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Maine Health Alert Network (HAN) System

PUBLIC HEALTH ADVISORY

To: Health Care Providers
From: Dr. Isaac Benowitz, State Epidemiologist
Subject: **Recommendations for Diagnosing and Treating Neuro-, Ocular, and Otic Syphilis and HIV-Syphilis Co-infection**
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Recommendations for Diagnosing and Treating Neurosyphilis, Ocular Syphilis, and Otic Syphilis

Summary
The purpose of this HAN is to remind medical providers across Maine of recommendations for diagnosing and treating neuro-, ocular and otic syphilis and HIV-syphilis coinfection. It also serves as a reminder to providers about testing for HIV and syphilis during pregnancy, among people who inject drugs (PWID), and among sexually active men who have sex with men (MSM). This HAN includes reminders that neurosyphilis, ocular syphilis, and otic (NOO) syphilis can occur at any stage of syphilis infection but are more common in individuals with HIV infection. HIV and syphilis are reportable conditions in the State of Maine.

Background
Maine CDC has been working to address the rising rate of HIV infections. Individuals with HIV are at increased risk of co-infections, including syphilis. In the ten-year period from 2013 to 2022, the number of infectious syphilis cases reported in Maine, including primary, secondary, and early latent stages, increased from 17 to 112 cases per year. Cases of infectious syphilis in Maine decreased in 2023 and 2024 but remain elevated over recent years. Of 76 cases of infectious syphilis reported in Maine in 2025, 12 (16%) were coinfected with HIV (preliminary data as of January 27, 2026). Due to these trends in HIV and syphilis infections, clinicians should be aware of resources for identifying and treating syphilis, and considerations for patients with HIV and syphilis coinfections.

Neurosyphilis, ocular syphilis, and otic (NOO) syphilis can occur at any stage of syphilis infection. A recent report found that 68% of NOO syphilis cases occurred in persons without HIV infection. In addition, among people with syphilis, HIV co-infection may predispose to NOO due to immunosuppression. Any patients with syphilis presenting with neurologic, ocular, or otic signs/symptoms (e.g., cranial nerve dysfunction, meningitis, stroke, altered mental status, tabes dorsalis, general paresis, uveitis, optic neuropathy, retinal vasculitis, interstitial keratitis, decreased visual acuity, sensorineural hearing loss, tinnitus, vertigo) should prompt consideration of neurosyphilis.

Recommendations for Clinicians

Diagnosis and Testing

- Maine law (2023) requires all clinicians to include HIV testing when conducting tests for other STIs, as STIs can commonly occur together. For example, when conducting testing for syphilis, gonorrhea, or chlamydia, clinicians should also discuss and seek consent from patients to conduct HIV testing.
- **All persons with syphilis should have thorough neurologic, ocular, and otic examinations.** If neurologic symptoms are present, a CSF examination should be performed before treatment. If ocular symptoms are present, a slit lamp and ophthalmologic exam should be performed with immediate referral to ophthalmologist.
- Sexually active MSM should be screened for syphilis at least annually, or every 3–6 months if at increased risk.
- Per ACOG guidelines, all pregnant persons should be tested for syphilis at least once during pregnancy, ideally at the first prenatal visit, and again during the third trimester and at birth.
- Everyone between ages 13–64 years should be screened for HIV at least once in their lifetime.
- The Maine CDC currently recommends HIV testing every 3 months for all persons in Maine with ongoing risk factors. This interim recommendation applies statewide.

Treatment & Prevention

- Treatment of syphilis depends on clinical staging (see U.S. CDC STI Treatment Guidelines).
- Recommended treatment of NOO syphilis includes 10-14 day treatment with 18-24 million units per day of aqueous crystalline penicillin G administered as 3-4 million units IV every 4 hours or continuous infusion.
- Treatment of syphilis among persons with HIV infection:
    - *Primary, Secondary, or Early Latent Syphilis:* benzathine penicillin G, 2.4 million units IM in a single dose
    - *Late Latent Syphilis or Latent Syphilis of Unknown Duration:* benzathine penicillin G, 7.2 million units total, administered as 3 doses of 2.4 million units IM at 1-week intervals
    - Use of antiretroviral therapy might improve clinical outcomes among persons co-infected with HIV and syphilis.
- For patients who test negative for HIV, assess the need for HIV post-exposure prophylaxis if they had possible HIV exposure in the past 72 hours; HIV pre-exposure prophylaxis for HIV is recommended for all individuals with a sexually transmitted infection (STI) in the past 6 months.
- MSM diagnosed with a bacterial STI (syphilis, chlamydia, or gonorrhea) in the past 12 months should receive counseling regarding DoxyPEP.

Reporting

- HIV and syphilis are reportable conditions in the State of Maine. Health care professionals and clinical laboratories should report cases and positive laboratory results promptly to the Maine CDC. Laboratory results should be reported through electronic laboratory reporting.

Resources

- U.S. CDC: STI Treatment Guidelines: https://www.cdc.gov/std/treatment-guidelines/default.htm
- STD Clinical Consultation Network: Clinical Consultation Service: https://www.stdccn.org/
- National Network of STD Clinical Prevention Training Centers: https://www.nnptc.org/
- Maine CDC: HIV: https://www.maine.gov/dhhs/mecdc/diseases-conditions/sexually-transmitted-diseases/hiv-aids

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