PP89 Stimulating And Assuring Evidence Quality From A Dutch Funders' Perspective – Introducing The ZonMw Reporting Checklist

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Introduction. All studies should report methods and findings in full, following credible and justifiable reporting guidelines. According to the guiding principles of the Ensuring Value in Research (EViR) Funders' Forum (www.evir.org), this applies irrespective of the nature of the findings or whether the study was completed as planned.
One way for a public funding agency to address evidence quality and transparency is to adaptively implement EQUATOR reporting guidelines (www.equator-network.org) in its funding procedure to ensure research quality 'from proposal to publication'. The Netherlands Organisation for Health Research and Development, ZonMw, has created the ZonMw Reporting Checklist (ZRC), which was derived from EQUATOR reporting guidelines in order to systematically plan, monitor, and evaluate projects. The next step is experimenting with implementing the ZRC in ZonMw's grant management system and procedures. Customization is possible based on the 'comply or explain' approach (80/20 rule).
Methods. We selected 15 EQUATOR reporting guidelines that covered basic research and health technology assessment through to implementation projects, supplemented with the reporting guideline for implementation studies (StaRI checklist). We conducted comparative content analyses (including rearrangement) to provide a greatest common denominator consisting of both standard and modular reporting elements. We completed the ZRC by adding other current requirements for responsible research practices with respect to diversity and gender, data management, open access, systematic reviews, recruitment and inclusion, registration, and impact.
Results. The ZRC results in structured and validated in-house data on the objectives, design, conduct, and results of ZonMw projects. This is an important source for good research governance, impact assessment, and research on research.
Conclusions. Implementation of the ZRC by a funding agency optimizes the quality, transparency, relevance, and impact of evidence, which legitimately and effectively improves health care for all.

PP90 Startup And Inclusion Problems In Healthcare Efficiency Studies: A Quantitative And Qualitative Analysis

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Introduction. Aging populations and specialized medicine are leading to increasing healthcare costs which are expected to rise in the next decades. The Netherlands Organization for Health Research and Development (ZonMw) funds trials that address the efficiency of healthcare interventions in order to evaluate new and existing interventions. These studies have led to considerable cost savings and increased health outcomes. However, efficiency studies often face setbacks during the start-up and inclusion which limit the available research capacity and postpone the availability of novel findings. Here, we investigate the scope of these problems and identify common causes.
Methods. Records from efficiency research trials funded by ZonMw from 2014-2020 were combined with information provided by project leaders through a survey. The combined dataset was explored through statistical analysis. Next, a subset of 30 selected projects was evaluated qualitatively to gain a better understanding of the possible underlying reasons for the experienced problems.
Results. The response rate among project leaders was 73 percent (146/201). Data indicate that 61 percent of projects started as planned and 35 percent included the first patient as scheduled. The complexity of setting up a multicenter study and legal procedures like local ethical approval were associated with delays in starting inclusions. In addition, 56 percent of studies had to extend the inclusion period by more than 6 months. Possible reasons that were identified include the limited numbers of patients available, and treatment preferences of the doctor, the patient, or the participating center.
Conclusions. Our results indicate that the majority of trials face setbacks and the main reasons include time to procure legal and ethical approval, limited patient numbers, as well as unforeseen treatment preferences. More streamlined procedures regarding approvals could speed up trial initiation, and better knowledge of eligible patients and treatment preferences could lead to more realistic planning. The results and conclusions from this study can be applied by ZonMw and other relevant stakeholders to resolve the identified problems in order to accelerate healthcare efficiency research.

PP91 Developing A Re-assessment Process For Non-medicine Health Technologies In Wales

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Introduction. Updating of health technology assessments (HTAs) is generally more efficient than starting again when new evidence emerges, but there is no clear guidance on how to do this. Health Technology Wales (HTW) has developed a re-assessment process to ensure that HTAs remain current and relevant to best serve the population and health and care providers in Wales.
Methods. HTW developed a standard operating procedure (SOP) to create a consistent approach to HTA re-assessment. HTW keep a record of stakeholders who contribute to a HTA and then send them a

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questionnaire to ascertain whether the research question is still relevant and if there have been any developments to the evidence since publication of the HTA. The input from these stakeholders is collated and taken to HTW's Assessment Group to decide whether or not the HTA needs updating. If the Assessment Group decides that re-assessment of a HTA is warranted, HTW perform an updated literature search to inform the re-assessment.

