Author’s response to reviews

Title: Hepatitis C Virus infection in Irish drug users and prisoners – A scoping review

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Version: 1  Date: 27 Nov 2018

Author’s response to reviews:

2- Table 1 is too long and difficult to follow. The authors are suggested to break down this table to 3-4 tables based on the broad categories they identified in the Results section (i.e., epidemiology, guidelines and policy, treatment outcomes, etc.)

Author – the table has now been broken down into 4 sections as per themes identified. The epidemiological section is further divided into pre and post 2008 study as per reviewer 2

3- As mentioned by both reviewers, year of study is crucial in interpretation of the data, particularly the epidemiological data. The authors need to revise the Results section, interpreting the data based on the year of the study and how each outcome (prevalence, incidence, etc.) changes overtime.

Author – the results section has been revised and data in particular changes in data is interpreted chronologically
4- One of the reviewers suggested to have a separate category for “HCV Test uptake” given the importance of this section.

Author – this has now been given a separate category in the results section and included under epidemiology along with a separate section for risk factors

5- The core of “treatment outcome” section is based on the data of IFN-containing therapy which is not the standard of care anymore. I am not sure if these data are much useful for the field and interesting for the audience.

Author – The authors accept your point but feel that it is still important to include this data and we have included some narrative related to this in the discussion section and have also highlighted this as a gap in the literature

Reviewer reports:

The guiding framework for the scoping review used is appropriate but its application to each stage of the methods is not clearly presented. I suggest organising the methods using the six-stage framework using the six headings, or if the journal does not allow, using the first sentence of each paragraph to denote the stage in the framework being applied.

Author – the methodology section has been revised and reported as per the 5 stages and how each stage was conducted in relation to this particular review

The methods as they currently stand could not be repeated by another set of authors who may wish to update this review at a later date, so I suggest increased transparency using more detailed explanations in the narrative and/or appendices. In particular, I suggest that the authors provide their search strategies in soft appendices.

Author – one of the search strategies is now included as an appendix
The inclusion and exclusion criteria need to be stated earlier in the methods and in more detail considering (populations, comparator or comparison, intervention or phenomena or expectation, outcomes or impact, and time) or else presented in a soft appendix and the reasons for exclusion of each

Author – more detail has been provided regarding inclusion and exclusion and is placed in stage 3 of the framework – study selection

Papers at each stage need to be summarised in the prism flowchart.

Author - Prism flowchart now clearer because of revised and extended methodology and appendix

An appendix with a listing of the studies excluded would be interesting.

Author - Excluded studies are now included in an appendix

The end date of the search needs to be stated.

Author – This is now included

The weakest part of the methods was the section covering analysis. At present, the text reads like a quote from a qualitative research text book rather than the process of identifying codes and categories to classify the literature which is what appears to have been done in the results. The authors need to clearly state how they coded the data and how they arrived at the categories for the data.

Author – this section is revised and more detail given

The categories presented in the findings do appear quite sensible but the reader does not know how they were identified and more importantly another author could not repeat the analysis required to update this paper.

Author – the expanded and revised methodology section adds clarification
The narrative results would benefit from stating the year each study was completed or published, outlining developments, progress and changes in the area overtime, and identifying gaps that remain for each category and subcategory; this is part of the study objectives.

Author – the result section has been revised as per recommendations

There is some data on identified gaps in the discussion but I think it should be moved to the results as identifying gaps was one of the objectives.

Author – the result section has been revised as per recommendations

There are no peer review papers or grey reports that examine the effectiveness of interventions to prevent the spread of HCV among prisoners or drug users. I think this is worth discussing.

Author – discussion has been revised to include a discussion related to this topic

There is a claim in paragraph 2 of the discussion that this scoping review does not find (refs 80-82).

There is no mention of incidence gaps in the discussion.

Author – this is now included

Minor comments

Introduction: The abbreviation PWUD is not explained

Author- The manuscript is revised to explain the abbreviation
Throughout the script: The spelling for general practise is normally general practice

Author – the manuscript has been revised throughout to correct

Findings: One of the incidence studies is with PWUD not PWID; the authors need to state this.

Author – this is now revised to indicate that this study is related to PWUD rather that PWID

Findings: The introduction to the prevalence section should state PWUD or PWID. In the prevalence section, risk factors are reported sporadically. The incidence section presents an overview of risk factors at the end of the section; I would suggest doing the same for the three prevalence sections.

In each section state gaps

Author – manuscript revised as per suggestion and a separate result section dealing with risk factors and screening uptake is now included under the epidemiological category

Mix of English and American spelling in text. I presume English spelling is required

Author – manuscript has been revised for English spelling

Numbers in text do not follow conventional rules

Author – revised to follow conventional rules

There are unreferenced statements in the discussion

Author – discussion has been revised to include more supportive referencing of text

Summary table of studies needs the headings to repeat on each page

Author – tables has been divided into four for each category – headings are now included in each page of the table
Some of the references need correction

Author – references have been updated and corrected to comply with journal formatting

Generally, the English requires editing

Author – Manuscript has been re-edited in parts

Anne Oevrehus (Reviewer 2): Major comments

The paper would benefit from more focus on being a scoping review an less on the findings in single

Specific

The paper is hard to follow as the method with regards to chosen structure of the charting of results is not explained and (at least not to me) entirely logic (like health policy papers in between prevalence and treatment outcomes)

Author- methodology section has been revised and reported according to the 5 stages of the framework outlined by Levac and colleagues

A more rigorous structure on stage 4 and 5 (Stage 4: charting the data, Stage 5: collating, summarizing and reporting the results) in the model is in my opinion needed.

