

# Primary care

## Incidence of hepatitis C virus and HIV among new injecting drug users in London: prospective cohort study

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In England, the low prevalence of HIV among injecting drug users during the 1990s was attributed in part to the introduction of harm reduction interventions in the late 1980s. Also, the prevalence of hepatitis C virus in the late 1990s was thought to be relatively low compared with other countries, at around 40% overall and 15% among those who had been injecting drugs for less than six years.<sup>1</sup> We carried out a prospective cohort study of new injecting drug users in London to estimate the incidence of hepatitis C virus and HIV.

### Participants, methods, and results

In 2001, we recruited from community settings mainly in London, but also in Brighton, 428 injecting drug users who were aged below 30 years or had been injecting for six or less years. All had injected in the previous four weeks and could provide addresses for follow up. They completed interviewer administered questionnaires and provided oral fluid specimens and optionally dried capillary blood spots for testing for antibodies to hepatitis C virus and HIV using published methods.<sup>2 3</sup> They were followed up 12 months later. We calculated incidence using standard person time methods.

Most of the participants (91%) were recruited in London. The mean (SD) age was 27.4 (5.3) years, and 29% of the participants were women. Three fifths (61%) of the sample at baseline had been injecting for less than four years, and the median frequency of injecting was 2.5 times a day. Most (71%) mainly injected opiates, although just over half (53%) had injected cocaine or crack in the previous year. Participants reported high levels of injecting risk behaviour, with 24% at baseline reporting injecting in the previous four weeks with needles and syringes used by someone else, and 53% sharing injecting paraphernalia. The baseline prevalence of antibody to hepatitis C virus was 44% and of antibody to HIV was 4% (table).

The overall follow up rate was 70%, and we found no difference between those followed up and those lost to follow up for sociodemographic characteristics or injecting risk behaviour. The incidence of antibody to hepatitis C virus was 41.8 cases per

### What is already known on this topic

Injecting drug users are at high risk of acquiring HIV, hepatitis C virus, and other bloodborne infections

### What this study adds

The incidences of hepatitis C virus and HIV among new injecting drug users in London are 41.8 and 3.4 cases per 100 person years, respectively

Current drug policy is failing to maintain historical levels of protection from bloodborne viruses among this high risk group

100 person years and of antibody to HIV was 3.4 cases per 100 person years (see table).

### Comment

The incidence of hepatitis C virus in England is high and of HIV higher than expected. These findings are corroborated by ongoing surveillance data, and suggest that transmission may have recently increased.<sup>1</sup> Injecting drug users in London have a higher incidence of hepatitis C virus than those in many cities worldwide, and an incidence of HIV comparable to that among men who have sex with men attending clinics for sexually transmitted infection in London.<sup>4</sup>

Possible explanations for the rising incidence include changes in patterns of injecting drug use, with greater injection of crack and injecting risk behaviour in newer injecting drug users than in those injecting in the early to mid-1990s. In addition there may have been increases in the size of the population of injecting drug users over and above any increase in protective interventions. Recent estimates suggest that current syringe distribution in London provides one new needle per injecting drug user every two days and that less than one in four are in drug treatment at any one time.<sup>5</sup> Specific targets to prevent bloodborne viruses among injecting drug users have been absent from the UK government's drug strategy in the past five years, and there has been little targeted health education and prevention campaigns. Increasing the coverage of syringe exchange and provision of drug treatment is only part of the solution. Innovative strategies are required, specific to hepatitis C virus and to HIV, to change behaviour and to deliver health education messages and harm reduction strategies early enough to make a difference.

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Prevalence and incidence of hepatitis C virus and HIV antibody among new injecting drug users in London, 2001-3

Viral antibodies	Baseline		Follow up	
	No positive/total	Prevalence (95% CI)	No of seroconversions/ total (mean follow up time)	Incidence rate per 100 person years
Hepatitis C virus	187/428	43.7 (38.9 to 48.5)	53/151 (372 days)	41.8 (31.9 to 54.7)
HIV	18/428	4.2 (2.5 to 6.6)	9/273 (360 days)	3.4 (1.8 to 6.6)

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