Results. The HTA re-assessment SOP developed by HTW was approved by the organization's Assessment Group. At the time of writing this abstract, HTW sent questionnaires to stakeholders of three HTAs which had HTW guidance published three years ago, and were therefore due routine consideration for re-assessment as detailed in our SOP. HTW also received a request from a clinician for a more recent HTA to be considered for re-assessment as they believed the evidence-base had changed since original publication. These questionnaires have been collated and will be taken to an upcoming Assessment Group to decide whether HTW should proceed with the re-assessments.

Conclusions. HTW has developed a consistent process for HTA re-assessment, which ensures that HTAs done by HTW remain current and relevant to best serve the population and health and care providers in Wales. By utilizing expertise from HTA stakeholders and HTW Assessment Group members, an informed decision can be made as to whether a HTA warrants re-assessment after three years following publication or sooner if requested.

PP92 Should Missing Data Be Multiply Imputed Prior To Longitudinal Linear Mixed-Model Analyses In Trial-Based Economic Evaluations?

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Introduction. For the analysis of clinical effects, multiple imputation (MI) of missing data was shown to be unnecessary when using longitudinal linear mixed-models (LLM). It remains unclear whether this also applies to cost estimates from trial-based economic evaluations, that are generally right-skewed. Therefore, this study aimed to assess whether MI is required prior to LLM when analyzing longitudinal cost-effectiveness data.

Methods. Two-thousand complete datasets were simulated containing five time points. Incomplete datasets were generated with 10 percent, 25 percent, and 50 percent missing data in costs and effects, assuming a Missing At Random (MAR) mechanism. Statistical performance of six different methodological strategies was compared in terms of empirical bias (EB), root-mean-squared error (RMSE), and coverage rate (CR). Six strategies were compared: (i) LLM (LLM), (ii) MI prior to LLM (MI-LLM), (iii) mean imputation prior to LLM (M-LLM), (iv) complete-case analysis prior to seemingly unrelated regression (CCA-SUR), (v) MI prior to SUR (MI-SUR), and (vi) mean imputation prior to SUR (M-SUR). To evaluate the impact on the probability of cost-effectiveness at different willingness-to-pay [WTPs] thresholds, cost-effectiveness analyses were performed by applying the six strategies to two empirical datasets with 9% and 50% of missing data, respectively.

Results. For costs and effects, LLM, MI-LLM, and MI-SUR performed better than M-LLM, CCA-SUR, and M-SUR, as indicated by smaller EBs and RMSEs, as well as CRs closer to the nominal levels of 0.95. However, even though LLM, MI-LLM, and MI-SUR performed equally well for effects, MI-LLM and MI-SUR were found to perform better than LLM for costs at 10 percent and 25 percent missing data. At 50 percent missing data, all strategies resulted in relatively high EBs and RMSEs for costs. In both empirical datasets, LLM, MI-LLM, and MI-SUR all resulted in similar probabilities of cost-effectiveness at different WTPs.

Conclusions. When opting for using LLM for analyzing trial-based economic evaluation data, researchers are advised to multiply impute missing values first. Otherwise, MI-SUR may also be used.

PP93 The Impact Of Using Different EQ-5D Scoring Methods On Cost-Utility Outcomes: A Simulation Study

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Introduction. Patients' EQ-5D health states are preferably valued using country-specific value sets. If value sets are not available, crosswalks may be used to estimate utility values. However, up until now the impact of using crosswalks instead of value sets on cost-utility outcomes remains unclear.

Methods. Trial-based cost-utility data were simulated for four conditions (depression, low back pain, osteoarthritis, and cancer), three levels of disease severity (mild, moderate, and severe), and three treatment effect sizes (small, medium, and large), resulting in 36 scenarios. For all scenarios, utility values were estimated using four scoring methods (EQ-5D-3L value set, EQ-5D-5L value set, 3L-to-5L crosswalk, and 5L-to-3L crosswalk) for three countries (the Netherlands, the United States, and Japan). Mean utility values, quality-adjusted life years (QALYs), incremental QALYs, and cost-utility outcomes (incremental cost-effectiveness ratios [ICER], probabilities of cost-effectiveness at willingness-to-pay [WTP] thresholds) were compared between value sets and crosswalks.

Results. Differences between value sets and crosswalks ranged from -0.33 to 0.13 for mean utility values, from -0.18 to 0.13 for QALYs, and from -0.01 to 0.08 for incremental QALYs. Because of the small differences in incremental QALYs, ICERs between scoring methods were considerably different. For small effect sizes, at a WTP of EUR

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