OP71 PriTec Tool 2: Adaptation For Selection Of Technologies To Be Assessed For Inclusion Into The Health Care System

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Introduction. The PriTec Tool is an automatically executable multi-criteria web application developed in 2009 by the Galician Health Knowledge Agency (avalia-t; ACIS) for the prioritization of technologies susceptible of post-introduction observation or obsolescence. Currently, the tool has been updated and improved to support the selection process of technologies to be assessed for inclusion into the National Public Health Care Portfolio. The aim of this work is to present the updated version of the tool (PriTec Tool 2) with the new functionalities.
Methods. The development of the tool was based on a mixed-method approach, comprising a systematic review, followed by a five-step process: (i) development of the preliminary proposal of prioritization criteria and domains; (ii) contextualization and validation of the criteria and domains by a multidisciplinary group of key stakeholders; (iii) assessment of validity, reliability and suitability of criteria; (iv) weighting of domains; and (v) evaluation of applicability, reliability and reproducibility of the tool.
Results. The tool consists of 15 criteria categorized in 5 domains. The web application ranks the technologies through automatic computation of the weighted average of the different criteria and generates a comparative analysis of the individual or working group results. The application allows access to different options: working groups, case studies or technology comparison. It allows for individual prioritizations or managing working groups. When applied to prioritize the Spanish Network of Health Technology Assessment (HTA) Agencies yearly workplan it achieved an intraclass correlation coefficient of 0.71 (95% confidence interval 0.62, 0.88).
Conclusions. The updated PriTec Tool-2 can be very useful to guide decision-making regarding the assessments that would be mostly needed to ensure health, equity and sustainability. The tool stands out for its simplicity and ease of application. It is acknowledged that the tool could be of great interest to policy makers, HTA bodies and other health decision-makers worldwide.

OP72 Software Tools For Systematic Literature Review In Medicine: A Review And Feature Analysis

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Introduction. Systematic reviews (SRs) are central to evaluating therapies but have high costs in time and money. Many software tools exist to assist with SRs, but most tools do not support the full process, and transparency and replicability of SR depends on performing and presenting evidence according to established best practices. In order to provide a basis for comparing between software tools that support SR, we performed a feature-by-feature comparison of SR tools.
Methods. We searched for SR tools by reviewing any such tool listed the Systematic Review Toolbox, previous reviews of SR tools, and qualitative Google searching. We included all SR tools that were currently functional, and required no coding and excluded reference managers, desktop applications, and statistical software. The list of features to assess was populated by combining all features assessed in four previous reviews of SR tools; we also added five features (manual addition, screening automation, dual extraction, living review, and public outputs) that were independently noted as best practices or enhancements of transparency/replicability. Then, two reviewers assigned binary 'present/absent' assessments to all SR tools with respect to all features, and a third reviewer adjudicated all disagreements.
Results. Of 53 SR tools found, 29 were excluded, leaving 24 for assessment. Thirty features were assessed across six classes, and the inter-observer agreement was 86 percent. DistillerSR (Evidence Partners; n = 26/30, 87%), Nested Knowledge (Nested Knowledge; n = 25/30, 83%), and EPPI-Reviewer Web (EPPI-Centre; n = 24/30, 80%) support the most features followed by Giotto Compliance (Giotto Compliance; n = 23/30, 77%), LitStream (ICF; n = 22/30, 73%), and SRDB.PRO (VTS Software; n = 21/30, 70%). Seven tools support fewer than half of all features assessed: RobotAnalyst, SyRF, Data Abstraction Assistant, SWIFT-Review, SR-Accelerator, RobotReviewer, and COVID-NMA. Notably, only 10 tools (42%) support direct search, 7 (29%) offer dual extraction, and 13 (54%) offer living/updatable reviews.
Conclusions. DistillerSR, EPPI-Reviewer Web, and Nested Knowledge each offer a high density of SR-focused web-based tools. By transparent comparison and discussion regarding SR tool functionality, the medical community can choose among existing software offerings and note the areas of growth needed, most notably in the support of living reviews.

OP73 Tools That Can Aid Adaptive HTA To Ensure Rapid, Efficient, And Pragmatic Priority Setting: A Scoping Review

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Introduction. Producing new health technology assessments (HTA) can be a time-consuming process. With finite resources in HTA agencies, limited capacities in countries without formalized HTA processes, and growing interest for lifecycles approaches valuing

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health technologies; innovative and efficient HTA processes are needed. "Adaptive HTA", referring to the pragmatic use of HTA methods and existing (HTA) evidence, might offer solutions. We will present the results from a scoping review that mapped existing tools, methods, practices to transfer existing HTAs; and reflect on these findings given our own experiences of adaptation processes in LMICs.

