Reviewer's report

Title: Cost-Effectiveness of Sofosbuvir-Based Treatments for Chronic Hepatitis C

Version: 2 Date: 6 February 2015

Reviewer: Thomas von Hahn

Reviewer's report:

This is a solid, relevant and timely piece of work. However, I do have a few recommendation how this paper may be modified to be even more relevant given the clinical reality of early 2015.

Major points:
- The model seems to miss the possibility of transitioning from HCC to liver transplantation. However, in reality this does happen in a significant number of cases. This should be included in the model or at least discussed.
- The meaning of and concept of ICER should be explained in a way that makes it understandable for readers including those with a clinical background.
- It should be discussed whether SOF-based treatment is deemed superior to „no treatment“ in any patient where interferon containing therapy is not an option because of contraindications or because interferon based therapy has failed.
- Mention should be made of additional treatment option that have become available since the introduction of sofosbuvir. It should at least be discussed how – based on this model that only includes sofosbuvir and no newer DAA’s – even more potent DAA regimens will likely change the recommendations made. This seems relevant given that at least in settings where DAA are widely available strategies of „IFN/ribavirin first, IFN-free second“ are rarely employed in practice.

Minor points:
- In the introduction referring to PEG/ribavirin therapy the authors state that „The combination treatments achieve a 50–80% sustained virologic response (SVR)“. This should be specified more precisely for genotype 1 vs 2/3. Throughout the manuscript, whenever stating SVR rates it should be made clear what genotype the percentage pertains to.
- When describing the studies the SVR rates for sofosbuvir containing treatments are derived from patient numbers by genotype should be stated.
- The sentence on page 9, lines 4/5 should be changed to „As a benchmark, a „no treatment” strategy results in an average life cost of $75,688 and 13.28 QALYs“

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being
published

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

**Declaration of competing interests:**

Thomas von Hahn is member of the speaker’s bureau of Bristol-Myers Squibb.