

artificial intelligence for diagnostics (n=5), point-of-care testing (n=4), companion diagnostics (n=2), wearables (n=2), and remote monitoring (n=1). Initial stakeholder feedback was positive, citing HS reports as being relevant for clinical practice. Some HS reports were also referenced by other policymakers to support regulatory decisions.

**Conclusions:** In summary, similarities were observed between medtechs identified and assessed by the ACE HS system and the top trending medtech fields identified by CADTH. Additionally, digital health technologies were the largest proportion of technologies identified by the ACE HS system in 2023. This was substantiated by feedback from our key stakeholders, indicating the relevance and value of the ACE HS work.

## PD158 Optimizing The Management Of Patients With Mitral Regurgitation Beyond Technological Innovations: A Proposed Set Of Actions

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**Introduction:** Mitral regurgitation (MR) is the most prevalent valvular heart disease worldwide and is frequently underdiagnosed and undertreated, resulting in a substantial healthcare burden. This project aimed to define an optimized patient journey, identifying specific unmet needs and pain points in the management of MR in Spain, and to propose a set of recommendations that can be implemented at a clinical level.

**Methods:** Using the Population, Intervention, Comparator, and Outcomes search strategy, a pragmatic literature review was conducted to contextualize the comprehensive management of patients with MR in Spain. Subsequently, a Delphi panel consisting of two rounds of questionnaires was implemented. Unmet needs detected for MR management along the patient journey were validated by a panel of clinical experts incorporating different profiles. A battery of actions to improve the MR patient journey was also gathered (first round), which were then systematically reviewed and prioritized by the experts using hierarchical point allocation methods (second round) based on their relevance and feasibility within the National Health System.

**Results:** A set of actions was proposed for the following core phases: detection-diagnosis, treatment-decision, treatment, and follow up. Actions for detection-diagnosis should be prioritized since boosting patient referral to specialized centers was considered crucial. Within the treatment-decision stage, experts emphasized strengthening healthcare services communication and training on risk

stratification. For treatment, early referral to specialized centers was prioritized. Optimizing follow up required educating patients and relatives on adherence and self-care. Finally, experts supported a common pathway for heart valve diseases such as MR, tricuspid regurgitation, and aortic stenosis. Specifically, they concluded that optimization of tricuspid regurgitation management aligned with the actions proposed for MR.

**Conclusions:** Altogether, unmet needs and critical aspects in each of the management steps of MR in Spain were detected and an array of potential actions was suggested by clinical experts. The evaluation of such actions resulted in a preliminary strategic plan that can help prioritize interventions and healthcare policies regarding the optimization of the healthcare journey for patients with MR (and other valvulopathies) in Spain.

## PD161 Distribution Patterns And Economic Assessments Of Gaucher Disease Therapies In Brazil: A National Health System Analysis (1999 to 2022)

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**Introduction:** Gaucher disease, an inherited lysosomal storage disorder, requires chronic management with enzyme replacement therapies (ERTs). In Brazil, the Unified Health System (SUS) plays a pivotal role in providing access to such treatments. This study aimed to analyze the distribution and associated costs of medications for Gaucher disease within the SUS, offering a comprehensive view of resource allocation over 23 years.

**Methods:** Utilizing the TabNet system from the Brazilian Health Ministry, medication dispensation data from 1999 to 2022 were analyzed. In addition, annual and total expenditures on imiglucerase, miglustat, and taliglucerase alfa were evaluated using the Ambulatory Information System and the Hospital Information System databases for a cohort of patients from 2000 to 2015. Demographic factors such as sex, age, self-declared skin color, body mass index, and area of residence were correlated with spending patterns. Trends were contextualized with events that could potentially affect medication availability, such as ministry alerts and regulatory changes.

**Results:** The dispensation analysis revealed a fluctuating pattern in medication distribution over the study period. The data revealed a peak in imiglucerase dispensation in the mid-2000s, followed by a stark decrease after 2010 that coincided with global shortages. Total costs from 2000 to 2015 reached USD1.138 billion, with annual expenditures averaging USD120,631.15. After 2010 there was a diversification in therapy utilization, with an increase in alternative treatments such as miglustat and taliglucerase alfa.

