

cords. The diabetes related complications considered in this study were classified into chronic complications (Cardiovascular disease, Cerebrovascular disease, Neuropathy, Retinopathy, Nephropathy, Peripheral vascular diseases and foot damage) and acute complications (Ketoacidosis and major hypoglycemic). The direct medical costs were reported as annual costs including hospitalization, daily medications and examinations for DM-related chronic complications and as event costs for DM-related acute ones. All costs were reported in 2011 US dollar using the exchange rate of 6.47 Chinese Yuan to 1 USD. **RESULTS:** The annual medical cost for DM related complications per patient with and without hospitalizations: Myocardial infarction \$6248.32 and \$2025.26; Angina \$4707.12 and \$1453.63; Congestive Heart Failure \$3433.08 and \$1009.18; Stroke \$3214.74 and \$1401.46; Peripheral vascular disease \$3348.11 and \$1301.34; Neuropathy \$2226.86 and \$854.38. Renal failure with Haemodialysis \$11245.93 and Peritoneal dialysis \$7802.03; Renal transplant \$33772.50 with operation and \$8934.27 for daily maintenance. The event cost for Retinopathy: Laser operation \$296.79; Cataract operation \$1313.56; Amputation \$2072.22; Infected ulcer treatment: \$3007.11; Ketoacidosis \$1493.55; Major hypoglycemic \$729.18. **CONCLUSIONS:** The medical costs for DM related complications are overwhelming compared with the costs of insulin and hypoglycemic agents especially for those diabetic patients with severe nephropathy. Considering the high prevalence of diabetes and its complications diabetes poses substantial economic burden to the whole society in China.

PDB23

COST EFFECTIVENESS OF ANGI PARSTM IN THE TREATMENT OF DIABETIC FOOT ULCERS IN IRAN

Radmanesh R

Tehran University of Medical Sciences, Tehran, Iran

OBJECTIVES: The primary objective of this study was to estimate the cost effectiveness of treating diabetic foot ulcers with ANGI PARSTM plus good wound care (GWC) compared with GWC alone in Iranian health care settings. A secondary objective was to analyse the effect of different treatment practices on the economics of caring for diabetic foot ulcers. **METHODS:** A 6-month Markov computer simulation model was used to assess the cost effectiveness in Iran of treating diabetic foot ulcers with ANGI PARSTM plus GWC versus GWC alone. Transition probabilities were taken from a prospective study of 20 patients and ANGI PARSTM efficacy was based on 20-week healing rates in a recent meta-analysis of clinical trials involving 50 patients. Country-specific treatment cost data were collected in collaboration with local economic consultations and combined with the disease model to estimate the incremental cost per ulcer-free month gained. The model was then run using hypothetical low- and high-intensity resource usage profiles to investigate the economics of caring for diabetic foot ulcers. **RESULTS:** Over the course of 6-month, individuals who received ANGI PARSTM plus GWC were, on average, predicted to spend an additional 0.81 months (24% longer) free of ulcers and to experience a 9% lower risk of undergoing a lower extremity amputation than individuals who received GWC alone. Consequently, ANGI PARSTM plus GWC was estimated to be net cost saving in Iran. **CONCLUSIONS:** ANGI PARSTM may be a cost-effective treatment for neuropathic diabetic foot ulcers in a wide range of Iranian settings.

PDB24

COST-EFFECTIVENESS ANALYSIS OF PREGABALIN IN THE TREATMENT OF DIABETIC PERIPHERAL NEUROPATHY

Hashemi Meshkini A¹, Keshavarz K¹, Gharib Naser Z¹, Nikfar S²¹Tehran University of Medical Sciences, Tehran, Iran, ²Tehran University of Medical Sciences, Tehran, Tehran, Iran

OBJECTIVES: The diabetic peripheral neuropathy (DPN) is the most common diabetic patients' complication which is accompanied with substantial economic burden regarding the productivity loss and medical therapy. In this study we analyzed the cost effectiveness of pregabalin for treatment of diabetic neuropathic pain in Iran. **METHODS:** To evaluate the efficacy of pregabalin we designed a systematic review of published articles by searching on PubMed, Scopus and Google scholar. Our keywords were: "pregabalin", "neuropathic pain", "diabetic peripheral neuropathy", etc. The pain score was the outcome of interest for evaluation of the treatment efficacy in peripheral neuropathic pain. For calculation of cost we only consider direct cost of treatment. **RESULTS:** Out of 8994, finally 5 articles were included in the study which met our inclusion criteria. All of these reports were Randomized Clinical Trial (RCT) of the comparison of pregabalin with placebo. Considering the efficacy extracted from the reports, pregabalin 75 mg/day and 150 mg/day didn't have any significant efficacy in comparison with placebo thus the ICER for other treatment doses was calculated. In pregabalin 300 mg/day the ICER for domestic produced generic pregabalin was 0.27 dollar per day per pain score reduction and for imported Lyrica was 2.74 dollar per day per pain score reduction. The results for pregabalin 600 mg/day were 0.62 and 4.37 respectively. **CONCLUSIONS:** Our analysis indicated pregabalin 300 mg/day and 600 mg/day as cost effective treatments. About the inclusion of pregabalin into insurance positive list if the prescribers prefer to order pregabalin once a day (As we learned from the expert opinion) therefore only 300 mg and 600 mg dosage forms are eligible for including into the positive list.

