

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

Gulzada Bariyeva,
Andrey Avdeyev (avdeyev.andrey@yahoo.com),
Valeriy Benberin, Nasrulla Shanazarov,
Ruslan Akhmedullin, Makpal Akhmetova,
Makhabbat Okesh and Tansolpan Aimanova

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

Lyazzat Kosherbayeva (lyazzat.k@mail.ru),
Ayganym Askarova and David Hailey

Introduction. The transition from the budget model of the health-care 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

Marharyta Khmelovska (hmelyovska@dec.gov.ua),
Oresta Piniashko, Valeriia Serediuk, Alona Masheiko and
Iryna Romanenko

Introduction. The success of the health technology assessment (HTA) implementation depends on the level of communication efficiency between all stakeholders. Taking this into consideration, the leading HTA experts of HTA Department of State Expert Center of the Ministry of Health of Ukraine launched the new educational initiative which includes training programs for pharmaceutical companies.

Methods. Comprehensive review of the first developed HTA training programs based on the HTA Guideline (Number 593) “The state health technology assessment for medicines” approved on 29 March 2021 was conducted.

Results. Leading HTA experts of the HTA Department developed a training program, which was conducted for industry representatives according to the provisions of the HTA Guideline. In 2021 over twelve training sessions and two webinars were conducted. These learning events reflect harmonized international recommendations and approaches to HTA training programs, The Professional Society for Health Economics and Outcomes Research, ISPOR short courses in particular, European Network for Health Technology Assessment (EUnetHTA), The National Institute for Health and Care Excellence (NICE), Institute for Clinical and Economic Review (ICER), Agency for Health Technology Assessment and Tariff System (AOTMiT) guidelines. Two-hour webinars were aimed at giving theoretical and practical bases for building a Markov model with the help of Excel and TreeAge Software. Training sessions titled “HTA as a tool for assessing the value of health technology” differ by duration (7-hour, 4-hour, 3-hour) and cover core topics adapted to the needs of the audience. The main program components include HTA Roadmap in Ukraine, clinical section, economic section and practical case studies of building a Markov model. All training options included questionnaires at the beginning and i end to assess the quality of each program. Questionnaires are the tool that gives presenters the possibility to trace progress and transform the training material accordingly.

Conclusions. Development of extended capacity building programs in HTA for users and doers is highly prospective for further steps in HTA institutionalization in Ukraine.

PP83 Economic Impact Of Missed Vaccinations On The Italian National Health System

Eugenio Di Brino (eugenio.dibrino@unicatt.it),
Michele Basile, Filippo Rumi, Americo Cicchetti and
Instant Report Group

Introduction. To provide a complete picture of the economic impact of the coronavirus disease 2019 (COVID-19) emergency for the Italian National Health System (NHS), an estimate was made of the costs to the NHS of vaccination hesitation. The concept of economic impact was investigated with reference to the volume of hospitalizations and days of intensive care required for patients with COVID-19 related to missed vaccinations, considering a vaccine efficacy of less than 100 percent.

Methods. Data from the Istituto Superiore di Sanità were analyzed with respect to the number of people vaccinated in the general population, and the number of people with severe acute respiratory syndrome coronavirus 2 infection who were hospitalized or died in a one-month period stratified by vaccination status. The costs for unvaccinated patients admitted to a general hospital ward (Medical Area) or the intensive care unit were calculated.

Results. Based on the number of preventable hospitalizations among unvaccinated people, the economic impact of missed vaccinations on the NHS in the 30-day period from 13 August 2021 to 12 September 2021 was estimated. Among the unvaccinated hospitalized patients, 5,932 would have avoided hospitalization in the Medical Area and 715 would have avoided admission to the intensive care unit. Thus, each unvaccinated hospitalized patient had an average per capita cost of EUR 17,408. The total costs amounted to EUR 69,894,715, comprising EUR 51,166,079 for hospitalizations in the Medical Area and EUR 18,728,636 for hospitalizations in intensive care.

Conclusions. By evaluating the weekly incidence of hospitalizations per 100,000 people stratified by vaccination status (unvaccinated, partially vaccinated, and fully vaccinated), it is possible to see that we are facing two distinct pandemics running together.

PP84 Change Management Of Patient Associations In Italy: From Emergency Response To Organizational Learning

Eugenio Di Brino (eugenio.dibrino@unicatt.it),
Federica Morandi and Americo Cicchetti

Introduction. The role of associations dedicated to patient advocacy has assumed strategic importance within the most advanced health systems, including the Italian NHS. In this period of strong national and international emergency, the associations of citizens and patients have also changed their actions and have implemented others to alleviate the discomforts of sick people in Italy, collaborating with institutions and health services.

Methods. Data were collected using a semi-structured survey, with both yes / no and open questions, developed and administered by the Patient Advocacy LAB (ALTEMS- Catholic University of Sacred Heart) to 150 patient advocacy associations. The organizational changes and the initiatives adopted by patient associations during the COVID-19 emergency was investigated.

Results. The majority of the initiatives adopted by patient advocacy associations during the COVID-19 pandemic have been introduced during the first wave (March- June 2020), and that most of them have been maintained to (December 2020). These initiatives included improvements and updating of the communication tools aimed at reaching the higher number of patients. Thanks to these new approaches, the empathy and the assistance to patients have been increased. In addition, a number of training initiatives have been developed online and they have been followed by a large number of patients and caregivers. At an operative level, during the pandemic, many patient advocacy associations have provided their support to