by first screening titles and abstracts and then by reading full-text versions. The data extracted from the studies included setting, intervention, patient group, type of telemedicine, clinical effect, patient perception, and implementation challenges. The value of each study was also assessed with respect to effectiveness.
Results. A total of 510 articles were selected for data extraction and assessment. The database provides results from 22 different specialties and can be searched using the criteria of medical specialty, country, technology, clinical effect, patient experience, and economic effect. The database serves as an information platform for clinical departments who wish to implement telemedicine services. It has great potential for supporting digital transformation during COVID-19 by providing accessible evidence-based information on patient groups and relevant technologies and their effects. More than 95 percent of the studies in the database that compared telemedicine with a control group showed either statistically significant improvements in clinical outcomes with telemedicine or no statistically significant difference between the two groups.
Conclusions. The TELEMED database provides an easily accessible overview of existing evidence-based telemedicine services. The database is freely available and is expected to be continuously improved and broadened over time.

PP77 Safety, Effectiveness, And Cost Effectiveness Of Telemedicine In Neurological Diseases

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Introduction. Telemedicine has been introduced in health services, but uncertainties about the real value of this strategy in the management of neurological diseases remain.
Methods. A systematic review was undertaken of available scientific literature on the safety, effectiveness, and cost effectiveness of telemedicine combined with in-person visits, compared with usual care, for the treatment and follow-up assessment of patients with neurological diseases. The overall effect size for each neurological disease was estimated using meta-analysis. An economic analysis was performed from the societal and Spanish healthcare system perspectives.
Results. Two economic studies were included for cost effectiveness and 25 randomized controlled trails (n=8,976 patients) were included for the effectiveness and safety assessment (11 on cerebrovascular diseases, four on Parkinson's disease, three on multiple sclerosis, two on epilepsy, and one each on brain damage, dementia, spina bifida, migraine, and cerebral palsy). The types of telemedicine evaluated included: virtual visits (11 studies); telerehabilitation (seven studies); telephone calls (three studies); smartphone apps (two studies); and online software for computers (two studies). Subgroup analysis by type of telemedicine indicated no discernible effect for telemedicine combined with in-person visits on most of the outcomes analyzed for the various neurological diseases. Given the heterogeneity of diseases, types of telemedicine, and the results observed, a cost-minimization analysis was conducted. Combining telemedicine with in-person visits would cost EUR 2.55 per patient from the perspective of the healthcare system, but it would result in cost savings (EUR 27.34 per patient) from the societal perspective.
Conclusions. The safety and effectiveness of combining in-person visits with telemedicine was similar to that of usual care, but it could be a cost-saving strategy in Spain from a societal perspective.

PP78 Effectiveness And Safety Of The FreeStyle Libre® Glucose Monitoring System For T1DM In Childhood And Adolescence

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Introduction. FreeStyle Libre System (FSL) is a minimally invasive technology, which provides frequent information about interstitial glucose levels, which allows adjustment of insulin dose and a reduction in the number of fingersticks. This study aims to evaluate the effectiveness and safety of FSL in childhood and adolescence.
Methods. Prospective case series in 27 Spanish hospitals. Patients aged 4-17 years with type 1 diabetes mellitus (T1DM) were included. Follow-up was done at 3, 6 and 12 months after starting to use the FSL. Outcome measures were HbA1c levels, acute complications of DM (severe hypoglycemia, ketoacidosis), DM knowledge, health-related quality of life, satisfaction and adverse effects. Biochemical glycemic outcomes (e.g., glycemic variability, time in therapeutic range) were available from 3 to 12 months. Mixed regression models with repeated time measurements were implemented.
Results. The mean age of patients was 12.6 years, with 56.4 percent had HbA1c values above 7.5 percent at baseline. This subgroup significantly improved their HbA1c levels at 3, 6 and 12 months (-0.46%, -0.44% and -0.35%, respectively). Patients with controlled HbA1c levels significantly worsened at 12 months (0.29%). There was a significant reduction in severe hypoglycemic episodes, but only in the multiple imputation analysis. In patients controlled at baseline, there were significant reductions between 3 and 12 months in the percentage of time under 55mg/dl (-0.64%), above 250mg/dl (-1.8%) and glycemic variability (-2.6%). In uncontrolled patients, there was a significant reduction in time above 250mg/dl (-5.8%) between 3 and 12 months follow-up. There was no significant improvement in knowledge about disease, although general self-perceived health

