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improve quality of life of diabetic patients. In this study, the attitudes of expert physicians regarding the value of innovative glucose self-monitoring technologies in Greece were investigated. Methods: Two Advisory Boards (AdB) were set up by Key Opinion Leaders-KOLs (from Academia, National Health System Hospitals and Private Sector): the first consisted of Internists/ Diabetologists (N = 12) and the second consisted of Endocrinologists/Pediatricians (N = 11). Participants were asked to complete a structured questionnaire developed by experts on health services research, in which answers were given through a five-point Likert scale. A common data analysis (taken into consideration both internists/ diabetologists and endocrinologists/pediatricians answers) was conducted using the SPSS20. Results: The vast majority of participants (98%) recognized the importance of innovative self-monitoring technologies for the effective management of diabetes mellitus (DM) and was willing to use them in their clinical practice. In particular, 96% of physicians considered as quite/very important the Ambulatory Glucose Profile (AGP) report provided by the FGM technology. Moreover, participants reported that FGM technology contributes to reducing fluctuations in glucose levels (100%), increasing the time in range (TIR) and reducing the time in hypoglycemia (96% of participants). Additionally, the majority of physicians (87%) stated that FGM technology contributes to achieving savings by reducing complications. Thus, 84% of physicians considered FGM technology should be reimbursed for patients with DM2, in addition to patients with DM1. However, participants highlighted the need for further development and improvements of FGM technology (e.g. measurement accuracy at off charts values). Conclusions: The vast majority of participants considered the FGM technology as of high value and consequently recommended its coverage by social security schemes for patients with DM.

Diabetes/Endocrine/Metabolic Disorders - Health Service Delivery & Process of Care

PDB25
THE MEDICAL HOMES INITIATIVE IN ITALY: AN ANALYSIS OF PROCESSES OF CARE IN DIABETES
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Objectives: To evaluate changes in the performance of guideline-based diabetes processes of care associated with the implementation of medical homes (MHs) in the Local Health Authority (LHA) of Parma, Emilia-Romagna, Italy. Methods: We conducted a retrospective cohort study (01/01/2011-12/31/2017) using the Parma LHA administrative healthcare database to examine changes in diabetes care processes (HbA1c, lipids, creatinine, microalbumin, eye exams, and electrocardiogram (EGC)) associated with MH implementation. Included patients had diabetes, lived in Parma 1 year, were ≥14 years of age, and had a documented primary care physician (PCP). Exposure to MH care was time-varying and operationalized using three levels (non-MH, pre-MH, and post-MH) to adjust for potential physician selection into MHs. Each day of follow-up was classified as compliant or not compliant with recommended screening intervals. Negative binomial regression models were used to estimate adjusted compliance ratios for each measure. Results: Over 7 years, the study followed 49,039 patients and of 163,900 person-years of follow-up, 22% were exposed to MHs. When comparing pre-MH versus non-MH, pre-MH individuals had higher rates of compliance with HbA1c [IRR=1.05 95% CI (1.04, 1.07)], microalbumin [IRR=1.18 95% CI (1.15, 1.20)], and eye exams [IRR=1.05 95% CI (1.04, 1.06)]. Patients in the post-MH versus non-MH group had higher rates of compliance with all 6 measures. Comparing post-MH and pre-MH, post-MH was associated with higher rates of compliance with HbA1c [IRR=1.02 95% CI (1.01, 1.03)], lipid panels [IRR=1.08 95% CI (1.07, 1.09)], creatinine [IRR=1.13 95% CI (1.10, 1.12)], and ECG [IRR=1.16 95% CI (1.14, 1.18)], but lower rates of microalbumin testing and eye examinations. Conclusions: Accounting for pre-existing differences, patients with diabetes who were cared for in a PCP in a MH had higher rates of compliance with several diabetes care processes. These findings suggest that implementing the medical home model may improve microvascular and macrovascular outcomes for these patients.