Methods. We undertook a scoping review and systematically searched five electronic databases. Inclusion of articles followed strict in- and exclusion criteria. Data extraction focused on information regarding tools, methods, and practices that could aid the transferability of HTA analysis. Here, HTAs referred to full-HTAs and other HTA products, as partial HTAs, economic evaluations, or systematic reviews. Lastly, we mapped the possible overarching factors that can affect transferability.

Results. The search (November 2020) identified 2030 hits, of which 19 were included. Most HTA transfers followed five steps that closely resemble a de novo HTA process. The identified transferability tools, often checklists, were merely aids or a "catalyst" for the transfer and provided limited guidance for the whole transfer process. Contrastingly, we identified three frameworks that can support the whole process: European Network for HTA (EUnetHTA) Adaptation Toolkit, TRANSFER framework for systematic reviews, and paper series on systematic reviews for economic evaluations. Lastly, our findings pointed to various challenges and knowledge gaps; especially for transfers in low and middle income countries evidence is limited.

Conclusions. The re-use of existing evidence in HTA reports is not new; and readily part of de novo and adaptive processes. The innovative nature of adaptive HTA comes from its ability to unpack the process of adaptation and transferability. Simultaneously, this scoping review highlighted gaps in existing adaptive methods, and could aid future adaptive HTA process for experienced and new HTA-doers.

OP74 Assessing Public Confidence Towards COVID-19 Vaccines Through Social Media Insights Leveraged Using Artificial Intelligence Techniques

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Introduction. In areas where public confidence is low and there is a lack of understanding around behaviors, such as COVID-19 vaccine hesitancy, there is a need to explore novel sources of evidence. When leveraged using artificial intelligence (AI) techniques, social media data may offer rich insights into public concerns around vaccination. Currently, sources of 'soft-intelligence' are underutilized by policy makers, health technology assessment (HTA) and other public health research agencies. In this work, we used an AI platform to rapidly detect and analyze key barriers to vaccine uptake from a sample of geo-located tweets.

Methods. An AI-based tool was deployed using a robust search strategy to capture tweets associated with COVID-19 vaccination, posted from users in London, United Kingdom. The tool's algorithm automatically clustered tweets based on key topics of discussion and sentiment. Tweets contained within the 12 most populated topics with negative sentiment were extracted. The extracted tweets were mapped to one of six pre-determined themes (safety, mistrust, under-representation, complacency, ineffectiveness, and access) informed using the World Health Organization's 3Cs vaccine hesitancy model. All collated tweets were anonymized.

Results. We identified 91,473 tweets posted between 30 November 2020 and 15 August 2021. A sample of 913 tweets were extracted from the twelve negative topic clusters. Of these, 302 tweets were coded to a vaccine hesitancy theme. 'Safety' (29%) and 'mistrust' (23%) were the most commonly coded themes; the least commonly coded was 'under-representation' (3%). Within the main themes, adverse reactions, inadequate assessment, and rushed development of the vaccines as key findings. Our analysis also revealed widespread sharing of misinformation.

Conclusions. Using an AI-based text analytics tool, we were able to rapidly assess public confidence in COVID-19 vaccination and identify key barriers to uptake from a corpus of geo-located tweets. Our findings support a growing body of evidence and confidence surrounding the use of AI tools to efficiently analyze early sources of soft-intelligence evidence in public health research.

OP76 "Thunderbirds Are Go!" Rapid Response HTA Outputs For COVID-19

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Introduction. The COVID-19 pandemic has highlighted the need for rapid assessment of potential health technologies that can improve health outcomes in COVID-19 patients, as well as helping pressurized health service provision. Medical technologies play a key role in the COVID-19 pandemic, especially diagnostic tests and respiratory technologies. This study evaluates the rapid response work that the medical technology evaluation programme (MTEP) at the National Institute for Health and Care Excellence (NICE) has done in response to the COVID-19 pandemic.

Methods. Companies routinely submit medical technologies for evaluation by NICE through HealthTech Connect, which is an online portal for devices, diagnostics and digital technologies intended for use in the NHS or wider United Kingdom health and care system. During the COVID-19 pandemic, companies were able to use a designated email address if they perceived their technology may benefit the healthcare system regarding the COVID-19 pandemic. This new system bypassed the usual full registration and data submission. All technologies were reviewed that were submitted via HealthTech connect and email between March 2020 and June 2021.

Results. During this period, 20 technologies were submitted to MTEP. Most of these technologies were submitted via email. These technologies consisted of a mix of digital, diagnostic, and respiratory

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