OD45 Evaluating Quality In Health Economics: Quality Appraisal Checklist For Systematic Reviews Of Studies Eliciting Health State Utility Values

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Introduction: The reliability of cost–utility analyses depends on the quality of health state utility values (HSUVs). Given the increasing number of studies eliciting HSUVs, systematic reviews (SRs) are vital to economic evaluations. Nevertheless, a universally acceptable quality appraisal (QA) tool specific to the SRs of HSUV studies is lacking —this study aimed to develop one and fill this gap.
Methods: We employed a mixed-method approach, starting with a rapid review to identify QA dimensions, QA items, and terminology in the SRs of HSUV-eliciting studies. This informed a modified Delphi process with a seven-member international expert panel, aiming to define key terms, refine the QA tool dimensions, and establish relevant signaling questions. The experts participated in two anonymous online survey rounds interspersed with structured feedback, enabling iterative refinement of their views. Following these surveys, a virtual face-to-face meeting was held to resolve outstanding issues. Consensus was defined a priori at all stages of the modified Delphi process.
Results: The rapid review identified three QA dimensions and 16 initial items, noting the diverse terminologies in defining QA. Response rates to the first- and second-round questionnaires and the virtual consensus meeting were 100, 86, and 71 percent, leading to a consensus on the definitions of scientific quality, QA, the three QA dimensions (reporting, methodological limitation, and risk of bias and relevance), and scope of the QA tool. The number of QA items was refined to 14: all relevant to reporting, six to relevance, and 11 to methodological limitations and bias risk dimensions. The QA tool underscores distinct evaluations for each dimension.
Conclusions: We present the first version of a QA checklist designed to provide SR authors with a tool to appraise the quality of HSUV-eliciting studies comprehensively. The QA tool aims to (i) facilitate QA in SRs of HSUV elicitation studies, (ii) promote consistency in the appraisal process, and (iii) emphasize the importance of differentiating between reporting quality, methodology, and relevance.

OD46 Inequalities In Dementia: Identifying Instruments For Measurement

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Introduction: Despite dementia being the seventh leading cause of death globally, there is relatively little discussion of the presence and impact of inequalities in this context. We explore ways to quantify the magnitude and variation over time of inequalities related to people living with dementia (PLWD) and their informal carers.
Methods: We conducted a targeted literature review to identify inequalities faced by PLWD and their informal carers regarding their access to and experience of health and social care in England, Wales, and Northern Ireland. We selected four of the identified inequalities as case studies (CS) to explore data and methods that can be used to measure and monitor progress to tackle them. The CS considered were: (CS1) timely diagnosis in rural areas; (CS2) financial pressures for informal carers; (CS3) timely diagnosis in deprived areas; and (CS4) diagnosis rates for ethnic minority groups. We use data from 2018 to 2023 in England.
Results: We identified 110 inequalities for PLWD and 28 inequalities for carers. For CS1, we proposed two measures: the "rurality gap" (gap in diagnosis rates between the most and least rural areas) and the "concentration index" (the extent to which diagnosis rates are distributed disproportionately between less or more rural areas). The rurality gap suggests that diagnosis rates are five to eight percent lower in rural areas in England. The concentration index supports this finding. CS2 shows that 41 percent of informal carers experience financial difficulties. Due to insufficient data, it was not possible to construct robust measures for CS3 and CS4.
Conclusions: Many inequalities for PLWD and their informal carers are reported in the literature. Our CS highlight the need to improve methods and data to measure a set of inequalities, including those to calculate dementia prevalence and measure timely diagnosis. Better data is crucial now to inform value assessment of the upcoming Alzheimer's disease treatments and avoid exacerbating existing inequalities.

OD48 Improving Public Understanding Of Health Technology Assessment Decisions

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Introduction: Since 2018, the Scottish Medicines Consortium (SMC) has published a plain English summary for each health technology

assessment (HTA) decision called Decision Explained (DE). This provides clear information to patients, Patient Group Partners (PGPs), and the public about what SMC's decisions mean for them. The DE document was evaluated and updated in 2023 to ensure it continues to meet this purpose.

