

System contains a database about an organization's maintenance operations.

Methods. The pilot study of observational and descriptive design will include all the medical/laboratory equipment that the Research Institute of Health Sciences (IICS) has that meets the inclusion criteria. The work will be carried out at the IICS, which aims to develop a computerized system for the maintenance of equipment that allows the linking of Quick Response (QR) codes to an application (WebApp) by means of cameras in smartphones, able to relate each QR code (attached to a medical/laboratory equipment) to its corresponding URL, and thus able to access all the technical information of each IICS team and therefore monitor their maintenance (preventive, corrective, predictive), history, spare parts, budgets, and technical specifications.

Results. We have a database of all medical devices installed in the research center; we look forward to developing the program to include the data. The project focuses on the effective tool for decision making regarding the evaluation of the installed sanitary technology and those that will be installed.

Conclusions. The study proposes an effective solution for maintenance management, using data that supports administrative decisions regarding the acquisition of equipment in the future; that is, the system can contribute when it comes to evaluating installed and acquired sanitary technology.

PP05 The First Choice Of Health Institutions Of Elderly In Zhejiang And Qinghai, China

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Introduction. The utilization of medical resources in China is unbalanced and insufficient. In order to find a way to maximize their utilization to face challenges in the upcoming decade, this study aims to investigate the elderly's first choice of health institutions when they were ill in the Zhejiang and Qinghai provinces, and to explore the potential pathways related to their choices, respectively.

Methods. The data used in this study was from cross-sectional surveys in Zhejiang and Qinghai. According to the Anderson Health Service Utilization Model, we applied structural equation modeling to explore the complex pathways from socioeconomic status (SES), accessibility, and health status to the elderly's first choice of health institutions.

Results. The proportion of the elderly who selected community health institutions (CHI) as their first choice of medical institutions in Qinghai was higher than in Zhejiang. The Zhejiang model revealed a significantly negative direct effect of SES and significantly positive direct effects of accessibility to CHI and health status on the choice of institutions, and a significantly positive indirect effect of SES on choice of institutions, through the mediating factor of health status. SES played an important role in the Zhejiang model in direct and indirect ways. In the Qinghai model, only SES and accessibility to CHI had significantly direct effects on the choice of institutions, with accessibility to CHI having the biggest effects. SES had a significant and

positive indirect impact on choice of institutions, through the factor of accessibility to CHI.

Conclusions. A better understanding of the complex pathways from factors to elderly's choices of health institutions was essential, which may inform priorities for maximizing the utilization of CHI further and prepare to face challenges in the new decade. Through this research method, policymakers could explore the specific pathways based on their own economic and societal status.

PP08 Evaluation Of The Brazilian Health Technology Assessment Network

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Introduction. The Brazilian Network for Health Technology Assessment (REBRATS) is a network of collaborating centers and teaching and research institutions, focused on the generation and synthesis of scientific evidence in the field of health technology assessment. Currently, the network is composed of 119 member institutions and mobilizes approximately 1,094 researchers and 4,998 relations. The objective of this study was to evaluate the member institutions of REBRATS.

Methods. The evaluation process was developed in seven stages, including the identification of the objectives of the Network; identification of evaluation criteria; selection of performance indicators for each criterion; identification of the measures appropriate to each indicator; data collection and analysis; classification of the institutions and production of the final report.

Results. The evaluation of the member institutions of REBRATS mapped the capacity of these institutions to produce health technology assessment activities. The evaluation also provided information on the advances and challenges of health technology assessment in the country. In the long term, the initiative will contribute to the strengthening of the evaluation of health technology in Brazil, since the weaknesses of these institutions in the development of activities were mapped.

Conclusions. The production of this study will contribute to the dissemination of the evaluation methodology at the national and international level. This study is one of the few initiatives that exist in the world on the evaluation of networks and will contribute to the strengthening of the evaluation of health technology in Brazil.

PP09 Cost-Effectiveness Of Chronic Obstructive Pulmonary Disease Management

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Introduction. To inform the development of a national clinical guideline for Chronic Obstructive Pulmonary Disease (COPD), prioritized by the National Clinical Effectiveness Committee in Ireland, a systematic review was conducted to examine the cost-effectiveness of pulmonary rehabilitation programs (PRPs), outreach programs (OPs), and long-term oxygen therapy (LTOT), compared with usual care.

Methods. Medline, Embase, the Cochrane Library and grey literature sources were searched up to 19 June 2018. Studies evaluating cost-effectiveness published post-2008 in English were included. Screening, data extraction, and quality assessment using the Consensus Health Economic Criteria and International Society for Pharmacoeconomics questionnaires were conducted independently by two reviewers. Costs were converted to 2017 Irish Euro using consumer price indices for health and purchasing power parity.

