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

Screen

Screen all patients at the first prenatal visit and again at 28-32 weeks' gestation

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

Stage

SYPHILIS DIAGNOSIS AT INITIAL PRENATAL SCREENING

Primary	+*Chancre*	**Late-Latent or Unknown Duration**	*NO symptoms, and infection does not meet criteria for early latent*[2]
Secondary	+ *Rash and/or other signs*[1]	**Neurosyphilis/ Ocular/ Otic** [3]	+*CNS sign or symptoms* + *CSF findings on lumbar puncture (LP)*
Early-Latent	*NO symptoms and infection occurred within one year*[2]		

Treat

Benzathine penicillin G 2.4 Million Units, Intramuscularly (IM) Once	**Benzathine penicillin G** 2.4 Million Units IM every 7 days, for 3 doses (7.2 mu total) *A 6-8 day interval is acceptable. If any doses are late or missed, restart the entire 3-dose series.*	**Aqueous penicillin G** 3-4 Million Units Intravenously every 4 hours for 10-14 days

Monitor

If treated at/prior to 24 weeks' gestation, wait at least 8 weeks to repeat syphilis titers unless symptoms or signs for primary/secondary stage are present or treatment failure is suspected. Titers should be repeated for all patients at delivery.

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.

RESCREENING IF FIRST TEST IS NEGATIVE

Rescreen all patients at 28-32 weeks gestational age (regardless of risk).[4]

Rescreen at delivery unless at low risk AND tested negative in third trimester. Risk factors include:

- Missed 28-32 week rescreen
- Lives in high morbidity area
- HIV-positive
- STI diagnosed in past 12 months
- Illicit substance use
- Reports sex exchange for money, drugs, food/shelter
- Homelessness/unstable housing
- Incarceration in past 12 months
- Multiple sex partners, or partner with other partners

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 or VDRL); b) unequivocal symptoms of primary and 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 should receive a neurologic exam including ophthalmic and otic; CSF evaluation recommended if signs/symptoms (cranial nerve palsies or other) present. If only ocular/otic manifestation without other abnormalities on neuro exam, CSF evaluation not necessary.
4. 28 weeks gestation recommended by the Centers for Disease Control and Prevention 2021 STI treatment guidelines.

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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 a later gestational age at time of treatment.

Treatment is safe and highly effective
Prenatal therapy treats both mother and fetus; effectiveness approaches 100%.

Benzathine Penicillin G (or Bicillin-LA) is the ONLY recommended therapy for pregnant women infected with syphilis.

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: https://www.cdc.gov/std/treatment-guidelines
- **For clinical questions,** enter your consult online at the STD Clinical Consultation Network: www.stdccn.org

What if my patient is allergic to penicillin?

- **Verify the nature of the allergy**. Approximately10% 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 in a hospital.** 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.