Reviewer’s report

Title: Prevalence of Type 2 Diabetes Mellitus among Hepatitis C Virus-Infected Patients: Protocol of a Systematic Review and Meta-Analysis

Version: 0 Date: 24 Sep 2018

Reviewer: Lawrence Mbuagbaw

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The investigators report the protocol for a systematic review with meta-analysis of proportions on the prevalence of diabetes mellitus in patients infected with hepatitis C. I have the following comments:

The abstract is fraught with grammatical errors, making it hard to understand. For example this sentence: "Therefore, this protocol for meta-analysis will support to estimate the overall prevalence of type two diabetes mellitus in patients infected with hepatitis C virus"

The background also has come grammatical errors.

The proposed work does not seem to adequately address the concern of excess risk of diabetes mellitus (DM) in people with HCV. The prevalence of DM in people with HCV should be compared with prevalence of DM in non-HCV populations. This estimate of risk is more informative that a meta-analyses of proportions and could easily be accomplished by selecting analytical studies and pooling the estimate of risk. The choice to pool prevalence should be justified better.

Are there any eligibility criteria regarding sample size?

The measure of prevalence here is problematic: "The prevalence will be calculated by dividing the number of patients who developed T2DM per total number of HCV infected patients for each study". Firstly, there is no way of establishing temporality (did HCV or DM come first?). Secondly, the definition of "prevalence" doesn't require this knowledge.

In the quality assessment, why is "appropriate statistical analysis" a criteria when you will be pulling the numbers and analysing them yourselves?

Please provide more details on the sensitivity analyses to check the stability of the estimate.

The I2 gives an estimate of the magnitude of heterogeneiity but not potential sources of heterogeneity. In the protocol, please report potential sources of heterogeneity that might explain the I2 values you may find. For example, study size, year, location etc.

State how the results will be reported. % with 95% confidence intervals?
This and other studies like it would have been useful in the background:” A systematic review and meta-analysis done by Naing et al. (16) showed an excess risk of T2DM in HCV infected cases than non-HCV infected controls (OR: 1.63, 95% CI: 1.11-2.39)

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An article whose findings are important to those with closely related research interests

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Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

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