to understand the historic overview of HTA in the context of health policy documents of Ethiopia.
Methods. A review of online policy documents was conducted in advanced Google Scholars and websites of the Ministry of Health (MoH) of Ethiopia. Some of the policy documents were also obtained through contacting experts at MoH. The review findings were organized into six categories.
Results. Regulatory documents have emphasized the approval of new health technologies before selecting health technologies. Health Policy of Ethiopia and the Directive on Medical Equipment also clearly stated the importance of institutionalizing HTA and establishing HTA organizations. Additionally, the National Medical Device Policy clearly indicated the importance of establishing an HTA advisory team at MoH. Similarly, the Health Sector Transformation Plan II (HSTP II) stressed the need to build a national capacity to conduct HTA. Even though policy statements on HTA appear scattered across different policy documents, they were not put into a national HTA system.
Conclusions. It is important to refer to policy statements outlined in different policy documents when establishing a national HTA system in Ethiopia. Also, attention should be given to the development of policy documents related to HTA guidelines, strategic documents in HTA, and policy documents that can link HTA results to policy-making.

OP27 Health Technology Assessment Processes, Characteristics, And Key Differences In High, Middle, And Low-Income Countries Of Asia Pacific Region

Ashish Verma (Ashish.Verma@Eversana.com)

Introduction. The healthcare sector in the Asia Pacific (APAC) region is in a period of rapid growth and exciting innovation. This has led to an increase in the number of APAC countries adopting and implementing health technology assessment (HTA) to assess the clinical, ethical, economic, and societal aspect of healthcare technology. The aim of this study is to provide an updated snapshot of the status of HTA and key differences in selected countries of APAC region.
Methods. HTA robustness and gap requirements, including its structure, process, use in decision-making and resource allocation processes were assessed through a review of published and gray literature for each of the selected country. A qualitative analysis was carried out by using a set of 15 principles of an International Working Group for HTA Advancement to identify the robustness and key differences in HTA based decision-making process in scoping countries.
Results. The finding of this study reveals that maturity of HTA determined by country-specific factors, such as presence of independent HTA agency, healthcare funding and expenditure, etcetera, and varies across the high-, middle-, and low-income countries of APAC region. Based on the study's results, HTA ecosystem of selected countries categorized into rising HTA followed by advancing and mature HTA categories. In addition to the differences in HTA structure, the influence of stakeholder engagement differs among HTA bodies. The variation in the time frame of HTA decisions was significant among countries, with a general lack of awareness and transparency among health policy decision-makers and resulted in longer time for assessment for rising HTA category compared to the advance and mature HTA categories.
Conclusions. The vision of a comprehensive and robust HTA system can be achieved by implementing a transparent, independent, decision-making, and strongly integrated HTA process in the region. We recommend that efforts should be directed to promote a transparent and sustainable HTA, throughout the low- and middle-income countries of APAC region which eventually, lead to more effective HTA ecosystem.

OP28 Health Technology Assessment: A Situation Analysis Of Zimbabwe

Blessing Dzingirai (bdzingirai83@gmail.com), Celia Matyanga, Pinky Manyau, Maarten Jacubos Postma, Marinus van Hulst and Nyashadzaishe Mafirakureva

Introduction. With ever increasing burden of disease and limited resources, health technology assessment (HTA) is required for efficient resources allocation and priority setting in healthcare. The objective of this study was to establish the baseline HTA evidence generation and use in Zimbabwe.
Methods. In 2019, we convened a stakeholder workshop on HTA at the University of Zimbabwe. Presentations on HTA processes, current healthcare reimbursement model, priority setting in the Ministry of Health and selection of medicines into the treatment guidelines, were done by the experts. We adapted the Health Intervention and Technology Assessment Program questionnaire for situational analysis of HTA introduction at national level and administered it among the workshop participants. We report the baseline information on HTA situation, the need, demand and supply of HTA in Zimbabwe obtained from the presentations and responses from workshop participants.
Results. A total of 33 participants attended the workshop. Participants indicated that there is no formal HTA agency or process in Zimbabwe. The selection of medicines into treatment guideline is determined by disease burden, safety, efficacy and cost data, and it is done by a group of experts. The Association of Healthcare Funders of Zimbabwe (AFHOZ) reported that private healthcare funders use resource-based relative value scale system to determine tariffs and reimbursement levels. The regulator requires safety, efficacy and product quality data for the registration of medicines. Transparency in decision-making, registration of heath technology and formulation of essential medicines and treatment guidelines were reported as the major needs of HTA. The major users of HTA outputs were reported as medicines regulator, AFHOZ and Ministry of Health. Key suppliers of HTA evidence are academic and clinical research institutions

https://doi.org/10.1017/S026646232200085X Published online by Cambridge University Press

and healthcare workers. Lack of training in health economics was cited as the major challenge to supply of HTA evidence.
Conclusions. There is a need to institute a formal, systematic and transparent processes of determining value of health technologies.