PDB26
APPLYING THE STAGES OF IMPLEMENTATION COMPLETION (SIC) FRAMEWORK RETROSPECTIVELY TO A COMMUNITY PHARMACY CLINICAL INTERVENTION IMPLEMENTATION PROJECT FOR SCALING UP FUTURE SUCCESS
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Objectives: The objective of this retrospective assessment of the implementation process of a clinical intervention, in a community pharmacy was to understand pharmacists’ perceptions of a prospective registry and practice implementation tool for diabetes care, RING, using the Stages of Implementation Completion (SIC) framework. Methods: Data was collected via two mechanisms. First, using the SIC phases and stages as a guide to evaluate the overall involvement of each of the participating community pharmacies. Second, in-depth semi-structured interviews with participating community pharmacists. Data was analyzed using qualitative content analysis. Results: Analysis revealed that pharmacists participants engaged in many, but not all the stages and phases of the SIC. In relation to the pre-implementation phase, participants expressed the desire to demonstrate the value of pharmacists’ care to improve patient outcomes. Feasibility related responses focused on suitability of the work environments. With regards to the implementation stage, participants mentioned that often the pharmacy manager or owner received the training and replicating the RING tool. Finally, barriers and facilitators relating to patient recruitment and follow-up. Most pharmacies did not have specific goals relating to patient recruitment. Regarding the consultation stage, participants expressed finding the online document processing time-consuming. Finally, participants expressed ongoing frustrations with both enrolling patients and getting them to attend follow up appointments. Most participants felt that they had not reached the sustainability phase as defined by the SIC. Conclusions: The retrospective application of the SIC framework to the community pharmacy-based registry identified several key factors that should be considered when designing implementation strategies for community pharmacy clinical services. Providing assistance and training to pharmacies on-site, specific planning for program roll out, identifying participating staff that have the time to engage with the program, as well as tracking how to best integrate programs in normal workflow processes are some key recommendations.

PDB27
AN EVALUATION OF THE USE OF PSYCHOTROPIC AGENTS AMONG ADULTS 65 YEARS OR OLDER WITH TYPE 2 DIABETES
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Objectives: Type 2 diabetes is comorbid with several mental health conditions such as depression, anxiety, epilepsy, and psychosis. The rising trend in psychiatric medications use in patients with type 2 diabetes is concerning as it puts them at risk for drug interactions and worsening of their conditions. The objective of this study was to evaluate the prevalence of psychotropic agent use among adults aged 65 or older with type 2 diabetes, and to examine their use by sociodemographic and select clinical parameters. Methods: Secondary data analyses were conducted using the cross-sectional National Health and Nutrition Examination Survey (NHANES) spanning three cohorts from 2013-2018. The inclusion criteria consisted of adults 65 years or older with type 2 diabetes. The exposure was defined as psychotropic medications use of either opioids, antidepressants, antiepileptics, anxiolytics, or antidepressants within 30 days of the survey interview. Our predictors included sociodemographic information, biometrics and biomarkers. We used the chi-square and independent t-tests to assess association between psychotropic medications and categorical and continuous predictors, respectively. All estimates have been adjusted for complex sampling design and are nationally representative. Results: We found that 10.9% of participants were on any psychotropic medication, and opioids were the most widely used psychotropic agent (5.7%). We found statistical significance for the associations between psychotropic use and gender, race, prescription coverage, Medicare coverage status and uncontrolled HbA1c level (p<0.05). The highest prevalence of use was among females (16%), non-Hispanic whites (12.9%), and those with Medicare (12.0%) and prescription coverage (12.0%). Conclusions: This is the first study to examine the use of psychotropic agents in individuals aged 65 and above with type 2 diabetes. The differences observed in psychotropic use are useful in increasing awareness in the practice of physicians and clinical pharmacists in planning clinical and educational interventions for patients 65 years and older with type 2 diabetes.

PDB28
INNOVATIVE APPLICATION OF A MOBILE APP FOR GESTATIONAL DIABETES HEALTH EDUCATION IN THE ERA OF THE COVID-19 PANDEMIC AND BIG DATA
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Objectives: In the integrated management of gestational diabetes mellitus (GDM), health education plays an important role and directly affects patients’ blood glucose level control, pregnancies, and neonatal outcomes. The rapid growth of the internet health education plays an important role and directly affects patients’ blood glucose level control, pregnancies, and neonatal outcomes. The rapid growth of the internet has ushered in an era of big data and the natural use of information, namely, due to the COVID-19 epidemic, onsite education has been forced to adapt to online programs, including the health education of GDM. Methods: We developed an innovative mobile application (app) that combines a teaching model of the flipped classroom and GDM management, which allows pregnant women to learn knowledge about GDM and prevent GDM to a certain degree. It turns passive learners into
active learners, leads them to preview before class, and takes the lead in the classroom, mobilizing learners’ enthusiasm to achieve good teaching results. Results: The implementation of the online gestational diabetes flipped classroom is an innovative attempt in this field. The described approach is especially relevant in the context of the ongoing global pandemic, accelerates knowledge transfer, improves patients’ learning motivation, has a health promotion effect, and boosts patients’ self-management efficiency. This app can overcome the treatment barriers for those patients that cannot go to the hospital, enhance health promotion efforts, and improve CDM management. Mobile healthcare promotes doctor-patient interaction, facilitates the monitoring of and feedback on conditions, and facilitates the adjustment of patient treatment plans. Conclusions: This model of combining gestational diabetes health education with a mobile app is an exemplary approach now, and it can be promoted to other disciplines.

