Syphilis During Pregnancy and Congenital Syphilis

Trends and Opportunities for Prevention

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Disclosures

I have no financial relationships to disclose.

I will not discuss any unlabeled or investigational uses of products.
Note: Names and other identifying details have been changed to protect patient privacy

Objectives

- Understand basics of syphilis infection and transmission
- Describe national and local trends of early syphilis and congenital syphilis infection
- Describe interventions to prevent congenital syphilis infection
Syphilis Overview

- Treponema pallidum
- Transmission
  - Direct contact with infectious lesion
  - Vertically in pregnancy or at delivery
- Course of illness
Syphilis Stages - Primary

- Typically within 3 weeks after exposure
- Usually single painless chancre at site of infection
- Typically lasts 3-6 weeks and is self-resolving
- Infectious

Syphilis Stages - Secondary

- Typically 2-6 months after exposure
- Rashes – plantar/palmar, other
- Alopecia
- Mucous membrane lesions
- Condylomata lata
- Other non-specific symptoms
Early & Late Latent
- Non-symptomatic stages
- Typically non-infectious sexually
- Can be infectious to fetus

Congenital Infection
- Can occur in any stage of pregnancy
- Miscarriage, stillbirth, neonatal death
- Long bone malformations
- Liver/spleen abnormalities
- Blindness, deafness, other neurological issues
National Data and Trends

US Syphilis Rates (All Stages) per 100,000 Population, 1941-2015

Graphic Source: CDC (Adapted)

Graphic Source: CDC


Data Source: CDC
US Congenital Syphilis Rates per 100,000 Live Births, 1941-2015

Data Source: CDC


Data Source: CDC
Local Data and Trends

Comparison of US and Idaho Syphilis Rates (All Stages) per 100,000, 1995-2015

Data Sources: CDC & IDHW
Recent Local Outbreaks

- 2011-2012
  - 73 persons infected and 242 partners identified
  - Men who have sex with men (MSM) primary group affected

- 2015-2016 (data through 12/19/16)
  - 130 persons infected and 206 partners identified
  - MSM primary group affected
  - Increase in women, persons with history of incarceration, persons reporting meth use

2015-2016 Treasure Valley Outbreak Network Diagram (Includes Infected Individuals and Their Partners)

Provisional Data, Reports through December 19, 2016 to Bureau of Communicable Disease Prevention Program
72 Women Associated with 2015-2016 Outbreak

+ 25

- 22

? 25

Data Source: IDHW, Based On Preliminary Data

30 Average Age

65 Percent Report Meth Use

6 Pregnant at Diagnosis

Data Source: IDHW, Based on Preliminary Data
A Call to Action

“This recent increase in congenital syphilis is evidence of missed opportunities for prevention within the public health and the health care systems.”

Gail Bolan, MD
Director, Division of STD Prevention
CDC Dear Colleagues Letter
November 2015
Assess Risk

Screen

Treat

Congenital Syphilis is Preventable

Assessing Risk

- Sexual history at each visit
- Drug use
- History of syphilis infection
National Coalition for Sexual Health Resource

Sexual Health and Your Patients: A Provider’s Guide


Sexual History – Information About Partners

- Number
- Gender
- New partner(s)
- Are partners high risk?
  - Not mutually monogamous
  - MSM/Bisexual
  - Drug use
Sexual History - Practices

- Anatomical sites
- Condom use
  - With all partners? Only with certain partners?
  - For all types of sex?

Screening Recommendations

1st Trimester

2nd Trimester

3rd Trimester

Routinely Screen @ 1st Prenatal Visit*

Rescreen High Risk
1) Early in 3rd Trimester
2) At Delivery

*Required by Idaho Statute 39-1001
Understanding Syphilis Lab Testing

- Syphilis testing is a two-step process
  - Non-Treponemal Testing: RPR or VDRL with Titer
  - Treponemal Testing: TPPA, FTA-Abs, EIA, CIA
- Algorithms will vary by laboratory

Syphilis Testing is an Imperfect Science

- Negative results during window period
- Prozone phenomenon
- Symptoms and risk still need to be considered
“Seropositive pregnant women should be considered infected unless an adequate treatment history is documented clearly in the medical records and sequential serologic antibody titers have declined appropriately for the stage of syphilis.”

CDC 2015 STD Treatment Guidelines

2015 CDC STD Treatment Guidelines for Treatment of Syphilis in Pregnancy

- Parenteral benzathine penicillin G only recommended option
- Treat appropriate to stage of infection
- Desensitize, if penicillin allergy
- Treat both woman and sex partners
Appropriate treatment for syphilis at least 30 days before delivery is **98% effective** at preventing congenital infection.


Your Local Health Department is Here to Help!

Assess Risk

Screen

Treat
Gonorrhea is on the rise among Idaho women 15-44 years of age

Data Source: IDHW
Gonorrhea Increase

- Nation-wide increase seen but western US heavily impacted
- Screening at all anatomical sites of potential exposure
- Dual therapy is recommended for both infected individual AND their recent sex partners
  - 250 mg Ceftriaxone IM plus 1g Azithromycin PO

Zika

- Affected countries and areas change over time
  - www.cdc.gov/zika/geo for up to date maps
- Risk discussions with women planning pregnancy
- Testing and limitations
Questions?