State of Alaska Epidemiology

Bulletin

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Syphilis Update — Alaska, 2015

Background

Syphilis is a sexually transmitted disease (STD) caused by the bacterium *Treponema pallidum*, which, if left untreated, can cause irreversible neurological problems, and can lead to neonatal complications including miscarriage, stillbirth, and early infant death. Moreover, syphilis infection facilitates the transmission of human immunodeficiency virus (HIV).

Since 2012, the Section of Epidemiology (SOE) has updated providers on a syphilis outbreak that has been primarily associated with men who have sex with men (MSM).[1] The purpose of this *Bulletin* is to report key epidemiological characteristics related to this outbreak, and to highlight notable findings and recommendations.

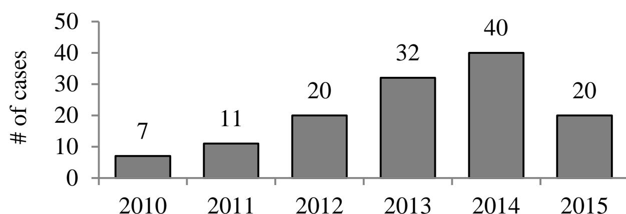
Methods

Syphilis case data were obtained from the SOE reportable conditions database and the Patient Reporting Investigating Surveillance Manager (PRISM).

2015 Summary Results

A total of 20 new confirmed cases of syphilis were reported to SOE in 2015, including two primary, six secondary, and 12 early latent syphilis cases. There was a 50% decrease in syphilis cases from 2014 to 2015 (Figure). There were no reported cases of congenital syphilis in 2015.

Figure. Primary, Secondary, Early Latent, and Congenital Syphilis — Alaska, 2010–2015



Of the 20 people identified with syphilis in 2015,

- 16 (80%) were residents of Southcentral Alaska;
- the median age was 34 years (range: 20–63);
- 17 (85%) were male, 10 (59%) of whom identified as gay, bisexual, or other men who have sex with men (MSM);
- 3 (15%) were female, all of whom were of childbearing age (i.e., aged 20–39 years);
- 11 (55%) were white, 4 (20%) were Alaska Native persons, 3 (15%) were Hispanics, and 1 each (5%) were Asian and black persons;
- 2 (10%) were persons co-infected with chlamydia and/or gonorrhea; and
- 2 (10%) were persons co-infected with HIV.

Partner Services Findings

Public health personnel interviewed each infected person. Of those interviewed,

- 12 (60%) reported multiple or anonymous sexual partners;
- 9 (45%) reported finding sexual partners via the internet or mobile phone apps (e.g., Craigslist, Adam4Adam, and Grindr);
- 7 (35%) reported having sex while intoxicated or high; and
- 7 (35%) were incarcerated at or near the time of diagnosis.

Of the 34 sexual partners identified, 25 (74%) were located and notified of their exposure, and 9 (26%) were not located. Of the 25 partners who were notified,

- 5 (25%) tested positive and were adequately treated;
- 11 (55%) tested negative and were prophylactically treated because their exposure dates occurred ≤90 days of testing;
- 7 (35%) tested negative and did not require treatment because their exposure to syphilis occurred >90 days prior to testing;
- 1 (5%) had already received treatment from a health care provider prior to being contacted by public health; and
- 1 (5%) refused testing and treatment.

Discussion

In 2015, there was a 50% decrease in the reported number of cases of infectious syphilis. This ongoing syphilis outbreak continues to be fueled by persons engaging in anonymous sex, often with anonymous partners found online. While the majority of cases continue to occur in males, the proportion of male cases identifying as MSM dropped from 84% in 2014 to 59% in 2015. The median age of infected persons increased in 2015 (34 years) compared to 2014 (28 years), reversing the decreasing median age trend reported last year.[1]

In 2015, 25% of all cases (5/20) were identified through partner services, underscoring the importance of this essential public health service.

Although Alaska had no cases of ocular syphilis in 2015, three cases were reported in 2014, and over 200 cases were detected nationally since December 2014. Most of the cases that occurred nationally were in HIV-positive MSM, and several involved substantial sequelae including blindness. Providers, particularly those who work with HIV-infected individuals or who are likely to see early syphilis cases in their practice, should consult CDC's ocular syphilis advisory (go to: http://www.cdc.gov/std/syphilis/clinicaladvisoryos2015.htm).

Recommendations

1. Treat patients with primary, secondary, and early latent syphilis with *Bicillin L-A (benzathine penicillin G) 2.4 million units* in a single intramuscular dose.[3]
2. Perform non-treponemal (RPR) and treponemal (FTA or TP-PA) tests on anyone suspected of having syphilis.
3. Offer HIV, gonorrhea, and chlamydia testing to all patients with suspected syphilis infection.
4. Obtain a complete sexual history on all STD patients, including the number and gender of sexual partners, anonymous sexual encounters, and the use of sex-seeking websites and mobile phone apps.
5. Screen for pregnancy in all women of childbearing age with syphilis.
6. Screen all pregnant women during their first trimester and retest high-risk women during the third trimester.
7. Patients infected for more than 1 year who do not have neurosyphilis should be treated with benzathine penicillin G 7.2 million units administered as 3 doses of 2.4 million units each intramuscularly at 1-week intervals.[3]
8. Promptly report to SOE all confirmed and suspected syphilis cases, pregnancy in females with syphilis, and suspected cases of ocular syphilis via fax (907-561-4239) or telephone (907-269-8000).
9. Contact SOE staff for consultation regarding interpretation of syphilis serology, staging, and partner management (call 907-269-8000 Mon–Fri 8AM–5PM).

References

1. SOE *Bulletin*. "Syphilis Update – Alaska, 2014." No. 8, April 9, 2015. Available at: http://www.epi.alaska.gov/bulletins/docs/b2015_08.pdf
2. CDC. Increase in incidence of congenital syphilis – United States, 2012-2014. *MMWR Morb Mortal Wkly Rep* 2015;64(44):1241-45. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6444a3.htm
3. CDC. STD Treatment Guidelines, 2015. *MMWR Recomm Rep* 2015;64(No.3-RR):34-50. Available at: http://www.cdc.gov/std/tg2015/default.htm

(Contributed by Donna Cecere, BA, Section of Epidemiology.)