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: Christian Lange

Reviewer’s report:

The study by Ferrante et al. provides a cost-effectiveness analysis of boceprevir-based triple therapies compared to the previous standard of care (PR48). Overall, the study is well performed and results are interesting and possibly helpful for the allocation of boceprevir-based therapies, as numbers needed to treat appear impressive. However, several issues require clarification:

Major points:

- ICERs for BOC/RGT vs. BOC/PR48 appear to differ significantly. This needs to be discussed, and for example the last statement in the abstract simply saying that both regimens are cost-effective appears to oversimplify the results.

- Methods, section “Model inputs”: can you explain the statement “comprehensive literature search” in the last sentence more in detail?

- Results: Is it possible to additionally provide data for your model on cumulative risks for no treatment vs. PR48, not only for PR48 vs. BOC/RGT, BOC/PR48? This would help to compare the here applied modeling with previously published ones.

- Most importantly, I cannot find a clear and convincing description / assessment of the additional burden of side-effects of boceprevir-based treatment compared to PR48. Please clarify. Furthermore, the unfavourable short-term effect of treatment in general should be discussed (to my knowledge there were several deaths in the boceprevir trials, probably not related to boceprevir, but nevertheless this seems to indicate a higher mortality than in an untreated population).

Minor point:

- The first statement of Conclusions that SVR for mild and moderate HCV (better hepatitis C?) is associated with lacking risk for serious and costly complications associated with HCV is not fully justified, e. g. in view of results by Innes et al., Hepatology 2011:54:1547-58. Furthermore, authors may consider to discuss a very recent, but important study on outcomes of SVR-patients with advanced disease (Van der Meer et al, JAMA Dec. 2012.)

Level of interest: An article whose findings are important to those with closely related research interests
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