OP29 Lifecycle Assessment Of Machine Learning-Derived Early Warning System. An Early Economic Evaluation Of An Intraoperative Hypotension Prediction Index

Davide Piaggio (d.piaggio@warwick.ac.uk), Carlo Federici, Rossella Di Bidino, Umberto Bracale and Leandro Pecchia

Introduction. An iterative, life-cycle approach to the evaluation of healthcare technologies requires that clinical and economic evidence is collected since the initial stages of diffusion. Nevertheless, early cost-effectiveness models are challenging mainly due to the difficulties in estimating model parameters and faithfully characterizing parameter uncertainty. This is especially true with AI-based diagnostics, where attribution of effects on costs and patient-relevant outcomes is more challenging. Empirical applications of early-models are useful to identify the main challenges of iterative modelling and provide recommendations on best-practices. Here, we reported on a case study on a machine learning-derived hypotension predictive index (HPI), that predicts the onset of intraoperative hypotension and trigger corrective measures.
Methods. A hybrid decision-tree/Markov model was developed comparing an HPI-based intervention protocol to standard-of-care intervention protocol during gynecological procedures. A short-term component of the model was populated using data from individual patients collected at one hospital in Italy. An historical control group was also defined using propensity score matching. Long-term costs and consequences of HPI were modelled using secondary data. A probabilistic version of the headroom approach was used to determine the maximum achievable price of HPI based on available evidence. Value of Information analysis was also conducted to identify the parameters that contribute the most to the overall uncertainty, and to identify optimal future study designs. Extensive deterministic and probabilistic sensitivity analyses were conducted to characterize the uncertainty over the cost-effectiveness of HPI.
Results. The preliminary results of the analysis suggest that HPI has potential to improve patients' outcomes and generate efficiency gains by reducing hypotension events and permanent complications, such as acute kidney injury. The link between reduction in hypotension and the rate of complications, or the long-term effects on healthcare costs and patients' quality of life are the parameters that contribute the most to model uncertainty.
Conclusions. Early cost-effectiveness models are a valuable tool to inform further product development and evidence requirements, but characterization of uncertainty and transparency in modelling assumptions are key.

OP30 Model for ASsessing The Value Of AI In Medical Imaging (MAS-AI)

Iben Fasterholdt (if@rsyd.dk), Tue Kjølhede, Mohammad Naghavi-Behzad, Thomas Schmidt, Quinnie Rautalammi, Kristian Kidholm, Malene Hildebrandt, Anne Gerdes, Astrid Barkler and Benjamin Rasmussen

Introduction. Artificial intelligence (AI) is seen as one of the major disrupting forces in the future healthcare system. However, assessment of the value of these new technologies is still unclear and no agreed international HTA-based guideline exists. Therefore, a Model for ASsessing the value of AI (MAS-AI) in medical imaging was developed by a multidisciplinary group of experts and patient representatives.
Methods. The MAS-AI guideline is based on four steps. First a literature review of existing guides, evaluations, and assessments of the value of AI in the field of medical imaging (5,890 studies were assessed with 86 studies included in the scoping review). Next, interviews with leading researchers in AI in Denmark. The third step was two workshops where decision-makers, patient organizations and researchers discussed crucial topics when evaluating AI. Between workshops, the multidisciplinary team revised the model according to comments from workshop-participants. Last step is a validation workshop in Canada.
Results. The MAS-AI guideline has three parts. There are two steps covering nine domains and then advises for the evaluation process. Step 1 contains a description of patients, how the AI-model was developed, and initial ethical and legal considerations. Finishing the four domains in Step 1 is a prerequisite for moving to step 2. In step 2, a multidisciplinary assessment of outcomes of the AI-application is done for the five remaining domains: safety, clinical aspects, economics, organizational aspects and patient aspects. The last part, is five advices to facilitate a good evaluation process.
Conclusions. We have developed an HTA based framework to support the prospective phase while introducing novel AI technologies into healthcare in medical imaging. MAS-AI can assist HTA organizations (and companies) in selecting the relevant domains and outcome measures in the assessment of AI applications. It is important to ensure uniform and valid decisions regarding the adoption of AI technology with a structured process and tool. MAS-AI can help support these decisions and provide greater transparency for all parties involved.

https://doi.org/10.1017/S026646232200085X Published online by Cambridge University Press