Conclusions. Although the results are promising for using telemedicine to bridge gaps and improve equity in the provision of basic health services for patients with chronic diseases in remote locations during the COVID-19 pandemic, a widespread use assessment should be undertaken before this tool is adopted.

PD43 Estimating Societal Costs Associated With Vision Loss And Delayed Cataract Surgery: The Potential Impact Of The COVID-19 Pandemic

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Introduction. Cataract surgery is the most commonly performed surgical procedure in the UK (approx. 472,000 annually). The suspension of interventions due to the COVID-19 pandemic, has had a devastating impact on patients' access to care. In the UK a complete cessation of elective cataract surgery during the crisis has been an unfortunate reality and encompassed a 14 week hiatus to services in the National Health Service. Patients on prolonged waiting lists may experience negative outcomes during the wait period, including vision loss, increased risk of falls, and ultimately, poorer health-related quality of life (HRQoL). The objective of this research was to estimate the potential societal costs associated with vision-loss related to prolonged waiting times for cataract surgery, as a consequence of COVID-19 in the UK.
Methods. In this analysis, we present estimates relating to two cohorts: a hypothetical cohort of 1,000 cataract surgeries and quarterly estimates of cataract surgeries in the UK. Quarterly estimates (n=122,969) were chosen to reflect a suspension of cataract surgeries for 14 weeks during the COVID-19 crisis. UK cataract surgery numbers were attained from EUROSTAT. Estimates for decreasing visual acuity for those waiting for surgery were attained from the literature, as were the cost estimates associated with cataract-related sight-loss, which were made up of direct, indirect and intangible costs. Five scenarios (at 20% intervals) were simulated for the cost estimates, assuming from 20 percent to 100 percent clearing of waiting lists.
Results. For cohort 1 (1,000 patients), the societal costs associated patients remaining on waiting list for one year, ranged between GBP 237,765 (EUR 279,533) (20% of patients remain untreated) to GBP 1.18m (EUR 1.39m) (100% remain untreated). For cohort 2 (n=122,969) cost estimates are in the region of GBP 29.23m to GBP 146.18m (EUR 34.36m to EUR 171.73m). Estimates consist of direct (15.6%), indirect (28.7%) and intangible costs (55.6%).
Conclusions. Cataract surgery is a sight saving procedure and its impact on HRQoL is overwhelmingly positive. Prolonged waiting times for cataract patients due to COVID-19 is likely to be associated with significant societal costs.

PD44 Realistic Review: Theoretical Model For Monitoring And Evaluation (M&E) Of Health Technology Assessment Management

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Introduction. Realistic Review (RR) is a methodology for systematic review proposed by Pawson (2002), to guide policy formulation. It is aimed at policy makers and decision makers and seeks to explain how a given intervention succeeds or fails in a certain context, allowing the identification of more suitable alternatives to solve problems. The objective of this study was to develop a theoretical model for Monitoring and Evaluation (M&E) of Health Technology Assessment (HTA) management.
Methods. The realistic review sought to identify aspects that influence HTA contributions. Studies were included if they provided a description of context and description of HTA contributions. Key purpose elements were extracted from selected studies and the contexts of HTA contributions were analyzed. The association between context and types and areas of contributions of HTA in different realities was synthesized. We analyzed thirty-one articles published in international journals in the area of health technology assessment and three articles on assessment policy in Brazil, nominated by experts.
Results. It was possible to identify situations that generate demands for HTA; favorable and unfavorable contexts and factors for contributions; main functions of networks; main products resulting from the application of evaluations; results and impact predicted by the action of the networks.
The logical model starts with conjunctural aspects that generate demands: economic, social and cultural. In a favorable context, the definition of priorities and debates in the negotiation arenas influence research and the policy formulation process. Networks identify evidence and contribute to knowledge management, generating products, results and impacts.
Conclusions. The use of the theoretical model created from the realistic review is a tool that allows the M&E of HTA management.

PD45 Paying For Digital Health: What Evidence Is Needed?

