

Interventions to enhance testing, linkage to care and treatment uptake for hepatitis C virus infection among people who inject drugs: A systematic review

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Introduction

- Hepatitis C virus (HCV) testing and treatment among people who inject drugs (PWID) remain suboptimal.
- Globally, 20% of people living with chronic HCV infection are diagnosed, and 7% have received treatment. Global estimates of HCV treatment uptake among PWID remain unquantified.
- Interventions aimed at optimising the HCV care cascade in the general population include clinician reminders to prompt testing¹, patient navigation² programs and telemedicine³ to enhance linkage to care and treatment.

Aims

- To synthesize data on the effectiveness of interventions to improve HCV testing, linkage to care, and treatment uptake among PWID.

Methods

Eligibility criteria of included studies

- **Population** - interventions targeted people who use drugs or at least 50% of sample comprised of PWID or on opioid substitution therapy.
- **Intervention** - aimed at any or combination of the following stages of chronic HCV cascade: testing of HCV antibodies and/or HCV RNA; linkage to care (clinical assessment of HCV infection or liver disease); HCV treatment uptake.
- **Comparison** - no intervention, care as usual. For non-randomised studies, included historical comparisons, before and after studies, convenience sampling
- **Outcomes** - proportion tested; proportion with chronic HCV linked to care; proportion initiating treatment.

Information sources

- Medline, Embase, Global Health, Cochrane Central Register of Controlled Trials, PsycINFO, Web of Science, Clinical Trials.gov.

Search strategy

- Search strings were formulated using combination of keywords and indexed subject headings.

Risk of bias assessment in individual studies

- Randomised studies were assessed using Cochrane Collaboration's risk of bias tool. Non-randomised studies were assessed using ROBINS-I tool.

Data analysis:

- The characteristics and findings of the included studies were summarised and structured using tables and forestplots. Risk ratio and 95% CI was generated for each study outcome using initial number of participants achieving outcome of interest.

Results

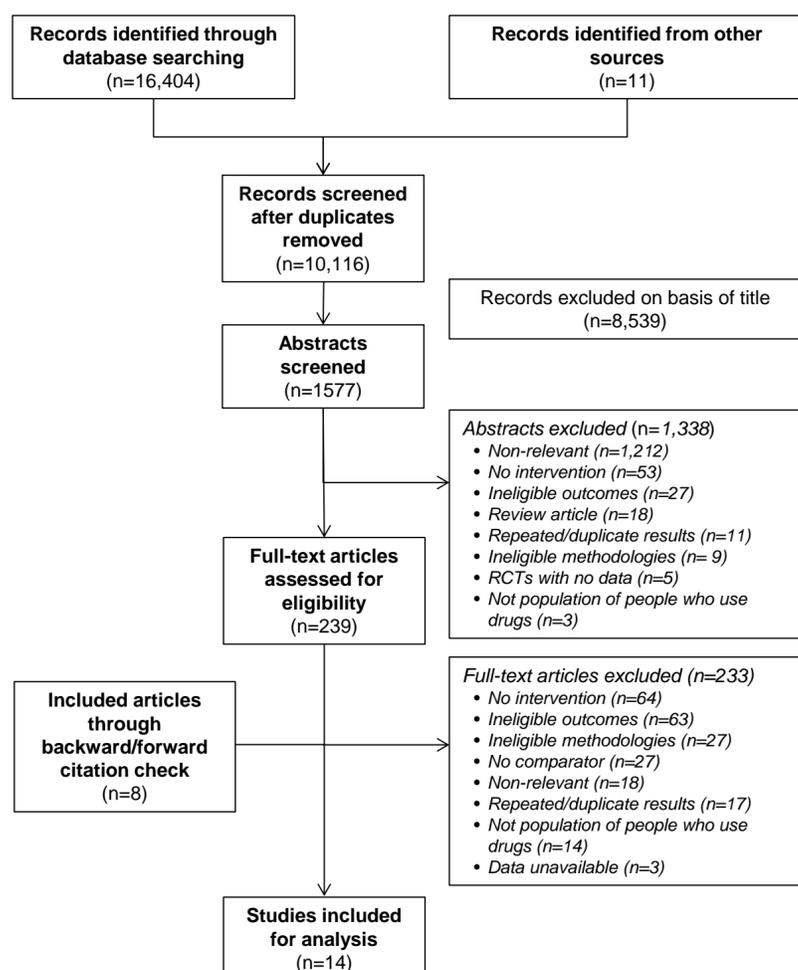


Figure 1. Study selection process

Results continued



HCV testing

- 6 of the 10 studies included in analysis were RCTs
- Settings: primary care, drug & alcohol clinics, community mental health service, hospital and prisons



