PROTON PUMP INHIBITORS FOR PREVENTION OF GASTROINTESTINAL ADVERSE EVENTS WHEN USING ASPIRIN FOR PRIMARY CARDIOVASCULAR PREVENTION

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OBJECTIVES: To estimate the cost effectiveness of prophylaxis against gastrointestinal adverse events when using aspirin for primary cardiovascular prevention. METHODS: A cost-analysis was conducted to compare the costs of proton pump inhibitors (PPIs) with no prophylaxis. The effectiveness of prophylaxis with PPIs was estimated using the difference in the number of VTE events prevented by aspirin alone and aspirin + PPIs. RESULTS: The incremental cost of prophylaxis was $17,377 vs. adenosine and $36,677 vs. dipyridamole, shorter overall test time with regadenoson (mean ± SD) of 156 ± 46
minutes vs. 182 ± 63 minutes with adenosine and 191 ± 61 minutes with dipyridamole) and utilization less of laboratory resources resulted in an additional 177 and 244 tests/parameter.

PCV88

ECONOMIC EVALUATION OF THE USE OF REGADENOSON IN MYOCARDIAL PERFUSION IMAGING (MPI) FOR CARDIOVASCULAR LABORATORY PERSPECTIVES

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OBJECTIVES: Regadenoson, a newer adenosine derivative, has improved pharmaco-
logic properties that may improve safety profile and administrative requirements
compared to adenosine and dipyridamole. This study assessed the economic benefits
of utilizing regadenoson in myocardial perfusion imaging (MPI). METHODS: Data on
the overall laboratory and individual staff time spent on MPI procedures and
managing adverse events was collected from 141 cardiovascular laboratories. Direct
laboratory MPI cost was estimated by applying hourly labor and fringe benefit rates
to the amount of time each staff member spent on the test. The model and its administra-
tion also was applied. Regression analysis was used to examine the association between laboratory characteristics and the weekly number of tests. The estimated adjusted mean values were used to test the sensitivity of results to this parameter. RESULTS: Assuming a set number of 20 tests/week with adenosine and
177 ± 46 minutes with dipyridamole, shorter overall test time with regadenoson (mean ±
SD) of 156 ± 46 minutes vs. 182 ± 63 minutes with adenosine and 191 ± 61 minutes with
dipyridamole) and utilization less of laboratory resources resulted in an additional 177 and 244 tests/parameter.

PCV89

COST-EFFECTIVENESS OF PRASAGREL OR CHOPIDOGREL FOR TREATMENT OF ACS PATIENTS BASED ON GENETIC TESTING FOR CYP2C19 VARIANTS

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OBJECTIVES: Previous studies suggest prasugrel may be cost effective when com-
pared to clopidogrel for treating acute coronary syndrome patients (ACS). Recent
research has shown that the reduced function allele CYP2C19*2 (*2 allele) is associ-
ated with an increased risk of adverse events for ACS patients taking clopidogrel and
a decreased risk for patients taking prasugrel. The purpose of this paper is to test
whether using clopidogrel for all patients is cost effective compared to prasugrel for
*2 allele patients in combination with clopidogrel for non-*2 patients and to prasugrel
only for New Zealand. METHODS: Effectiveness of clopidogrel and prasugrel from
published TRITON-TIMI 38 clinical trials was combined with rates of *2 occurrence
in Maori, Pacific Islanders, Asian and NZ European and national hospital records on
rates and costs of hospitalisations 15 months post ACS for stroke, MI, bleeding, stent
thrombosis and cardiovascular death. Decision tree modelling and Monte Carlo simu-
lations examined the robustness of the results. RESULTS: Rates of the *2 allele differ
significantly between NZ European (15%), Maori (24%), Asian (29%) and Pacific
People (45%). Analysis of hospital records suggest that rates of MI, stroke, bleeding,
stent thrombosis and cardiovascular death were much higher in the general New
Zealand population than in the clinical trial population. The cost effectiveness analysis
suggests that use of a generic test to guide combined use of clopidogrel and prasugrel
was cost effective for most age and ethnic groups, but particularly for Maori males
(NZ$3184/QALY), Maori females (NZ$3687/QALY), Pacific men (NZ$4617/QALY)
and Pacific women (NZ$7603/QALY). Prasugrel is more costly and less effective than
clopidogrel. CONCLUSIONS: The results here suggest that the use of a genetic test
to guide treatment decisions for ACS patients is cost effective, especially for Maori
and Pacific peoples, and that prasugrel alone is not cost effective in New Zealand.

PCV90

COST-EFFECTIVENESS OF ATORVASTATIN IN ACUTE CORONARY SYNDROME PATIENTS IN SWEDEN

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OBJECTIVES: To estimate the clinical and economic outcome of treatment with atorvastatin 80 mg versus simvastatin 40 mg and pravastatin 40 mg in Swedish
patients with acute coronary syndrome (ACS). Simvastatin 40 mg was selected for the
analysis based on current clinical treatment practices. METHODS: Efficacy is esti-
ated based on a Bayesian meta-analysis linking decrease in LDL cholesterol levels
to decreases in secondary cardiovascular (CV) events (MI, strokes, CV deaths) drawing data from statin trials in ACS (MIRACL, PROVE-IT, ANG II) and using priors from PROVE-IT (LIT). A Markov model is used to model the occurrence of the occurrence of CV events; Swedish cost data; and quality of life. Baseline
risks are taken from the ACS CURE study. Analyses are conducted using a baseline
risk of the first 6 months of 12.1% and 3.89% during later months. The time
horizon of the analyses is lifetime (50 years). RESULTS: Treatment with atorvastatin
during the acute phase (three months after event) instead of the comparator yields a
cost per QALY of 68,784 Swedish kronor (SEK) compared with simvastatin, and of
45,342 SEK compared with pravastatin. Taking mandatory price cuts of 70% of
LET in Sweden, the cost per QALY compared with lifetime treatment with atorva-
statin vs. simvastatin, and 28,113 SEK compared with pravastatin. ICERs improve when risk with age is reduced, lower discount rates are used, and when
atorvastatin cost is decreased. CONCLUSIONS: Preliminary findings show that, based
on currently accepted Swedish cost effectiveness thresholds, using atorvastatin 80 mg
to treat high risk Swedish ACS patients is a cost-effective intervention, either versus
simvastatin or pravastatin. Univariate sensitivity analyses showed that changes in
the costs of atorvastatin, and in treatment duration have the biggest impact on the results.