Prenatal Syphilis Screening, Staging, and Management for Congenital Syphilis Prevention

Screen

Screen all patients at three points in pregnancy:

❶ First prenatal visit or time of pregnancy testing **❷ 28 weeks' gestation** **❸ Delivery**

Initial diagnosis requires both a non-treponemal test (RPR) and confirmatory treponemal test (TP-PA, FTA-ABS, EIA/CIA)

Stage / Treat / Monitor

SYPHILIS DIAGNOSIS			RISK FACTORS FOR SYPHILIS IN PREGNANCY
Stage: Primary + Chancre; Secondary + Rash and/or other signs[1]; Early Latent NO symptoms, and infection occurred within the past year[2]	**Stage:** Late Latent or Unknown Duration — NO symptoms, and infection does not meet criteria for early latent[2]	**Stage:** Neurosyphilis/ Ocular/ Otosyphilis[3] — + CNS signs or symptoms; + CSF findings on lumbar puncture (LP)	**If there is no record of syphilis screening in pregnancy or screening history is unknown, screen patients with any of these risks (particularly those who attend ED, urgent care, detention/correctional, and/or substance use treatment settings):**
Treat: Benzathine penicillin G 2.4 Million Units Intramuscularly (IM) Once. *Certain evidence indicates that additional therapy is beneficial for early syphilis in pregnancy. A second dose of benzathine penicillin G 2.4 million units IM can be given 7 days after the initial dose.*	**Treat:** Benzathine penicillin G 2.4 Million Units IM every 7 days, for 3 doses (7.2 Million Units total). *A 6-9 day interval between doses is acceptable. If any doses are late or missed, re-start the entire 3-dose series.*	**Treat:** Aqueous penicillin G 18-24 Million Units per day, administered as 3-4 Million Units IV every 4 hours or continuous infusion for 10-14 days. See 2021 CDC STI Treatment Guidelines for non-intravenous alternative regimen.	• Limited or no prenatal care • Injection drug use (or partner who uses injection drugs) • Methamphetamine or heroin use (any method) • Houselessness or unstably housed • Criminal justice involvement within previous 12 months (or partner with criminal justice involvement) • Living with HIV or hepatitis C • Other STI diagnosed within previous 12 months • Multiple sex partners, a new partner, or partner with other partners

Monitor:

If syphilis treated at/before 24 weeks' gestation, wait at least 8 weeks to repeat titer and repeat again at delivery. Repeat sooner if reinfection or treatment failure is suspected. If treated after 24 weeks' gestation, repeat titer at delivery. Consider more frequent monitoring if at high risk for reinfection in pregnancy (see risks at right).

If syphilis diagnosed after 20 weeks' gestation, management should include a fetal ultrasound to look for congenital syphilis.

Post-treatment serologic response during pregnancy varies widely. Many women do not experience a fourfold decline by delivery. If sustained (>2 weeks) fourfold increase occurs after treatment completion, evaluate for reinfection and neurosyphilis.

1. Signs of secondary syphilis also include condyloma lata, patchy alopecia, and mucous patches.
2. Persons can receive a diagnosis of early latent if, during the prior 12 months, they had a) seroconversion or sustained fourfold titer rise (RPR); b) unequivocal symptoms of primary or secondary syphilis; or c) a sex partner with primary, secondary, or early latent syphilis.
3. Neurosyphilis, ocular, and otic syphilis can occur at any stage. Patients need a full neurologic exam including ophthalmic and otic; If clinical evidence of neurologic involvement is observed (e.g. cognitive dysfunction, motor or sensory deficits, cranial nerve palsies, or symptoms or signs of meningitis or stroke), a CSF examination should be performed before treatment. If only ocular/otic manifestations without other abnormalities on neuro exam, CSF evaluation not necessary before starting treatment for neurosyphilis.

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Important Considerations for Syphilis Treatment in Pregnancy

Screen early, treat as soon as possible
Treatment failure, and subsequent congenital syphilis, has been associated with treatment later in the pregnancy

Treatment is safe and highly effective for both the pregnant person and fetus

Benzathine Penicillin G (Bicillin L-A) is the ONLY recommended therapy for syphilis during pregnancy

Someone with signs, symptoms, or exposure to syphilis should receive treatment for early disease regardless of whether serology results are available

ADDITIONAL RESOURCES

- **For detailed treatment guidelines,** including penicillin allergy recommendations, see the CDC 2021 STI Treatment Guidelines: www.cdc.gov/std/treatment-guidelines
- **For clinical questions:**
  - Contact Dr. Tim Menza at the Oregon Health Authority (TIMOTHY.W.MENZA@dhsoha.state.or.us), or
  - Enter your consult online at the STD Clinical Consultation Network: stdccn.org

What if my patient is allergic to penicillin?

- **Verify the nature of the allergy.** Approximately 10% of the population reports a penicillin allergy, but less than 1% of the whole population has a true IgE-mediated allergy.
- **Symptoms of an IgE-mediated (type 1) allergy include:** Hives, angioedema, wheezing and shortness of breath, and anaphylaxis. Reactions typically occur within 1 hour of exposure.
- **Refer for penicillin skin testing** if the nature of the allergy is uncertain or cannot be determined.
- **Refer for desensitization with penicillin** if the skin test is positive or the patient has a true penicillin allergy.
- **Desensitization should be performed.** Serious allergic reactions can occur. Consult an allergist.
- **Treat the patient with benzathine penicillin G.** Treat according to appropriate stage of syphilis (see opposite page for treatment regimen).

FOR MORE INFORMATION ABOUT IgE-MEDIATED PENICILLIN ALLERGY:
www.cdc.gov/antibiotic-use/community/pdfs/penicillin-factsheet.pdf
www.cdc.gov/std/treatment-guidelines/penicillin-allergy.htm

Sources
Workowski KA, Bachmann LH, Chan P et al. Sexually Transmitted Infections Treatment Guidelines, 2021. MMWR Recomm Rep 2021;70 (No.4); Assessment, U. Screening for syphilis infection in pregnancy: US Preventive Services Task Force reaffirmation recommendation statement. Ann Intern Med, 2009. 150: p. 705-709; Alexander JM, Sheffield JS, Sanchez PJ, et al. Efficacy of treatment for syphilis in pregnancy. Obstetrics & Gynecology 1999;93(1):5-8; Plotzker RE, Murphy RD, Stoltey, JE. "Congenital Syphilis Prevention: Strategies, Evidence, and Future Directions." Sexually Transmitted Diseases (2018); Wendel GO, Jr, Stark BJ, Jamison RB, Melina RD, Sullivan TJ. Penicillin Allergy and Desensitization in Serious Infections During Pregnancy. N Engl J Med 1985;312:1229–32.

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