

## SYPHILIS

- A sexually transmitted infection that is spread through vaginal, anal, and oral sex or direct contact to infection lesion, blood-borne, mother-to child.
- Syphilis causes sores on the genitals (called chancres). Though the sores are usually painless, they can be easily spread to other people.

### Syphilis is Divided into Stages:

- **Primary:** single, painless, clean-based lesion or sore called a "chancre"
- **Secondary:** There are multiple symptoms of syphilis, some examples are, skin rash, condyloma lata, palmar/plantar (P/P) mucous patches, lymphadenopathy, alopecia, hepatitis, and mucocutaneous lesions on one more area of your body (including in mouth, palms of hands, soles of feet, vagina, or anus)
- **Latent:** period when there are no visible signs or symptoms of syphilis
- **Tertiary:** can affect the heart, blood vessels, and the brain and nervous system

### **\*Neurosyphilis, Ocular syphilis, and Ootosyphilis Can Occur at Any Stage\***

Without treatment, Syphilis can spread to the brain and nervous system or eyes

#### Symptoms of Neurosyphilis

- Severe headaches
- Ataxia
- Paralysis
- Numbness
- Dementia

#### Symptoms of Ocular Syphilis

- Changes in vision and even blindness

#### Symptoms of Ootosyphilis

- Sensorineural hearing loss, tinnitus, or vertigo
- Hearing loss can be unilateral or bilateral

Lumbar puncture (LP) is no longer required for evaluation of ocular syphilis. Patient must receive treatment regardless of findings in serology and no longer monitor LP as long as serologies respond to treatment

### **COMMON MYTH: SYPHILIS ≠ HERPES**

Syphilis presents differently in different stages of disease and can be easily misdiagnosed

### **Congenital Syphilis is on the Rise**

Congenital Syphilis is the manifestation of *Treponema pallidum* infection in a fetus or infant acquired via vertical transplacental transmission.

If left untreated, early syphilis in pregnancy results in fatal infection for approximately 80% of cases, with more than 1/3 of which will lead to fetal or neonatal mortality.

However, treatment with antibiotics can prevent 98% of cases. Diagnosis of syphilis in a pregnant patient is urgent and should be treated or referred for treatment immediately and the health department notified by submission of a Confidential Morbidity Report ([CMR](#)).

## How Do I Assess if my Patient Is at Risk of Contracting Syphilis?

### ***Ensure the following patients are tested:***

- Testing in pregnant women
  - All pregnant women under 25 years of age
  - Pregnant women, 25 years and older if at increased risk (those who have new sex partner, more than one sex partner, a sex partner with concurrent partners, or a sex partner who has an STI)
  - Retest during the 3<sup>rd</sup> trimester for women under 25 years of age or at risk
  - Pregnant women with chlamydial infection should have a test of cure 4 weeks after treatment and be retested within 3 months
- Get tested for syphilis if patients are sexually active *and*
  - A man who has sex with men
  - Living with HIV; or
  - Have a partner(s) who have tested positive for syphilis
- Anyone diagnosed with gonorrhea or chlamydia should be tested for syphilis
- Screen asymptomatic adults at increased risk: history of incarceration or commercial sex work, geography, and race/ethnicity
- Transgender and gender diverse people

## Diagnosing Syphilis

Serology and Stage: Need Both a Treponemal *AND* Non-treponemal Tests

### **Non-treponemal Tests**

- Examples: RPR and VDRL
- **Quantitative** tests, allowing for assessment of disease burden, treatment adequacy, and re-infection
- Non-specific (can be positive in patients with other conditions)

### **Treponemal Tests**

- Examples: **TPPA, TPHA, FTA-ABS, EIA, CIA, "Syphilis antibody"**
- Detect antibodies specific to *T. pallidum*
- Antibodies usually stay positive for life after initial infection
- Qualitative tests (yes/no); cannot be used to assess for reinfection or response to treatment

## Tests Required to Make a Diagnosis of Syphilis

**At least TWO serologic tests are needed to make a diagnosis of syphilis**

**Primary labs:** Treponemal (Trep) **OR** nontreponemal test (NTT) labs needed

**Secondary:** Trep **AND** NTT are both required

**Early Non-Primary/Non-Secondary, and Unknown Duration or Late:** Trep **AND** NTT, unless patient has history of syphilis, provider must assess if any epidemiologic criteria of infection have been met in the past 12 months

## Provider Follow up and Monitoring of Syphilis

### Serologic Follow-up

- Patients with enzyme immunoassay (EIA)/chemiluminescence immunoassay (CIA)-positive, RPR/VDRL-positive serology diagnosed with a new syphilis infection should be treated and receive follow-up titers according to national guidelines.
- For asymptomatic patients with discordant serology (EIA/CIA-positive, RPR/VDRL negative) who are treated for syphilis, consider repeating serologic screening in 12 months or sooner if indicated by risk.

### Pregnant Women with Syphilis

- Follow-up serologic tests should be performed using the same test type (RPR or VDRL). RPR titer results cannot be compared to VDRL titer results as RPR titers are frequently slightly higher.
- All women should have repeat serologic titers at 28-32 weeks' gestation and at delivery.
- It is acceptable to repeat serologic titers monthly for women at high risk for reinfection or if in geographic region with high syphilis prevalence.
- **Follow-up intervals for primary or secondary syphilis:**
  - Clinical exam at approximately 1 week to confirm symptom improvement.
  - Serologic titer at 6 and 12 months. Expect a fourfold drop in titers at 6-12 months.
- **Follow-up intervals for latent infection:**
  - Serologic titer at 6, 12 and 24 months. Expect a fourfold drop in titer by 12-24 months (if initially high > 1:16).

***HIV-infected patients need closer follow-up intervals***