

In October 2021, the Indiana Department of Health (IDOH) and the Vanderburgh County Health Department (VCHD) detected an outbreak of adult syphilis in a geographical area near Evansville. To date, 21 cases have been identified in this outbreak. Additionally, this outbreak has been linked to exposures to other infectious diseases, including human immunodeficiency virus (HIV) and viral hepatitis (hepatitis A and C). Please educate all clinicians on the signs, symptoms and risk factors of syphilis. Furthermore, please establish protocols for testing, reporting and treatment.

SYPHILIS IN PREGNANCY

In the majority of congenital syphilis cases, the pregnant woman did NOT seek prenatal care. Therefore, emergency departments and urgent care centers should strongly consider syphilis screening and testing in their prenatal workup and evaluation. Studies¹⁻² in the United States have shown that syphilis screening of **all pregnant women presenting for any care in hospital emergency departments** is an effective method of identifying syphilis cases. **Hospitals should strongly consider implementing this strategy.**

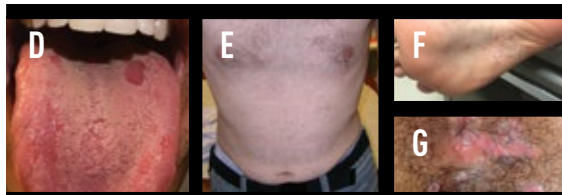
COMMON RISK FACTORS (from patient interviews):

- Homelessness
- Exchanging money or drugs for sex
- Using methamphetamine
- Injection drug use
- Using social media/internet to meet partners
- Recent incarceration (within the last year)
- Meeting their sexual or needle-sharing partners in an area of Evansville known as "Jimtown"

HISTORY and CLINICAL EVALUATION



A: Courtesy of Dr. Joseph Engelman at Sf City Clinic
B: Courtesy of National STD Curriculum
C: Courtesy of CDC, Robert E. Sumpter



D: Courtesy of National STD Curriculum
E: Courtesy of Dr. Joseph Engelman at SF City Clinic
F: Courtesy of National STD Curriculum
G: Courtesy of Dr. Joseph Engelman at SF City Clinic

Primary Syphilis

- One or more chancres (usually firm, round, small, & painless but can be atypical, subtle lesions) thought to appear at site of exposure (mainly genital area but also lips) ~3 weeks after infection (range 10–90 days).
- Patient is highly infectious, and in utero transmission is likely in pregnant women

Secondary Syphilis

- Rashes may first appear on the palms and soles of the feet, but typically appear on trunk and other areas of the body
- Lesions such as condyloma lata, a moist, "wart-like" lesion found in the genital area & mucous patches on the tongue occur in ~25% of patients.
- Lymphadenopathy & constitutional symptoms.
- Less common: patchy alopecia & neurologic symptoms.

<https://www.cdc.gov/std/syphilis/syphilis-pocket-guide-final-508.pdf>

TESTING

- Serologic rapid plasma reagin (RPR) test be performed, with reflex to a quantitative RPR if reactive, as well as a confirmatory fluorescent treponemal antibody (FTA) test.
- Providers should instruct patients to refer their sexual partners to the VCHD for evaluation, testing, and presumptive treatment for syphilis, as sexual contacts to early syphilis are at the most risk of infection.
- Syphilis diagnoses and positive lab results are reportable to the local health department or IDOH within 72 hours.

TREATMENT

The CDC-recommended treatment regimen for adults with either primary, secondary, or early non-primary/non-secondary syphilis is **benzathine penicillin G 2.4 million units IM in a single dose**. Adults with late or unknown duration syphilis should receive **3 doses of benzathine penicillin G 2.4 million units (7.2 million units total) administered at 1-week intervals**. Although doxycycline has been used as an alternative treatment for syphilis, it is not advised to treat patients with a multi-day regimen during an outbreak where lack of patient adherence to the full treatment course is of concern.

¹Ernst, A. A., Romolo, R., & Nick, T. (1993). Emergency department screening for syphilis in pregnant women without prenatal care. *Annals of emergency medicine*, 22(5), 781–785. [https://doi.org/10.1016/s0196-0644\(05\)80791-7](https://doi.org/10.1016/s0196-0644(05)80791-7)

²Barnes, A., Jetelina, K. K., Betts, A. C., Mendoza, T., Sreeramoju, P., & Tiro, J. A. (2019). Emergency Department Testing Patterns for Sexually Transmitted Diseases in North Texas. *Sexually transmitted diseases*, 46(7), 434–439. <https://doi.org/10.1097/OLQ.0000000000001003>