

cohorts were traced for 20 years (4-year Markov cycles) with 55–76 year old patients in order to predict primary and secondary CV events. Quarterly titration in year one was set up to a maximum dose of 20 mg RSV, 80 mg ATV, 80 mg SIM and 40 mg PRA based on TC target, whereas risk was calculated using average TC : HDL-C ratio of the 1000 simulated patients, with adjustment for Framingham's hypothesized over-prediction of Mexican risk. The economic analysis was done under private sector perspective with a 5% and 1.5% discount rate for costs and benefits, respectively. Unitary costs were obtained from NADRO (local wholesaler). Mexican Institute of Social Security costs and data from a Delphi Panel were used to estimate CV diseases' private costs. Disability-adjusted life years gained (DALYs) for each treatment regimen were estimated. Results are shown in natural units, while costs are expressed in US dollars. Sensitivity analysis included threshold, one-way scenarios and probabilistic analysis. **RESULTS:** RSV 10 mg for the 20-year horizon resulted in less primary and secondary events (197) and deaths (42), per 1000 patients, more DALYs (14.97) and lower per-patient treatment costs (\$8134.57) than other statins on equivalent doses. Hence, RSV 10 mg is highly cost-effective with a cost per DALYs gained of \$16,802.15 than comparators. Sensitivity analysis showed the robustness of results. **CONCLUSION:** RSV is a cost-effective strategy: it yields fewer CV events, resulting in fewer deaths and significant economic saving for both patients and institutions.

## PCV34

**THE COST-EFFECTIVENESS OF ALISKIREN AS ADD ON TO LOSARTAN AND OPTIMAL ANTIHYPERTENSIVE THERAPY IN PATIENTS WITH TYPE 2 DIABETES, HYPERTENSION AND NEPHROPATHY IN THE UNITED KINGDOM SETTING**

Palmer JL<sup>1</sup>, Munk VC<sup>2</sup>, Kotchie R<sup>3</sup>, Vincze G<sup>2</sup>, Charney A<sup>4</sup>, Tucker D<sup>1</sup>, Annemans L<sup>5</sup>

<sup>1</sup>IMS Health, Basel, Switzerland, <sup>2</sup>Novartis Pharma AG, Basel, Switzerland, <sup>3</sup>IMS Health, London, UK, <sup>4</sup>Novartis Pharmaceuticals Corporation, East Hanover, NJ, USA, <sup>5</sup>Ghent University, Ghent, Belgium

**OBJECTIVE:** AVOID (Aliskiren in the Evaluation of Proteinuria in Diabetes) was a multicentre, randomised, double-blind, six-month study designed to assess the effect of adding aliskiren, an oral direct renin inhibitor, to losartan and optimal antihypertensive therapy (excluding ACE inhibitors), on the reduction in urinary albumin to creatinine ratio (UACR) in patients with hypertension, type 2 diabetes, and nephropathy. A cost-effectiveness model was developed aiming to estimate the progression to end-stage renal disease (ESRD) and to project the associated costs and clinical outcomes of aliskiren in the UK setting. **METHODS:** A previously published Markov model of diabetic nephropathy and ESRD was adapted to incorporate treatment effects from AVOID, where aliskiren reduced mean UACR versus placebo by 20% ( $p = 0.0009$ ). Transition probabilities from AVOID were used until patients reached UACR  $>1,900 \mu\text{g/g}$ , with probabilities from the Irbesartan in Diabetic Nephropathy Trial used thereafter. Direct medical costs were based on UK pharmacy costs and published sources. Annual discount rates of 3.5% were applied over the 20-year time horizon. **RESULTS:** Short-term therapy benefits associated with aliskiren were projected to increase life expectancy by 0.0983 years ( $7.9175 \pm 0.0434$  versus  $7.8192 \pm 0.0369$  years), improve quality-adjusted life expectancy by 0.0878 quality-adjusted life years (QALYs) ( $5.3038 \pm 0.0444$  versus  $5.2160 \pm 0.0391$  QALYs) and reduce the cumulative incidence of ESRD by 2.51 percent (19.52% versus 22.03%) compared to placebo. An incremental cost-effectiveness ratio of £12,073 per QALY gained was calculated for aliskiren, which is well below the willingness-to-