Methods: The evaluation consisted of two components. All (186) registered PGPs were invited to complete an online five-question survey focusing on the use of the DE document. This included readership, language, and SMC decision-making transparency. A separate focus group for public representatives took place, discussing design, accessibility, and content. Identical sample DE documents were used for both groups for consistency. Survey responses were collated and analyzed. Focus group responses were analyzed using thematic analysis. The DE document was revised, and the new version was considered for implementation by SMC's Public Involvement Network Advisory Group.

Results: Survey respondents (n=20) found the DE document helpful or very helpful in improving understanding of SMC advice. Some commented on complex language and information about how the medicine works being irrelevant. The focus group commented on excess information and favored simplified content and structure. Analysis of both sets of research data resulted in several recommended changes. These included the decision statement being moved to the start of the document, the language being simplified, and the section on how a medicine works being removed. Revised documents including these changes were prepared and were reviewed and approved by the SMC's Public Involvement Network Advisory Group.

Conclusions: Published plain English explanations are helpful for improving patient and public understanding of HTA decisions for new medicines. It is important this information is concise, relevant, and aligned to accessibility good practice. The recent review of the SMC DE documents led to changes that help to ensure they meet the needs of stakeholders.

Poster Presentations

PP01 Early Health Technology Assessments Of Health And Well-Being Returns On Investment In The Biobanks

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Introduction: Human tissue biobanks provide vital infrastructure to support both basic science and clinical research, but their economic value in terms of attributable population health gains is unclear. We evaluated the population health returns from investment in the Victorian Cancer Biobank (VCB). The VCB comprises five hospital-integrated sample repositories and a central lead agency located in Melbourne, Australia.

Methods: This evaluation assigned monetary values to the health gains attributable to VCB-supported public-funded research. These were then compared to the total investment in VCB infrastructure since inception (2006 to 2022) to determine the return on investment (ROI). A time lag of 40 years was incorporated, recognizing the delay from investment to impact in scientific research. Health gains were therefore measured for the years 2046 to 2066, with a three percent discount rate applied. Health gains were measured in terms of disability-adjusted life years (DALYs) attributable to VCB-associated research, with monetary cost assigned via the standardized value of a statistical life year (AUD227,000 [USD149,883]).

Results: The age-standardized DALY rate attributable to cancer was modeled for two standpoints: (i) extrapolating the current decreasing trajectory and (ii) assuming nil future improvement from current rates, with 33 percent of the difference attributed to scientific innovation. The proportion of the aggregate health gain attributable to VCB-supported research was estimated from the number of VCB-credited scientific publications as a proportion of total oncology publications over the same period. The AUD32,628,016 [USD21,554,571] of public funding invested in VCB activities over the years 2006 to 2022 generated AUD84,561,373 [USD55,868,539] total savings. Return on investment was AUD1.59 [USD1.05] for each AUD1 [USD0.66] invested.

Conclusions: The VCB offers a strong return on investment in terms of population health impacts, justifying the use of public funds and supporting the use of biobanks to advance scientific research. Future health technology assessments could capture the total impact of research on the role of the biobanks attributed to research outputs.

PP02 The Application Of Care Pathway Analysis And Economic Modeling In Early Health Technology Assessment: Learnings From Two Projects

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Introduction: Early health technology assessment (eHTA) can help to explore the potential value of a technology in the early stages of development. Care pathway analysis (CPA) is a method to identify and map clinical decisions in the current and new care pathways (including the new intervention). This work provides examples of applying CPA within the context of eHTA for medical interventions.

Methods: CPA usually involves a pragmatic review to identify and synthesize national/international guidelines that describe the care pathway for the condition of interest. This is typically followed by a qualitative evaluation that can include semistructured interviews with thematic analysis. Interviews with experts are undertaken to understand where (and why) real-world practices differ from published guidance and to validate the care pathway. They also help to