PDB29  
MEDICATION NON-ADHERENCE AND HEALTH LITERACY AMONG MEDICARE BENEFICIARIES WITH TYPE 2 DIABETES  
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Objectives: Medication non-adherence can lead to poor glycemic control and worsen health outcomes for individuals with diabetes. Evidence on the impact of health literacy on medication non-adherence is sparse. We examined the relationship between health literacy and medication non-adherence among Medicare beneficiaries with type 2 diabetes. Methods: We analyzed the 2018 Medicare Current Beneficiary Survey Public Use File, a nationally representative sample comprised of Medicare beneficiaries aged ≥65 years with reported type 2 diabetes (n=919). Medication non-adherence (outcome variable) was constructed as binary, and three main independent variables were recoded and created as follows: (1) whether the Medicare prescription drug benefit was easy/difficult to understand (binary); (2) whether providers gave instructions on how to take care of one’s health (binary); and (3) whether providers provided medication-related information (categorical). The third variable contained 4 categories and measured whether medical providers talked with beneficiaries about how to take medication and what to do with adverse reactions. A survey-weighted logistic model, adjusted for socio-demographics and co-morbidities, was performed to examine associations between medication non-adherence and the three variables. Results: Approximately 19.6% (n=150) of Medicare beneficiaries reported medication non-adherence. Beneficiaries who reported they easily understood the prescription drug benefit were less likely to report non-adherence, compared to their counterparts (odds ratio [OR]=0.31, p<0.001). Beneficiaries who reported providers gave instructions on how to take care of one’s health were not significantly associated with medication non-adherence. Beneficiaries who reported providers talked to them about how to take medication and what to do with adverse reactions were less likely to report medication non-adherence, compared to those who reported providers did not talk about both information (OR=0.46, p=0.028). Conclusions: Improved comprehension of medication literacy may improve medication non-adherence among Medicare beneficiaries with type 2 diabetes. Healthcare providers could play a critical role in helping this at-risk population.

PDB30  
CALCIMIMETIC USE IN UNITED STATES (US) HEMODIALYSIS FACILITIES IN FIRST TWO YEARS AFTER LAUNCH OF ETELCALCETIDE  
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Objectives: This study described control of parathyroid hormone (PTH), and corresponding corrected calcium (Ca) and phosphorous in adults initiating calcimimetics in 2018 in small dialysis organizations after the introduction of etelcalcetide. Methods: This retrospective study using Visine® Clarity electronic health records between 10/1/2017 and 12/31/2019 identified adults ≥18 years of age receiving in-center hemodialysis as either a cinacalcet or etelcalcetide initiate based on their first calcimimetic use in 2018 (index date) with no prior calcimimetic use in the 3 months pre-index date. Patients were stratified by PTH at baseline and were followed for 15 months from index date. Sub-groups of patients on treatment persistence for a single calcimimetic for a month and 2 of patients who switched from cinacalcet to etelcalcetide were also analyzed. Results: 677 patients initiated cinacalcet and 711 initiated etelcalcetide. Mean PTH (pg/mL), phosphorus and Ca (mg/dL) at baseline were: 54.9 and 5.9 for cinacalcet and 804.5 and 5.9 for etelcalcetide. Over 15 months of follow-up the proportion of initiators with baseline PTH 600–800 considered “in-target” (monthly average PTH ≤600) increased from 48% to 62% with cinacalcet and from 56% to 86% with etelcalcetide; among those PTH >1000, the proportion increased from 30% to 64% with cinacalcet and 31% to 59% with etelcalcetide; and among those with baseline PTH ≥1000 this proportion increased from 14% to 41% with cinacalcet and 12% to 58% with etelcalcetide. A similar pattern was observed for persistent users (n=464). For patients switching from cinacalcet to etelcalcetide (n=183), the proportion of patients considered “in-target” increased from 22% in the month prior to switch to 51% in month 6 post-switch. Conclusions: Patients initiating calcimimetics at higher baseline PTH had poorer biomarker control than patients starting at lower PTH. Patients switched from cinacalcet to etelcalcetide had improvements in PTH control post-switch.

