

Community Health Series: STIs in Indian Country

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Disclosures

- ▶ I have no financial disclosures

Learning Objectives

- ▶ Brief overview of chlamydia, gonorrhoea and syphilis
- ▶ Understand the basics of treatment
- ▶ Understand the complications of STIs
 - ▶ Congenital syphilis
- ▶ Understand the link between STIs and HIV infection
- ▶ Understand the link between SUDs with STIs
- ▶ Discuss reducing rates of STI transmission
- ▶ Discuss barriers in Indian Country

Chlamydia

Chlamydia trachomatis

- ▶ Bacterial infection - female cervicitis, male urethritis, pharyngitis (oral-genital) and proctitis (anal)
- ▶ Most frequently reported bacterial STI (many asymptomatic unaccounted for)
- ▶ Two-thirds of new cases are in youth age 15-24yrs → 1 in 20
- ▶ Symptoms
 - ▶ Women
 - ▶ Cervicitis (vaginal discharge), urethritis (burning with urination)
 - ▶ PID - abdominal/pelvic pain, uterine/adnexal tenderness
 - ▶ Men
 - ▶ Penile discharge, burning with urination
 - ▶ Epididymitis - testicular pain, tenderness, swelling
 - ▶ Proctitis - rectal pain, discharge, bleeding
- ▶ Testing: nucleic acid amplification test (NAAT) of urine or swabs (vaginal/throat/rectum)
- ▶ Treatment: Azithromycin 1g orally ONCE or Doxycycline 100mg twice daily x7days

Gonorrhoea

Neisseria gonorrhoeae

- ▶ Bacterial infection of mucous membranes of reproductive tract (cervix, uterus, fallopian tubes), urethra, mouth, throat, eyes, rectum
- ▶ 2nd most common STI in US → Half of new infections are in ages 15-24yrs
- ▶ Symptoms
 - ▶ Women
 - ▶ Burning with urination
 - ▶ Vaginal discharge
 - ▶ Bleeding between periods
 - ▶ Men
 - ▶ Burning with urination
 - ▶ White, yellow or green penile discharge
 - ▶ Testicular or scrotal pain
 - ▶ Rectal infection: anal discharge, anal itching, soreness, bleeding, painful BMs
 - ▶ Throat infection: sore throat but usually NO symptoms
- ▶ Testing: nucleic acid amplification test (NAAT) of urine or swabs (vaginal/throat/rectum)
- ▶ Treatment: ceftriaxone 500mg intramuscular shot ONCE (1g if >150kg)

Syphilis

Treponema pallidum

- ▶ Primary Stage - Symptoms appear 10-90 days from infection
 - ▶ sore (chancre) at site of infection (genitals, mouth, anus), heals in 3-6wks
- ▶ Secondary Stage
 - ▶ Rash - palms & soles, trunk & extremities
 - ▶ Fever, swollen lymph glands, sore throat, patchy hair loss, headaches, bodyaches
- ▶ Latent Stage
 - ▶ NO visible signs/symptoms
 - ▶ Early latent - infection within past 12 months
 - ▶ Late latent - infection MORE than 12 months ago, can last for years!
- ▶ Tertiary syphilis
 - ▶ 10-30 yrs after infection, multiple organ systems affected, can be fatal
- ▶ Neurosyphilis & Ocular syphilis - any stage of infection
 - ▶ Headache, altered behavior, dementia, sensory deficits
 - ▶ Infection of eye structures - vision changes, decreased visual acuity, permanent blindness