Author – this section has been revised and more detail provided
The current structure is a mix of populations and incidence/prevalence in the results/epidemiology section although studies can be in both categories. Some studies are very old and some might have (uncommented) methodological flaws.

Author- the purpose was to map all the available literature and while some of the studies were old we did not have exclusion with regard to date of publication. The scoping review methodology does not provide for an analysis of the strengths and weaknesses of the included studies hence why we have not included this in the manuscript. The authors have revised the result section to make the section easier to follow

Test uptake - a very important parameter should have its own section and not be mentioned in between the other sections

Author – this is now a separate section

Suggest for the epidemiological section that the authors consider the following and consider dividing the studies in recent(fx 2008-2018) and pre 2008 or differentiate studies in time dependent or not(like HCV health related issues less likely to be time dependent and subheadings as example below.

Sometimes PWUD is used interchangable with PWID and that can be confusing

Sub-headings
Test uptake
- Prisoners
- PWUD +PWID sub population
Incidence
- Prisoners
- PWUD +PWID sub population
Etc. etc.

Author – tables and result section have been revised
Additionally the method section state using the 6 stage model, but the 6th stages - which is: Consultations with expert and stakeholders have not been performed.

Author- The reviewer is correct – I have revised the methodology section to reflect the use of Levac’s 5 stage framework (based on Arskey O Malley ‘s 6 stage)

In the discussion several references to the lack of data on or the prevalence in the general population is made - but as the search strategy were not tailored to the general population this cannot be surprising.?

I suggest the discussion is structured in such a way that single paper results are discussed separately from the scoping review results of research "gaps"

Author – Discussion revised as per recommendation

Table 1 comprehensively report the studies but is being very long and structured by date and not subject makes it very hard to follow. I suggest that table 1 either states which study is used for which category of results or dividing the table into sub tables if possible.

Author – table is now revised – it is now divided into 4 tables and the epidemiological section now contains subheadings

Minor comments

Abstract: "Prison based in-reach hepatology" not a common concept consider revising

Author – revised to; Prison hepatology nurse services

Introduction:

Line 29-42: To what extend is notifications subject to bias: Is the reporting lab reported or based on physicians reporting:

Author – notifications are lab based and enhanced surveillance data is provided by physicians
Line 45-48: Second and 3rd estimation on the prevalence of HCV in Ireland - how is it methodological different from the one mentioned in line 12?

Author - the first is a mathematical modeling study the second is based on laboratory analysis of residual sera

Page 5 line 36-42 - an absolute or relative number for decrease in opiate use for entrants into treatment would be useful - and the decrease in injecting is maybe significant but numerically not that big (7 percent points)

Author – the relative numbers have now been included – from 58.1% in 2010 to 47% in 2016

We have removed significantly

Author -

Page 7: line 24-25 "a strong bias towards retention" Is bias the right word for this process?

Author – methods revised

Page 7: line 49-53 - Suggest inclusion criteria is moved a few lines up before the process for exclusion is described

Author – methods revised

Reporting of studies

General

Is HCV prevalence and incidence based on anti-HCV or HCV-RNA? Assume the latter as anti-HCV is specifically mentioned for some studies - but consider defining in method

Author – defined in methods
Sometimes the year or year span of studies are mentioned - sometimes not - it makes it a bit hard to follow and relate to the usefulness of the studies. Suggest including the year for the majority of studies or change structure

Author – where the study period was reported this is included in the table – we have now included if this information was not available.

When reporting in the result section we consistently use the date of publication. One study Kavanagh et al was published in 2009 but pertains to data collected in 2002 – we have included this in pre-2008 section despite its publication date

Like in page 10 (line 37-40)

Reporting of numbers vary - sometimes 13, 000 sometimes 13000 sometimes 13,000 - suggest consistency

Author – a consistent approach to numbering is now adapted throughout the manuscript

Referencing to the same study multiple times in the same paragraph/sub-section is confusing. Once is enough

Examples:
Page 10 line 50-59 triple reference to study 39
Page 11 - Line 8-16 double reference to study 47

Author – referencing has been rationalised

Section on PWUD

Information on history of injecting among PWUD in all studies - any evidence on HCV in Non-injecting drug use?

Page 12 line 21 - you mean a history of IDU?

Author – revised
Section on treatment outcomes

Page 13 line 7-10 - "post interferon based treatment" is a little misleading - suggest - SVR rates of or from Interferon based treatment not to confuse with the DAA-era. Was "poor follow-up" a cause of low SVR rates?

Author – manuscript revised to clarify. SVR rates reported were considered good for interferon-based treatment and similar to non-PWID. Poor follow up is related to treatment uptake and is now moved to an earlier section of the paragraph.