Screening for hepatitis C among injecting drug users and in genitourinary medicine clinics: systematic reviews of effectiveness, modelling study and national survey of current practice


CRD summary
The review assessed whether gaining knowledge of hepatitis C virus (HCV) status through screening leads to behavioural changes among infected or uninfected people that may reduce the spread of HCV. The authors concluded that there was no strong evidence of a relationship between gaining knowledge and drug- or sex-related risky behaviours. The authors' conclusions are likely to be reliable.

Authors' objectives
To investigate whether gaining knowledge of hepatitis C virus (HCV) status through screening causes behavioural changes among infected or uninfected people that may reduce the spread of HCV.

Searching
MEDLINE (1990 to 2001), EMBASE (1989 to 2001) PubMed (2001 to 2002), the Science Citation Index and the Social Sciences Citation Index (1981 to 2001), PsycINFO and HealthPromis were searched; the search terms were reported. Additional references were sought by citation searching, reviewing references of identified studies and contacting experts.

Study selection
Study designs of evaluations included in the review
All study designs were eligible for inclusion.

Specific interventions included in the review
Studies where the intervention was knowledge of HCV status were eligible for inclusion.

Reference standard test against which the new test was compared
The review did not include any diagnostic accuracy studies that compared the performance of the index test with a reference standard of diagnosis.

Participants included in the review
Individuals who knew their HCV status to be positive or negative, or who did not know their HCV status, were eligible for inclusion. The included studies were of drug-users, mainly injecting drug users (IDUs). Individuals were recruited to the studies through drug treatment services, prison and through community outreach. The included studies were conducted in England, France, Greece and the USA.

Outcomes assessed in the review
Studies that investigated any behaviour associated with the risk of HCV transmission were eligible for inclusion. The included studies assessed drug- and sex-related behaviours.

How were decisions on the relevance of primary studies made?
One researched assessed references and abstracts for relevance.

Assessment of study quality
The quality of the studies was not assessed. A hierarchy based on study design was used. This ranged from high to low quality: randomised controlled trials (RCTs) offering HCV testing, with behaviour change assessed according to knowledge of HCV status; cohort studies where behaviour change was reported at baseline and following the offer of HCV testing; and cross-sectional studies comparing behavioural outcome according to knowledge of HCV status. Study
Data extraction
The authors did not state how the data were extracted for the review. The extracted data included study design, population characteristics and outcomes.

Methods of synthesis
How were the studies combined?
The studies were combined in a narrative.

How were differences between studies investigated?
Differences between the studies were discussed in the narrative synthesis. Studies were also tabulated. Drug- and sex-related behavioural outcomes were discussed separately.

Results of the review
Four studies (n=1,669) were included: three cross-sectional and one longitudinal.

The studies identified had considerable methodological limitations. Three of the four studies found no statistically significant difference in drug-related behaviour in individuals with knowledge that they were HCV positive, compared with those known to be HCV negative. One study found that IDUs who were HCV negative were more likely to use previously used equipment than those who were HCV positive. The one study that reported sex-related behaviour found that those with unknown HCV status were significantly more likely to have not used condoms at the last sexual encounter than those who reported a previous HCV negative result.

Cost information
A cost-effectiveness model of HCV screening was conducted using a UK perspective. The authors stated that all the economic evaluations identified had methodological limitations and/or were of limited relevance to the UK.

Authors' conclusions
There was no compelling evidence to support the view that being informed of their HCV status leads to behaviour changes in HCV positive individuals to reduce the risk of infecting others, or in HCV negative individuals to protect themselves from infection.

CRD commentary
The review addressed a clearly defined research question. Several relevant databases were searched and details of the search strategy were provided. Limited attempts were made to identify unpublished data. With the exception of data extraction process, the review methodology was well described. Only one reviewer screened the studies, thus introducing the possibility of bias or missed studies. Methodological quality was not systematically assessed. However, given the small number of poor-quality studies that were anticipated, based on preliminary searches, the assessment of study design in a hierarchy was adequate; the findings were also discussed in the context of study quality. The narrative synthesis was appropriate and relevant details from individual studies were presented. The authors' conclusions are appropriate.

Implications of the review for practice and research
Practice: The authors stated that policy makers should carefully consider whether the current evidence base for behavioural change is sufficient to support screening among those who would not be considered eligible for treatment.

Research: The authors stated that more research in this field is required.
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