

OP30.3

Risk of bias in model-based economic evaluations in primary care: The ECOBIAS Checklist

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Background: Economic evaluations are becoming increasingly in the field of primary care. Several biases can occur when performing economic evaluations (EEs). It is therefore important for policymakers to be able to assess potential biases and for researchers to minimize them.

Objectives: This article aims first to identify biases that are specifically related to model-based EEs and to illustrate their potential impact on economic outcomes using examples from the literature in the field of primary care. Second, the article aims to present a checklist for assessing the risk of biases in EEs (the ECOBIAS checklist), which can be used for trial- and model-based studies.

Methods: Several possible sources of bias in model-based EEs were identified using the Philips guideline for good practices in modelling economic studies as a structuring framework. All biases were illustrated using published primary care models as an example. By combining biases that can occur in trial-based with those that can occur in model-based studies, which were identified in a previous article by the author group, a checklist for assessing biases in EEs was developed (ECOBIAS).

Results: Eleven model-specific biases were identified and classified. The impact of these biases could be massive, changing the outcomes from being highly cost-effective to not being cost-effective at all. The ECOBIAS checklist includes a general part (part A) and a model-specific part (part B).

Conclusions: in this study, we identified several biases that are related to model-based EEs and developed the ECOBIAS checklist for identifying biases in economic evaluations. Dealing also with health economics methods in primary care research is necessary and will be more important in the future. We hope that our results and the ECOBIAS checklist will help to reduce biases in future EEs and will increase faith in model-based studies in particular.