Diabetes/Endocrine/Metabolic Disorders - Medical Technologies

PDB32  
INTEGRATION OF PATIENT-REPORTED OUTCOME MEASURES IN THE EVALUATION OF DIGITAL HEALTH SOLUTIONS: RESEARCH IN DIABETES  
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Objectives: Although the field of Digital Health Solutions (DHS) for improving outcomes in diabetes has evolved rapidly over the last 20 years, there are still significant challenges in generating relevant evidence and demonstrating the value such solutions bring to patients and the overall health-care value chain. Research was conducted to review guidelines from national health authorities regarding patient outcomes to consider in the evaluation of DHS and to determine if existing Patient-Reported Outcome Measures (PROMs) are adequate tools for assessing the value of DHS. Methods: Guidelines for evaluating DHS from national health authorities in France, the UK, and the US (FDA) were reviewed. Conclusions: Recommended patient outcomes were retrieved, as well as the role of PROMs in assessing them. In addition, a list of PROMs used in diabetes care was identified from the ProGold database, Clinicaltrials.gov and PubMed. Each instrument was evaluated on multiple attributes, including previous use in assessing DHS, and classified by patient value domain. Results: Five guidelines were reviewed identifying 12 domains of patient outcomes. Most guidelines focused on a particular type of DHS and there was no consensus across guidelines on patient outcomes. Nevertheless, all health authorities recognize PROMs as important tools to demonstrate the value of DHS. Overall, 62 PROMs were identified (46 diabetes-specific and 16 non-diabetes-specific) in the literature. There was a clear alignment between some of the outcomes covered in both the guidelines and PROMs, such as satisfaction, empowerment, medication literacy, adherence, and quality of life. However, some patient outcomes in the guidelines were poorly covered by (existing) PROMs, such as engagement, autonomy in daily life, coping strategies and reduction of effort.

Conclusions: It is urgent to develop frameworks aiming at integrating relevant domains of patient value in the evaluation of DHS to ensure alignment across national jurisdictions in reimbursement processes.

Diabetes/Endocrine/Metabolic Disorders - Methodological & Statistical Research

PDB33  
USING THE PRIME TYPE 2 DIABETES MODEL TO COMPARE MODELS OF RENAL FAILURE  
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Objectives: Rates of renal failure are substantially higher in patients with type 2 diabetes (T2D) than the general population. Given the considerable cost and quality of life implications associated with renal replacement therapies, accurate modeling of renal failure is critical in the evaluation of the cost-effectiveness of novel T2D interventions. The aim of the present study was to compare renal failure projections from the widely-used United Kingdom Prospective Diabetes Outcomes Model 2 (UKPDS OM2) and a novel estimated glomerular filtration rate (eGFR) threshold-based model. Methods: The PRIME T2D Model, a high-performance web-based simulation model of T2D, was used to project renal failure incidence over patient lifetimes using the UKPDS OM2 exponential renal failure risk equation, and a novel renal failure model based on a 15 ml/min/1.73 m2 eGFR renal failure threshold combined with an eGFR decline model based on a prospective study of 1,682 patients with T2D. Baseline characteristics were taken from the UKPDS, with a mean baseline eGFR of 77.5 ml/min/1.73 m2 (standard deviation 15 ml/min/1.73 m2). Results: Over a 50 year time horizon, the cumulative incidence of renal failure was 17.8% with the UKPDS OM2 versus 13.4% with the eGFR threshold-based model. Mean time to onset of renal failure differed substantially between the models with areas under the curves (AUCs) of 6.6 years with the UKPDS OM2 model versus 1.4 years with the eGFR threshold-based model, arising from much later renal failure onset with the eGFR threshold-based model. Conclusions: Renal failure models not based exclusively on eGFR can make renal failure incidence projections that are incongruous with the underlying risk factor trajectories, which can have important implications for quality of life and survival estimation. The PRIME T2D Model supports multiple renal failure modeling options, including a flexible eGFR threshold-based model that enforces congruity between eGFR and renal failure incidence.