**Conclusions:** The study reveals a significant financial burden on the SUS from Gaucher disease treatments and demographic disparities. Trends in the dispensation and costs of ERTs within the SUS are a

direct response to drug availability and regulatory actions, with adoption of alternative ERTs after 2010 demonstrating the system's flexibility. Strategic health policy planning is vital for treatment sustainability and affordability.

## PD165 To What Extent Do Health Technology Assessment Bodies Cross-Reference Each Other In Their Reports?

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**Introduction:** Due to different timing of drug launches across countries, published health technology assessment (HTA) findings from one country may impact HTA outcomes in other countries. The aim of our work was to identify the most influential HTA bodies by analyzing to what extent HTA bodies cross-reference each other in their HTA reports.

**Methods:** We analyzed the HTA reports on single drug assessments (SDA) published by 46 HTA bodies from 28 countries (and cross-country collaborations) with decision dates between January 2011 and November 2023. We searched the identified HTA reports by using natural language processing and a predefined set of keywords to identify whether, and to what extent, HTA bodies reference each other in their HTA reports. Additionally, we assessed if there is a trend over time in the cross-referencing, and whether any clusters could be identified.

**Results:** Based on the analysis of 24,793 SDAs, the National Institute for Health and Care Excellence (NICE) was referenced the most (in 4,198 HTA reports across 39 HTA bodies), followed by the Canadian Agency for Drugs and Technologies in Health (in 2,034 reports across 35 HTA bodies), and the Scottish Medicines Consortium (SMC) (in 1,960 reports across 31 HTA bodies). The HTA bodies that most often referenced other HTAs were the Agency for Health Technology Assessment and Tariff System, the Haute Autorité de santé, and NICE. Seven HTA bodies were not referenced in any HTA report, while four did not reference any other HTA body.

**Conclusions:** Our research shows that most of the analyzed HTA agencies not only referenced other HTA bodies in their HTA reports but were also referenced by other HTA bodies. The most often referenced HTA agencies were mostly from English-speaking countries, were well recognized, and had well defined methodologies.

## PD166 Artificial Intelligence, Healthcare System Budget Cuts, And Flow of New Evidence: Moving To Living Health Technology Assessment Reform

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**Introduction:** Health technology assessment (HTA) agencies struggle with how to ensure timely assessment of promising technologies, especially considering the volume of rapidly produced evidence using complex analytical methodologies and applications, such as artificial intelligence (AI). Furthermore, healthcare systems that are already overburdened are now dealing with issues related to sustainability and increasing budgetary constraints resulting from several public health emergencies, such as the COVID-19 pandemic.

**Methods:** A targeted literature review of primary publications in English published during the last five years was conducted to answer the following research question: Would AI integration into health outcomes research and health economics encourage automation in the HTA process, allowing for a living model—a real-time, dynamic approach using explicit methods to determine the value of a technology at different points in its lifecycle—to be implemented? We selected publications presenting information on the following concepts: automation in evidence generation; health economics in the decision-making context; cost efficiencies from the integration of automation; and separation of concepts such as lifecycle and living HTA. A narrative synthesis was conducted.

**Results:** The publications selected explored four different aspects of the living concept in decision-making: living clinical guidelines, living evidence reviews and economic evaluations, and living HTA. Automation in systematic reviews (screening and data extraction), including time efficiencies, was the most frequently reported living aspect. The value of open-source economic models was increasingly recognized. Few references were found for methods such as living meta-analyses or network meta-analyses. Adaptive HTA was another related key term. A few publications outlined how a living HTA model could be implemented in real decision-making and its operational challenges.

**Conclusions:** So far, HTA bodies have been slow in adopting AI and automation innovation in their practices. Pressures to evolve with the increasingly complex treatment and evidence landscape necessitate a reform in HTA methods. A living HTA model may overcome these barriers and ensure faster patient access for new, promising technologies. A set of “living” standards is needed to gain HTA trust.