MEDIA ALERT: SYPHILIS OUTBREAK IN HOUSTON HARRIS COUNTY

HOUSTON HEALTH DEPARTMENT

CITY OF HOUSTON
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Subject: Call to respond: Syphilis Outbreak

Dear Colleague,

The Houston Health Department through the Bureau of HIV/STI and Viral Hepatitis Prevention requests your assistance in responding to an alarming increase in syphilis cases in Houston/Harris County. The number of early syphilis cases (primary, secondary, and early latent stages) has continued to rise in Houston/Harris County since 2020. Over the past (4) years, the percentage of cases among women has risen over 128%. This increase has contributed to the rise in congenital syphilis, with the number of cases in 2021 being nine (9) times higher than that in 2016. Medical evidence has demonstrated that vertical transmission can seriously affect multiple organs and systems in the unborn fetus leading to major consequences including fetal demise.

Houstonians, especially high-burden populations, unborn babies, and infants can be protected by testing and receiving proper treatment for syphilis infections.

Syphilis can be reduced with timely testing and treatment. Houston Health Department (HHD) requests your assistance to screen, diagnose and adequately treat vulnerable population and their sexual partners. Identification and treatment of this infection decrease morbidity and mortality.

Syphilis should be treated with the recommended penicillin regimen for their stage of infection as soon as possible. Other treatment regimens should be carefully given to certain population, excluding vulnerable population due to the lack of treatment adherence. To unify efforts, syphilis cases must be carefully handled at emergency departments; urgent care clinics; jails; mental health, drug treatment, homeless outreach programs with documented lab results or by providing opt-out syphilis testing.

The City of Houston, the Houston Health Department through the Bureau of HIV/STI & Viral Hepatitis Prevention, is promoting provider guidelines according to the CDC (below is the link) to work against this outbreak and keep our communities safe and healthy. We want and need your assistance to ensure that we test and treat our most vulnerable populations.

What Healthcare Providers Can Do About Syphilis | Syphilis | CDC

Sincerely,

David Persse, MD

David E. Persse, M.D., Chief Medical Officer
Houston Health Department

Council Members: Amy Peck Tarsha Jackson Abbie Kamin Carolyn Evans-Shabazz Dave Martin Tiffany Thomas Mary Nan Huffman Karla Cisneros Robert Gallegos Edward Pollard Martha Castex-Tatum Mike Knox David Robinson Michael Kubosh Letitia Plummer Sallie Alcorn Controller: Chris Brown

CONGENITAL SYPHILIS: TALKING POINTS FOR STAFF.

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What is Congenital Syphilis (CS)?

Syphilis is a bacterial Sexual Transmitted Infection (STI) that progresses in stages.

The infection is curable, and progression of the disease is preventable, but if left untreated it can cause cardiovascular and neurological diseases and blindness. Syphilis causes genital ulcers, which increase the likelihood of sexual HIV transmission two-to five-fold.

Untreated, syphilis can be transmitted from a pregnant woman to her fetus Women with untreated or inadequately treated latent syphilis still have 23 percent chance of an adverse pregnancy outcome.

If left untreated CS can cause poor pregnancy outcomes, including miscarriages, premature births, stillbirth, or death in newborns. Some infants with CS have symptoms at birth, but many develop symptoms later.

If the mother is treated early during pregnancy, but her partner is not, there is a possibility of re-infection occurring, therefore. Putting the unborn child at risk.

How can they reduce the risk of their baby getting CS or having health problems associated with CS?

- Since congenital syphilis can be transmitted at any time. The CDC guidelines indicate it is important to test 3 times during pregnancy.
  - 1st prenatal visit
  - 3rd trimester no sooner than 28 weeks of gestation
  - At delivery
- Stress to your patients the importance of testing and receiving treatment prior to 30 days of delivery.
- It is just as important to test and treat all their sexual and needle sharing partners to avoid reinfection.
- Lastly and no less important: let your clients know that your office is mandated by Texas law to report all STIs to the Houston Health Department (HHD).
- HHD can help you follow up, test, and treat your patients and their partners for syphilis.

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CONGENITAL SYPHILIS: KNOW THE FACTS

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When a pregnant person has syphilis, the infection can spread to their unborn baby.

All pregnant people should be tested for syphilisat the first prenatal visit. Also, people will need to test again during the third trimester (28 weeks gestation) and at delivery. (This includes people who live in areas of high syphilis rates like our city or are at risk for getting syphilis during pregnancy).

Healthcare providers should use this information in conjunction with clinical and laboratory follow-up. This ensures appropriate serological response and cure.

Healthcare providers should notify people's sex partners so they also can receive testing and treatment if necessary.

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TESTING FOR SYPHILIS IN WOMEN

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People of childbearing capacity.

Pregnant people.

Given the increasing prevalence of syphilis CDC also recommends the following for pregnant patients:

- Assessment of sexual risk for syphilis and other STIs at each prenatal visit.
- Serologic re-screening if patient reports:
  - A recent bacterial STI diagnosis
  - A new sexual partner
  - Sex with an MSM partner or transgender woman

Serologic testing for syphilis includes a variety of assays that fall into 2 general categories: nontreponemal assays and treponemal (or treponeme-specific) assays.