PDB25

HBA1C TARGETS FOR PATIENTS WITH TYPE 2 DIABETES: RESULTS OF A SYSTEMATIC LITERATURE REVIEW

Nair SR, Rai MK, Goyal R, Shaikh JS, Pandit P, Shaikh S

Capita India Pvt. Ltd., Mumbai, Maharashtra, India

OBJECTIVES: To assess medical literature for an overview of the cost-effectiveness of second-line treatment strategies to achieve different target levels of HbA1c in subgroups of type 2 diabetes patients. **METHODS:** Studies are being retrieved from

Pubmed, Cochrane and HEED databases using relevant search strategies. Pre-specified inclusion/exclusion criteria will identify study types, such as randomized controlled trials (RCTs), observational and retrospective studies assessing the role of HbA1c targets in glycaemic control of type 2 diabetes patients. The outcomes of interest are HbA1c, blood glucose levels, treatment, hypoglycaemia, adherence to therapy and economic and clinical consequences of therapy. Two researchers are independently extracting the data from included studies. Clinical data from RCTs will be analysed using RevMan (5). **RESULTS:** Though there have been several trials assessing glycaemic control in type 2 diabetes in the last few years, the wealth of new evidence is useful but confusing and conflicting. This study will probably provide the much-needed evidence for glycaemic goal in different groups of type 2 diabetes patients. The study hopes to demonstrate whether there would be glycaemia-independent differences in HbA1c between ethnic groups and the evidence of time dependency of HbA1c. **CONCLUSIONS:** The data from published studies will hopefully answer some of the prevailing uncertainties regarding HbA1c targets and inform policy makers and health professionals about the existing evidence in the treatment of type 2 diabetes.

PDB26

EVIDENCE REQUIREMENTS IN AUSTRALIA FOR DRUG REIMBURSEMENT: THE SURVIVAL OF COST MINIMISATION ANALYSIS

Kim H¹, Gurrin L², Liew D³¹University of Melbourne, Parkville, Victoria, Australia, ²University of Melbourne, Carlton, Victoria, Australia, ³University of Melbourne, Australia

OBJECTIVES: Over a decade ago, Briggs and O'Brien declared the 'death' of cost-minimisation analysis (CMA). The principle of CMA, however, as described by Drummond is still being considered valid by regulators such as the Australian Pharmaceutical Benefits Advisory Committee (PBAC), which recommends which drugs should be reimbursed under the Pharmaceutical Benefits Schedule (PBS). This study sought to examine the evidence needed for drug reimbursement in Australia for diabetes drugs when presenting a CMA. **METHODS:** Current PBAC guidelines were reviewed specifically from a cost minimisation point of view. Public summary documents (which summarise PBAC deliberations) for all reimbursement decisions related to diabetes drugs over the past 5 years were extracted. Data pertaining to clinical claims, economic analyses and decision were analysed. **RESULTS:** Public summary documents were reviewed for eight diabetes drugs: insulin glulisine, insulin detemir, liraglutide pioglitazone, rosiglitazone, saxagliptin, sitagliptin, vildagliptin. Of these, five reimbursement submissions were based on CMAs, two on cost effectiveness analyses (CEA) and one on both. The CMA submissions demonstrated non-inferiority when compared to the nominated comparator either by presenting head-to-head clinical trial evidence, adjusted indirect comparisons or pooled individual patient data (IPD) analyses. All were recommended for reimbursement in Australia. Notably, budget impact of each was limited (<AU\$10 million over a 5-year period). The three CEA submissions claimed superiority of their products over the nominated comparators either in terms of efficacy or safety but none were successful. Notably, each was associated with a considerable budget impact. **CONCLUSIONS:** Far from being dead, CMA remains alive and well in Australia. The PBAC accepts CMAs on the basis of non-inferiority and perhaps also if reimbursement is associated with a limited budget impact. Acceptable evidence is not restricted to head-to-head trials, but also includes adjusted indirect comparisons as well as IPD pooled from multiple clinical trials.

PDB27

COST-UTILITY ANALYSIS OF LIRAGLUTIDE VERSUS GLIMEPIRIDE AS ADD-ON TO METFORMIN IN PATIENTS WITH TYPE 2 DIABETES IN CHINA

Gao L¹, Li SC²¹University of Newcastle, Callaghan, N.S.W., Australia, ²University of Newcastle, Callaghan, NSW, Australia

OBJECTIVES: To evaluate the long-term cost-utility of liraglutide versus glimepiride as add-on therapy to metformin in patients with Type 2 diabetes, based on the results of clinical trial conducted in Asian population. **METHODS:** The validated UKPDS Outcomes Model was used to project life expectancy, quality adjusted life years (QALYs), incidence of diabetes-related complication and cost of complications in patients receiving those regimens. Baseline cohort characteristics and treatment effects were derived from an Asian study. China-specific complication costs and utility scores were taken from local studies. Patients' outcomes were modelled for 30 years and incremental cost-effectiveness ratios (ICERs) were calculated for liraglutide compared with glimepiride from the health care system perspective. Both costs and clinical benefits were discounted at 3%. Sensitivity analyses were also performed. **RESULTS:** Over a period of 30 years, compared with glimepiride, liraglutide 1.8mg was associated with improvements in life expectancy (0.1 year) and QALY (0.168), and a reduced incidence of diabetes-related complications leading to an ICER per QALY gained of CNY 256871. Sensitivity analyses indicated that the final ICER was highly sensitive to time horizon, price of liraglutide and the effects of liraglutide in improving the systolic blood pressure and lipid profiles but insensitive to the effect of liraglutide in the reduction in HbA1c. **CONCLUSIONS:** Long-term projections indicated that liraglutide was associated with increased life expectancy, QALYs, and reduced incidences of complication comparing with glimepiride. If the 3X per capita GDP was adopted as the WTP threshold per QALY, however, the administration of liraglutide was not considered cost-effective in China, and less likely to be cost effective in most Asian developing economies (e.g., Thailand, Malaysia) than Asian developed economies (Japan, Singapore). But with a 38% reduction of our modelled acquisition cost of liraglutide (from CNY369.2 - CNY 228.02), liraglutide could be considered cost-effective in China.