Reviewer's report

Title: Treatment of chronic HCV genotype 1 infection with telaprevir: A Bayesian mixed treatment comparison of fixed-length and response-guided treatment regimens in treatment-naïve and -experienced patients

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Reviewer: Johannes Wiegand

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Amanzada et al. performed a mathematical model to evaluate the efficacy of different telaprevir based triple therapy regimens in chronically infected HCV genotype 1 patients. The model is based on seven randomized controlled trials including > 3,000 patients. The authors conclude that a short 24-weeks fixed-length-treatment is not inferior to other (longer) therapeutical regimens and should be further evaluated to reduce side effects and costs of therapy.

Minor Essential Revisions

1) Methods, page 7, please include the definition of the terms relapse, null- and partial nonresponder

2) Results, page 13, efficacy in naïve patients: Treatment regimen E (12 weeks triple Tx only) did not achieve significantly higher SVR rates compared to a standard dual therapy for 48 weeks. Although SVR rates may not be statistically different, it should be acknowledged that the 12 weeks triple regimen is much shorter than the 48 weeks standard therapy and may therefore offer reduction of side effects at equal efficacy. It will be crucial to correctly identify patients suitable for this 12 weeks regimen. Thus, the authors should also include the role of IL28B and low baseline viral load in their discussion. They should even mention that these ideal naïve patients probably will not need triple therapy but can be effectively treated with a conventional PEG-IFN/RBV standard therapy.

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