State of Alaska Epidemiology Bulletin

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Syphilis Update — Alaska, 2018

Background

In early 2018, the Alaska Section of Epidemiology (SOE) identified and alerted health care providers of an outbreak of syphilis.[1] Confirmed cases continue to be reported. Syphilis may promote human immunodeficiency virus (HIV) acquisition and transmission, and HIV infections may alter the response to syphilis treatment.

Methods

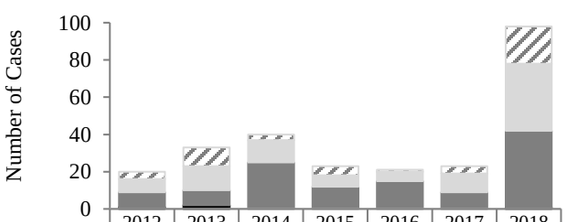
Syphilis case and interview data were obtained from the SOE Patient Reporting Investigation Surveillance Manager (PRISM) database and individual case management records. Persons reported with syphilis are interviewed to help determine the stage of infection and to identify additional people who may need public health follow-up for testing and treatment.

Results

During 2018, 114 cases of syphilis were reported to SOE, representing a 293% increase over 2017 (n=29; Figure). Of these, 97 (85%) cases were in the primary, secondary, or early latent stages; 16 (14%) cases were in the late latent stage; and one (1%) case was probable congenital syphilis in an infant whose mother had been inadequately treated for syphilis. Of the 97 primary, secondary, or early latent cases,

- 85 (88%) were in males, 84% (71/85) of whom self-identified as men who have sex with men (MSM); 10 (10%) were in females, all of whom self-identified as being heterosexual; and two (2%) were in transgender persons;
- 40 (41%) were in Whites, 29 (30%) were in Alaska Native people, seven (14%) each were in Black and Hispanic persons, four (8%) each were in Native Hawaiian/Pacific Islander and Asian persons, and six (6%) were unknown/other race;
- 82 (85%) were living in urban communities (i.e., Anchorage/Mat-Su, Juneau, or Fairbanks);
- the age range was 16–77 years (median: 31 years);
- 41 (42%) were diagnosed with at least one other STD or HIV; 21 (22%) were co-infected with HIV, 4 of which were newly diagnosed at the time of the syphilis diagnosis; 23 (24%) were in persons co-infected with chlamydia (CT) or gonorrhea (GC); and seven (7%) were co-infected with HIV and CT or GC; and
- three (3%) had ocular symptoms/involvement.

Figure. Primary, Secondary, Early Latent, and Congenital Syphilis — Alaska, 2012–2018 (N=258)



	2012	2013	2014	2015	2016	2017	2018
Primary	4	10	3	5	1	4	20
Secondary	7	13	12	6	5	10	36
Early Latent	8	8	25	12	15	9	41
Congenital	1	2	0	0	0	0	1

Discussion

This ongoing syphilis outbreak is primarily affecting MSM; however, 27% (26/97) of adults with infectious syphilis self-identified as having been infected through heterosexual contact. The outbreak is expanding geographically with 16% (16/97) of cases reported in persons living in more rural communities.

The high proportion of infectious syphilis cases co-infected with HIV, CT, or GC during this outbreak underscores the importance of testing patients suspected of having syphilis for additional sexually transmitted diseases (STDs) and testing patients with other STDs for syphilis. Men and women who report extragenital (oropharyngeal and anal) sexual activity are at increased risk for CT, GC, and syphilis acquisition at these sites. Extragenital infections are commonly asymptomatic and an initial syphilis chancre can occur and not be visible. A comprehensive sexual history will guide the exam and extragenital STD testing.

All patients diagnosed with syphilis need to be evaluated for neurologic, otic, and ocular symptoms, which can occur at any stage of syphilis infection. Research has shown that ocular syphilis, in particular, has been increasingly more prevalent, frequently presenting as isolated posterior uveitis, panuveitis, retinitis and other conditions of the eye.[2] Any patient with reactive syphilis serology and ocular involvement should be immediately managed in collaboration with an ophthalmologist. Persons co-infected with syphilis and HIV may be at increased risk for early neurologic involvement, otic, or ocular complications.[3,4]

Recommendations

1. Perform non-treponemal (RPR) and treponemal (FTA, TP-PA, or equivalent) tests on persons with suspected syphilis.
2. Promptly treat patients with primary, secondary, or early latent syphilis with *Bicillin L-A (benzathine penicillin G) 2.4 million units* in a single intramuscular dose.[3]
3. Perform a neurologic exam and a cerebrospinal fluid evaluation via lumbar puncture on all patients with syphilis *and* neurologic, ophthalmologic, or audiologic symptoms.[3]
4. Offer gonorrhea, chlamydia, and HIV testing to all patients with suspected syphilis infection.[3,4]
5. Strongly encourage infected patients to participate in SOE's confidential partner notification services.
6. Screen sexually active MSM *annually* for syphilis, HIV, gonorrhea, chlamydia, and hepatitis C; screen sexually active MSM *every 3–6 months* if they engage in high-risk sexual activities (e.g., multiple or anonymous sex partners).
7. Test for pregnancy in all women of childbearing age who are diagnosed with syphilis.
8. Screen all pregnant women for syphilis during their first prenatal visit. Rescreen women early in their 3rd trimester if they had a positive test in their first trimester. Also rescreen women early in their 3rd trimester *and* at delivery if at high risk for infection.[3]
9. Obtain a complete sexual history on all STD patients, including the number and gender of sexual partners.
10. Promptly report all suspected and confirmed cases of syphilis via fax at 907-561-4239 or telephone at 907-269-8000. Contact SOE staff for consultation, staging, and partner management at 907-269-8000.

References

1. Alaska Epidemiology *Alaska Public Health Advisory*. Syphilis in Alaska, March 14, 2018. Available at: http://dhss.alaska.gov/dph/Epi/Documents/phan/AKPHAN_20180314_Syphilis_in_Alaska.pdf
2. Pratas A, Goldschmidt P, Lebeaux D, et al. Increase in ocular syphilis cases at ophthalmologic reference center, France, 2012–2015. *Emerg Infect Dis* 2018;24(2):193–200. DOI:10.3201/eid2402.171167.
3. CDC. 2015 STD Treatment Guidelines. *MMWR Recomm Rep* 2015;64(RR-3). Available at: https://www.cdc.gov/std/tg2015/syphilis.htm
4. CDC. Syphilis Pocket Guide for Providers. Available at: https://www.cdc.gov/std/syphilis/Syphilis-Pocket-Guide-FINAL-508.pdf

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