HCV linkage to care

- 3 of the 5 studies included in analysis were RCTs
- Settings: drug & alcohol clinics, community mental health service

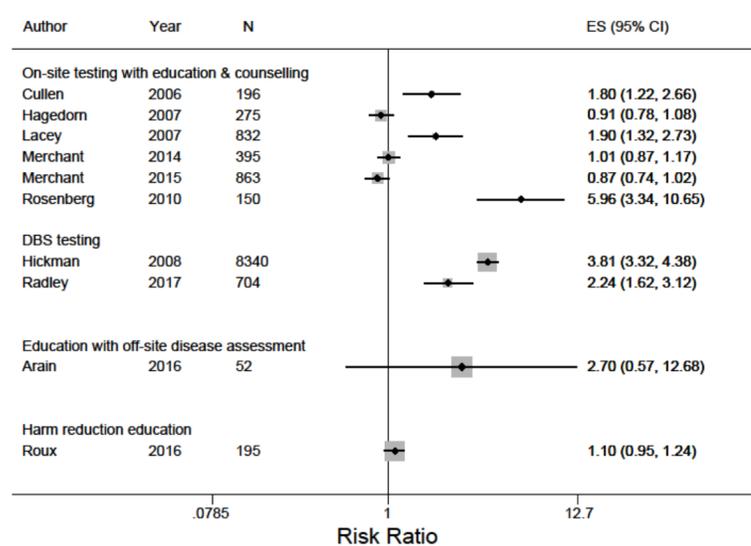


HCV treatment uptake

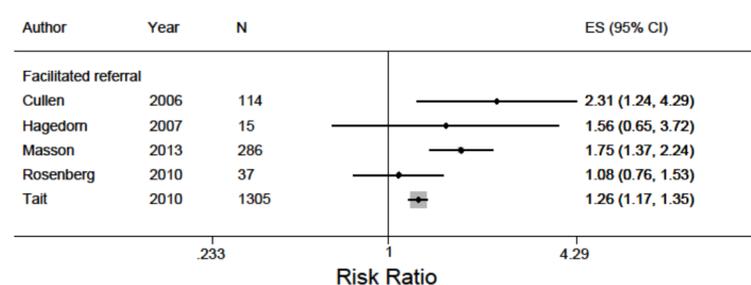
- 2 of the 3 studies included in analysis were RCTs
- Settings: general practice, drug & alcohol clinics, HCV clinic

- 50% of outcomes of the RCTs assessed had one domain at high risk of bias (mainly attrition bias, detection bias, other bias). All outcomes of the non-randomised studies assessed had an overall critical risk of bias.
- No studies were identified evaluating interventions in low- and middle-income countries or in the interferon-free era.

A



B



C

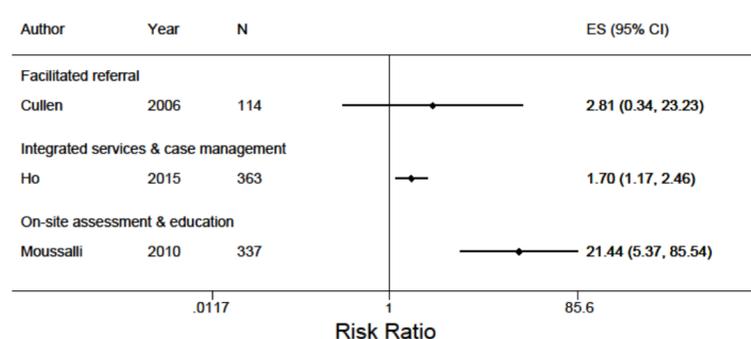


Figure 2. Forestplot of included studies by outcome and stratified by intervention type
A. HCV testing; B. HCV linkage to care; C. HCV treatment uptake

Conclusion

- A paucity of well-designed, powered RCTs and comparative studies evaluating well-defined interventions.
- Integrated, onsite HCV testing and treatment of PWID in the primary care setting will remain vital in the interferon-free era.
- Future research should clearly define study population (socio-demographic and injecting risk behaviour).
- Evaluations of interventions for simplified cascade of care (i.e. test and treat) in the DAA era are crucial in facilitating treatment scale up.

References

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