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Bulletin No. 20 August 27, 2015

An Analysis of Concurrent HCV/HIV Testing Practices in Alaska, 2014

Background

In 2015, the Indiana State Department of Health reported an outbreak of human immunodeficiency virus (HIV) infection among injection drug users (IDU) in a rural area where fewer than 5 cases of HIV were typically being reported annually.¹ As of June 17, 2015, 169 HIV-positive persons had been identified in the outbreak, and 86% of them were found to be co-infected with hepatitis C virus (HCV).² Through case investigation and risk ascertainment, it was determined that the majority of cases were attributable to needle sharing among IDU.

While a similar outbreak has not yet been identified in Alaska, evidence of increasing heroin abuse in both urban and rural Alaska communities raises the potential for increased HIV and HCV transmission.³ As such, SOE evaluated the extent to which HCV-positive persons have been appropriately screened for HIV infection to determine whether a similar outbreak, if it were to occur, would likely be detected in Alaska.

Methods

A convenience sample of 799 antibody-positive HCV cases tested by either the Alaska State Virology Laboratory (ASVL; n=712) or by a private laboratory (n=87) in 2014 were reviewed to determine if persons had been concurrently tested for HIV. Subsequently, medical records from a convenience sample of HCV-positive persons who were not concurrently screened for HIV were obtained from submitting providers. Records were reviewed to determine if any HIV tests were obtained within 12 months of the positive HCV test, and if not, why patients had not been tested. Finally, HIV and HCV surveillance data reported to SOE during 2010–2014 were also reviewed to determine the 5-year prevalence of HIV/HCV co-infection in Alaska.

Results

Of the 799 cases identified from the laboratory sources in 2014, 645 (81%) involved patients who were concurrently tested for HIV at the time of their HCV test. The proportion of concurrent testing requests was higher for ASVL submissions (84%; 600/712) than for the private laboratory submissions (52%; 45/87).

Of the 154 HCV-positive persons whose samples were submitted without a concurrent request for HIV testing, a convenience sample of 76 underwent further review. Of these 76, 29 (38%) had received an HIV test within 12 months preceding or following their HCV test. There were three common circumstances under which no HIV test was performed:

- the patient specifically requested an HCV test, but did not request an HIV test;
- the patient reported a previous diagnosis of HCV and was interested in learning about the new treatment available to cure HCV; and
- the patient self-reported a previous HIV test elsewhere, the results of which were not verified in the record.

Of the 153 newly diagnosed HIV cases reported to SOE during 2010–2014, 10 (7%) were in persons who had also been reported as HCV-infected at some point in their life. The most commonly reported risk factors for bloodborne infection among co-infected cases were IDU (n=5, 50%) and sexual contact (i.e., having sex with an IDU, having sex with an HCV-positive person, and men having sex with men; n=4, 40%).

Discussion

The results of this evaluation show that over 80% of the HCV antibody-positive persons whose records were reviewed were

screened concurrently for HIV in 2014, and over one-third of those who did not undergo concurrent screening were screened for HIV within a year of their HCV diagnosis. This indicates that an unrecognized HIV epidemic was probably not occurring among newly identified HCV-infected persons in Alaska in 2014. While encouraging, these results are limited in that a) the review only included tests performed at two laboratories in 2014, and therefore may not reflect screening practices at all facilities or during prior years, and b) persons involved in an IDU-related outbreak might be less likely to seek medical care and thus less likely to be screened for bloodborne pathogens.

The outbreak in Indiana was identified through an epidemiologic investigation of incident HIV cases, including partner elicitation and ascertainment of risk factors. While SOE staff interview all persons testing positive for HIV to determine risk factors and offer partner notification services, this is not possible with current staffing for newly reported HCV cases, which outnumber HIV reports by a large margin.

For HCV, new short-course, well-tolerated treatment regimens are available with cure rates greater than 95%.⁴ While these regimens are still very expensive, insurance may cover the cost, and patient assistance programs are available. Similarly, the antiviral medications available to treat HIV are effective in suppressing viral replication, which reduces transmission and greatly improves health outcomes. Syringe and needle exchange programs are an effective harm reduction strategy for IDUs who continue to self-inject.⁵ Finally, referral to addiction treatment services can reduce the health risks associated with IDU.⁵

Recommendations

1. Include HIV testing when testing patients for HCV infection.
2. Screen patients with a history of ever injecting drugs for both HIV and HCV.
3. Screen IDU for HIV and HCV at least annually in all health care settings.
4. Refer active IDU to syringe exchange programs available at Alaskan AIDS Assistance Association in Anchorage (907) 263-2050 and Juneau (907) 586-6089, and at Northern Exchange in Fairbanks (907) 452-4222, for access to safer injection equipment, risk reduction services, and referrals.
5. Report all newly diagnosed cases of HIV and HCV within 5 working days to SOE via telephone by calling 907-561-4234 or 800-478-1700, or faxing a confidential case report form to 907-561-4239. Case report forms are available at: <http://www.epi.alaska.gov/pubs/conditions/crForms.htm>.

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