WASHOE COUNTY HEALTH DISTRICT
ENHANCING QUALITY OF LIFE

August 29, 2019, Vol. 39, No. 13
(Page 1 of 3)

EPI-NEWS

Serving Reno, Sparks and all of Washoe County, Nevada
Telephone: 775-328-2447 | Fax: 775-328-3764 | Epicenter@washoecounty.us | washoecounty.us/health

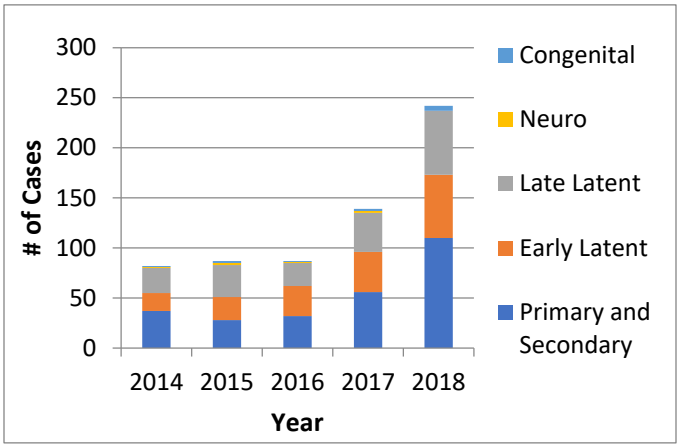
IN THIS ISSUE: Syphilis and Congenital Syphilis in Washoe County

Syphilis and Congenital Syphilis

Introduction

Syphilis and congenital syphilis are on the rise in Washoe County. Nevada ranks #1 for primary and secondary syphilis and #2 for congenital syphilis nationally. From 2013-2017, there was a 362.5% increase for congenital syphilis in the Western region of the United States[1]. Over 80% of the Washoe County cases have been among men. However, from 2016 to 2018, infectious syphilis, which includes the primary, secondary and early latent stages of disease, among females increased by 429% in Washoe County. In Washoe County alone, cases of congenital syphilis have doubled from 2017 to 2018. From 2014 to 2018 rates of all stages of syphilis have almost tripled in Washoe County, going from 82 total reported cases to 242 total reported cases. Today, these rates are continuing to increase.

Figure 1. Reported Syphilis Cases in Washoe County by Stage of Disease 2014-2018



With these growing rates, it is critical to remind providers about the testing, treatment, and reporting recommendations and protocols.

Syphilis Overview

Syphilis is a sexually transmitted disease (STD) caused by the bacterium *Treponema pallidum*. If syphilis is not treated appropriately, it may cause serious health complications. The average time between acquisition of syphilis and the start of the first symptoms is 21 days, but can range from 10 to 90 days. Syphilis is transmitted from person to person via vaginal, anal, or oral sex by direct contact with infectious sores or lesions. Syphilis may also be passed from an infected mother to her unborn infant through the bloodstream.

Congenital Syphilis

If a pregnant woman has syphilis, she may pass it to her baby. Congenital syphilis can have many adverse effects on a fetus including miscarriage, stillbirth, prematurity, low birth weight, or death shortly after birth. Nationwide, up to 40% of infants with congenital syphilis are stillborn[4]. Babies who survive may have many complications. These complications include deformed bones, enlarged liver and spleen, brain and nerve problems, blindness, deafness, skin rashes, developmental delays, or seizures[4].
Congenital syphilis is preventable. NRS 442.010 was passed in Nevada in 2009 requiring that all pregnant women are to be tested for syphilis during their first and third trimesters. If a woman is diagnosed with syphilis during pregnancy, proper treatment and post treatment protocols should be followed to assure the infection is treated as soon as possible. The only appropriate treatment for pregnant women infected with syphilis is benzathine penicillin (see page 3 for the Centers for Disease Control and Prevention (CDC) treatment and post treatment guidelines).

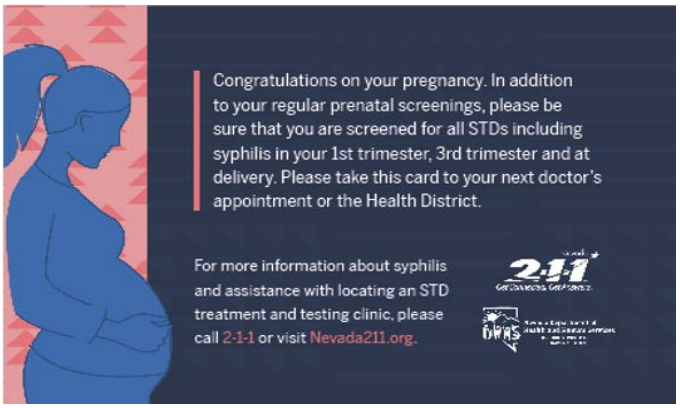
The CDC recommends retesting high risk pregnant women at delivery. High risk includes:

- Women with signs or symptoms.
- Women who live in areas with high rates of syphilis, which includes Washoe County.
- Women with a history of syphilis.
- Women who had late, limited, or no prenatal care.

- Women who have not been tested during their pregnancy.
- Women who exchange sex for money and/or other resources.
- Women who are homeless.
- Women with a history of delivering a stillborn baby.
- Women with a history of substance abuse.
- Women who have had multiple pregnancies and have avoided prenatal care.
- Pregnant women who present at the emergency department and who do not have a history of prenatal care.