pay threshold of the UK of £30,000 per QALY gained. Sensitivity analysis where the clinical benefit of aliskiren was extended beyond UACR  $>1900 \mu\text{g/g}$ , proved to be a cost saving strategy. **CONCLUSION:** Aliskiren would be considered cost-effective in the UK setting when added to losartan therapy due to the additional renal protection provided and a reduced incidence of ESRD.

## PCV35

**GADOFOSVESET IN THE MANAGEMENT OF PERIPHERAL ARTERIAL OCCLUSIVE DISEASE IN CANADA—A MODEL APPROACH FOCUSING ON DIAGNOSTIC CONFIDENCE**

Hass B<sup>1</sup>, Rebeira M<sup>2</sup>, Lungershausen J<sup>1</sup>, Jaszewski B<sup>2</sup>, D'Onofrio F<sup>2</sup>, Kienbaum S<sup>3</sup>

<sup>1</sup>IMS HEALTH, Nuremberg, Germany, <sup>2</sup>Bayer HealthCare, Toronto, ON, Canada, <sup>3</sup>Bayer Schering Pharma AG, Berlin, Germany

**OBJECTIVE:** To investigate the cost-effectiveness of a diagnostic imaging strategy starting with magnetic resonance angiography (MRA) enhanced with a blood pool agent versus strategies starting with either MRA enhanced with conventional extracellular agents or standard-DSA in severe peripheral arterial occlusive disease (PAOD) in Canada. **METHODS:** A microsimulation model focusing on “diagnostic confidence” instead of “diagnostic accuracy”, built by Kienbaum et al. (submitted for publication) for the European perspective was adapted to compare a strategy with initial MRA with Gadofosveset to strategies with either initial MRA with conventional extracellular contrast media (standard-MRA) or a standard digital subtraction angiography (standard-DSA) in the work-up of severe PAOD (critical limb ischemia) in the Canadian setting. The model allows evaluating aggregated mean costs per initial diagnostic modality as well as incremental costs per quality-adjusted life year (QALY) gained. Both efficacy and utility data were derived from the European analysis. Cost data were calculated from the payer perspective and estimated by the ‘Program for the Assessment of Technology in Health’ (PATH) at McMaster University. **RESULTS:** The model simulation predicts an equivalent utility score for all alternatives considered. From the payer perspective, the mean overall cost of the Gadofosveset-MRA strategy amount to \$7814. In contrast, aggregated costs with either standard-MRA or -DSA reach \$8637 and \$9842, respectively. Thus, an imaging strategy with initial Gadofosveset-MRA is less costly than strategies initially using standard-MRA or -DSA. With regard to cost-effectiveness the additional costs per QALY gained by standard-MRA versus Gadofosveset-MRA amount to about \$117,000 and about \$178,000 for standard-DSA. The model was robust regarding probabilistic variations of all parameters. **CONCLUSION:** From the payer perspective in Canada, an imaging strategy starting with Gadofosveset-MRA represents a cost-effective option for the diagnostic work-up of severe PAOD (critical limb ischemia) compared to strategies with either standard-MRA or -DSA.

## PCV36

**SYSTEMATIC REVIEW OF COST-EFFECTIVENESS STUDIES ON DIABETES MEDICATION**

Zhang YJ, Nair RR, Kumar J

The University of Toledo, Toledo, OH, USA

**OBJECTIVE:** Some new antidiabetic drugs such as insulin glargine, insulin detemir, exenatide, and rosiglitazone have been widely used in the clinical practice. Very few pharmacoeconomics studies on diabetes medications are focused on these drugs. To compare and contrast the cost-effectiveness of the various diabetes medications, we conducted the systematic review of drug-