OP31 Assessment Of AI Supported Health Technologies - How To Move Forward?

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Introduction. Artificial intelligence (AI)-supported technologies are rapidly developing and have the potential to improve healthcare quality at reduced cost. However, few examples exist of successfully deployed AI-technologies in a real-world context that have been adequately assessed. Therefore, the objective of this research is to: (i) identify existing health technology assessment (HTA) methods developed or adapted to assess AI-supported health technologies, (ii) identify new assessment topics or domains relevant for AI-technology uptake, and (iii) take the first step in developing a framework applicable for new challenges that emerge with the introduction of AI.

Methods. A systematic literature review of studies describing methods or frameworks to assess AI-supported health technologies was performed on PubMed from January 2010 until February 2021. Furthermore, a web page search of international HTA agencies and international organizations such as the World Health Organization, Organziation for Economic and Co-ordination and Development, and the European Commission was performed to identify important aspects to consider when implementing and assessing AI technologies.

Results. No assessment frameworks for AI technologies were identified from the systematic literature review or web page searches of international HTA agencies. Reports from international organizations highlight limitations or inability of most AI technologies to 'explain' their decision-making process (black box issue), leading to lack of trust in the technology that affects its adoption. It is recommended to put more emphasis on assessing transparency and 'explainability' of the AI solution as well as aspects of safety, ethical, legal, and social issues related to implementation and the development/training phase of the AI technology.

Conclusions. The results from this study uncover key gaps in frameworks posed for performing a systematic and holistic assessment of AI in a real-world context of health care. However, valuable information on relevant assessment aspects for AI-supported technologies have been identified.

The results will form the basis for the development of a framework to assist decision-makers in assessing AI-supported technologies in a holistic manner for a responsible deployment – the HTA AI Framework.

OP32 A Multistep Multistakeholder Priority Setting Exercise For Fecal Incontinence

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Introduction. Fecal incontinence (FI) is the involuntary loss of feces and can affect up to 17 percent of community dwelling individuals, rising to 40 percent of older people in residential care homes. There is limited up-to-date evidence which formally set research priorities addressing FI. This project aimed to identify research topics of highest importance to key FI stakeholders.

Methods. An evidence gap map was produced incorporating three streams of evidence coded against predefined topic domains. The evidence streams included: emerging evidence identified through horizon scanning; existing evidence identified through systematic searches of bibliographic databases; and key FI stakeholder insights collected through an international survey. Findings were presented as a visual map to facilitate knowledge exchange during an online workshop with a purposeful sample of multidisciplinary stakeholders. The identified gaps in research were explored to see whether they were deemed representative of unmet needs, and as such, areas of priority to key FI stakeholders. Ideation techniques and group discussions were used to refine and rank priority areas.

Results. Overall, there was a mismatch between the existing and emerging evidence, and the priorities of key FI stakeholders. New pharmaceutical and medical technology innovations were limited. Eight percent of early-stage trials identified were concerned with the use of repurposed drugs. Within the existing evidence base, individual bowel management strategies and treatments were examined, however, key FI stakeholders desired interventions to improve patient education and the psychological aspects of living with FI. The five priority topics identified in order of importance are as follows: psychological support; lifestyle interventions; long-term effects; education; and constipation.

Conclusions. The robust methodology used to identify priority topics were successful in identifying broad and wide-ranging areas of importance to key stakeholders. The evidence gap map was a useful visual tool to facilitate knowledge exchange and highlight where research efforts have been focused historically, identifying a mismatch between the existing evidence base and what stakeholders consider important.

OP33 Expectations, Needs And Challenges Of Setting Up An International Collaboration On Horizon Scanning For Medical Devices

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Introduction. International collaboration on horizon scanning for medical devices is seen as desirable, because the development of medical devices is not limited to the national level, and horizon scanning for medical devices on a country-level can be challenging due to scarcity and diversity of information. The International Horizon Scanning Initiative Medical Devices Working Group (IHSI MDWG) was set up in June 2021. The objective of this study was