Reviewer’s report

Title: The Chronic Kidney Disease Model: A General Purpose Model of Disease Progression and Treatment

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Reviewer: Adeera Levin

Reviewer’s report:

This is an excellent report on a decision model to inform disease progression and treatment which could serve a number of functions. The authors have used sophisticated methodology based on 7 different strategies that permit dynamic modelling using estimates for the burden of disease in people living in a specific catchment area, and using hypothetical treatment effects. The methodology combines expert opinion using health policy and nephrology experts to develop the inputs and then using Monte Carlo simulation models, the authors determine relative risk reductions of specific conditions with various treatments. They externally validate the model with 2 different published studies (AASK and the Kasier Permanente Cohort reported in NEJM 2004). Extensive sensitivity analyses were performed. It is overall a nice piece of work.

This tool would serve as a public resource for decision makers and resrarchers and would be modified over time based on new information. The authors are to be commended on a clear and thoughtful presentation.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests