Reviewer’s report

Title: Boceprevir for Previously Untreated Patients with Chronic Hepatitis C Genotype 1 Infection: A US-Based Cost-Effectiveness Modeling Study

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Reviewer: Gaby Sroczynski

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Review
BMC Infectious Diseases
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Title: Boceprevir for Previously Untreated Patients with Chronic Hepatitis C Genotype 1 Infection: A US-Based Cost-Effectiveness Modeling Study.

The author’s objective was to evaluate the clinical long-term effects and cost-effectiveness of antiviral treatment strategies with boceprevir compared to standard treatment in previously untreated patients with HCV-genotype 1 infection. The evaluation is performed using a decision-analytic model for the U.S. health care context from the payer’s perspective. The authors used a model divided by two phases, first the treatment phase and second the natural history of chronic hepatitis C progression to evaluate the research question. The research topic is important and the methods used are suitable. However, there are modeling aspects, which are not well described and/or discussed in the manuscript. In the following sections the main aspects that need revision before publication are described.

Major Compulsory Revisions

In general the following major aspects should be considered for revision:
• Model type and simulation technique is not clearly stated
• Model validation is not described
• Cost-effectiveness frontier (xy-graph with x: absolute discounted lifetime costs, y: absolute discounted QALYs) should be shown. ICER vs. next non-dominated strategy should be stated.
• It would have been nice to integrate the FDA label strategy into the base-case and to compare it with the other strategies (table, cost-effectiveness frontier).
• Further limitations to be discussed: e.g. underestimation of costs (no costs for HCV patients with SVR).

More details are included in the attached document.

Level of interest: An article of importance in its field
Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.