a patient-oriented group, two experts in HTA, and two physicians. Interviews were held online by mobile phone or Zoom for 25–30 minutes. Question structures were formed based on the report 'Patient Involvement in Health Technology Assessment in Europe 2010'. Seven stages were considered.

Results. All participants partially or completely agreed with the involvement of patients at the HTA stages of identification and prioritization. One or two did not agree with their involvement at the HTA assessment, information production, internal and external review, and diffusion and dissemination stages. Challenges for patient involvement in HTA can be related to other commitments for patients and their carers, lack of financial affordability, conflict of interest, and lack of capacity of the HTA agency to involve them. Five participants agreed on challenges for patients to being meaningfully involved in decision-making on health technologies. These included understanding which institution makes the decisions, finding an interlocutor within the decision-making body, and understanding the decision-making process. Other issues were technical and language difficulties, lack of commitment from decision-makers and the legal or policy framework for patient involvement in HTA decision-making.

Conclusions. Patients can participate in HTA, but the HTA agency must first prepare and agree on the level of patient participation, and develop measures to reduce barriers such as language difficulties, and patient obligations.

OP83 Joining Efforts To Improve Patient Involvement In Health Technology Assessment: The Case Of The RedETS Patient Interest Group

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Introduction. Patient involvement (PI) has become a key priority to the Spanish Network of Agencies for Assessing National Health System Technologies and Performance (RedETS). As part of the national strategy to promote PI, an interest group was created in 2017 to share knowledge, develop methodologies and standardize PI processes. The aim of this work is to analyze the main activities of the Patient Interest Group 5 years after its launch and to reflect on possible needs and challenges.

Methods. Narrative description and an in-depth analysis of the main activities of the Interest Group from 2017 to the present.

Results. The group is composed of HTA researchers from the 8 regional agencies in Spain and is supported by the Ministry of Health and the RedETS council. It currently has the participation of 26 researchers, organized into different working subgroups. The initial lines of work were the analysis of the situation, the development of procedures, and the initiation of training materials for patients on HTA. At present, the main projects are the development of metrics for evaluating the impact of patient participation, the development of procedural materials to promote methodological process standardizaton (e.g., a flowchart with the main process steps, checklists, templates), and the design and piloting of virtual training for patients in HTA. New lines include the analysis of the ethical challenges of PI and the feasibility of setting up an HTA patient registration system and a patient forum to facilitate participation. In addition, the interest group has promoted the exchange of relevant information for PI and the organization of capacity building activities.

Conclusions. The RedETS Patient Interest Group is encouraging the development of activities, reflection on collective experiences, and tools that facilitate PI in Spain. Among the main challenges are the need to ensure the quality and applicability of PI and to analyze the views of patients who have actively participated in HTAs.

OP84 Cost Consequence Analysis: A Potential Framework To Incorporate Patient Preferences Into Health Technology Assessment And Reimbursement Decisions

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Introduction. Patient preferences (PPs) are an important source of evidence in health technology assessment (HTA). However, a methodological framework to achieve their integration in decision-making is lacking. We aim to investigate the potential role of evaluative frameworks to integrate PP evidence into HTA and decision-making.

Methods. We undertook a scoping review to identify potential methodological frameworks to consider PP evidence in HTA and evidence of the acceptability of these frameworks for decision-makers. We searched PubMed, Cochrane, and the grey literature to identify relevant studies, reports, or guidance documents. We restricted our search to the use of PP rather than patient experience data and excluded articles solely relating to deliberative approaches.

Results. Frameworks identified as having the potential to integrate PP evidence included cost-utility analysis, cost-consequence analysis (CCA), the efficiency-frontier approach, and multi-criteria decision analysis. All have been used in various HTA contexts, but not necessarily for inclusion of PP evidence. Distinct benefits and challenges of integrating PP data were identified for each framework. These included the theoretical basis of the frameworks, their ability to consider non-health as well as health outcomes, and their ability to separate outcomes based on PPs from outcomes based on population preferences. There is limited evidence and no consensus on the application of these frameworks to consider PPs in HTA or on their acceptability for decision-makers. However, CCA has the advantage

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that it is both based on economic decision theory and it leaves patient preferences disaggregated from population preferences in an HTA.
Conclusions. The frameworks identified in this review offer potential approaches to systematically and transparently integrate PPs into HTA and decision-making. Based on the review findings, we propose a research agenda to explore the potential of CCA in particular. We anticipate that our findings will augment the recommendations of the Innovative Medicines Initiative PREFER project, which are expected to report in 2022.

