## Abstracts

PDB16

## COST-EFFECTIVENESS OF BLOOD PRESSURE AND URINARY ALBUMIN CONTROL IN DIABETICS WITH AN ANGIOTENSIN II RECEPTOR ANTAGONIST AND A CALCIUM CHANNEL BLOCKER: PHARMACOECONOMIC ANALYSIS OF THE MARVAL TRIAL—THE CASE OF GERMANY

Smith DG<sup>1</sup>, Gnanasakthy A<sup>2</sup>, <u>Quednau K</u><sup>3</sup> <sup>1</sup>University of Michigan, Ann Arbor, MI, USA; <sup>2</sup>Novartis Pharmaceuticals Corporation, East Hanover, NJ, USA; <sup>3</sup>Novartis Pharma GmbH, Nuremberg, Germany

**OBJECTIVES:** The objective of the study was to evaluate the short-term costs and cost-effectiveness of initiating therapy with an angiotensin II receptor antagonist compared to a calcium channel blocker in type II diabetic patients with microalbuminuria. METHODS: An economic model was developed based upon a multicenter, randomized, double-blind, 24-week trial comparing the angiotensin II receptor antagonist valsartan (n = 169) with the calcium channel blocker amlodipine (n = 163) in Type 2 diabetic patients with microalbuminuria. The primary outcome measure was urinary albumin excretion rate (UAER) and the secondary outcome measure was the return to normoalbuminuric status. Resource use was collected through study administration reports, adverse event reports and concurrent medication reports. Costs were applied to resources at German specific payment rates for services and medications (EBM, GOÄ 2002 etc.). **RESULTS:** Changes in UAER were 44.2% with valsartan and 8.2% with amlodipine (p < 0.01). Changes in albuminuric status were 29.9% with valsartan and 15.5% with amlodipine (p < 0.01). Blood pressure was equally controlled with both medications. HbA1c remained stable and did not differ between treatments. With costs expressed in EUR (€), total costs were €638.18 with valsartan and €503.66 with amlodipine. Incremental costeffectiveness ratios were 374 for changes in UAER and 874 for changes in albuminuric status. CONCLUSIONS: Use of valsartan compared to amlodipine in diabetics with microalbuminuria was associated with significantly improved UAER and albuminuric status at similar total treatment costs. The combination of significantly higher efficacy and higher costs yields incremental costeffectiveness ratios that are favorable for the use of valsartan over amlodipine.

## PDB 17 PREDICTED COSTS AND OUTCOMES FROM REDUCED VIBRATION DETECTION IN PEOPLE WITH DIABETES IN THE UK

<u>Shearer A</u><sup>1</sup>, Scuffham P<sup>1</sup>, Gordois A<sup>1</sup>, Oglesby A<sup>2</sup> <sup>1</sup>University of York, York, United Kingdom; <sup>2</sup>Eli Lilly & Company, Indianapolis, IN, USA

**OBJECTIVE:** The ability to perceive vibration (vibration detection) has been shown to be a good predictor of long-

681

term complications among patients with diabetic peripheral neuropathy (DPN). The aim of the study was to estimate the predicted complications and costs for the NHS associated with reduced vibration detection. METHODS: A Markov model of DPN progression was constructed for a hypothetical cohort of people with DPN. The model was run over a 10-year period using Monte Carlo simulations to estimate disease progression, predicted costs, life-years and quality-adjusted life-years (QALYs) according to vibration detection levels. Rates of foot ulceration and amputation, the probability of healing, and health state utility scores were identified by undertaking a focused literature search. The cost data used in the model were derived from a concurrent cost of illness study. **RESULTS:** Discounted over ten-years, the average individual with reduced vibration detection incurs approximately 3.3 times more direct medical costs for foot ulcers and amputations (£1531 vs. £457), yields 0.19 fewer QALYs, and lives for approximately 2 months shorter than an average individual with normal vibration detection. The long-term complications of DPN (foot ulcers and amputations) experienced by the population with reduced vibration detection will cost the NHS approximately £292m (discounted) over the next 10 years. CON-CLUSIONS: Effective treatment of foot ulceration and amputation is time-consuming and expensive. If at-risk individuals with reduced vibration detection could be identified and targeted for intervention, valuable Health care resources could be saved and improved health outcomes should result. For example, if all individuals in the UK with diabetes and reduced vibration detection were identified and their risk of ulceration and amputation reduced to levels experienced by those with normal vibration detection, this could save the NHS up to £204m, and save 29,000 life-years and 36,000 QALYs (discounted) over the next ten years.

PDB 18 THE COMPLICATIONS IMPACT ON DIABETES TYPE 2 DIRECT COSTS IN POLAND Niewada MP<sup>1</sup>, <u>Glogowski CA<sup>2</sup></u>, £atek M<sup>3</sup>, <u>Pietrasik A<sup>3</sup></u>, Kamiñski B<sup>3</sup>, Gierczynski JM<sup>2</sup>, Krzy;anowska A<sup>2</sup> <sup>1</sup>Medical University of Warsaw, Warsaw, Poland; <sup>2</sup>GlaxoSmithKline Pharmaceuticals S.A, Warsaw, Poland; <sup>3</sup>Warsaw School of Economics, Warsaw, Poland

**OBJECTIVES:** The Cost Of Diabetes type 2 in Poland (CODIP) study is the first attempt aimed at valuating clinical characteristics and total costs associated with type 2 diabetes in Poland. Study design reflects that of CODE 2 (Cost Of Diabetes in Europe type2) and allows for international comparison. **METHODS:** Three hundred-three patients randomly enrolled, (mean age: 61, mean time from diagnosis: 10.86 year, males: 49%) were divided into 4 categories: no complications, one or more microvascular complications, one or more macrovascular and macrovascular complications. Direct cost associated with