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Introduction. Digital transformation has been promoted by the World Health Organization (WHO), Food and Drug Administration

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(FDA) and the European Commission (EC) to help improve health outcomes. To ensure sustainability, digital health interventions (DHI) require funding by payers. Evidence-informed decision and policy making requires an assessment of the impact on relevant outcomes vs current healthcare practice. Various national and international organizations are involved in creating or guiding the development of standards for the evidence required for digital technologies.

Methods. We undertook an intensive individual investigation of the websites of leading payer and health technology assessment (HTA) bodies in France, UK, Germany, Belgium, Austria, Finland, Canada, Australia, and the USA to identify new frameworks and any updated information. As the objective focused on evaluation frameworks which were used across DHIs by a particular payer to support pricing and reimbursement decisions, we excluded individual case studies where DHIs had been assessed, regulatory frameworks for approval of DHIs and frameworks which assessed feasibility or applicability of a DHI since these were not directly influencing the decision for funding.

Results. We found six frameworks which directly address digital health interventions for the purposes of pricing and reimbursement: NICE Evidence Standards, FinCCHTA, MSAC, Germany BfArM, Belgium RIZIV and France HAS. The context for the framework and the requirements were compared on parameters including those normally found in HTA and for criteria related to digital technologies. The parameters included varied considerably across the frameworks as did the level of evidence expected to be available for the assessment. In some cases, these related to the level of risk or impact of the intended DHI.

Conclusions. While DHIs are increasingly used in health, HTA is struggling to adapt to assess these technologies. Due to the multidisciplinary nature of digital health (combination of health care and technology), and the speed and rate of change of innovations in this area, an approach based upon the risk assessment posed by the technology seems reasonable. In this way the level of effort can be tailored to those interventions which seek to influence care or predict outcomes rather than those which are tailored to increased awareness of the patient about their condition.

PD46 Multi-Criteria Decision Analysis In Healthcare: Scientometric And Bibliometric Analysis

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Introduction. Multi-criteria decision analysis (MCDA) is a useful tool in complex decision-making situations and has been used in medical fields to evaluate treatment options and drug selection. We aimed to provide valuable insights on the use of MCDA in health care through examining the research focus of existing studies, major fields, major applications, most productive authors and countries, and most common journals in the domain using a scientometric and bibliometric analysis.

Methods. Publications related to MCDA in health care were identified by searching the Web of Science Core Collection on 14 July 2021. Three bibliometric software programs (VOSviewer, Bibliometrix, and CiteSpace) were used to conduct the analysis.

Results. A total of 410 publications were identified from 196 academic journals (average yearly growth rate of 32% from 1999 to 2021), with 23,637 co-cited references by 871 institutions from 70 countries or regions. The USA was the most productive country (n=80), while the Universiti Pendidikan Sultan Idris (n=16), Université de Montréal (n= 13), and Syreon Research Institute (n=12) were the most productive institutions. The biggest nodes in every cluster of author networks were Aos Alaa Zaidan, Mireille Goetghebeur, and Zoltan Kalo. The top journals in terms of number of articles (n=17) and citations (n=1,673) were Value in Health and the Journal of Medical Systems, respectively. The research hotspots mainly included the analytic hierarchy process (AHP), decision-making, health technology assessment, and healthcare waste management. In the recent literature there was more emphasis on coronavirus disease 2019 (COVID-19) and fuzzy Technique for Order Preference by Similarities to Ideal Solution (TOPSIS). Big data, telemedicine, TOPSIS, and the fuzzy AHP, which are well-developed and important themes, may be the trends in future research.

Conclusions. This study provides a holistic picture of the MCDA-related literature published in health care. MCDA has a broad application in different topic areas and would be helpful for practitioners, researchers, and decision makers working in health care when faced with complex decisions. It can be argued that the door is still open for improving the role of MCDA in health care, both in its technologies and its application.

PD47 Associations Of Orphan Designation And Other Drug Development-Related Factors On Rollout Times And Health-Technology-Assessment Recommendations Of New-Active-Substances

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Introduction. The orphan designation has been used by the European Medicines Agency to incentivize the development of drugs treating rare diseases with high-unmet medical needs by supporting their development process and economic returns. This study evaluated the impact of the regulatory orphan designation and other drug development-related factors on the rollout times and Health-Technology-Assessment (HTA) recommendations of new active substances (NASs).

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