

**Conclusions.** Based on the gathered information and the agreement of the all members, we developed a toolkit embracing a group of standards for the joint activities within the Spanish Network, network administration and management. It is a complementary instrument of the previous self-evaluating tool, following the establishment of an overall quality management system and under the philosophy of continuous improvement processes.

## OP170 How Can Health Technology Assessment Participate In The Healthcare Quality Improvement?

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**Introduction.** Providing high-quality and affordable care is a big challenge facing policy makers, especially in low and middle income countries (LMIC). The purpose of this presentation is to illustrate how health technology assessment (HTA) benefits the improvement of the healthcare quality, and to highlight the fact that HTA domains match to the dimensions of health quality: safety, effectiveness, efficiency and patient-centeredness.

**Methods.** This presentation will be based on explaining the ability of HTA to improve the quality of healthcare. Some countries, mainly LMIC where resources are limited, do not have formal HTA whose goal is to inform the development of safe, effective and patient centered health policies. The theoretical concepts of HTA demonstrate a strong connection between HTA and healthcare quality improvement. By way of illustration an example of successful experiences will be given.

**Results.** The presentation items are: - The definition of health technology - Introduction to health technology assessment as a multidisciplinary process that summarizes information about the medical, social, economic and ethical issues related to the use of a health technology. - Why is health technology assessment used, the identification of the HTA report domains including Safety, Clinical Effectiveness, Ethical analysis, Social aspects, Legal aspects and the importance of patient experience in HTA. - The identification of the six dimensions of healthcare quality and the determination of the connection between HTA and healthcare quality improvement. - A presentation of the international Decision Support Initiative (iDSI) experience in some LMIC.

**Conclusions.** HTA has many meeting points with healthcare quality dimensions. HTA is likely to become an increasingly important influence in health decisions.

## Poster Presentations

### PP02 Using Real World Data To Identify The Market For A New Technology

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**Introduction.** King's Technology Evaluation Centre (KiTEC), a United Kingdom- based health technology assessment consultancy, was tasked with identifying a specific group of heart failure patients who had repeat readmissions in order to accurately identify the potential market for an innovative device designed to diagnose heart failure as a way to avoid costly and avoidable hospital readmissions. The device enables clinicians to remotely diagnose heart failure and appropriate medication can be administered instead of a hospital visit. Our methodology describes an accurate way to quantify the at risk population without the need for a costly trial.

**Methods.** Using big data from national registries – the heart failure specific National Institute for Cardiovascular Outcomes Research (NICOR) database and the national Hospital Episodes Statistics for the National Health Service (HES) – KiTEC has devised a methodology of linking the two datasets in order to (i) accurately identify patients with repeat readmissions over a 5-year period and (ii) calculate the risk factors for readmissions. Data is linked using a common field, meaning information from both databases can be analyzed at patient level (it is pseudo-anonymized before KiTEC receives it). This allows for unprecedented granularity, as we are able to exploit the heart failure specific detail of NICOR alongside the wealth of admissions data available in HES.

**Results.** There are significant challenges surrounding the use of registry data, especially in the enormous size of the datasets and in privacy legislation aimed at protecting personally identifying data. The usual regulatory approvals for health research are also more complex when linked datasets are proposed. These are important considerations, especially when linking two complementary databases.

**Conclusions.** The use of real world data has the potential to paint a true and accurate picture of a patient population, while avoiding many of the biases inherent in typically research studies. However, there are other important challenges to overcome, namely difficulties analyzing huge datasets and navigating complex legislation to access patient data.

### PP03 Development Of A Medical Device Maintenance Management System

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**Introduction.** Health technologies are fundamental in an operational health system. Medical devices, in particular, are crucial for disease prevention, diagnosis, treatment and rehabilitation. Recognizing this important role of health technologies, the World Health Assembly adopted, in May 2007, resolution WHA60.29, which addresses issues arising from inadequate installation and use of health technologies, as well as the need to formulate national strategies for the implementation of evaluation, planning, procurement and management systems for health technologies, in collaboration with personnel dedicated to the evaluation of health technologies and biomedical engineering. Maintenance management computer systems and software have evolved to help maintain medical equipment and control associated costs. A Computerized Maintenance Management

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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