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

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evaluate the strengths/weaknesses of the new technology, potential population and role in the pathway, and barriers/facilitators to adoption. The CPA forms the basis of economic modeling that helps assess the monetary value of the new technology.
Results: The application of CPA from two recent projects will be presented: an innovative diagnostic test for respiratory tract infections and a medical device for treating cataracts. Additionally, the value of CPA in eHTA will be described from the technology developers' perspective. In both projects, CPA was used to inform the potential value propositions of the new technology and its positioning in the care pathway. It also helped to optimize the structure of the early economic model and to identify evidence generation needs. The early model identified the pathway that was more likely to be cost effective in the future.
Conclusions: CPA is a valuable method within the context of eHTA. Alongside identifying the potential role and positioning of the new technology, test developers found the assessment useful for informing internal strategy decisions and discussions with potential external investors. The developers were able to demonstrate the clinical perspective around the value of the test, elicited through an independent and rigorous methodology.

PP03 Investigating Technological Strategies In The Hospital Setting: Insights From The Dutch Context

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Introduction: Rapid advancements in technology are significantly impacting the healthcare system, and decision-making regarding technology adoption occurs at multiple decentralized levels within hospitals. National bodies seek to standardize this process, yet differing visions and strategies hinder centralization. This study explores the relationship between technological innovation and hospital strategies, focusing on scanning and assessment, aiming to assess the feasibility of centralized decision-making.
Methods: To do this, we performed a qualitative analysis through 23 semistructured interviews in seven hospitals in the Netherlands, a country characterized by strong healthcare innovation and decentralization. We interviewed different actors involved in technological innovation, on different levels in the organization: CEOs, medical doctors, medical physicists or similar roles, and innovation managers. Ethics approval was obtained, and interviews were conducted, recorded, transcribed, and shared with participants for accuracy confirmation. Thematic analysis via grounded theory methodology and ATLAS.ti software generated insights on technological innovation's relationship to hospitals' strategies. Initial codes were refined into themes relevant to the research question.
Results: Hospitals primarily aim to provide optimal patient care, with academic hospitals emphasizing research and education. Some hospitals aspire to be pioneers in adopting new technologies, while patient-centric healthcare is a shared goal. Technological strategies are not precisely designed in hospitals, being shaped by factors like people, financial constraints, or external environments. Hospitals' scanning of technologies lacks systematization, and evaluations before and after technology adoption are not univocally performed. The need for systematic scanning and assessment practices is recognized by some interviewees, while others emphasize the importance of experimenting without the constraint of evaluation, perceiving it as a hurdle delaying innovation.
Conclusions: Centralization could represent a benefit for hospitals, allowing them more streamlined decision-making, but it could also be perceived as a barrier. Involving hospitals' stakeholders in centralization would be crucial to achieve it through a joint effort. Suggestions for future research could include focusing on a specific hospital, involving more stakeholders, and exploring other decentralized healthcare systems.

PP04 Assessing The Utility Of Natural Language Processing In Generating A Granular Estimated Indication For A Horizon Scanning Database

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Introduction: Detailed, precise information on a pharmaceutical's projected therapeutic use is required for horizon scanning. Inferring an estimated indication from trial protocols is a key skill of horizon scanners. The International Horizon Scanning Initiative (IHSI) database utilizes semi-automated data collection. This pilot aimed to verify that the extraction of relevant word sets to generate an estimated indication could be semi-automated.
Methods: Ten drugs approved in Europe in 2021 were selected as the pilot test set. The test set included drugs approved for the treatment of rare diseases (n=4), haemato-oncology (n=3), and non-oncology conditions (n=3). Eight of the drugs were approved based on phase III trials. The assessment comprised a review of the pivotal trial that supported product registration for these drugs. We undertook a comparison between a human curator and a natural language processing (NLP) algorithm in generating granular tags relating to key aspects of the drugs' estimated indication (stage of disease, patient-specific subgroup, and place in treatment).
Results: In 50 percent of cases, the NLP accurately tagged a word or word set related to stage of disease, patient-specific subgroup, or place in treatment, which was also tagged by human curators. In 50 percent of cases, the NLP did not identify words or word sets tagged by human curators. Where relevant, the NLP successfully tagged the same word sets relating to stage of disease for all drugs in the test set. The same word sets relating to patient-specific subgroup were

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