**SYPHILIS**

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<th>DEFINITION</th>
<th>Syphilis is a systemic sexually transmitted disease caused by spirochete <em>Treponema pallidum</em> with a wide range of clinical manifestations and health impacts. Pregnant women may pass the infection to the fetus, which can result in stillbirth, IUGR or congenital syphilis. Diagnosis and treatment depends upon the stage of the infection. This protocol does not cover any treatment for tertiary syphilis, neurosyphilis or syphilis in HIV-infected individuals; all such cases should be referred to specialists.</th>
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| SUBJECTIVE | 1. **Primary, Secondary and Early Latent:**  
   a. **Primary:** Asymptomatic or non-tender chancre on genital area.  
   b. **Secondary:** Asymptomatic or fever, skin rash (involving palms and soles), mucocutaneous lesions, sore throat, condylomata lata, adenopathy, neurologic infection (i.e., cranial nerve dysfunction, meningitis, stroke, loss of vibratory sensation, acute to chronic altered mental state, and auditory or ophthalmic abnormalities).  
   c. **Early latent (infection < 1 year):** Asymptomatic. (Diagnosed serologically with infection known to be for less than 1 year).  
2. **Late Latent and Latent Syphilis of Unknown Duration:** Usually asymptomatic. (Diagnosed serologically with infection of unknown duration or known to be for at least 1 year).  
3. **Neurosypilis/Tertiary Syphilis:** Symptoms consistent with cardiac, neurologic, ophthalmic and/or auditory problems. |
| OBJECTIVE | Findings consistent with stage of disease and symptoms. |
| LABORATORY | 1. Darkfield studies and direct fluorescent antibody (DFA) tests of lesion exude or tissue biopsy that detect spirochetes are definitive in early infection.  
2. Screening tests:  
   a. Positive non-treponemal screening test (VDRL or RPR). Must quantify titers.  
   AND  
   b. Confirmatory positive treponemal test:  
      1) Fluorescent treponemal antibody absorbed (FTA-ABS)  
      OR  
      2) T. pallidum particle agglutination (TP-PA). |
| ASSESSMENT | Syphilis (primary, secondary, early latent, late-latent, etc.). |
| PLAN | 1. Test for HIV, GC, CT, trichomoniasis and other STIs if not done recently.  
2. Due to the complexity of staging, treatment, reporting and partner follow-up, referral to the Public Health Department is a common option.  
3. Refer all HIV-infected individuals, and other immunocompromised patients with any stage of syphilis and all cases of neurosyphilis to STI experts for full evaluation and treatment.  
4. If treating on site, treat immunocompetent individuals with following regimen according to disease stage:  
   a. **Primary, Secondary Early Latent (<1 year):**  
      1) Infected adults without penicillin allergy: Benzathine penicillin G 2.4 million units IM in a single dose.  
      2) Pregnant women with penicillin allergies should be referred for penicillin desensitization to enable treatment with penicillin to cure both maternal and fetal infections.  
      3) Non-pregnant individuals with penicillin allergy, treat with one of the following:  
         a) Doxycycline 100 mg orally 2 times daily for 14 days.  
         b) Tetracycline 500 mg orally 4 times a day for 14 days.  
         c) Ceftriaxone 1 gm IM or IV daily for 10-14 days.  
   b. **Late Latent or Unknown Duration:**  
      1) Benzathine penicillin G 7.2 million units total, administered as 3 doses of 2.4 million units IM each given at 1-week intervals.  
      a) If non-pregnant patient returns more than 5-7 days late for any dose, restart series. |
PLAN

(Continued)

b) Pregnant women must receive weekly injections or restart series.

2) Non-pregnant individuals with penicillin allergy, treat with one of the following if follow-up likely:
   a) Doxycycline 100 mg orally twice daily for 28 days.
   b) Tetracycline 500 mg orally 4 times daily for 28 days.

3) All non-pregnant penicillin allergic individuals with questionable potential for follow-up should be referred for desensitization and treatment with penicillin to prevent fetal infection.

4) Pregnant women with penicillin allergies should be referred for penicillin desensitization to enable treatment with penicillin to cure both maternal and fetal infections.

5. Advise patient that within first 24 hours, a Jarisch-Herxheimer reaction may occur. Symptomatic relief may be helpful during reaction.

6. Refer all patients with neurologic signs or symptoms to MD or STI expert.

7. Refer any patient with questionable staging to MD or STI experts.

8. Follow-up: Repeat quantitative nontreponemal serologic tests at 6, 12 and 24 months. Titers should fall to (near) normal range. Patients whose titers do not demonstrate adequate decrease must be referred. Remember that FTA levels will remain elevated.

9. Report case according to local procedures for case contact tracing and treatment.

10. Instruct prenatal patients to closely monitor fetal activity. Give appointment for NST 24 hours after treatment if gestational age of pregnancy is consistent with potential for extrauterine viability (GA >24 weeks). Refer to high risk OB care for further evaluation of the fetus (rule out infection, IUGR, enlarged placenta).

11. Refer all untreated sexual contacts in last 90 days for STI evaluation and epidemiologic treatment. For identification of at-risk sexual partners, the periods before treatment are:
   a. 3 months plus duration of symptoms for primary syphilis.
   b. 6 months plus duration of symptoms for secondary syphilis.
   c. 1 year for early latent syphilis.

PATIENT EDUCATION

1. Reinforce the serious nature of this infection and urge compliance with treatment plan.

2. Educate and reinforce about safer sex practices.

3. Describe symptoms of Jarisch-Herxheimer reaction: acute, self-limited fever, myalgia, headache which may occur within 24 hours of treatment as organisms are being destroyed. This reaction is most likely to occur in early infections. Acetaminophen may help reduce intensity of symptoms.

4. Inform patient that VDRL/RPR positive titer can persist at low levels even after treatment and FTA will always be positive.

REFER to MD/ER

1. Any questionable clinical findings or uncertain lab results.

2. All immunocompromised patients.

3. Patients with questionable staging.

4. Patients with penicillin allergies.

REFERENCES