Lack of prenatal care has been identified as a significant risk factor in the transmission of syphilis from mother to infant. This is why it is important to talk to your patients and ask about their prenatal care. If a pregnant woman does not have access to prenatal care, the CDC recommends testing for syphilis, and treating if positive, at the time that the pregnancy was confirmed.

Congenital Syphilis Awareness Campaign



Congenital syphilis is on the rise. In Nevada there were 10 cases of congenital syphilis reported in 2016, 22 in 2017, and 30 in 2018. Nevada launched a congenital syphilis awareness campaign in the Spring of 2019. With a focus on providers and pregnant females, the campaign encourages appropriately testing and treating pregnant women for syphilis.

Printed materials and mass emails are being distributed to social services and medical providers. Printed material consists of folders containing a flyer, referral card, CDC treatment guidelines, reporting forms, and a packet on how to talk with patients about syphilis. The state partnered with the Nevada 211 resource center, as a resource for community members to find a location to receive syphilis testing. For more information about this campaign and how to obtain the material contact the WCHD at 775-328-6147.

Who and When to Test For Syphilis

Knowing when to test patients is the first step in reducing the rates of syphilis and congenital syphilis. Below is a list of recommendations from the CDC about who should be tested for syphilis[4].

- Any person who has signs and symptoms of syphilis (sore(s), rash, alopecia, mucous patches).
- Any person who has a sex partner who is positive for syphilis.
- All pregnant women should be tested during their first and third trimesters. High risk pregnant women should be tested again at delivery.
- Women who deliver a stillborn baby.
- All women asking for a pregnancy test.
- Men who have sex with men.
- HIV positive and sexually active individuals.
- Individuals who have unprotected sex with multiple partners.
- Individuals who are homeless.
- Individuals with a history of substance abuse.
- Individuals with a history of incarceration.

Staging

The stages of syphilis are characterized by the symptoms and duration of the infection. Signs of primary syphilis consist of a usually painless ulcer(s), called a chancre, at the infection site[2]. Chancres can last about 3-6 weeks and often go unnoticed, therefore untreated. Secondary syphilis occurs six weeks to six months after exposure and often includes skin rashes, hair loss or thinning, rough reddish brown spots on palmer-plantar surfaces, and painful lesions around the mouth, genitals, or anus. Latent syphilis lacks clinical signs. Early latent is when the infection has occurred for less than one year and late latent is when the infection has occurred for more than one year or if the duration or stage of infection cannot be

determined[2,3]. Treatment is dependent on the stage of infection so it is important to diagnose patients in the proper stage.

Treatment

Treatment for syphilis depends on the stage of the infection and on the age of the patient. The dose of medication is less for the earlier stages. Treatment guidelines are specifically listed in the CDC's Morbidity and Mortality Weekly Report. Below is a summary of these guidelines:

CDC Treatment Guidelines[4]		
	Primary, Secondary, or Early Latent	**Late Latent or Latent of Unknown Duration**
Infants and Children	Benzathine penicillin 50,000 units kg.IM, up to the adult dose of 2.4 million units in a single dose	Benzathine penicillin 50,000 units/kg IM, up to the adult dose of 2.4 million units, administered as three doses each at one week intervals, total 150,000 units/kg up to the adult total dose of 7.2 million units
Adults	Benzathine penicillin G 2.4 million units IM in a single dose *	Benzathine penicillin G 7.2 million units total given in three doses each at one week intervals *

*Benzathine penicillin is the only appropriate treatment for pregnant women.

Post Treatment

After an adult patient has been treated for primary or secondary syphilis, follow up clinical and serologic tests should be done at 6 and 12 months, with HIV testing every 3 months for 24 months. For latent syphilis, clinical and serologic tests should be done at 6, 12, and 24 months, with HIV testing every 6 months for 24 months post treatment[4]. At follow up, the titer should be compared with the titer at the time of treatment. If there is a fourfold increase in nontreponemal test titer or if signs and symptoms continue for more than two weeks, treatment might have failed or the patient may have become infected again[4]. If this happens, the patient will need to be treated again following the CDC guidelines. For infants and children, conduct follow up RPR testing every 2-3 months until the test is nonreactive[4].

What Can Providers Do?

- Encourage people to get tested and treated for STDs.
- Highlight the resurgence of syphilis and the increase of disease in the populations most impacted: men, including men who have sex with men, pregnant women, and newborn babies.
- Take action by talking with patients about their sexual risk history, then testing and treating appropriately.
- Address the stigma and rising STD burden through the development of strong relationships between providers and patients.
- During emergency department visits, ask your patients about their access to primary care.
- Work with the hospital emergency and labor and delivery triage departments to encourage syphilis screening on all pregnant women who present without an OB provider.
- Fax your case report to the Washoe County Health District (WCHD) at 775-328-3764 within 24 hours of diagnosis. The reporting form can be found at this link https://www.washoecounty.us/health/files/ephp/communicable-diseases/forms/STD%20Reporting%20Form%20Jan%2019.pdf.
- Contact the WCHD with questions or for more information.

References

1. https://www.cdc.gov/std/stats17/syphilis.htm
2. https://www.std.uw.edu/go/pathogen-based/syphilis/core-concept/all
3. https://www.cdc.gov/std/syphilis/stdfact-syphilis.htm
4. https://www.cdc.gov/std/tg2015/syphilis.htm