technology assessment (HTA) report on the clinical efficacy of occupational therapy for patients with cognitive impairments.
Methods. To assess clinical efficacy, a systematic overview was conducted based on published systematic reviews and HTA reports from the last ten years summarizing randomized controlled trials (RCTs) retrieved from four bibliographic databases. The target population included adult patients with cognitive impairments caused by diseases of the CNS, excluding moderate to severe dementia. The intervention studied is occupational therapy compared to no occupational therapy. Outcomes were cognitive abilities, independence, self-determination, health-related quality of life (QoL), and participation in activities of daily living (ADL).
Results. Five systematic reviews comprising 1,316 patients were included. There is evidence for a small statistically significant positive effect on "general cognitive function" (10 RCTs, n=470) and on ADL (4 RCTs, n= 405). A non-quantified positive effect was reported on behavior control (1 RCT, n=96), and conflicting evidence on QoL (2 RCTs, n=214). No effect was found for individual components of cognition (5 RCTs, n=202), self-efficacy (1 RCT, n=98) and social participation (2 RCTs, n=194). The level of the evidence was low for all endpoints due to the high risk of bias and small sample sizes.
Conclusions. Based on this systematic overview, it cannot be demonstrated but also not ruled out that occupational therapy for cognitive impairment is an effective therapy for adults with cognitive impairments. The evidence is very uncertain due to small effects and high risk of bias, low statistical power, and heterogeneity of interventions and study populations.

PP100 Improving The Assessment Of Effectiveness For Digital Applications Using The B Statistic: Using WtsWrng As A Case Study

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Introduction. The performance of diagnostic health technologies is usually assessed by comparing them with standard care using the kappa statistic. These comparisons are made based on comprehensive clinical information (e.g., anamnesis and complementary tests). However, not all digital applications (DAs) execute over complete information, which leads to work under non-uniform distribution of values. Using kappa statistic in this situation has serious methodological limitations. Kappa assumes that the marginal values are uniformly distributed and highly weights the discordant values when calculating concordance, which underestimates the real effectiveness of DAs (i.e., observed concordance). We aimed to present the application of the B statistic to WtsWrng, a symptom triage DA for individuals.
Methods. WtsWrng was used by 382 patients at the emergency department of a hospital. Diagnoses provided by WtsWrng, given 19 symptoms, were compared with those logged in the hospital's electronic clinical records at discharge. Observed concordance was calculated using contingency tables. The concordance using the kappa and B statistics were compared for the 12 most frequent diagnoses at hospital discharge. Sensitivity and specificity were also calculated.
Results. Real observed concordance fluctuated from 0.4 to 0.98 for the 12 most frequent diagnoses, eight of which had a concordance greater than 0.8. The results ranged from -0.005 to 0.37 when using the kappa statistic and from 0.36 to 0.99 when using the B statistic. The sensitivity and specificity of WtsWrng were greater than 0.8 for three and eight of the 12 diagnoses, respectively.
Conclusions. The results show that the B statistic is closer to the real observed concordance when kappa statistic assumptions are not fulfilled by a DA. Therefore, the B statistic is better suited for assessing the effectiveness of this type of technology. Analysis of WtsWrng using the B statistic showed that its diagnoses were close to those provided by clinicians, which were arrived at using complete clinical information. Moreover, the high specificity of the WtsWrng DA suggests that it is a good tool for determining the appropriate use of healthcare resources.

PP101 Development Process Of The Economic Guidelines In Tunisia

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Introduction. Health technology assessment (HTA) has become a critical support to health policy decision-making. The HTA evaluation process requires transparency, formalized processes, clear timelines, and standardization according to international best practice. Tunisia is establishing an HTA-based decision-making system through the National Authority for Accreditation and Assessment in Healthcare (INEAS) to ensure impartiality and fairness in decision-making, which is important for an emerging democracy. INEAS opted for a participatory approach in developing the national health economic guidelines to better engage healthcare sector stakeholders in the HTA process. We aimed to present the main phases of the process used to develop the Tunisian health economic guidelines, the methodological choices for pharmacoeconomic evaluations, and the methodological choices for budget impact analyses.
Methods. The different phases of developing the guidelines were listed and reported.
Results. The guidelines were developed under a technical cooperation program of the World Health Organization and involved collaboration between the Institut national d'excellence en santé et en services sociaux (INESSS in Quebec, Canada) and INEAS. The first version of the guidelines was drafted following a review of international HTA guidelines and best practice reference books, taking into account the Tunisian healthcare system context. This first draft was discussed in a workshop with the main health system stakeholders and then peer reviewed by international experts. Based