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worsened and general satisfaction improved. Mild adverse events such as skin reactions (14%) and discomfort or pain (11.3%) with no significant reductions in follow-up were recorded.
Conclusions. The use of FSL in childhood and adolescence with T1DM produces a significant reduction in HbA1c levels in patients with uncontrolled HbA1c levels along with a reduction in severe hypoglycemic episodes (in the multiple imputation analysis). FSL-related adverse effects are considered mild.

PP79 Use Of Vagus Nerve Stimulation Therapy In Treatment-Resistant Depression

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Introduction. Major depressive disorder (MDD) severely limits a person's psychosocial functioning and reduces quality of life. According to world statistics, about 3.8 percent of the population, or about 280 million people, suffer from depression. Approximately one-third of patients with MDD have treatment-resistant depression (TRD). Meanwhile, Vagus Nerve Stimulation (VNS) therapy was approved by the US Food and Drug Administration and received CE marking in Europe for the treatment of chronic or recurrent depression in the early 2000s. The aim of this analysis is to determine the impact of VNS use in the treatment of TRD.
Methods. A comprehensive literature search was performed in MEDLINE/PubMed and Google Scholar databases in order to estimate the clinical effectiveness of neurostimulator implantation for treatment of TRD. The main assessment methods were the Hamilton Rating Scale for Depression, the Montgomery-Asberg Depression Rating Scale and the Beck Depression Inventory.
Results. In total, 6 systematic reviews with meta-analyses on the effectiveness of VNS in TRD were studied. The identified meta-analyses did not report any statistically significant differences in treatment outcomes favoring VNS compared to placebo and treatment as usual (TAU). However, the results of two studies demonstrate its positive clinical effect in the form of additional treatment to the TAU with longer follow-up period. An improvement in the clinical response is observed on average after 12 months as a decrease of about 50 percent in the initial estimates of depression.
Conclusions. Despite the lack of clinical evidence of the benefits of treating depression, VNS therapy should be used as a standard adjunct treatment to antidepressants or other treatments for people with TRD. Many studies tend to suggest that the efficacy and safety of VNC in depression is still unclear, and additional further research is still needed to establish clinically significant effects.

PP81 Barriers To Implementation Of Health Technology Assessment

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Introduction. The transition from the budget model of the healthcare system to compulsory social health insurance has created a competitive environment among hospitals in Kazakhstan. Managers are interested in introducing the most effective new technologies. Implementation of the health technology assessment (HTA) process in Kazakhstan began in 2010 but few managers have created a structure for HTA development in their hospitals. Our aim was to identify issues in the implementation of new health technologies in hospitals.
Methods. Structured interviews were held with hospital managers and physicians in June 2020, and September 2021. In the first stage, the needs of hospitals in the implementation of new technologies were considered. In the second stage, the impact of COVID-19 on the introduction of new technologies in the hospital was addressed. Interviews were held on-line by mobile phone or zoom and lasted 25-30 minutes.
Results. The first interviews involved 8 managers and 14 physicians from 5 hospitals. The needs of HTA for physicians was noted by respondents of both groups. Only a few physicians had been trained in HTA. Hospital staff lacked time and experience in preparing applications for new technologies by a national assessment unit and could not meet deadlines. Managers were interested in use of HTA for hospitals' technologies in short-term timeframes within existing policies. However, physicians believed that long-term performance of technologies over 5 years or more should also be considered in hospital management. Physicians were aware of the importance of ethical considerations in the HTA of new health technologies. Managers did not consider ethical issues.
At the second stage of the project, 5 managers and 8 physicians were interviewed. COVID-19 had shown the importance and necessity of developing the scientific potential of doctors, and of introducing HTA and training medical personnel in its use.
Conclusions. Positive outcomes from the interviews were the interest of respondents in increasing their knowledge of the HTA process and acceptance of its importance at the hospital level.

PP82 First Educational Trainings According To New Health Technology Assessment Guideline For Medicines In Ukraine

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