S30 Oral Presentations

#### OP80 'Green Metrics' -Incorporating Environmental Dimensions In Health Technology Assessment

Tjerk Jan Schuitmaker-Warnaar (t.j.schuitmaker@vu.nl), Sevgi Fruytier and Callum Gunn

Introduction. Climate change as the result of human action and the risks it poses to human health are well established. In healthcare there is increasing attention to climate and environmental impacts of the use of medical and health technologies. As part of a lifecycle approach, health technology assessment (HTA) needs to take climate and environmental impacts into account. In 2020, the new definition of HTA added the dimension 'environmental aspects', with which the value of health technologies can be determined and assessed in terms of their impact on the environment. This led several HTA organizations to explore opportunities for including environmental impacts in HTA procedures. It is, however, yet unclear how many researchers and HTA organizations are already working on this sustainability dimension, in what way, with which (international) partners, and what they have achieved as of now. Furthermore, the complex relations between the climate crisis, environmental pollution, health and care are difficult to trace, and methods are scarce. In HTA, there is an increasing need for outcome measures that, in addition to clinical utility, effectiveness, efficiency or satisfaction, also quantify the environmental impact of medical interventions (i.e., green metrics).

Methods. We report on (i) a scoping of international (research) groups and (HTA) organizations that are working on green metrics; (ii) a literature review into the state of affairs with regard to metrics and methods; and (iii) an impact analysis of possible future inclusion of green metrics in HTA procedures. We supplemented a review of (grey) literature with interviews with HTA organizations pioneering with green metrics, and we have conducted a review of available scientific literature, yielding examples of incorporation of environmental aspects into HTA and reports on practical implications.

**Results.** Carbon dioxide emissions and pollution by the health sector are currently being explored as green metrics. Differences between direct and indirect environmental impacts complicate the evaluation. **Conclusions.** Green metrics should eventually make it possible to assess sustainability in healthcare as part of a lifecycle approach.

## OP81 Do Sustainable Healthcare Principles Inform Guidance Development? An Exemplary Case Study In Respiratory Care

Sarah Walpole (sarah.walpole1@nhs.net), Naba Khan, James Smith, Olga Rostkowska and Fiona Miller

Introduction. At the United Nations Climate Change Conference (COP26) in 2021, over 40 countries made commitments to low carbon, sustainable health care. Respiratory care provides a case study to explore how existing evidenced-based guidance can inform progress towards more sustainable care pathways and technologies. Our aim is to identify whether environmental aspects of health technology assessment (HTA) are referenced in guidance and the extent to which the four principles of sustainable health care (prevention, self-care, streamlining, and low carbon technology) are promoted in guidance. Methods. Internet searches enabled identification of current national guidance on management of respiratory diseases in English, French or Polish. Guidances were reviewed to identify references to environmental aspects of HTA and recommendations that align with each of the four sustainable healthcare principles.

Results. Guidance on respiratory care is produced by varied stakeholders globally. Some principles of sustainable health care are frequently reflected in guidance to improve quality of care, but others are missed where environment sustainability is not considered. Reference to HTAs incorporating environmental impacts is lacking. There is limited engagement with the environmental impacts of inhalers in guidance. Guidance created by clinician groups (e.g., Greener Practice) and research networks (e.g., Centre for Sustainable Health Systems) has responded more quickly to the need to address sustainability concerns compared to guidance produced by national public bodies.

Conclusions. HTA organizations may need to take a broader perspective, incorporating environmental impacts in assessments. This could have an influential role in enabling evidence-informed guidance and development of sustainable care pathways and technologies. Limitations of our study were lack of evaluation of local guidance due to limited capacity, language restrictions, and subjectivity in assessing whether each sustainable healthcare principle was addressed in guidance. There may be limited transferability of our results to other specialties or settings. Further research on the sustainability impacts and relative merits of different health technologies and care pathways is required to inform HTA and guidance.

# OP82 Patient Involvement In Health Technology Assessment

Lyazzat Kulembekova,

Lyazzat Kosherbayeva (lyazzat.k@mail.ru), David Hailey, Adlet Tabarov and Anar Imanbekova

**Introduction.** Patients are increasingly involved in the decision-making process for health technology assessment (HTA), but the question of at what stage they can be involved is still controversial. In Kazakhstan, the HTA process began in 2010. Over the past 2 years, implementation of a project to develop a priority-setting tool based on evidence-informed deliberative processes has made it possible to discuss the participation of patients in HTA. We explored the possibilities of participation of patients or a patient-oriented group in the HTA process.

**Methods.** Structured interviews were held with eight people with interests in HTA. Two were representatives of universities, two from

Oral Presentations S31

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

Yolanda Triñanes (yolanda.trinanes.pego@sergas.es), Eva Reviriego-Rodrigo, Lucía Prieto-Remón, Blanca Novellas-Arriba, Edurne Gallastegui, Máximo Molina-Linde, Matilde Palma-Ruiz and Ana Toledo-Chavarri

**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

Jennifer Whitty (jenny.whitty@evidera.com), Kevin Marsh, Eric Low, Koonal Shah and Mendwas Dzingina

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 decisionmakers. 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