Results. One hundred and thirty-three studies met the inclusion criteria. The mean standardized score for the included studies was 0.56 (title), 0.64 (abstract), 0.74 (introduction), 0.58 (methods), 0.40 (results), 0.70 (discussion), and 0.54 (other section). The number and reporting quality of articles published each year showed an overall upward trend. A greater proportion of studies were published in Chinese journal (69.2%), modelling-based (54.9%), conducted by universities/research institutions (45.9%), focused on non-infectious disease (84.2%), using cost-effectiveness analysis method (50.4%), published in non-specialty journal (60.2%), and declaring the funding support (76.7%). Items related to study perspective, discount rate, measurement of effectiveness, currency and price, analytical methods, uncertainty, heterogeneity and conflicts were under-reported. Published year, journal type, first author affiliation and economic evaluation type predicted higher score in regression analyses ($p<0.05$).
Conclusions. Overall, the quantity and quality of HEE on screening programs in China is improving, although there is a need to improve the use of on specific reporting items in the CHEERS criteria. The use of suitable evaluation guidelines will make the decision-making process more scientific.

PD13 Methodologies In Economic Evaluations Of Biomarkers – A Systematic Review

Kurt Neeser (kurt.neeser@certara.com),
Linnea Koller and Elvira Mueller

Introduction. Diagnostic testing and patient monitoring are important to diagnose potential diseases and to evaluate treatment regimens. Since diagnosis and treatment monitoring have no intrinsic effects, an economic evaluation of biomarkers is inevitably linked to the resulting therapeutic interventions, which depend on both physicians' decisions and diagnostic accuracy of the test (i.e., sensitivity, specificity). In this review we analyzed the methodology of economic studies evaluating the management of the five most relevant non-communicable diseases, that is, obesity, cancer, diabetes, cardiovascular and chronic respiratory diseases.
Methods. A systematic search in Medline and the National Health Service Economic Evaluation Database (NHS EED) covering the last ten years served to identify health economic analyses of biomarkers used in diagnosing / monitoring. Findings were reviewed with respect to analytical method, reported outcomes and comparability.
Results. The search yielded 680 abstracts in total out of which 280 full texts were reviewed and 77 sources included following predefined criteria. Most economic analyses (94%) evaluated the clinical outcome and costs of testing / monitoring in correlation to a corresponding intervention, 6 percent of the sources focused on the accuracy of the test or monitoring methods only. There were 61 studies that included an economic model; overall, 15 sources presented the outcome as cost per life year gained (CEA), 37 sources as cost per QALY gained (CUA), and 12 provided the outcome as both a CEA and CUA. In 16 analyses the outcome was presented in other economic terms as, for example, cost per additional case detected.
Conclusions. Determining the value of biomarkers requires consideration of the clinical consequences of a test result (incorrect treatment decisions, impact on morbidity, mortality, or quality of life) as well as the corresponding economic outcomes. Most of the identified studies considered at least one of these aspects. Results are presented in manifold ways but do not necessarily address decision makers' needs. Thus, clear guidelines on economic evaluations of biomarkers are needed and should include broader health system views like affordability or the number of unnecessary interventions avoided.

PD14 A New Equitable Biomedical Research And Development Model: Preliminary Findings From A Pilot Study Applying VALIDATE Value Methods

Marina Espriu (marina.espriu@isglobal.org),
Joan Bigorra, Pedro Gallo and Laura Sampietro-Colom

Introduction. The public health areas without commercial value continue to be underserved, while those of high profit for industry will not be sustainable for much longer. We hypothesize that the lack of equity and efficiency in the biomedical research and development system is mainly due to a pharma-led short-term profit orientation that ignores the values of other relevant stakeholders.
This pilot study reached some consensus on the principles of a co-created biomedical research and development process based on the preferred supplier (PS) model, which proposes a public health procurement system prioritizing business with companies fulfilling the "4 Share" criteria of priorities, risks and rewards, results, and outcomes to ensure that health needs are met.
Methods. A constructive health technology assessment, which included VALues In Doing Assessments of health TEchnologies (VALIDATE) methodology, was used to analyze the values and dissent of a pilot sample of ten global key informants. The methodology comprised qualitative techniques such as an online preliminary survey, in-depth semi-structured interviews, and a Delphi survey to reach a joint construction by reconstructing the stakeholders' interpretive frames and applying an adaptation of the Richardson model to contested values.
Results. There was consensus on combining efficiency and social justice norms by incentivizing diseases affected by market failure due to small subpopulations (e.g., rare diseases), low availability to pay, restricted use (e.g., antibiotics), and difficulty demonstrating results (e.g., Alzheimer's disease). Stakeholders mainly agreed on the PS 4 Share principles, highlighting the need for price to be linked to impact modulated by tracked research and development costs and investments, as proposed by the PS model. More market incentives such as push, and especially pull incentives (market access), should be included. The PS model should be cause-solution oriented, promote open-disruptive innovation, and guarantee fast patient access.

https://doi.org/10.1017/S0266462322002768 Published online by Cambridge University Press