Syphilis in a Pregnant Woman

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- A 25 y/o AA female G2P1001, presented to OB at 30 weeks of gestation
- She had had no previous prenatal care
- At her first visit labs done and were significant for:
- Syphilis Serology:
  - Treponemal IgG/IgM Reactive
  - RPR Quant Reactive: 1:2

Syphilis History

- About 8 months prior to this presentation, patient seen in ER of an OSH.
- She had presented with a rash B/L palms.
- No labs were drawn
- She was treated empirically for secondary syphilis with PO doxycycline and IM ceftriaxone for possible GC.
- Her partner was also treated for syphilis.
- Since then no follow up.
- And now she presents, she is 30 week pregnant and has a RPR of 1:2

Questions

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2) What stage of Syphilis would this be
3) How would you treat

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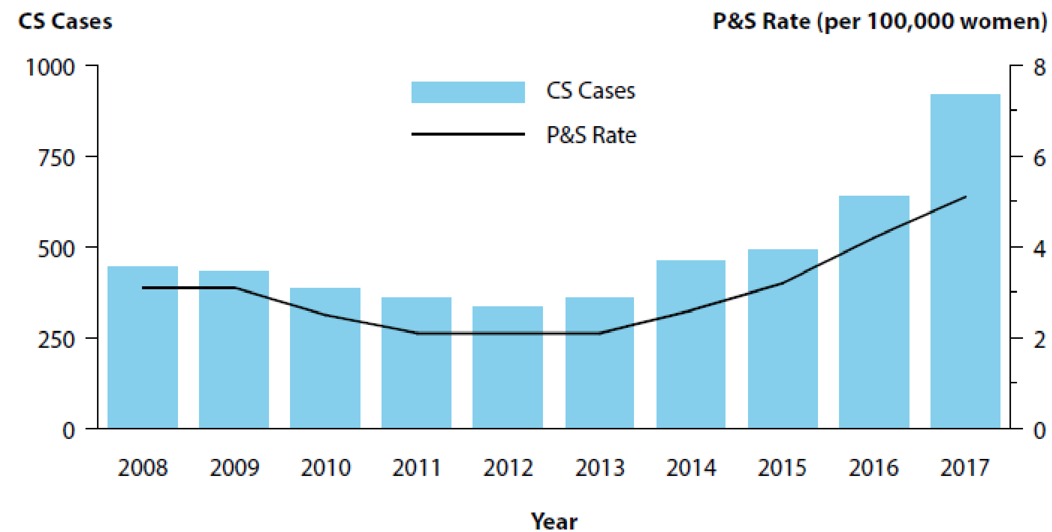
Congenital Syphilis Trends – US

Congenital Syphilis – Reported Cases by Year of Birth and Rates of Reported Cases of Primary and Secondary Syphilis Among Women Aged 15-44 Years, United States, 2008-2017 (Figure 49)[1]



- The recent increases in congenital syphilis cases have been associated with increase in infectious syphilis (primary and secondary) among women[1]

1. Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2017*. Atlanta: U.S. Department of Health and Human Services; 2018.

Congenital Syphilis

- CS is acquired through transplacental transmission of spirochetes or, occasionally, through direct contact with an infectious lesion during birth
- Transplacental transmission of *T. pallidum* can occur at any time during gestation but occurs with increasing frequency as gestation advances.
- Women with untreated PS or SS are more likely to transmit to their fetuses
- Women with latent disease are less likely to transmit (60 to 90 versus 40 percent in early latent and <10 percent in late latent syphilis)
- The risk of transmission decreases with increasing time since primary or secondary infection and is only 2 percent after four years.

