costs and/or health-related quality of life. The following complications were selected: cardiovascular disease, peripheral neuropathy, renal disease, retinopathy, cataract, hypoglycemia, ketoacidosis and adverse birth outcomes. **CONCLUSIONS:** Since 2003, 281 reports of 72 studies (including many large, observational studies) have been published. These reports have substantially increased the available evidence describing complications in T1DM patients. The DCCT/EDIC studies uniquely provide long-term follow-up (now more than 23 years) of patients managed using strategies that are reasonably representative of contemporary T1DM management.

PDB20

SAFETY OF PREOPERATIVE VITAMIN D REPLACEMENT IN MILD PRIMARY HYPERPARATHYROIDISM WITH VITAMIN D DEFICIENCY: A META-ANALYSIS

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OBJECTIVES: To evaluate the safety of preoperative vitamin D replacement in mild primary hyperparathyroidism. **METHODS:** Data were searched from Medline, EMBASE, Cochrane CENTRAL and abstracts form annual scientific meetings of various international bone and mineral societies. Studies examining the effect of preoperative vitamin D replacement in patients with mild primary hyperparathyroidism (serum calcium <12 mg/dl), irrespective of year and language of the publication were included in the present meta-analysis. Data were extracted from text of the included publications or abstract of conferences. **RESULTS:** The pooled mean difference for serum calcium, phosphate, intact parathyroid hormone levels and urinary calcium excretion before and after vitamin D replacement in mild primary hyperparathyroidism were 0.06 mg/dl (95% CI, -0.11, 0.23, Z = 0.71, P = 0.48), -0.01 mg/dl (95% CI, -0.14, 0.13, Z = 0.12, P = 0.91), 17.18 pg/ml (95% CI, 1.26, 33.11, Z = 2.11, P = 0.03), -56.95 mg/24hr (-104.28, -9.62, Z = 2.36, P = 0.02)) respectively. **CONCLUSIONS:** Preoperative vitamin D replacement in subjects with mild primary hyperparathyroidism and vitamin D deficiency is safe. This meta-analysis supports the recommendation on replacement of vitamin D in subjects with primary hyperparathyroidism and vitamin D deficiency by Third international workshop on diagnosis of asymptomatic primary hyperparathyroidism.

DIABETES/ENDOCRINE DISORDERS - Cost Studies

PDB21

CHART AUDIT AND BUDGET IMPACT ANALYSIS OF PASIREOTIDE VERSUS SECOND-LINE THERAPIES IN THE TREATMENT OF CUSHING'S DISEASE IN GERMANY

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OBJECTIVES: Pasireotide is a novel, injectable multireceptor-targeted somatostatin analogue that binds with high affinity to four of the five somatostatin receptors. It has been commercially available in Europe since May 2012 and is the first pituitary-targeted medical therapy indicated for adult patients with Cushing's disease (CD) for whom surgery has failed or is not an option. This analysis aims to quantify the budget impact (BI) of utilizing pasireotide as second-line therapy in CD in Germany. **METHODS:** A thorough chart audit was conducted to analyze resource utilization and market shares of standard of care in CD. Epidemiology, treatment response complications and adverse event (AE) data were derived from published literature. Pasireotide data were taken from a Phase III clinical trial. German tariffs for each resource were then applied to an Excel-based model to compare utilization and costs with and without the introduction of pasireotide (net BI) for patients with CD over a 5-year horizon from the German health care system. **RESULTS:** Applying a CD prevalence rate of 39 per million and the treatment success of first-line therapy, fewer than 200 patients with CD are eligible for pasireotide treatment in Germany. Assuming that pasireotide in years 1–5 will have a market share of 8%, 15%, 23%, 25% and 26%, the net BI is 812,769€, 549,676€, 1,553,976€, 2,088,511€ and 2,209,948€, respectively. Budget impact is reduced by early identification of pasireotide non-responders, low cost of treating pasireotide AEs, and potential displacement of second-line surgical treatments such as bilateral adrenalectomy. Pasireotide BI may be further minimized if offsets due to lower consumption of health care resources in controlled patients are considered. **CONCLUSIONS:** The introduction of pasireotide into the German health care system will result in clinical benefits for CD patients associated with a limited and predictable BI.

PDB22

POTENTIAL BUDGET IMPACT OF LINAGLIPTIN IN FRANCE ESTIMATED FROM CURRENT PATTERN OF DIPEPTIDYL PEPTIDASE 4 INHIBITORS PRESCRIPTIONS

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OBJECTIVES: Linagliptin is a new oral hypoglycaemiant agent (OHA) from the class of dipeptidyl peptidase 4 (DPP-4) inhibitors, mostly excreted by biliary pathway, that has no contra-indication in renal impaired patients. Linagliptin in indicated for dual therapy (add on to metformin) and for triple therapy (add on to metformin and Sulfamides).". The aim of this study is to estimate the potential budget impact of linagliptin (either as mono substance or in combination with metformin) from most current DPP-4 inhibitor prescribing patterns. **METHODS:** A budget impact model was developed from a French payer perspective. The model focused on drugs and insulin administration costs. Three prescription patterns were considered for linagliptin treatment initiation: substitution without treatment intensification, substitution with treatment intensification and initiation in naïve patients. Treatment initiation data were obtained via retrospective analysis of 2011 prescribing data from the Thales database. DPP-4 inhibitors latest entrants (saxagliptin/vildagliptin-metformin combinations) were used as benchmark for linagliptin. For analysis purpose, the daily cost of linagliptin was assumed at market average (1.19€/day exfactory). **RESULTS:** Considering a virtual cohort of 10,000 patients treated with linagliptin (mono or combination with metformin), the whole treatment cost over 5 years would be 21,717 k€ compared with 18,996 k€ for a cohort of the same size treated with current alternatives. Benefits were observed among patients receiving triple therapy mainly because of competition with substitution of more expensive drugs such as GLP1 analogues and insulins. Sensitivity analysis showed that deploying the "add on to insulin indication" could reduce the budget impact up to 8 %. **CONCLUSIONS:** The estimated budget impact of linagliptin will be close to neutrality, as around 87.5 % of linagliptin costs are already offset by substitutions, based on conservative assumptions.