Nontreponemal assays such, as the RPR (Rapid Plasma Reagin) detects nonspecific antibodies produced in response to presence of antigenic particles, require confirmation with a treponeme-specific assay like the TPPA (Treponema Pallidum Particle Agglutination).

What is serofast?

When RPR titers decreases or seroconvert it is called serofast. It happens not only when patients are adequately treated but also when body's nature immunity is fighting against the infection.

Healthcare providers should never assume a patient is serofast if not having the evidence to support that the patient was adequately treated. For patients coming outside of the country, it is necessary to consider getting the patient to re-start the treatment if they do not provide written documentation of treatment.

After appropriate treatment, evaluating clinical and serologic response to treatment is necessary. However, even following successful treatment, reinfection can occur. For this reason, it is important to also test and treat all sexual partners for the patient.

SYPHYLIS: YOUR PATIENT IS POSITIVE, NOW WHAT?

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Treating sexual partners is essential to avoid reinfections.

Conduct thorough physical examination looking for lesions, body rash, rash on palms and soles, lymphadenopathy, alopecia, mucous patches, and other symptoms to stage properly.

Stage syphilis. Treatment will depend on this.

Treat with Penicillin G Benzathine (Bicillin) pregnant women. If allergic, desensitize.

Ask for symptoms even if you don't find them in the physical examination. Ask the onset and duration.

Test RPR and TPPA simultaneously.

Do no use FTA-ABS, gives false positives.

If patient is diagnosed with an STI, it increases the risk to become infected with another STIs.

Sexual abstinence until 20 days after adequate treatment completion.

Test pregnant women at gestation.

Follow up in 6 months from treatment completion. In patients with HIV follow up monthly.

Do not share sex toys with sexual partners.

If patient tested positive for syphilis, test for HIV, Chlamydia, Gonorrhea, etc.

Educate the patient in condom use.

For more information visit:

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SYPHILIS STAGING AND TREATMENT

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Determine the Patients Current Syphilis Stage: Signs and Symptoms You Look For

Signs and Symptoms	Stage of Syphilis			
	Primary	Secondary	Early Latent	Late Latent
One or more lesion at site of exposure (mainly genital area)	X			
Rashes that may appear on palms or soles of feet		X		
Rashes that appear on trunk or other areas of the body		X		
Large, raised, gray or white lesions in warm, moist areas of body		X		
No current visible signs or symptoms (patient remembers sign or symptom that occurred within the past 12 months)			X	
No current visible signs or symptoms (patient remembers sign or symptom that occurred more than 12 months ago)				X

Appropriate Treatment Options for Women During Pregnancy

Stage of Syphilis	Benzathine Penicillin G	
	2.4 million units IM in a single dose	7.2 million units IM in 3 doses at 1 week intervals
Primary Syphilis	X	
Secondary Syphilis	X	
Early Latent Syphilis	X	
Late Latent Syphilis		X

NOTE: IM = intramuscular; Please review the CDC's 2015 Treatment Guidelines for patients who have an allergy to penicillin: https://www.cdc.gov/std/tg2015/default.htm

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SYPHILIS:
TREATMENT GUIDELINES

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Primary, Secondary and Early Latent Syphilis

Recommended Regimen for Primary and Secondary Syphilis* Among Adults

Benzathine penicillin G 2.4 million units IM in a single dose.

Available data demonstrate that use of additional doses of benzathine penicillin G, amoxicillin, or other antibiotics do not enhance efficacy of this recommended regimen when used to treat primary and secondary syphilis, regardless of HIV status.

Follow-Up

Clinical and serologic evaluation should be performed at 6 and 12 months after treatment.

Penicillin Allergy

Multiple therapies might be effective for nonpregnant persons with penicillin allergy who have primary, secondary or early latent syphilis. Doxycycline (100 mg orally 2 times/day for 14 days).

SYPHILIS: TREATMENT GUIDELINES, CONT.

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Late Latent, Latent and Tertiary Syphilis

Recommended Regimen for Late Latent and Tertiary Syphilis

Benzathine penicillin G 7.2 million units IM administered as 3 doses of 2.4 million units IM each at 1-week intervals.

Late Latent Syphilis: Benzathine penicillin G 7.2 million units total, administered as 3 doses of 2.4 million units IM each at 1-week intervals.

The only acceptable alternatives for treating late latent syphilis or syphilis of unknown duration are doxycycline (100 mg orally 2 times/day) or tetracycline (500 mg orally 4 times/day), each for 28 days.

Latent Syphilis

Latent syphilis is defined as syphilis characterized by seroreactivity without other evidence of primary, secondary, or tertiary disease. Patients can receive a diagnosis of early latent syphilis if, during the year preceding the diagnosis, they had a documented seroconversion or a sustained (>2 weeks) fourfold or greater increase in nontreponemal test titers in a previously treated person.

