best and 12% at end. Changes in renal function and liver enzymes were not statistically significant. There was a significant improvement in LDL and blood pressure while on rosiglitazone. There were eight patients with elevations of liver enzymes.

CONCLUSIONS: In routine Canadian clinical practice, rosiglitazone is effective at lowering both FBG and HbA1c significantly over time and appear to be comparable to, or better than, those reported for the established oral agents. Many patients were able to reach improved targets of HbA1c and FBG with no reported serious adverse events. Further study is required to investigate the beneficial metabolic effects observed on blood pressure and lipids.

DIABETES—Economic Outcomes Presentations

THE ECONOMIC VALUE OF NON-DIHYDROPYRIDINE VS. DIHYDROPYRIDINE CALCIUM CHANNEL BLOCKER/ACE INHIBITOR COMBINATIONS IN PATIENTS WITH TYPE-II DIABETES
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OBJECTIVE: Combination therapy with angiotensin-converting enzyme inhibitors (ACE-I)/calcium channel blocker (CCB) has been recommended for hypertensive diabetics. This study assessed the cost-effectiveness of an ACE-I/non-dihydropyridine CCB (ACE-I/NDCCB: Trandolapril/Verapamil or T/V) relative to an ACE-I/dihydropyridine CCB (ACE-I/DCCB: Benazepril/Amlodipine or B/A) for the treatment of patients with diabetes, who frequently also have hypertension.

METHODS: We have adapted a previously published Markov model that simulated the disease progression of a hypothetical cohort newly-diagnosed diabetes patients towards end-stage renal disease (ESRD). The model was developed from a payer perspective and estimated the discounted drug and ESRD costs and quality adjusted life years (QALYs) over a 3-year, 5-year and lifetime time horizon. The baseline analysis conservatively assumed that all patients, regardless of treatment received, progressed from normoalbuminuria to microalbuminuria (progression rate = 0.011), to gross proteinuria (progression rate = 0.026), and to ESRD (progression rate = 0.034). Given clinical evidence demonstrating greater reductions in baseline proteinuria with T/V than with B/A (urinary albumin excretion ~65% versus ~25%, respectively), the least conservative scenario assumed that patients receiving T/V would progress less rapidly than patients receiving B/A.

RESULTS: In the baseline analysis, T/V resulted in lower net costs than B/A. The cost advantage per hypertensive diabetic is $92, $141 and $743 in favor of T/V over a three-year, five-year and lifetime time frame respectively. When the most extreme clinical difference is assumed, T/V treatment results in $168, $313 and $2,293 in net savings per diabetic over the respective time periods while also providing a small net benefit in QALYs (0.00632, 0.0018, 0.063 QALYs per patient).

CONCLUSIONS: From a payer perspective, T/V is cost-saving relative to B/A for the management of hypertensives with diabetes under both scenarios. These savings are driven by the lower cost of drug and the reduced resources required for ESRD treatment.

PREVENTION OF TYPE 2 DIABETES IN THE USA: COST-EFFECTIVENESS ISSUES
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OBJECTIVES: Onset of Type 2 diabetes (T2D) can be delayed by lifestyle changes and/or medications. Forecasts predict an epidemic of new cases of T2D as the population ages, and modern lifestyles become increasingly unhealthy. T2D patients have double mortality rates and higher treatment costs of matched non-diabetics. A model was developed to assess acceptable cost limits for a general population-targeted program aimed at reducing the incidence of T2D by 10%.

METHODS: A Markov model simulated the incidence of and increased direct medical costs and mortality associated with T2D. Data were derived from published sources. Costs and life expectancy (LE) calculated (discounted at 3% p.a.). Analyses assessed the maximum costs/person a payer could outlay to achieve a 10% reduction in T2D incidence a) without increasing the healthcare budget, and b) remaining within an attractive incremental cost-effectiveness (ICER) <$50,000/life year gained. A health insurance perspective was taken. Sensitivity analysis identified parameters with important impacts on outcomes.

RESULTS: A diabetes prevention intervention aimed at a general population with mean age 50 years that reduces incidence of T2D by 10% would improve LE by 0.05 years per person. Up to a cost of $55/year/person, the program would result in overall cost savings due avoidance of higher costs associated with T2D. The ICER of the program would be <$50,000 at a cost of $2.50/person/year. Sensitivity analysis revealed that age of target population, effectiveness of intervention, incidence of diabetes, and increase in mortality with diabetes have a large influence on the results.

CONCLUSIONS: Diabetes prevention programs aimed at a general population could be cost saving or cost-effective if the costs of the program do not exceed limits identified. In other, higher-risk populations, such as glucose intolerant or racial sub-groups, where the incidence of diabetes and effects of intervention are greater, these cost limits are could be higher.