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Objectives: This real-world study aimed to assess physicians' adherence to the 2017 Hellenic Diabetes Association (HDA) Patient Follow-up Protocol (PFP), listing 62 items that should be part of the patients' medical history and clinical and laboratory evaluations for optimal diabetes management. ***Methods:*** This cross-sectional study enrolled type 2 diabetes mellitus (T2DM) adult patients, with ≥2 glycated hemoglobin (HbA1c) measurements in the past year, and an HbA1c target <7%, who were receiving only oral hypoglycaemic agents (OHA) for ≥1 year. The overall adherence score, for each patient, was defined as the percent of the total PFP items documented in patients' medical records during the past year. ***Results:*** Between 27-Jun-2018 and 20-Dec-2018, 601 eligible patients (all Caucasian; 54.6% males; mean age: 65.2±10.3 years) were enrolled by 53 hospital- and office-based endocrinologists, internists and general practitioners. At enrollment, the patients' median T2DM and OHA treatment duration were 5.9 and 3.8 years, respectively; the median HbA1c was 6.4%; and 96.5% had ≥1 medical condition/comorbidity. OHAs mainly included metformin (91.0%), dipeptidyl peptidase-4 inhibitors (60.7%), and sodium-glucose co-transporter-2 inhibitors (23.5%). The HbA1c, low-density lipoprotein cholesterol, systolic/diastolic blood pressure, and composite metabolic target attainment rates at enrollment, were 82.1% (363/442), 57.0% (174/305), 42.6% (223/524), and 21.6% (58/268), respectively. Mean physician overall adherence to the PFP was 43.6% (95%CI: 42.3-45.0). Mean adherence to the "Laboratory Evaluation", "Complete Medical History", and "Physical Examination" PFP domains was 48.3%, 45.5%, and 31.2%, respectively. Overall adherence was greater for females, patients with >3 medical conditions/comorbidities, and those with diabetic complications [mean differences by multivariable linear regression: 3.16% (p=0.026); 3.34% (p=0.043); and 7.93% (p<0.001), respectively]; differences were also noted between physician specialties. ***Conclusions:*** In routine care, physician adherence to the Hellenic T2DM PFP is suboptimal. Glycaemic and composite metabolic targets were achieved by more than three-quarters and less than one-quarter of patients, respectively.

PDB129
PRIMARY AND SECONDARY HEALTHCARE RESOURCE USE AND ASSOCIATED COSTS IN PEOPLE WITH HEPATIC ENCEPHALOPATHY IN ENGLAND

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Objectives: The purpose of this research was to estimate primary and secondary healthcare resource use and associated costs in people with hepatic encephalopathy (HE) using data from the Clinical Practice Research Datalink (CPRD) linked to Hospital Episodes Statistics (HES). ***Methods:*** The study used primary care data from the CPRD and linked inpatient data from the HES for England. Linkage-eligible patients with a recorded diagnosis indicative of cirrhosis between 1998 and 2012, a diagnosis of HE, no prescription for rifaximin-α, and ≥1 day's follow-up were selected. Patients' primary care consultations were assigned a cost per consultation as listed in the Unit Costs of Health and Social Care 2012. Prescriptions were assigned a net ingredient cost per prescription from the Prescription Cost Analysis for England 2012. Inpatient admissions were assigned a healthcare resource group (HRG) and linked to the 2012/13 National Health Service National Tariff. ***Results:*** 276 patients were identified (61% male; median age 57.5 years) in the data source. Patients received 68.7 prescriptions, 14.8 primary care contacts and 3.0 inpatient admissions per person-year (ppy), with corresponding costs of £935, £536 and £8,029 ppy, respectively. ***Conclusions:*** Patients with HE were frequent users of primary and secondary healthcare resources, incurring substantial financial costs, the greatest proportion of which were attributable to inpatient care. To our knowledge, this study is the first to use detailed costing methods to provide primary and secondary healthcare costs in people with HE in England.

PDB130
ECONOMIC BURDEN OF CYSTIC FIBROSIS TRANSMEMBRANE CONDUCTANCE REGULATOR (CFTR) MODULATOR THERAPIES: ANALYSIS OF NATIONAL SPECIALTY PHARMACY DATABASE