Questions

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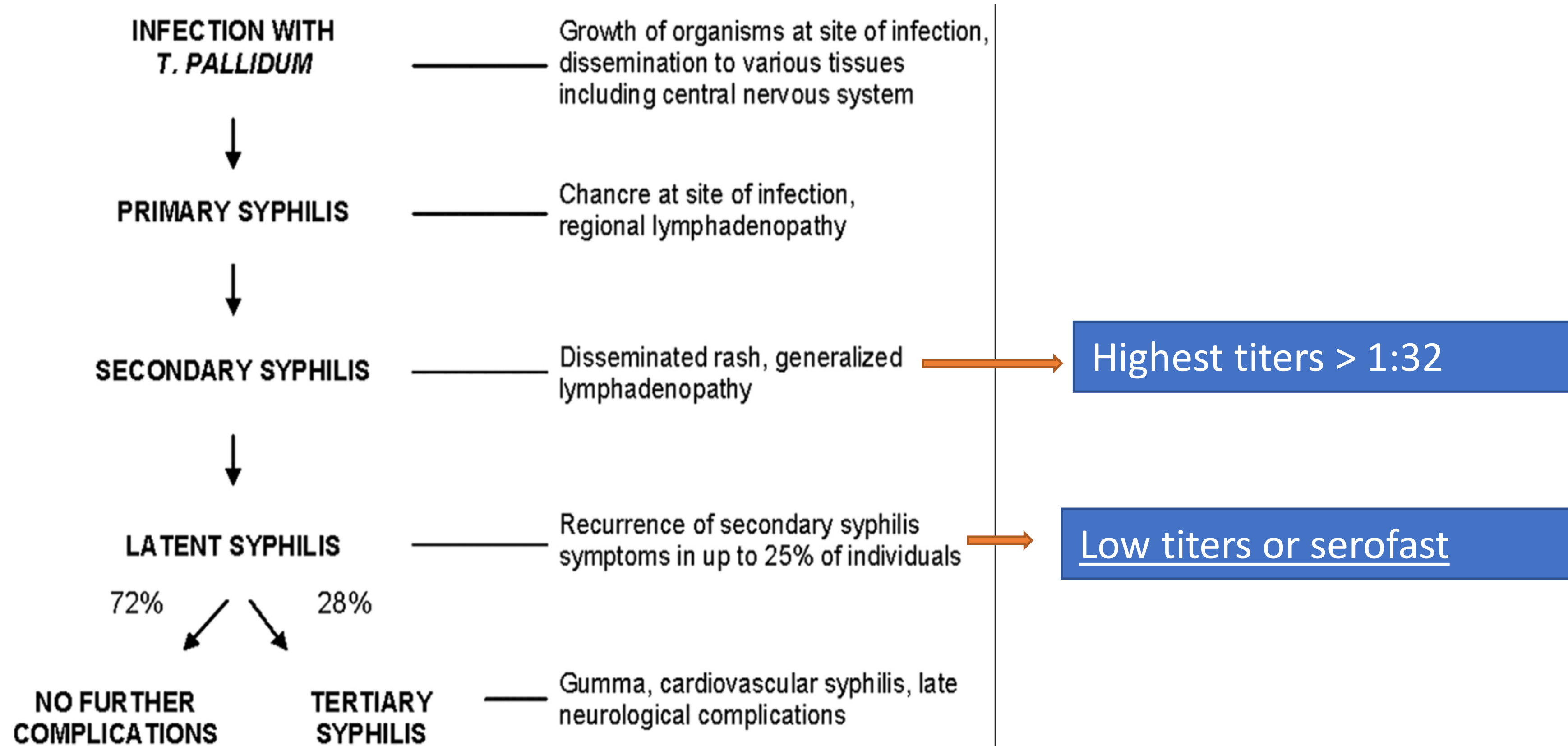
Stages of Syphilis and RPR titer



Highest titers > 1:32

Low titers or serofast

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Treatment of CS

To Treat or not to treat.

With no treatment consequences to the baby:

- Up to 40% of babies born to women with untreated syphilis are:

1) Immediate Complications:
   - stillborn; other immediate complications include premature labour and low birthweight.
2) Shortly after Birth:
   - Severe anemia, jaundice, hepatosplenomegaly, and failure to thrive can occur
3) Later in life:
   - children can remain asymptomatic for years, with neurological complications only becoming apparent later in life.

Treatment Of Syphilis in Pregnancy:

Sexually Transmitted Diseases Treatment Guidelines, 2015:

- ***Recommended Regimen***
    - Pregnant women should be treated with the penicillin regimen appropriate for their stage of infection.
- This patient has latent infection: early vs late
- Benzathine penicillin 2.4 million units IM: 1 injection vs 3
- But patient was allergic to penicillin