Syphilis

Treponema pallidum



- ▶ **Diagnosis**
 - ▶ Darkfield microscopy - rarely used now for diagnosis
 - ▶ Blood tests
 - ▶ Nontreponemal tests - “classical” algorithm
 - ▶ Treponemal tests - “reverse” sequence testing algorithm
 - ▶ POSITIVE screen identifies ALL infections (old, new, treated, untreated)
 - ▶ Requires clinical interpretation and investigation to determine if old or new infection
 - ▶ If a NEW diagnosis, then have to determine if it’s EARLY or LATE LATENT
- ▶ **Treatment**
 - ▶ Primary, Secondary, or early latent syphilis - **Benzathine penicillin G 2.4mu IM x1 or doxycycline 100mg twice daily x14 days**
 - ▶ Latent syphilis - **Benzathine penicillin G 2.4mu IM in weekly doses x3 or doxycycline 100mg twice daily x28days**
 - ▶ Ocular syphilis & neurosyphilis - IV penicillin G in hospital
 - ▶ NO SEX until 1 week after last dose is completed
- ▶ **Follow post-treatment RPR titer**
 - ▶ To ensure adequate response to treatment
 - ▶ To monitor for signs of reinfection - if there’s 4-fold increase in titer, highly suspicious for reinfection

Complications of STIs

▶ Chlamydia & Gonorrhea

- ▶ PID can make it difficult or impossible to get pregnant later on - scarred tubes
- ▶ Ectopic pregnancy - potentially fatal
- ▶ Chronic pelvic pain
- ▶ Infection can be passed to baby during delivery - newborn eye infection or pneumonia
- ▶ If untreated in pregnancy, can increase risk of pre-term delivery
- ▶ Increased risk of getting/giving HIV

▶ Gonorrhea

- ▶ May lead to male infertility
- ▶ Disseminated gonococcal infection (in blood) - arthritis, tenosynovitis, and/or dermatitis

▶ Syphilis

- ▶ Congenital syphilis
- ▶ 2- to 5-fold increased risk of getting HIV when syphilis is present



Complications of STIs:

Congenital Syphilis

- ▶ Mother with syphilis passes infection to the baby during pregnancy
- ▶ Affects on pregnancy
 - ▶ Miscarriage
 - ▶ Stillbirth
 - ▶ Prematurity
 - ▶ Low birth weight
 - ▶ Death shortly after birth
- ▶ Babies born with congenital syphilis
 - ▶ Deformed bones
 - ▶ Severe anemia
 - ▶ Enlarged liver & spleen
 - ▶ Jaundice
 - ▶ Brain or nerve problems, such as blindness or deafness
 - ▶ Meningitis
 - ▶ Skin rashes

- ▶ If NOT treated: developmental delays, seizures, and death may occur
- ▶ Testing: treponemal and nontreponemal testing
- ▶ Treatment: **Benzathine penicillin G**

MMWR | TREAT MATERNAL SYPHILIS, PROTECT BABIES

SYPHILIS DURING PREGNANCY	CONGENITAL SYPHILIS: FINDINGS FROM NYC	CONGENITAL SYPHILIS CAN BE PREVENTED!
<ul style="list-style-type: none">• CAN CAUSE STILLBIRTH OR INFANT DEATH• 2013–2017, U.S. CONGENITAL SYPHILIS MORE THAN DOUBLED	<p>68 CASES REVIEWED</p> <ul style="list-style-type: none">• 2/3 OF MOTHERS WERE NOT SCREENED OR TREATED DURING PREGNANCY, AS RECOMMENDED* 	<ul style="list-style-type: none">• SCREEN AT 1ST PRENATAL VISIT• REPEAT SCREENING IF AT RISK OR REQUIRED*• TREAT MATERNAL INFECTION ASAP 

NYC DOHMH Congenital Syphilis Surveillance, 2010–2016, as published in Slutsker MMWR 2018
* 2015 STD Treatment Guidelines: Syphilis During Pregnancy (bit.ly/SyphilisInPregnancy) https://www.cdc.gov/mmwr/volumes/67/wr/mm6739a3.htm?_cid=mm6739a3_w