PDB23

ECONOMIC IMPACT OF ANALOGUE INSULIN ON HEALTH EXPENDITURE AT THE MEXICAN INSTITUTE OF SOCIAL SECURITY IN 2012. AN EXPENDITURE REDUCTION PROPOSAL

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OBJECTIVES: To measure the economic impact of insulin analogues, and its partial substitution by human insulin on the Mexican Institute of Social Security (IMSS) health expenditure **METHODS:** Considering similar efficacy in both types of insulin, a retrospective analysis on the supply department of the Administrative Directorate database, at the IMSS, was conducted. The consumed volume during 2011 was identified; all types of insulin included in the IMSS formulary were incorporated to the analysis. The information gathered was stratified by analogue and human insulin. The share in volume and monetary values was established for all insulin at the institutional market. The information was traspolated to 2012 prices. The impact on the expenditure was analyzed when analogue insulin was substituted by human insulin in 25 and 50%. Potential savings for the IMSS were obtained if analogue insulin consumption is reduced by substituting it with human insulin. An exchange rate of 14 MXN to 1 USD updated to May the 30, 2012 was considered **RESULTS:** The IMSS total expense in insulin in 2011 reached $41,281,671.26 USD, 76.3% was expend on analogue insulin whilst it only represented 19.3% of all insulin purchased in 2011. The information transpolated to 2012 prices, showed $43,208,169.84 USD or an increase by 4.6% in expenditure considering the same institutional insulin market share. Substituting 25% of the volume of analogue insulin with human insulin may lead to savings in $7,971,446.06 USD equivalent to 18.4% of the expected expenditure for 2012, meanwhile substituting 50% of the volume of analogue insulin with human insulin leads to potentials savings by $15,942,892.11 USD, equivalent to 36.9% of the expected expenditure for 2012 **CONCLUSIONS:** Substituting analogue insulin by human insulin in 50% is associated to a drop in 36.9% in the total insulin expenditure at the IMSS not affecting health outcomes in diabetic patients

PDB24

COST ANALYSIS OF ADDING PREGABALIN OR GABAPENTIN TO USUAL CARE IN THE MANAGEMENT OF COMMUNITY-TREATED PATIENTS WITH PAINFUL DIABETES PERIPHERAL NEUROPATHY IN SPAIN

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OBJECTIVES: To compare health care resources utilization and corresponding costs in adults patients with painful Diabetes Peripheral Neuropathy (pDPN) who initiated treatment with pregabalin or gabapentin as an add-on therapy to usual care in Spanish daily medical practice setting. **METHODS:** A retrospective database study was designed including systematically all medical records of adult patients, with pDPN (ICD-9-CM codes; 250.6-357.2), both gender, who were covered by the BSA health plan in years 2006-2009, and that initiated treatment with pregabalin or gabapentin as an add-on therapy for the first time. Socio-demographics, co-morbidity burden index, treatment duration, all type health care resources and days off-work due to pDPN were assessed. Societal perspective was applied in estimating costs. Comparisons of costs were adjusted by age, sex and the Charlson index of co-morbidity. **RESULTS:** A total of 395 medical records were eligible for analysis: 227 (57.5%) with pregabalin and 168 (42.5%) with gabapentin. No significant differences were observed in previous exposition to analgesics: pregabalin 2.7 (1.9) drugs; gabapentin 2.6 (1.9), $p>0.05$. However, concomitant use of analgesics was higher in gabapentin cohort; 3.9 (2.2) vs. 3.1 (2.1); $p<0.05$, mainly due to a higher utilization of non-narcotics (78.0% vs. 71.8%; $p<0.05$) and opioids (32.7% vs. 28.6%; $p<0.05$). Health care costs accounted for the 59.2% of total cost, with a mean cost per patient of €2,476. Adjusted mean (95% CI) total costs were significantly lower in patients receiving pregabalin [€2,003 (1,427-2,579)] compared with those treated with gabapentin [€3,127 (2,463-3,790)], $p=0.013$, mainly due to lower health care costs; €1,312 (1,192-1,432) versus €1,675 (1,537-1,814), respectively ($p<0.001$). Less use of concomitant analgesics, medical visits and days off-work accounted for such findings. **CONCLUSIONS:** Treatment of pDPN patients with pregabalin add-on to usual care could be a cost-saving alternative from the societal perspective when compared with gabapentin in real world settings in Spain.

PDB25

EVALUATION OF HEALTH CARE COST OF DIABETES BEFORE AND AFTER COUNSELING IN SOUTH INDIAN COMMUNITY SETUP

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