Hepatitis C Virus Transmission in People Who Inject Drugs: Swabs May Not Be the Main Culprit

To The Editor—We read with interest the recent article by Thibault et al [1], which described laboratory analyses of injection equipment collected from people who inject drugs in France. In particular, the detection of hepatitis C virus (HCV) RNA in 80% of pooled samples of alcohol and cotton swabs raises concerns about the possible role of swabs in HCV transmission. While the accompanying editorial notes that “[c]onfirming these results with epidemiologic studies may take time” [2p1820], we present early epidemiologic data on this relationship.

Between 1999 and 2002, we conducted a longitudinal study of anti-HCV–negative people who inject drugs in 3 sites in New South Wales, Australia [3–5]. A total of 68 incident cases of HCV infection were observed (30.8 cases/100 person-years; 95% confidence interval [CI], 24.3–39.0). Independent predictors of seroconversion were injection history of <1 year (adjusted hazard ratio [HR], 4.32; 95% CI, 1.89–9.84), being recruited through outreach (adjusted odds ratio, 4.68; 95% CI, 1.61–13.60), shared use of filters (adjusted HR, 2.21; 95% CI, 1.15–4.23), mainly injecting cocaine (adjusted HR, 1.87; 95% CI, 1.03–3.40), and female sex (adjusted odds ratio, 1.66; 95% CI, 0.99–2.77) [3].

The baseline prevalence of swab sharing (defined as “wiping your injection site with a swab previously used to wipe another person’s injection site in the last 6 months”) was 6%. In contrast to receptive syringe sharing (unadjusted HR, 1.99; 95% CI, 1.22–3.26), sharing swabs was not associated with HCV seroconversion (unadjusted HR, 0.68; 95% CI, 0.21–2.15).

As suggested in the accompanying editorial [2], ideally the association between swab sharing and HCV seroconversion should be studied in cohorts with a low prevalence of receptive syringe and container sharing and at least a modest amount of swab sharing. Despite being conducted in a setting of high harm reduction coverage including needle and syringe programs and opioid substitution treatment [6], our cohort had both high prevalence of receptive syringe sharing (27% in the previous 6 months) and container (ie, spoon) sharing (25%), relative to swab sharing (6%) at baseline.

While the prevalence of swab sharing was low in our cohort and we were unable to detect a statistically significant relationship between this behavior and incident HCV infection, it would appear prudent to continue to emphasize avoidance of swab reuse in this population.

Notes

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