OP86 Chatbot-Based Symptom-Checkers: A Systematic Review

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Introduction. Symptom-checkers are digital health applications (DHA) with diagnostic algorithms. These symptom-checkers claim to improve the diagnostic process and patient guidance. After asking the user to describe the symptoms using a chatbot interface, the symptom-checkers offer a list of potential diagnoses, and/or give recommendations for appropriate action (self-care, doctor's visit, or emergency care). Because of the growing number and increasing use of these diagnostic DHA, there is a need to evaluate the evidence.
Methods. We updated a British evidence synthesis on symptom-checkers from the National Institute for Health Research (NIHR, 2019). For the systematic update search, we selected four databases. The following endpoints were selected: effectiveness, safety, diagnostic accuracy, triage accuracy, organizational and patient-relevant endpoints. For accuracy studies included from the update search, we assessed the risk of bias (RoB) using the quality assessment tool of diagnostic accuracy studies (QUADAS-2).
Results. The NIHR-report included 27 studies. We added 14 additional studies via update search. One randomized-controlled-trial (RCT) reported a prolonged illness duration when using symptom-checkers (statistically non-significant). No harms when using symptom-checkers were identified (six observational studies). The diagnostic accuracy ranged from 14-84.3 percent (ten observational studies), the triage accuracy ranged from 33-100 percent (eleven observational studies). For organizational endpoints, the results were inconsistent (one RCT, six observational studies). The patient perspective indicates a high usability for symptom-checkers, but the limited description of symptoms and the missing verbal interaction with health personnel were mentioned as hindering factors (nine survey-studies). The QUADAS-2 assessment for RoB was low in one, and high in seven studies.
Conclusions. The studies were often conducted using fictitious case-vignettes, limiting the validity of the evidence. Therefore, the results for the diagnostic and triage accuracy are insufficient to demonstrate a benefit in real-world settings. Additionally, there is a concern for misdiagnosis and overdiagnosis. We recommend a continuous monitoring of these diagnostic DHA, using high-quality studies.

OP87 Value From A Multi-stakeholder Perspective: A Framework To Assess Digital Health Solutions For Improving Chronic Disease Management

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Introduction. Innovative digital health technologies (DHTs) may present new aspects of value that are not appropriately accounted for in current health technology assessments. In discovering what value means in the context of DHTs, multi-stakeholder collaboration is essential.
Methods. A scoping literature review was conducted to identify current value assessment criteria and proposed methodologies across three health systems: United States of America, United Kingdom, and Germany. A Delphi exercise was conducted with stakeholders from the following groups: users, healthcare practitioners, decision-makers, supply-side actors, and influencers. Based on a review of assessment frameworks in the study countries and consultations with experts from each stakeholder group, researchers proposed value constructs in five domains: health inequalities, data rights and governance, technical and security, economic characteristics, clinical characteristics, and user preferences. In Delphi round one, participants commented on the proposed constructs and submitted their own. A thematic analysis identifying key concepts and themes of the participant proposed constructs and comments was used to incorporate this information for round two. Then, participants rated each value construct on an 'importance' Likert scale in two decision contexts: user-facing DHTs and system-facing DHTs. In round three, participants were presented with the consensus judgement for each construct, with the opportunity to change their answer. Value constructs with equal to or greater than 70 percent consensus were included in the final framework. Rounds four and five were, respectively, value judgements on a Likert scale and a presentation of consensus for a therapeutic area to test the final framework.
Results. Initially 32 value constructs were proposed by researchers, 20 of which were changed or removed based on round one feedback. Additional constructs were added based on participant suggestions resulting in forty-five value constructs in round two. The final framework will be available after round three closes on 20 December 2022.
Conclusions. The multi-stakeholder Delphi approach ensures that all suggestions and value judgements are weighted equally across stakeholder groups. The resultant value framework can be used to inform policymaking around health technology assessment of DHTs.

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