In the absence of these conditions associated with latent syphilis, an asymptomatic person should be considered to have latent syphilis of unknown duration or late latent syphilis (>1 year's duration).

Tertiary Syphilis

Tertiary syphilis refers to gummas, cardiovascular syphilis, psychiatric manifestations (e.g., memory loss or personality changes), or late latent syphilis.

7.2 million units total, administered as 3 doses of 2.4 million units IM each at 1-week intervals.

Doxycycline (100 mg orally 2 times/day for 28 days) in case of nonpregnant allergic patients.

Combinations of some penicillin preparations are not appropriate replacements for benzathine penicillin. For example, Bicillin C-R, a combination of benzathine penicillin and procaine penicillin.

OTHER REASONS THAT COULD CAUSE A REACTIVE TREPONEMAL AND NON-TREPONEMAL TESTS

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Infection with other *T. pallidum* subspecies (i.e., *T. pallidum* subsp. *pertenue*, *T. pallidum* subsp. *endemicum*, and *T. carateum*) is acquired through contact with infected skin. These may result in a simple rash but may progress and cause disfiguring skin lesions. Unlike syphilis, these infections are not considered sexually transmitted.

Infection with any of these subspecies can also cause seroreactivity for treponemal and nontreponemal tests used for diagnosis of syphilis; therefore, it is important to obtain history of sexual and nonsexual exposures and consider T. pallidum subspecies in patients from areas where these infections are endemic.

Treponema species typically associated with nonvenereal disease are transmitted among populations living in tropical, subtropical, or warm arid climates.

Reactive non-treponemal test with non-reactive treponemal test might suggest immune conditions. **Always order the non-treponemal (RPR) test with the treponemal test (TPPA-Treponema Pallidum Particle Agglutination) to confirm syphilis diagnosis.**

STI AND HIV INFECTION RISK ASSESSMENT: THE 4 P'S

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1. Partners

- "Are you currently having sex of any kind?"
- "What is the gender(s) of your partner(s)?"

2. Practice

- "To understand any risks for sexually transmitted infections (STIs), I need to ask more specific questions about the kind of sex you have had recently."
- "What kind of sexual contact do you have, or have you had?"
  - "Do you have vaginal sex, meaning 'penis in vagina' sex?"
  - "Do you have anal sex, meaning 'penis in rectum/anus' sex?"
  - "Do you have oral sex, meaning 'mouth on penis/vagina'?"

3. Protection from STIs

- "Do you and your partner(s) discuss prevention of STIs and human immunodeficiency virus (HIV)?"
- "Do you and your partner(s) discuss getting tested?"
- For condoms:
  - "What protection methods do you use? In what situations do you use condoms?"

4. Past history of STIs

- "Have you ever been tested for STIs and HIV?"
- "Have you ever been diagnosed with an STI in the past?"
- "Have any of your partners had an STI?"

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MANAGEMENT OF SEX PARTNERS

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Sexual transmission of *T. pallidum* is thought to occur only when mucocutaneous syphilitic lesions are present. Such manifestations are uncommon after the first year of infection. Persons exposed through sexual contact with a person who has primary, secondary, or early latent syphilis should be evaluated clinically and serologically and treated according to the following recommendations:

- Persons who have had sexual contact with a person who receives a diagnosis of primary, secondary, or early latent syphilis <90 days before the diagnosis should be treated presumptively for early syphilis, even if serologic test results are negative.
- Persons who have had sexual contact with a person who receives a diagnosis of primary, secondary, or early latent syphilis >90 days before the diagnosis should be treated presumptively for early syphilis if serologic test results are not immediately available and the opportunity for follow-up is uncertain. If serologic tests are negative, no treatment is needed. If serologic tests are positive, treatment should be based on clinical and serologic evaluation and syphilis stage.
- In certain areas or among populations with high syphilis infection rates, health departments recommend notification and presumptive treatment of sex partners of persons with syphilis of unknown duration who have high nontreponemal serologic test titers, high titers might be indicative of early syphilis. These partners should be managed as if the index patient had early syphilis.
- Long-term sex partners of persons who have late latent syphilis should be evaluated clinically and serologically for syphilis and treated based on the evaluation's findings.
- The following sex partners of persons with syphilis are considered at risk for infection and should be confidentially notified of the exposure and need for evaluation: partners who have had sexual contact within 3 months plus the duration of symptoms for persons who receive a diagnosis of primary syphilis, within 6 months plus duration of symptoms for those with secondary syphilis, and within 1 year for persons with early latent syphilis.

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PARTNER SERVICES:

HOUSTON HEALTH DEPARTMENT

HOUSTON HEALTH DEPARTMENT SEXUAL HEALTH CLINICS

- **Northside Health Center**

  8504 Schuller Rd, Houston, TX, 77093
  832-395-9100

- **Sharpstown Health Center**

  6201 Bonhomme Rd Suite 300,
  Houston, TX, 77036
  832-395-9800

- **Sunnyside Health Center**

  4410 Reed Rd., Houston, TX 77051
  832-395-0206