

Congenital Syphilis Summary and Clinical Guidance (5/12)

Transmission, Detection and Prevention

- The most important element of congenital syphilis prevention is early detection of maternal syphilis infection through prenatal serologic testing. Testing should be done at the initiation of prenatal care in all patients **and** again at 28 weeks for women at high risk for STDs. Testing may also be done at the time of delivery for high risk patients and must be done then for those without prenatal care.
- No infant or mother should be discharged from the hospital unless maternal syphilis serostatus has been documented at least once either during pregnancy or at delivery.
- Maternal/fetal transmission can occur via the transplacental route at any stage of syphilis, but is much more likely in the early stages of syphilis (1^o>2^o>early latent>late latent). Untreated 1^o or 2^o maternal syphilis can result in fetal loss in 40% of affected pregnancies.
- Since maternal syphilis infection can cause fetal loss, any woman delivering a stillborn infant >20 weeks EGA should be tested for syphilis.
- HIV status of pregnant patients with syphilis should be verified, and HIV testing should be repeated as indicated with consideration of the “window period” for HIV antibody development.

Clinical Manifestations of Congenital Syphilis

- Early symptoms of congenital syphilis (first 2 years of life) include long-bone abnormalities, hepatosplenomegaly, skin lesions, lymphadenopathy, jaundice, and “snuffles” (rhinitis).
- Late symptoms of congenital syphilis include frontal bossing and other facial and dental deformities, interstitial keratitis, deafness, and neurologic abnormalities.

Workup of Potentially Infected Neonates (see Figure below)

- All infants of mothers with reactive syphilis serology should have a serum non-treponemal test done (generally an RPR). Cord blood should not be used.
- Interpretation of the infant’s serology is complicated by passive transfer of maternal non-treponemal and treponemal antibodies. In a newborn with the RPR titer greater than four times the maternal titer drawn at the same time as the infant’s, the diagnosis of congenital syphilis is straightforward. In practice, diagnosis is often based on maternal serology and adequacy of pre-partum treatment.
- In an infant with suspected or presumed congenital syphilis, a full clinical and laboratory/radiologic evaluation are required. This may include:
 - Full physical exam, auditory brainstem response testing, eye examination
 - CBC, platelet count, liver function tests
 - Lumbar puncture with CSF sent for protein, cell count, and quantitative VDRL
 - Long-bone and chest films

Criteria for Treatment (see Figure below for treatment dosing and duration)

- An infant whose mother had syphilis infection during pregnancy should be treated for congenital syphilis if he/she has clinical disease, has an RPR titer 4 times greater than the mother’s, or was born to a mother who:
 - had untreated syphilis at delivery or had evidence of relapse or re-infection after treatment

- had potentially inadequate treatment (was treated with a non-penicillin regimen during pregnancy or was treated fewer than 4 weeks prior to delivery)

Follow-up of Infants with Reactive RPRs

- The RPR titer should decrease by three months and become nonreactive by 6 months if the infant was initially reactive due to passive maternal antibody transfer rather than true infection. Infants with reactive RPRs should receive repeat RPR testing every 2 to 3 months until either the titer is non-reactive or it decreases 4-fold.

INFANTS BORN TO MOTHERS WITH REACTIVE SYPHILIS SEROLOGY: EVALUATION & TREATMENT (Tx)

