Reviewer’s report

Title: Modeling HIV-HCV coinfection epidemiology in the DAA era: the road to elimination

Version: 1 Date: 03 Jul 2017

Reviewer: Peter Vickerman

Reviewer's report:

I thank the authors for responding to my comments. However, I still think they need to consider a different model structure for IVDUs because there is no evidence that HCV transmission in HIV-infected and HIV-uninfected IVDU is separate, unlike MSM. For this reason I think the authors assumption that HCV transmission in HIV-infected IVDU only comes from other HIV-infected IVDU is likely to be oversimplified. To check the effect of this assumption, I think they should do a sensitivity analysis where they either assume the primary/first incidence rate is constant or they model the HIV-uninfected IVDU too, with this group contributing to the HCV-incidence in HIV-infected IVDU. I agree the HCV incidence is their IVDU is low, but it isn't negligible in 2014 and 2015 (about 2 per 100 person years). Additionally, i think they should change their reinfection incidence assumption for IVDU - why not have it based on the primary incidence rate or actually use the reinfection incidence rate in IVDU instead of averaging across other possible 'less risky' risk groups? Seeing the primary incidence rate is higher in IVDU than these other groups, maybe the reinfection risk is also higher. At least, it would be good if the authors confirmed the reinfection incidence rate was similarly low in IVDU. Lastly, I still dont understand why their model projects an abrupt change in their number of co-infected patients in 2014 in Figure 2 - it would be good if the authors could add details of what effects caused the changes in this figure - is it a change in treatment rate?

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
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