TO: Infectious Disease Specialists, Maternal and Newborn Health Care Providers

FROM: Lynn Sosa, MD, MPH, Deputy State Epidemiologist, STD Control Program Medical Director
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RE: Increases in Congenital Syphilis Cases

Two confirmed cases of congenital syphilis have been reported to the Connecticut Department of Public Health (DPH) so far in 2021. In the first case, the mother had a positive syphilis screening test in the first trimester, was treated, but had no further syphilis testing done during pregnancy. Upon delivery, maternal screening tests showed a fourfold increase in titer, indicating likely reinfection. The baby had a positive titer and was treated accordingly. The second congenital syphilis case was born at 29 weeks to a woman who had a positive first trimester syphilis test with an RPR 1:4 but no treatment prior to delivery. Upon delivery, the maternal RPR had increased to 1:128 and the baby had a positive titer and clinical manifestations of congenital syphilis including vesicular skin lesions, splenomegaly, and thrombocytopenia.

During the last 20 years, the rate of infectious syphilis has increased over a thousand-fold (1,444%) among men and...
over 500-fold (620%) among women (ages 15–44), demonstrating a continuing upward trend in Connecticut, similar to the rest of the United States.

Despite prioritizing follow-up of cases of syphilis in pregnant women and their partners by DPH Disease Intervention Specialists (DIS), cases of congenital syphilis are now occurring. Eleven (11) congenital syphilis cases have been reported in Connecticut since 2015, including three (3) cases in each of the past two (2) years (2019 and 2020) and one stillbirth in 2018. The increase in congenital syphilis cases in Connecticut mirrors national increases of reported congenital syphilis cases (Sexually Transmitted Disease Surveillance, 2019 [cdc.gov]).

Connecticut is one of a handful of states which requires testing for syphilis during the first and third trimesters (see CGS 19a-90). Screening at delivery should be considered in high-risk women and no infant should leave the hospital without the mother’s serological status having been documented at least once during pregnancy. Although universal screening during the third trimester may not prevent all cases, it encourages overall vigilance for a rare, but serious event, congenital syphilis.

Positive titers on serum non-treponemal assays (e.g. RPR or VDRL) should be confirmed by serum treponemal assays (e.g. TPPA or syphilis IgG/IgM). This remains the best way to identify pregnant women who could transmit syphilis to their fetuses, despite false negative serologic tests that can occur in early primary infection.

Primary syphilis is characterized by chancres, usually occurring on oropharyngeal, genital, or rectal mucosal surfaces, or on any skin surface that is a potential site of inoculation.

Secondary syphilis findings include:

- Dermatologic findings which can wax and wane even without treatment, such as:
  - body rash, sometimes present on the palms of hands and soles of feet
  - mucosal lesions such as condyloma lata or mucous patches
  - alopecia
- OR systemic signs and symptoms such as:
  - fever
  - headache
  - malaise
  - anorexia
  - sore throat
  - myalgias
  - weight loss
  - adenopathy

Maintaining high awareness for syphilis and performing syphilis testing in pregnant women presenting with possible syphilis lesions or possible exposure, obtaining a recent sexual history, rapid treatment, and close monitoring, especially in high risk pregnancies, will all be important in order to avoid further increases in congenital syphilis in Connecticut.

We continue to partner with Connecticut clinical practices providing prenatal and obstetric care, especially on patients reported as newly positive for syphilis. Our DIS actively reach out to the clinical team and follow cases through delivery and interview the patient in an effort to trace and treat partners to prevent reinfection. Our Medical Director is available to provide consultation.

Please contact the CTDPH STD Prevention Program for:
• **Clinical consultation on complex cases:** Medical Director, Lynn Sosa, MD (860-509-7920) or the STD Clinical Consultation Network.¹ CDC syphilis treatment and partner management guidelines are available as an app for Apple and Android devices at: [https://www.cdc.gov/std/tg2015/default.htm](https://www.cdc.gov/std/tg2015/default.htm).

• **Management considerations** including recommendations for presumptive sex partner treatment.

• **Record searches** on prior syphilis test titers and treatment history. Please call the DPH STD Prevention Program main phone line at (860) 509-7920.

• **Partner services** – contact tracing for STDs. Please call Linda Ferraro, STD Program Director at (860) 509-8203 or (860) 509-7920 for more information.

• **Case reporting** - clinician-completed [DPH STD Case Report Forms](https://www.sphc.org) are required for all STDs, including syphilis cases and provide details on clinical characteristics and treatment which are not reported by the laboratory reporting.