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on the feedback from experts, a second version was prepared and published on the INEAS website for public consultation. The Union of Innovative Pharmaceutical Research Companies (SEPHIRE), the National Health Insurance Fund (CNAM), and healthcare professionals provided the majority of feedback. The comments provided by SEPHIRE were discussed during a second workshop. The guidelines were revised and updated based on the comments provided and the final version was published in November 2021.
Conclusions. INEAS adopted a participatory approach for developing its economic guidelines, which enhanced engagement of the major health system stakeholders in the HTA implementation process in Tunisia.

PP102 Selecting The Sequence Of Diagnostic Tests For Leprosy In Brazil

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Introduction. Hansen's disease, or leprosy, is a chronic bacterial infection that affects the nerves, skin, eyes, and nose lining. In 2019, there were 202,256 new cases reported globally, and nearly 28,000 new cases are diagnosed each year in Brazil. The best way to prevent the spread of Hansen's disease is early diagnosis and treatment of infected individuals. Most diagnoses are done clinically, but only the microscopic analysis of slit-skin smears is funded in Brazil. Serologic and polymerase chain reaction (PCR) tests have also been developed to aid in the diagnosis. The goal of this study was to identify the most cost-effective strategy for increasing the diagnosis of Hansen's disease in Brazil.
Methods. We examined the impact of the following four strategies using a decision tree model: (i) slit-skin smear only; (ii) PCR test only; (iii) serologic testing followed by slit-skin smear for positive samples; and (iv) serologic testing followed by slit-skin smear for positive samples and PCR test for negative serologic tests and negative slit-skin smears. The accuracy of the tests was determined using a systematic review and meta-analysis and validated by experts. The costs were calculated from the Brazilian health system perspective. Univariate and probabilistic analyses were also conducted.
Results. Serologic testing or PCR followed by slit-skin smear was dominated in the economic model (more false-negative samples and more costly). The addition of serologic testing and PCR to the diagnostic sequence made the strategy more expensive than slit-skin smears alone, but it significantly reduced the percentage of false negative results (from 7.3 to 2.9%) at an estimated cost of USD 533.61 per incremental diagnosis. Disease prevalence was the most important variable in the sensitivity analysis.
Conclusions. This is the first cost-effectiveness model undertaken for Hansen's disease. The results indicate that incorporating serology and PCR testing into the Brazilian health system could be an appealing option for reducing the spread of Hansen's disease in Brazil.

PP103 Early Health Technology Assessment Of Integrated Care To Increase Employment For Persons With Substance Use Disorder

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Introduction. The unemployment rates among people being treated for substance use disorder (SUD) are high, with Norwegian estimates ranging from 81 to 89 percent. A promising method for improving vocational outcome is Individual Placement and Support (IPS), where employment support is integrated into the treatment regimen. However, the expense and economic gain are covered by different societal sectors, which may be a disincentive for implementing this method. Thus, the aim of this study was to model the potential socioeconomic value of a new SUD treatment service.
Methods. For the simulation study, we made qualified assumptions about costs and socioeconomic gain based on data from scientific and administrative publications, expert opinion, and a randomized controlled trial of treatments for individuals with SUD that was set in a specialized Norwegian healthcare setting. We made assumptions about the proportion of patients likely to obtain employment after participating in the following three interventions: (i) treatment as usual; (ii) a self-help guide and additional workshop; and (iii) IPS.
Results. Based on early socioeconomic simulation modeling for the three interventions, IPS was found to be cost effective over a period of one to two years.
Conclusions. In this study we used early economic modeling to demonstrate the potential value of IPS for increasing employment rates among patients with SUD. Since it is important to secure evaluative support for an innovation at the earliest possible stage, early economic modeling may assist the innovator in implementing a health service that meets predefined user needs while also reducing associated risks. Although there is much uncertainty in such early stages due to a lack of valid data sources, early economic modeling may provide health authorities with much needed decision support when planning for future health services.

PP107 Scale For Measuring Fatigue In Patients With Parkinson's Disease: Scientific Technical Report

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