Results. From 8,661 articles identified, seven studies (one comparing both PRPs and LTOT) were included (PRPs: five; OPs: one; LTOT: two). PRP cost-utility analyses ($n = 4$) reported conflicting results due to considerable heterogeneity in program and study design, with incremental cost-effectiveness ratios (ICERs) ranging between EUR 12,391 and EUR 509,122 per quality adjusted life-year (QALY) gained. The remaining study investigated hospitalizations avoided and found outpatient and community-based PRPs to be dominant, while home-based PRP produced an ICER of EUR 1,913. OPs were found to be less costly, but also less effective. However, the results of the underpinning trial were neither statistically nor clinically significant. LTOT was found to be cost-effective, with ICERs of EUR 17,603 and EUR 26,936 per QALY gained.

Conclusions. Applying a willingness-to-pay threshold of EUR 45,000 per QALY gained, this systematic review found that, compared with usual care, there is inconsistent but generally favorable evidence for PRPs, no clear evidence for the cost-effectiveness of OPs, and that LTOT is likely to be cost-effective. However, there was a lack of methodologically robust studies included in the review and most were not directly transferable to the Irish context.

PP10 Quality Of Reporting Economic Evaluations In Rehabilitation Research

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Introduction. Economic evaluations are a growing field of interest in the rehabilitation area. Research has questioned the quality of reporting of health economic evaluations. Poor reporting hinders the ability to provide accurate information for health care decision making. Therefore, the objectives of this study are to document on overall reporting quality of the published literature for rehabilitation economic evaluations; to identify if reporting quality has improved in health economic evaluations within the field of rehabilitation therapy since the publication of the Consolidated Health Economic Evaluation Reporting Standards (CHEERS); and to identify factors that could influence the reporting trends.

Methods. We searched databases for economical evaluations performed in the rehabilitation area published between 2013 and

2018. Study selection was performed by two independent reviewers using Covidence software. Data extraction was conducted by one reviewer using Microsoft Excel and independently verified by another reviewer. The quality of reporting was evaluated independently by two reviewers using the CHEERS checklist.

Results. The search of the literature resulted in a total of 2195 published articles. Of these, 117 were considered to be potentially relevant. Independent review of these 117 articles led to the inclusion of 88 articles. This study is ongoing and complete results will be presented at the conference. Fifty papers have been analyzed in full. In general, the quality of reporting of the economical evaluations in the rehabilitation field was poor. The total mean and median for the CHEERS checklist was 17 points (out of 25) (range 8-24). Most of the analyzed studies did not report important methodological features of the economical evaluation as evaluated by the CHEERS checklist.

Conclusions. The quality of reporting of economic evaluations in the rehabilitation field is poor and inconsistent. Commonly the methods of the analyzed studies are under reported, thereby creating challenges in determining whether the information presented is sound.

PP12 Cost-Utility Analysis Of Dolutegravir For HIV-1 Infection In Thailand

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Introduction. HIV drug resistance (HIVDR) has significantly increased in Thailand. However, a new generation integrase inhibitor, dolutegravir, has not yet been included in the country's National List of Essential Medicines (NLEM). Since these drugs are high in costs, an economic evaluation is needed to support the decision. This study aims to assess the cost-utility analysis of dolutegravir for HIV-1 infection in Thailand.

Methods. A Markov model was developed to evaluate the cost-utility as follows: (i) the current practice of darunavir/ritonavir (DRV/r) + tenofovir (TDF) + lamivudine (3TC); (ii) DRV/r + etravirine (ETR) + TDF + 3TC; (iii) DRV/r + raltegravir (RAL) + TDF + 3TC; (iv) DRV/r + RAL + ETR; and (v) DRV/r + RAL + maraviroc (MVC); (vi) DRV/r + dolutegravir (DTG) + MVC; (vii) DRV/r + DTG + ETR; (viii) DRV/r + DTG + TDF + 3TC. The model incorporated cost data adjusted for 2017 using the consumer price index, and effectiveness data from a review of published studies. Outcomes were measured in life years, quality-adjusted life-years (QALYs), and incremental cost-effectiveness ratios (ICERs), and future costs and outcomes were discounted at 3 percent per annum. Finally, a probabilistic sensitivity analysis was conducted to deal with uncertainties around the parameters.

Results. All alternative treatment regimens for HIV patients resistant to first- and second-line antiretroviral therapies (ARTs) in Thailand were found to be not cost-effective at the willingness-to-pay (WTP) of THB 160,000/QALY (USD 5,197/QALY). However, the eighth regimen of DRV/r + DTG + TDF + 3TC had the lowest lifetime cost at THB 5.3 million (USD 172,145) while increasing QALY by approximately 14 QALYs.