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Objectives: The introduction of novel CFTR modulator therapies (ivacaftor, lumacaftor/ivacaftor and tezacaftor/ivacaftor) is associated with a significant economic burden as the annual wholesale acquisition costs (WAC) per patient range from $270,000- $310,000. The study objectives were to analyze the trends associated with the utilization of CFTR modulator therapies in terms of: (i) patient co-pay based on the insurance characteristics, and (ii) the annual spending of the specialty pharmacy. ***Methods:*** A retrospective study was conducted using prescription refill data from a national specialty pharmacy database. The number of prescriptions, insurance characteristics, and patient co-pays were extracted from January 2015 till August 2018. The drug costs from 2018 Red Book (WAC per package) and the number of prescriptions from the database were utilized to calculate the total spending of the specialty pharmacy. Patient co-pays were extracted and adjusted to 2018 dollar value. Statistical analyses were conducted using Statistical Analysis System University Edition (SAS Institute; Cary, NC). ***Results:*** A total of 4,444 patients contributed to 57,960 refills of CFTR modulator therapies from 2015 to 2018. A majority of the refills (62.95%) were for patients with only primary insurance whereas 37.05% of refills were for patients with both primary and secondary insurances. There was a non-linear trend in patient co-pays with a high of $312.70 (2018) and a low of $182.05 (2016). Patients on primary government insurance had a lower co-pay ($0-$40) compared to those on commercial insurance ($20-$310). The annual spending from 2015 to 2018 for ivacaftor/lumacaftor increased from $67.42 million (n=3,223) to $183.31 million (n=8,763) and for ivacaftor from $103.87 million (n=4,347) to $114.55 million (n=4,794). The 2018 spending for tezacaftor/ivacaftor was $86.06 million (n=3,842). ***Conclusions:*** There seems to be a substantial economic burden of CFTR modulator therapies on patients and an increasing trend in the spending of the specialty pharmacy for these novel drug therapies.

PDB131
THE REAL-WORLD DOSE DIFFERENCES OF INSULIN GLARGINE 300 U/ML IN FINLAND

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Objectives: Randomized clinical trials have suggested dose differences between basal insulins. In real-world, however, various factors may impact dose requirements and therefore the economic burden between basal insulin analogues. This study aimed to assess, how the real-world relative insulin doses change after switching basal insulin to insulin glargine 300 U/ml (Gla-300). ***Methods:*** The data on purchased insulin doses was obtained from the Finnish national reimbursement registry. Population consisted of 12 549 patients with type 1 and type 2 diabetes who started or switched to Gla-300 in 2016. The insulin purchases were retrospectively observed for 6 and 12 months after the initiation of Gla-300, and analysed for basal insulin therapy preceding Gla-300 and type of diabetes. Real-world dose differences were compared with those of insulin glargine 100 U/ml (Gla-100) and insulin detemir. ***Results:*** In all patients who switched (n=6 131), the 6 month/12 month dose difference between Gla-300 and Gla-100 was 3 %/0 %, and between Gla-300 and insulin detemir -11/-16 %, respectively. The dose difference between Gla-300 and Gla-100 after 6 month/12 month follow-up was -1 %/-6 % in patients with type 1 and 4 %/1 % in type 2 diabetes, respectively. The dose difference between insulin Gla-300 and insulin detemir, after 6 month/12 month follow-up was -15 %/-20 % in patients with type 1 and -11 %/-15 % in type 2 diabetes, respectively. ***Conclusions:*** In this real-life study, negligible differences were seen between Gla-300 and Gla-100. Gla-300 doses were lower than insulin detemir. This study provides the decision makers supplementary information to clinical trial data which could be utilised in the assessment of the drug prices and future treatment costs between basal insulins.

Diabetes/Endocrine/Metabolic Disorders - Economic Evaluation

PDB132
COST-EFFECTIVENESS OF THROMBOLYSIS WITH ALTEPLASE IN PATIENTS WITH ACUTE ISCHEMIC STROKE IN SLOVAKIA

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Objectives: Systemic intravenous thrombolysis (SIT) is considered to be a gold standard for the treatment of ischemic stroke (IS) up to 4.5 hours from the onset of symptoms. The objective of the study is to estimate cost-effectiveness of SIT with alteplase in comparison with strategy without SIT in the population of IS patients in Slovak setting. ***Methods:*** The cost-utility analysis was carried out from the payer perspective in lifetime horizon. A global Markov model with three health states (patient with/without disability, dead) was adapted to local conditions. The outcomes assessed were life years (LY), QALY, costs and ICUR. Population data for local adaptation was taken from the national authorities. Data on transition probabilities between health states when no SIT is applied (reference arm) came from Lothian stroke registry and relative risks of death and/or disability were taken from meta-analysis. Cost of alteplase came from official list of medicines prices and costs for health states were taken from local sources. A 5% discount rate was applied to QALYs and cost. ***Results:*** In an IS patient lifetime horizon, application of SIT within 4.5 hours was associated with higher LY (undiscounted LY increment: 0.305), QALY gain (discounted QALY increment: 0.267) and slightly higher costs (discounted increment: 719 €) yielding an ICUR of 2,696 €/QALY. ***Conclusions:*** SIT is associated with better clinical outcomes of IS patients while being highly cost-effective treatment strategy in Slovak setting.