MIDDLESEX-LONDON HEALTH UNIT

REPORT NO. 054-18

TO: Chair and Members of the Board of Health

FROM: Christopher Mackie, Medical Officer of Health / CEO

DATE: 2018 September 20

HEPATITIS A IN HOMELESS / UNDER-HOUSED POPULATIONS

Recommendation

It is recommended that Report No. 054-18 re: "Hepatitis A in Homeless/Under-Housed Populations" be received for information.

Key Points

- Since 2017, Public Health Ontario has been investigating a cluster of hepatitis A cases. Individuals have reported illicit drug use as well as other risk factors, including sex with same sex (SWSS) among males, being homeless or under-housed, and incarceration.
- Internationally, there have been several large outbreaks of hepatitis A, specifically among homeless and under-housed populations, including in nearby jurisdictions like Michigan.
- In July 2018, MLHU received a report of a case of hepatitis A who was a client at a city shelter. This case was genotypically linked to the provincial outbreak.
- In an effort to stem transmission of the virus in homeless and under-housed populations, MLHU initiated post-exposure prophylaxis vaccination clinics in three city shelters, notified health care providers, and informed harm reduction and shelter workers.
- No additional cases of hepatitis A have been reported at this time.

Background

Hepatitis A is an infection of the liver caused by the hepatitis A virus. Symptoms include fever, loss of appetite, nausea, abdominal discomfort, and yellowing of the skin and eyes (jaundice). Recovery often takes four to six weeks, but can also take months. It is transmitted fecal-orally, and can be spread via contaminated food or drinking water, sharing of needles or drug-use equipment, or living in the same space as or having sex with an infected person. There is a vaccine for the hepatitis A virus that is very effective at preventing the disease. Additionally, if administered with expediency, this vaccine can decrease the probability of an individual developing the disease despite already having being exposed. This is called post-exposure prophylaxis.

In North America, cases of hepatitis A have typically been linked to travel to endemic countries or the ingestion of contaminated food products. However, in recent years, locally acquired outbreaks have been seen amongst men who have sex with men, people who use illicit drugs, and people who are homeless or under-housed. The United States Centers for Disease Control and Prevention (CDC) have been investigating hepatitis A outbreaks in multiple states among people with these risk factors. This has included nearby jurisdictions like Michigan, where an ongoing outbreak declared in 2016 has resulted in 808 cases, 709 hospitalizations, and 28 deaths.

In 2017, Public Health Ontario collaborated with Toronto Public Health and other health units in southern Ontario to investigate an increase of non-travel-associated hepatitis A cases. These cases were primarily observed amongst men who have sex with men, but other risk factors included homelessness and illicit drug use. These cases were centered in Toronto.

Many of the cases were linked to three distinct strains, or genotypes, of hepatitis A. Between June 1 and December 31, 2017, there were 25 cases with genotype 1A strain VRD_521_2016, 3 cases with genotype 1A strain RIVM HAV16-090, and 1 case with genotype 1A strain V16-25801. These three strains were closely related to circulating strains implicated in outbreaks occurring mostly among men who have sex with men (MSM) communities in the United Kingdom and Europe.

In 2018, genotypically linked cases were identified in two neighbouring health units beyond Toronto: Waterloo Region and Wellington-Dufferin-Guelph. Given these new cases, a provincial outbreak was declared. Among confirmed outbreak cases, the proportion of males that reported SWSS was lower in 2018 (13%) than in 2017 (56%). The proportion of cases who reported illicit drug use (i.e., any reported illicit drug use, including injection and/or non-injection drug use) was higher in 2018 (81%) than in 2017 (68%). The rate of hospitalization, too, was higher in 2018 (83%) than in 2017 (55%).

Middlesex-London Situation

On July 19, 2018, the Infectious Disease Control Team received a positive hepatitis A report in an individual with a history of injection drug use and homelessness. The individual was a recent client of a London shelter who had lived in the shelter during the period of infectivity.

Given the potential of an outbreak among people who use illicit drugs and people who are homeless or under-housed, MLHU rapidly organized and delivered post-exposure prophylaxis vaccination clinics. As the movement of the homeless population is highly transient, clinics were held at all three large city shelters.

The first clinic was offered on July 20, 2018, and 77 individuals were immunized. A second clinic was set up at the same shelter, followed by additional clinics at two other shelters and sites. In total, 162 individuals were vaccinated.

An alert was distributed to health care providers via email on July 24, 2018, to inform them about the risk of hepatitis A in the community. A letter was also distributed to shelter workers and harm reduction workers to emphasize appropriate hand hygiene, facilitate rapid recognition of hepatitis A cases, and encourage clients to receive the vaccine.

Next Steps

On August 8, 2018, the National Microbiology Lab confirmed that the July 19 case shared the same genotype as that identified in the provincial outbreak (1A VRD_521 HAV strain). At the time of this report, no additional cases of hepatitis A have been reported. The Infectious Disease Control Team will continue to monitor for additional hepatitis A cases.

This report was prepared by the Associate Medical Officer of Health and the Environmental Health and Infectious Disease Division.

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