

This entry is our account of a review or synthesis of research findings selected by Drug and Alcohol Findings as particularly relevant to improving outcomes from drug or alcohol interventions in the UK. Unless indicated otherwise, permission is given to distribute this entry or incorporate passages in other documents as long as the source is acknowledged including the web address <http://findings.org.uk>. The original review was not published by Findings; click on the [Title](#) to obtain copies. Free reprints may also be available from the authors – click [prepared e-mail](#) to adapt the pre-prepared e-mail message or compose your own message. Links to source documents are in [blue](#). Hover mouse over [orange](#) text for explanatory notes. The Summary is intended to convey the findings and views expressed in the review. Below are some comments from Drug and Alcohol Findings.

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### ► [Behavioural interventions for preventing hepatitis C infection in people who inject drugs: a global systematic review.](#)

**Sacks-Davis R., Horyniak D., Grebely J. et al**  
**International Journal of Drug Policy: 2012, 23, p.176–184.**

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*A review reporting on the results of six trials from the UK, USA and Australia finds that – at least on their own – interventions such as counselling and peer-educator training have not prevented injecting drug users becoming infected with hepatitis C.*

**Summary** The featured review was the first to systematically assess research on whether 'talking' interventions aimed at changing the behaviour of individual drug users can help prevent injectors becoming infected with hepatitis C, transmitted largely through the shared use of injecting equipment. Reviewers looked for studies of people who had injected illegal drugs which evaluated interventions specifically aimed to protect them from hepatitis C, and which featured a [control](#) group (allocated to no or a less intensive intervention) against which to benchmark the impact of the focal intervention. At issue was whether the focal intervention led to extra reductions in the number of injectors who became infected, or reduced their risk of infection because they injected and/or shared injecting equipment less often.

The six studies which met these criteria were conducted in the UK, USA or Australia. Typically participants were current or recent heroin or cocaine injectors, 72–84% of whom were successfully re-assessed up to two years later to assess the impact of the intervention. Though this was not a requirement of the review, all six studies had randomly allocated participants to the focal intervention or the control group to help avoid bias due to differences between the two groups.

Four studies evaluated counselling programmes. These educated drug users about hepatitis C, alerted them to how they in particular might be risking infection, and used a motivational interviewing style to encourage risk-reduction. Another two studies evaluated peer training interventions which educated respectively infected and [uninfected](#) injectors, and trained them how to mentor other injectors to help prevent transmission of hepatitis C. With so few studies and varying outcome measures, no attempt was made to amalgamate the findings. The account of the findings below occasionally draws information from the original trials.

#### [Main findings](#)

Three studies tracked how many people later become infected with hepatitis C, the review's key outcome. None found a statistically significant advantage for the intervention. Among these were the [sole British study](#), which trialled extended counselling. Though new infections were fewer than after less extended counselling, the difference was not statistically significant, and nor was the difference in behaviour risking infection. Another was a [large US study](#) of peer educators, which actually found slightly more became infected, but nevertheless found statistically significant reductions in behaviours which risked infection.

The British study was among three which measured changes in the number of injections. Just one (a [US peer education study](#) intended to stop already infected injectors passing on the virus) found a [statistically significant effect](#), increasing the number who had stopped injecting compared to the control group. This and [another US peer educator study](#) also reported substantial and statistically significant reductions in risky injecting. The four smaller trials which featured counselling found no statistically significant effects on the frequency of risky injecting, though [in one](#) a large relative increase in using new syringes assessed 12 months after the intervention narrowly missed statistical significance.

#### [The authors' conclusions](#)

Used on their own, the types of behavioural interventions trialled in the reviewed studies have not been shown to help protect injectors from becoming infected with hepatitis C – a negative result possibly partly due to the lack of large scale research. However, the larger trials tended to show that, relative to the control groups, the evaluated interventions had curbed risky injecting behaviour. The smaller trials found reductions after both focal and control interventions which did not significantly differ – consistent with the implications of a [review](#) of research on HIV risk behaviour. This found that formal, multi-session psychosocial interventions were no more effective than simple educational interventions, though both may have been beneficial.

Of greatest relevance and reliability are the findings directly on the incidence of new infections. In the largest study, rather than being reduced, incidence was non-significantly greater among peer educators; in other trials reductions were minor and also not statistically significant. This pattern suggests that any subsequent larger trials will probably also find no or minor benefits, highlighting the complexity of combating the spread of hepatitis C.

Findings on risk behaviours were more positive but also subject to bias because they were based on the participants' own accounts. Five of the six trials did not confirm that the study's interviewers were unaware of who was in the intervention and who in the control group ('blinding'), an important way to exclude the possibility of bias.

**FINDINGS** That behavioural interventions on their own do not appreciably curb the spread of hepatitis C is likely to reflect the ease with which it is transmitted, and the fact that a high proportion of injectors are already infected in the countries where the reviewed studies were conducted, [meaning that](#) each instance of risky injecting is much more likely to spread hepatitis C than HIV. Very large risk reductions are needed to adequately intercept spread of the virus ([in London](#), a reduction in average syringe-sharing rates from 16 times a month to one or two), perhaps explaining why the featured review found that even when interventions have reduced risky injecting, this has not translated in to fewer people becoming infected. If only a ["harm reduction flood"](#) can be expected to control hepatitis C, it is no surprise that just informing and counselling injectors is ineffective. Such interventions [face the added obstacles](#) that injectors may see hepatitis C as a minor issue compared to HIV, overdose, and the daily batterings of a life addicted to an illegal drug. Also the virus may be seen as virtually unavoidable and therefore not worth trying to avoid.

That this is not the whole story is suggested by corresponding research on curbing behaviour which risks HIV infection, which [has not found](#) counselling and education to exert a significantly greater impact than merely handing injectors written advice or other 'control' interventions. Given that both longer and briefer interventions are followed by risk reductions, the optimistic interpretation is that even minimal interventions are beneficial, and there is little added benefit from longer and more sophisticated interventions. However, these studies rarely included people exposed to no intervention at all, so there is no way of excluding the possibility that both types of interventions were simply [ineffective](#).

Despite a wide-ranging search, the featured review found only six studies, of which just three actually measured change in numbers of people infected with hepatitis

C. Among the excluded studies were 77 which did not specifically target hepatitis C. Some may nevertheless have collected information on hepatitis C infections, information which might have improved the quality of the review.

### Other ways to curb hepatitis C

More promising are concrete ways of reducing risk, especially prescribing substitute opiate-type drugs to be taken orally (reducing the number of injections) and supplying sterile injecting equipment (to try to ensure that residual injecting does not risk infection). A [synthesis of results from UK studies](#) related use of these services to hepatitis C infection among injectors. It calculated that when injectors were protected by one or other type of service to the degree set by the study (including being supplied enough equipment for a fresh set for each injection) their chances of becoming infected were halved relative to the risk faced by injectors who had not adequately participated in either type of service. When injectors were protected by both, their risk of infection was just a fifth of that faced by injectors who had used neither to the degree set by the study.

To this mix Britain's National Institute for Health and Clinical Excellence (NICE) [added](#) early detection and treatment of the disease in injectors already infected with hepatitis C, to clear them of the virus and prevent its spread. Though the featured review shows that psychosocial interventions on their own may be ineffective, NICE recommended these should be offered by specialist services supplying injecting equipment, as well as advice on safer injecting and help to stop injecting.

*This draft entry is currently subject to consultation and correction by the study authors and other experts.*

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