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 metaanalyses 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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