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

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MMWR

Morbidity and Mortality Weekly Report

Recommendations and Reports / Vol. 64 / No. 3

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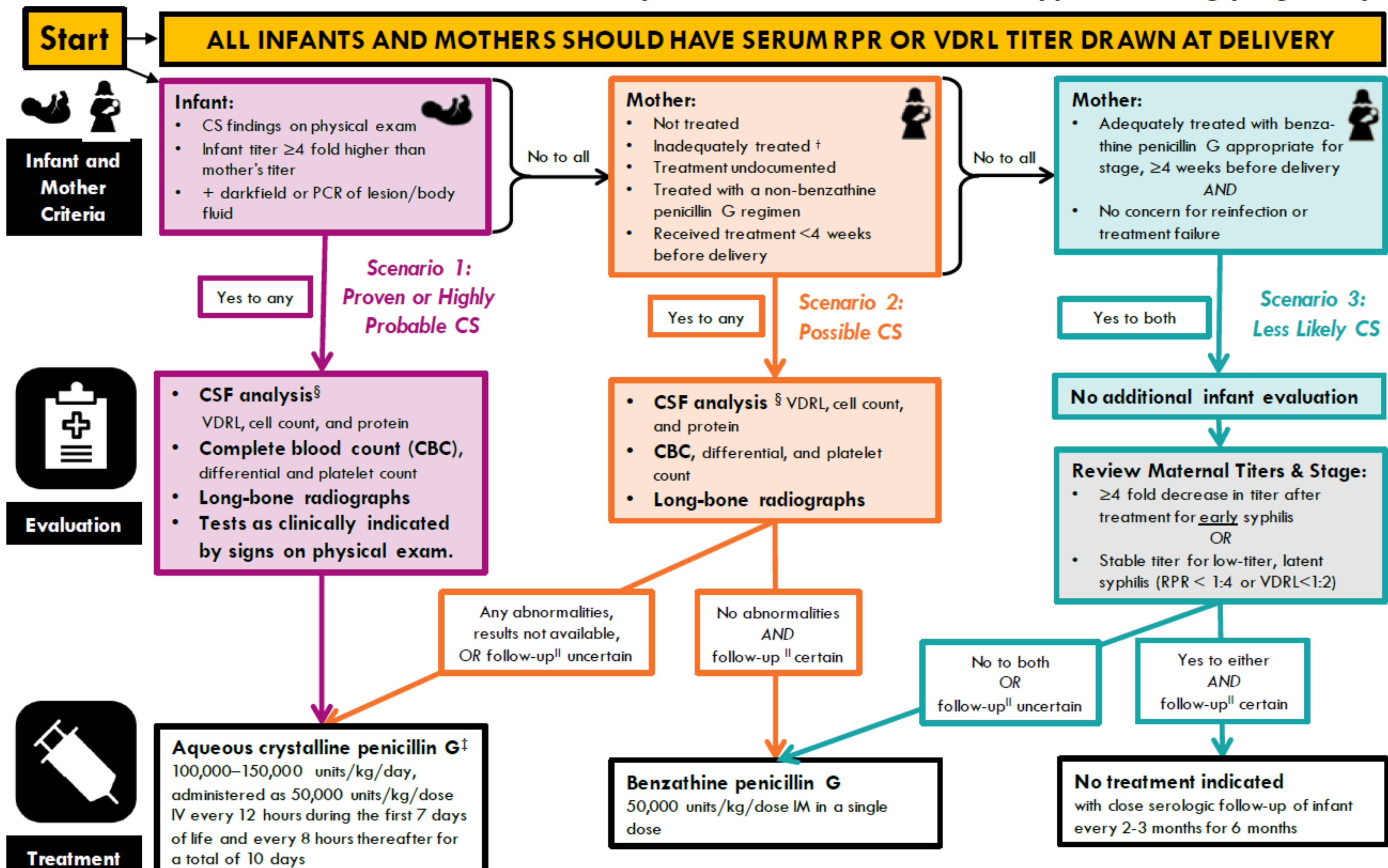
Treatment of Pregnant woman with Syphilis and Penicillin allergy

- Pregnant women who are allergic to penicillin should be desensitized and treated with penicillin.
- Patient was desensitized and will be treated for 3 weeks with IV Penicillin.

CONGENITAL SYPHILIS (CS)

Evaluation and treatment of infants (<30 days old) born to women with syphilis during pregnancy*



* Scenario 4 – in which an infant at delivery has a normal physical exam and titer < 4 fold mother's titer, AND the mother was adequately treated prior to becoming pregnant and sustains RPR titers <1:4 or VDRL<1:2 throughout pregnancy – is not included.

† Benzathine Penicillin G (BPG or Bicillin-LA), administered according to stage of disease and initiated at least 4 weeks prior to delivery is the only adequate treatment for syphilis during pregnancy.

‡ Alternative: Procaine penicillin G 50,000 units/kg/dose IM in a single daily dose for 10 days

§ CSF test results obtained during the neonatal period can be difficult to interpret; normal values differ by gestational age and are higher in preterm infants.

‖ All neonates with reactive nontreponemal tests should receive careful follow-up examinations and serologic testing (i.e., a nontreponemal test) every 2–3 months until the test becomes nonreactive. Neonates with a negative nontreponemal test at birth whose mothers were seroreactive at delivery should be retested at 3 months to rule out serologically negative incubating congenital syphilis at the time of birth.

FOR MORE INFORMATION ABOUT SCENARIO 4 MANAGEMENT, TREATMENT OF SYPHILIS IN PREGNANCY, NEONATAL CSF INTERPRETATION, AND CS INFANT FOLLOW-UP, PLEASE REFER TO THE 2015 CDC STD TREATMENT GUIDELINES.

Revised 03/14/2019

https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/Evaluating_Infants_for_Congenital_Syphilis.pdf