OR 1023764

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STIs as a Gateway to HIV

- ▶ 2- to 3-fold increase in HIV shedding among those with genital STIs
- ▶ Among MSM Population in the US
 - ▶ Half of MSM with primary & secondary syphilis were also living with HIV
 - ▶ Among those MSM with who are HIV negative
 - ▶ 2 or more rectal GC/CT rectal infections have been shown to be associated with an 8-fold increased risk in HIV
 - ▶ 3-fold risk of HIV infection with ONE rectal positive GC/CT
- ▶ Maricopa County in Arizona, data 2009-2013
 - ▶ 44.0% of new HIV diagnoses had an STI prior to HIV diagnosis
 - ▶ 43.6% Gonorrhea
 - ▶ 34.3% Chlamydia
 - ▶ 22.1% Primary or Secondary Syphilis
 - ▶ Mean time to HIV diagnosis 2.15 years

Substance Use Disorders and STIs

Alcohol, Opioids, Methamphetamine, Crack cocaine, Inhalants

- ▶ Risky sexual behaviors
- ▶ Unable to adhere to chronic HIV treatments
- ▶ Unable to follow through with STI treatment - missing STI treatment appointments
- ▶ Needle sharing
- ▶ Sharing other injection equipment.
- ▶ Quickly exhausting resources and turning to other ways to get the substance, including trading sex for drugs or money
- ▶ Complicated legal issues that place them in and out of incarceration and loss to follow-up or care

Reducing STI transmission:

- ▶ Community education/awareness - share local STI data/trends
- ▶ Encourage screening
- ▶ Early linkage to prenatal care
- ▶ Linkage to primary care
- ▶ Contact investigation
- ▶ Partner notification
- ▶ Expedited partner therapy

Reducing STI transmission: Expedited partner therapy

- ▶ Treating the sex partners of patients diagnosed with chlamydia or gonorrhea by providing prescriptions or medications to the patient to take to his/her partner *without the health care provider first examining the partner.*
- ▶ Effective in reducing reinfection rates and further transmission
- ▶ **Gonorrhea EPT - cefixime 800mg orally ONCE**
- ▶ **Chlamydia EPT - azithromycin 1g orally ONCE**
- ▶ **If concern for both chlamydia & gonorrhea - cefixime 800mg ONCE plus doxycycline 100mg twice daily for 7 days**
- ▶ Strongly urge to evaluate the following partners in person:
 - ▶ Female partners - eval for PID and other coinfections, esp given infertility risks
 - ▶ MSM partners - need for in-person evaluation for coexisting infections (esp undiagnosed HIV)

Barriers in Indian Country

- ▶ Difficult access to health care
 - ▶ Mobile medical units
 - ▶ Adolescent clinics in high schools
 - ▶ Develop community relationships with schools and local jail/detention centers
- ▶ Substance abuse issues
 - ▶ Advocate for improved behavioral health programs
 - ▶ Improve targeted STI screening practices in ED/Urgent care settings
- ▶ Not enough provider experience with LGBTQ patients
 - ▶ Educate providers on appropriate screening practices and risk interview strategies
 - ▶ Appropriate STI screening for MSM → triple site screening for CT/GC
- ▶ Stigma and taboo around speaking about sex and STIs
 - ▶ Promote personal health
 - ▶ Advance community wellness
- ▶ <https://www.youtube.com/watch?v=mUBD8TylPRI>

References

- ▶ Centers for Disease Control and Prevention: Sexually Transmitted Diseases (STDs). <https://www.cdc.gov/std/default.htm>
- ▶ Indian Health Service and Centers for Disease Control and Prevention. *Indian Health Surveillance Report – Sexually Transmitted Diseases 2015*. Rockville, MD: U.S. Department of Health and Human Services; 2018.
- ▶ We R Native: Sexual Health, STDs. <https://www.wernative.org/my-relationships/sexual-health/stds>

The background features abstract, overlapping geometric shapes in various shades of green, ranging from light lime to dark forest green. The shapes are primarily triangles and polygons, creating a dynamic, layered effect. The overall composition is clean and modern.

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Questions?