Reviewer's report

Title: HCV-Related Burden of Disease in Europe: A Systematic Assessment of Incidence, Prevalence, Morbidity, and Mortality

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Reviewer: Mary E Ramsay

Reviewer's report:

As discussed previously, the authors have aimed to review information on the incidence, prevalence and burden of hepatitis C in 22 European countries. The objective is important and admirable, given the difficulty of studying hepatitis C and the inconsistent methods of surveillance in use. The subject of the paper is of interest to the readership of BMC Public Health. The methods the authors have used are appropriate and include formal literature review and obtaining “grey” literature from national and international agencies. The article is very well written and clear.

Minor essential revisions

1. The only issue that I really think the authors have not addressed adequately is the use of the term incidence. I really feel very strongly that this is misleading. The instructions that come from WHO at that time (as someone who completes the forms each year) simply specified “hepatitis C”. More recently the WHO form has further defined hepatitis reporting but the data the authors used was reported purely as hepatitis C. It may well be new diagnoses (it is in the UK), but this is not the same as incidence and it is misleading to imply it is, both for the reasons the authors state and the reason that the numbers diagnosed simply reflects how many are tested. The UK Action Plan, launched in 2004, specifically had an objective to increase testing – this is why the “incidence” has increased in the UK – we have data to show that rates of testing have also increased (http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb_C/1228810569993). I therefore think that references to this being incidence should be removed completely (including on the table heading). Even if the WHO definition was supposed to be “acute hepatitis” (which it was not at the time the data was collected) we know that many countries misreport hepatitis B (Universal hepatitis B vaccination. The Lancet Infectious Diseases, 2008; 8:: 87 – 88. S. Hahné, M. Ramsay, R. Coutinho) and that reporting systems cannot accurately classify acute disease (see Epidemiol Infect. 2002 Aug;129(1):119-25. Evaluation of hepatitis C surveillance in Poland in 1998. Mazurek J, Hutin Y, McNutt LA, Morse DL.) This major issue must therefore be addressed in the discussion.

2. Another minor issue that I did not pick up on last time but that I would like to be addressed is the use of the term “prevention” to refer to anti-viral treatment. I think this is misleading as most people would consider this term, if unqualified, to be primary prevention. Anti-viral treatment is expensive and complex; studies in
the UK suggest that it is cost-effective in comparison to other NHS interventions but this is not necessarily generalisable to less resource rich countries. The burden of hepatitis C is preventable in several ways and these should be addressed with equal emphasis. I would describe primary prevention as measures to reduce infection (donor screening, harm reduction in IDUs), secondary prevention as measures to prevent those with chronic infection proceeding to liver disease (e.g. anti-viral treatment) and tertiary prevention as those measures to reduce the risk of chronic infection leading to serious morbidity (e.g. by reducing other risk factors such as alcohol). When referring to anti-viral treatment it may be better to use the terms secondary prevention or possibly use the term “avoidable morbidity” which has a less specific meaning.

Discretionary revisions

3. In response to my specific queries the authors have reduced the number of inter-country comparisons and made more effort to address the weaknesses of the data sources. I do still think that they could add a specific section in the discussion recommending what surveillance should be conducted and what data could be collected at European level in future. For many countries in Europe, given the general level of access to hepatitis C testing and the important resource implications for the individual countries, much of the data they discuss could be provided. I suspect there are some countries where data (such as transplants attributable) are available and it may be worth emphasising this type of data, and contrasting it with the much more difficult tasks such as obtaining general population prevalence or incidence estimates. This is not essential for publication but I do think it would make the paper much more useful to readership working in public health and could potentially have more impact on getting better data in the future.

Level of interest: An article whose findings are important to those with closely related research interests

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'