

# Syphilis – RD 11

## DEFINITION

Syphilis is a systemic disease caused by *T. pallidum*. Clients with Syphilis may seek treatment for signs or symptoms of primary, secondary, or tertiary infections. CDC recommends testing regularly for syphilis in pregnancy and high-risk individuals including MSM, HIV infection, and/or partners who have tested positive for syphilis. Syphilis is currently considered a reportable disease in the state of North Dakota.

## SUBJECTIVE

May include:

1. Visible lesion, usually firm, round, and painless. Located at the site syphilis entered the body. Common sites include genitals, pharynx, lips, anus, cervix, and breast. Most often a single lesion, but it may be multiple.
2. Skin rashes, sores, or bumps in the mouth, vagina, or anus
3. Fever, sore throat, swollen lymph glands
4. Headache or muscle aches
5. Weight loss or fatigue
6. Hair loss
7. May be asymptomatic

## OBJECTIVE

The disease has been divided into stages based on clinical findings, helping to guide treatment and follow-up:

### Primary Stage:

The classical chancre is a painless indurated ulcer located at the site of exposure. The differential diagnosis for all genital lesions should include syphilis.

### Secondary Stage may include but is not limited to:

- a. Lymphadenopathy
- b. Highly variable skin rash, be sure to examine palms of hands and soles of feet for rash
- c. Mucotaneous lesions
- d. Condylomata lata (fleshy moist growths)

### Latent:

- a. Serological evidence of untreated syphilis without clinical signs of infections

### Tertiary:

- a. Evidence of tertiary disease (e.g., cardiac, gummatous (granulomatous) lesions, tabes dorsalis, and general paresis.

### Neurosyphilis:

- a. CNS involvement can occur during any stage of syphilis.
- b. Early neurologic clinical manifestations usually present within first few months or years of infection and may include cranial dysfunction, meningitis, stroke, acute altered mental state and auditory or ophthalmic abnormalities
- c. Late neurologic manifestations may include tabes dorsalis and general paresis
- d. occur 10-30 years after infection.

## LABORATORY

May include:

1. A presumptive diagnosis is possible with the use of two types of serologic tests for Syphilis. The use of only one type of serologic test is insufficient for diagnosis, because false positive nontreponemal test results may occur secondary to various other medical conditions.

- a. Nontreponemal tests (e.g., Venereal Disease Research Laboratory (VDRL) and Rapid Plasma Reagin (RPR) Results should be reported quantitatively, and sequential serological tests should be performed using the same testing method and preferably the same laboratory.
  - b. Treponemal tests (e.g., fluorescent treponemal antibody absorbed (FTA-ABS) and T. pallidum passive particle agglutination (TP-PA).
2. Darkfield examinations (not provided through the ND State Lab or Family Planning Clinics) and direct fluorescent antibody tests (provided at ND State Lab, if needed) of lesion exudates or tissue are the definitive methods for diagnosing early Syphilis. Some laboratories provide locally developed and validated PCR tests of exudate for detection of T-palladium DNA
  3. Pregnancy test as indicated
  4. HIV screen (CDC recommends all clients who have syphilis should be tested for HIV infection)
  5. STI testing as indicated
  6. See Mayo Clinic Medical Laboratories Syphilis Serology Algorithm for assistance with interpreting serology results [Syphilis Serology.indd \(mayocliniclabs.com\)](https://www.mayocliniclabs.com)

## ASSESSMENT

Syphilis

## PLAN

Treatment options include:

1. **Primary, secondary, or early latent Syphilis** in adolescents and adults. (Early latent Syphilis is latent Syphilis of less than one year duration)
  - a. Benzathine penicillin G 2.4 million units IM in a single dose
2. Early Syphilis in non-pregnant adults and adolescents allergic to penicillin. (Use in HIV infection has not been well studied)  
Doxycycline 100 mg. orally 2 times/day x 14 days,  
**OR**  
Tetracycline 500 mg. orally 4 times/day x 14 days.
3. **Late latent syphilis** (> 1-year duration) or latent syphilis of unknown duration (excluding neurosyphilis) in adults and adolescents.
  - a. Benzathine penicillin G 7.2 million units total administered as 3 doses of 2.4 million units IM each at 1-week intervals: restart sequence of injections if greater than 10-14 days lapse between doses.
  - b. For non-pregnant persons allergic to penicillin (Use in HIV infection has not been well studied).  
Doxycycline 100 mg orally BID x 28 days,  
**OR**  
Tetracycline 500 mg orally QID x 28 days.
4. Screen for HIV and other STDs as appropriate.
5. Post-exposure prophylactic treatment is recommended for asymptomatic persons exposed or possibly exposed to syphilis. This would be considered in a case-by-case basis.
6. Repeat testing for primary and secondary syphilis at 6 and 12 months. For latent syphilis, quantitative nontreponemal serologic tests at 6, 12 and 24 months.

## CLIENT EDUCATION

1. Provide education handout, review symptoms, treatment options and medication side effects, including Jarisch-Herxheimer reaction: ( <https://www.cdc.gov/std/treatment-guidelines/STI-Guidelines-2021.pdf>, pg. 43)
2. Advise client to avoid intercourse until course of treatment is completed for client and partner(s).
3. Stress importance of follow-up for sexual contact(s).
4. Discuss HIV and other STD testing as appropriate.
5. Review safer sex education, as appropriate.

Effective Date: 12/1/23

Last Reviewed: 10/24/23

Next Scheduled Review: 10/1/24

6. Repeat testing as indicated

#### CONSULT / REFER TO PHYSICIAN

1. HIV-infected clients, and other immunocompromised patients
2. All pregnant clients
3. Children
4. Clients with evidence of tertiary Syphilis or neurosyphilis should be referred to and managed in consultation with an infectious disease specialist
5. Patients with penicillin allergies whose compliance with therapy or follow-up cannot be ensured should be referred for desensitization and treatment with benzathine penicillin.

#### REFERENCES

1. <https://www.cdc.gov/std/treatment-guidelines/STI-Guidelines-2021.pdf>
2. [STD Facts - Syphilis \(cdc.gov\)](#)
3. Mayo Clinic Laboratories Syphilis Serology Algorithm :[Syphilis Serology.indd \(mayocliniclabs.com\)](#)