PP24 Creating A Comprehensive Open-Access Health Technology Assessment (HTA) Policy Research Database Through Automated Data Extraction From HTA Reports

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Introduction: Findable, structured, and understandable data from health technology assessment (HTA) reports is the core of HTA policy research. Available databases with this information, such as the International Network of Agencies for Health Technology Assessment (INAHTA) database, may be incomplete and their common manual data collection is time-consuming. Automated data extraction may offer a solution by creating a standardized, real-time-updating, comprehensive, open-access HTA database.

Methods: In this research, we explore the possibilities of automated data extraction in the context of creating a standardized and comprehensive HTA policy research database. Data points were extracted from publicly available guidance reports of the National Institute for Health and Care Excellence (NICE) using different text extraction techniques such as natural language processing (NLP) and generative pre-trained transformers (GPTs). Future efforts are aiming to expand the database to other HTA bodies and link it to the European Medicines Regulatory Database (EMRD) that is also being developed.

Results: Preliminary results of our research show that it is possible to use existing text extraction techniques to extract relevant information from publicly available HTA recommendations. Scaling the system to include more HTA bodies and data points is challenging as extraction based on document structure is complicated by heterogeneity in document structure within HTA bodies and between HTA bodies. Future results will focus on finding the best data extraction approach for each data point and on validating the system.

Conclusions: Using automated data extraction to extract data from HTA reports can be a viable option for creating a comprehensive database that can be used to enhance comparative HTA policy research. Challenges remain in scaling the system to include more HTA bodies and data points. Results regarding best-performing extraction techniques and data validation of the system are expected soon.

PP25 Artificial Intelligence In Healthcare Decision-Making: Addressing Challenges, Ethical Considerations, And Bias

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Introduction: Artificial intelligence (AI) is transforming healthcare decision-making, particularly in evidence evaluation and health technology assessment (HTA). This research explores challenges and ethical considerations associated with AI implementation, and biases. It highlights the need for diverse stakeholder perspectives and collaboration to ensure responsible AI use. Through transparency, accountability, and bias mitigation, AI has the potential to revolutionize decision-making and improve patient care while promoting equitable outcomes.

Methods: Literature research was conducted, including peer-reviewed studies and grey literature, using the PEARL search strategy. Relevant articles from various databases and sources were screened and selected based on their alignment with the research objectives. The selected articles were then analyzed to identify key findings and insights related to the integration of AI in healthcare decision-making, ethical considerations, bias mitigation, and stakeholder perspectives.

Results: The literature research revealed that AI in healthcare decision-making holds great promise. AI algorithms can efficiently analyze diverse healthcare data sources, improve evidence evaluation, and streamline decision-making processes. Ethical considerations, patient privacy and transparency are crucial. Bias in AI algorithms emerged as a significant challenge, requiring diverse and representative data, bias testing, and explainable AI. Stakeholder engagement plays a vital role in responsible AI implementation. Strategies for ongoing monitoring, collaboration, and training were identified to ensure fair and ethical decision-making in healthcare. The results emphasize the need for a balanced approach to harness the potential of AI while addressing its challenges.

Conclusions: Integration of AI in healthcare decision-making offers promising opportunities but also presents challenges that need to be carefully navigated. By addressing ethical considerations and mitigating bias, AI can revolutionize decision-making, improve patient outcomes, and ensure the responsible and ethical use of AI in healthcare. The results provide valuable insights and recommendations for researchers working in the field of HTA.