Reviewer's report

Title: Outcomes of hepatitis C screening programs targeted at risk groups hidden in the general population: a systematic review

Version: 1  Date: 25 October 2013

Reviewer: Bryce Smith

Reviewer's report:

Thank you for the opportunity to read this excellent article. It is very well written, comprehensive and clear. The results are particularly well done. Given the importance of case finding for HCV and expansion of new more effective therapies this is very timely. Having an article like this available creates a repository for those who are looking to create HCV screening programs that are specific to their setting.

The most significant issue (#5 below) is the exclusion of studies based solely on outcomes that occur after screening. Since the focus of the article is on reviewing screening programs to learn about their characteristics and effectiveness, excluding articles based on downstream outcomes limits the comprehensive of the article, which is one of its key contributions.

Major compulsory revisions.

None.

Minor essential revisions

1. Background, second paragraph: I strongly recommend the adoption of person-first language (persons who inject drugs, or PWID) rather than behavior-based language. PWID has been adopted by WHO, the Lancet, and leading substance abuse journals. I suggest reviewing the entire article to make these changes.

2. The third sentence in this paragraph refers to current drug users on methadone treatment. Is this intended to be persons who inject drugs, or only persons who use drugs? The vast majority of persons in opiate agonist therapy have a history of injection drug use (IDU) and use of other drugs, but it’s the IDU that places them at risk of HCV acquisition. Current drug use is not a risk unless it is percutaneous. Please clarify. In the last sentence the term IDU is used but appears to be referencing a risk population rather than a behavior.

3. In the 4th sentence, the first time IDU is used it is unclear what it is abbreviating. It appears to be the behavior of injection drug use.

4. When drug use is mentioned in this paragraph, is it always referring to IDU? It is unclear and suggests that a distinction is being made between IDU and other drug use.
5. Study selection. It is unclear why the authors would exclude articles based on lack of reporting of notification, referral and medical follow up. If the goal of the article is to review characteristics and outcomes of screening programs for HCV focusing on strategies to identify hidden HCV groups in the general population, why exclude studies based on downstream outcomes? This strikes me as a potentially significant issue that would naturally exclude many relevant studies limiting the comprehensive of the review, one of its key contributions. Without a solid rationale for this exclusion I would strongly recommend revisiting those articles excluded based on this criterion and integrating them into the review.

6. Data extraction, last sentence. Basing the operationalization of low prevalence on an abstract presented at a conference in 2004 is potentially outdated data and one must wonder why the abstract was never published as a full paper. Also, the terms intermediate and high prevalence have to be operationalized, especially given that this element is part of the discussion.

7. Discussion, first paragraph. The term structural screening is used for the first time here, without any previous mention and is not defined in any way. Structural interventions can be quite varied and it is not clear what is being referred to here. Please clarify.

8. Discussion, third paragraph, second sentence. Refers to “follow-up data” often not being reported. Is this different in some way from the exclusion criterion regarding notifications, etc? Or are these data only care related?

9. Last paragraph, page 21. The authors suggest modeling could be used to estimate the effects of screening programs on reducing morbidity and mortality. At least six articles have been published since 2011 on this very issue and these articles should be addressed here.

10. Conclusion, second paragraph. Suggesting that screening programs should be theory based is not supported by the findings of this article. Only one article reported the use of a theory-based screening program, which had a low level of uptake but very high yield. Given this is the only article out of 67 that reports the use of a theory, this conclusion cannot be drawn from the data presented here.

11. Box 1. Why is HIV+ MSM used instead of just HIV? The authors report using HIV in the methods, and that risk factor is widely considered to be strong based on HIV/HCV co-infection prevalence.

Discretionary revisions

1. First full sentence on page six: using the term review repeatedly in the beginning of the sentence is a little awkward.

2. Throughout the article I was not completely clear about the difference between the terms screening and testing. While medical systems frequently refer to screening in the HCV context as testing for antibody, some public health systems in the US (and perhaps other areas with which I am unfamiliar) refer to the
collection of risk factor data prior to testing as the screening, and once a risk factor is found a test is provided. In the GP section, the second paragraph of program outcomes appears to draw a distinction with prescribing tests and offering screening. The difference is not clear to me. Perhaps defining the terms screening and testing up front will alleviate any confusion.

3. Last sentence under search strategy. Is “…prefinal selection for potentially relevant publications” redundant?

4. Study selection, second sentence. I’d suggest saying included rather than pertained to.

5. Results, GP clinics. Is it accurate to say that an area has low SES, or is just persons who have an SES? An area may consist mainly of persons of low SES, but does it follow that a geographic region would then be described as low SES?

6. Page 14, second paragraph. Does medical consciousness refer to awareness of the improvements in therapy? I would recommend the term awareness rather than consciousness. We all certainly hopeful that our medical providers are conscious!

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.