

## 12.7 Hepatitis C therapy cost-effective for injectors

**Findings** Despite relapse to drug use and imperfect adherence to a demanding medical regime, anti-viral therapy for hepatitis C infection in drug injectors cost-effectively prolongs and improves life.

Two new analyses fed real-life data into mathematical models to estimate the impact of combination therapy with interferon alfa and ribavirin among infected injectors. Each found that therapy was cost-effective relative to other accepted medical treatments and remained so when assumptions were varied towards worst-case scenarios, partly because costs are offset by avoiding later treatment for advanced liver disease.

**LINKS** [Hepatitis C and needle exchange parts 1–4](#), issues 8–11


Study ① drew on European data to profile patients with at least moderately severe hepatitis infection who had stopped injecting but later relapsed at a rate of 15% a year. Anti-viral therapy would mean that over the next 20 years about 7% fewer (26% v. 33%) would die. Therapy would save one quality-adjusted life year per \$5600 US, well within the conventional \$50,000 benchmark.


Using data from New Zealand, study ② profiled methadone patients assuming that 84% were infected. Estimates for the non-Maori population are likely to be most relevant to the UK. The starting point was that by curbing overdose and suicide, each \$18,000 US invested in methadone clinics saved one year of life. Starting anti-viral therapy when patients are stabilised on methadone further prolongs life but at no greater cost per life-year saved. The earlier this can be done, the greater the benefits and the lower the cost per life-year saved.

**In context** The pervasiveness of hepatitis C in injectors and the difficulty of preventing its spread are focusing attention on anti-viral therapy as a way of alleviating suffering, prolonging life, and helping to reduce further spread. One impediment has been the fear that dependent substance users not abstinent for at least six months will fail to benefit so should be not be treated. Of the justifications given for this view, recent studies suggest that the risks of reinfection and of aggravating mental illness are not in fact significant. Alcohol use and (especially) poor compliance with therapy remain concerns.

In relation to compliance, patients stabilised on methadone (even if they sometimes inject) comply with and benefit from therapy to about the same degree as non-drug users. Among recently abstinent patients, compliance may be poorer, but not so poor as to prevent an acceptable proportion benefiting. The remaining and practically unresearched issue is whether therapy is feasible among currently injecting drug users who are not in treatment or whose treatment fails to curtail their drug use. The exigencies of sustaining dependence on illicit drugs will mean that for some anti-viral therapy is impractical until stabilisation is achieved.

**Practice implications** National drug treatment and hepatitis C strategies in Britain now promote widespread screening and anti-viral therapy, including access to testing for all patients in drug treatment. Since only a minority of injectors are in treatment, it is also vital that primary care and other services encourage testing and therapy. Wide margins for error in both featured studies suggest that even patients who continue to use drugs to some degree and comply relatively poorly could be cost-effectively treated. Compliance and outcomes improve if anti-viral therapy is integrated with addiction treatment, particularly methadone programmes. Patients currently injecting or drinking heavily but not in treatment should be strongly encouraged to start treatment. Continued heavy drinking is a contraindication for therapy due to alcohol's effects on the liver and continued dependent drug use threatens compliance, but the decision to offer or withhold therapy should be made on a case-by-case basis.

**Featured studies** ① Wong J. *et al.* "Cost-effectiveness of treatment of hepatitis C in injecting drug users." In: Jager J. *et al.*, eds. *Hepatitis C and injecting drug use*. EMCDDA 2004, p. 219–241. Copies: [www.emcdda.org](http://www.emcdda.org) ② Sheerin I.G. *et al.* "What is the cost-effectiveness of hepatitis C treatment for injecting drug users on methadone maintenance in New Zealand?" *Drug and Alcohol Review*. 2004, 23(3), p. 261–272. 

**Additional reading** Schaefer M. *et al.* "Treatment of chronic hepatitis C in patients with drug dependence: time to change the rules?" *Addiction*. 2004, 99, p. 1167–1175. 

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