



The University of Nebraska Medical Center's Specialty Care Center welcomes you to our 5th HIV ECHO session– "Syphilis"

Today's didactic presenter is Dr. Joseph Cherabie, MD, MSc.

Today's case studies will be presented by Megan M. Smith, MSN, APRN, WHNP-BC and Molly Elston, MSN, MSGH, APRN, FNP-C

HIV ECHO Facilitator: Heather Saarela, BSPH/Renae Furl, MPH

Sessions are held the first Thursday of every month except July 2025





Disclosures



 Our HIV ECHO Project is made possible through our grant funding from ViiV Healthcare and is a sub-project of our IM-CAPABLE project.





UNMC HIV ECHO Session 5 Agenda

- Dr. Joseph Cherabie will be kicking us off with a didactic presentation over all the tea about Syphilis
- After Dr. Cherabie presents, Megan Smith and Molly Elston from the Douglas County Health Department will be presenting us some Syphilis based case studies and information about local resources
- Announcements to be shared at the end with feedback survey link included in the chat



ECHO After Hours!



As scheduling and time allows for our experts, we will offer ECHO After Hours after our sessions for any extra questions!



Today's After Hours: Dr. Nada Fadul, MD



+

Housekeeping Reminders:



We love discussion!

Please stay muted unless you are speaking.



We love to see your face!

Sessions will be recorded with links available later.



End of session surveys will be available.



St. Louis **STI/HIV Prevention**

Image Source: ScienceSource.com

The Resurgence of Syphilis and Congenital Syphilis: What Do We Do Now?

Joseph Cherabie MD MSc (They/He) **Medical Director** St. Louis STI/HIV Prevention Training Center Assistant Professor - WashU Infectious Diseases

Training Center

Disclosures

No St. Louis Prevention Training Center faculty has any financial relationship to disclose.



Objectives

- Review current epidemiology of syphilis and then, congenital syphilis
- Understand the stages of syphilis and where diagnostic mistakes are made
- Discuss treatment in the time of medication shortages
- Describe a syndemic approach and why it may be essential to syphilis care

Learn more at: www.cdc.gov/sti

The State of STIs in the United States in 2023.

Sexually transmitted infections (STIs) are very common but preventable.

601,319 cases of GONORRHEA; 2% decrease since 2019

cases of CHLAMYDIA; 9% decrease since 2019.

1.6 million



209,253 cases of SYPHILIS; 61% increase since 2019

3,882 cases of SYPHILIS AMONG NEWBORNS; 106% increase since 201

Anyone who has sex could get an STI, **but some groups are more affected:**

Untreated STIs can lead to serious health problems



increased risk of transmitti or getting HIV

Syphilis — Reported Cases by Stage and Year, United States, 2014–2023



Primary and Secondary Syphilis — Total Population and Reported Cases by Race/Hispanic Ethnicity, United States, 2023



Congenital Syphilis — Reported Cases by Year of Birth and Rates of Reported Cases of Primary and Secondary Syphilis and Syphilis (All Stages) Among Women Aged 15–44 Years, United States, 2014–2023



^{*} Per 100,000

ACRONYMS: CS = Congenital syphilis; P&S Syphilis = Primary and secondary syphilis

Syphilis

	Women	• Screen asymptomatic women at increased risk (history of incarceration or transactional sex work, geography, race/ethnicity) for syphilis infection ^{2,7}
	Pregnant Women	 All pregnant women at the first prenatal visit⁸ Retest at 28 weeks gestation and at delivery if at high risk (lives in a community with high syphilis morbidity or is at risk for syphilis acquisition during pregnancy [drug misuse, STIs during pregnancy, multiple partners, a new partner, partner with STIs])²
	Men Who Have Sex With Women	• Screen asymptomatic adults at increased risk (history of incarceration or transactional sex work, geography, race/ethnicity, and being a male younger than 29 years) for syphilis infection ^{2,7}
	Men Who Have Sex With Men	 At least annually for sexually active MSM² Every 3 to 6 months if at increased risk² Screen asymptomatic adults at increased risk (history of incarceration or transactional sex work, geography, race/ethnicity, and being a male younger than 29 years) for syphilis infection^{2.7}
	Transgender and Gender Diverse People	• Consider screening at least annually based on reported sexual behaviors and exposure ²
	Persons with HIV	 For sexually active individuals, screen at first HIV evaluation, and at least annually thereafter^{2,6} More frequent screening might be appropriate depending on individual risk behaviors and the local epidemiology²

Updates to CDC STI Screening Guidelines

https://www.cdc.gov/std/treatment-guidelines



https://www.cdc.gov/nchhstp/syphilis-county-level/

MUST KNOWS to understand syphilis

- Syphilis must be on the differential to be diagnosed
- Anyone with a reactive syphilis serology should have a full physical exam
- Disseminates at every stage
- The more syphilis we see, the more unusual presentations we see
- Recent rise in cases is somewhat due to an increase in association with drug use
- Two things every patient with syphilis needs:
 - Neuro ROS (review of symptoms)→ if positive, continue with further assessment
 - Assessment of pregnancy status

Syphilis - STI treatment Guidelines. (n.d.). https://www.cdc.gov/std/treatment-guidelines/syphilis.htm



Stages of Syphilis

Key Points:

- Ocular and otic syphilis can present at any stage of syphilis
- Without treatment, secondary syphilis can be recurrent
- Work with DIS (Disease Intervention Specialists)/ health department to review patient's history
- Consult with DIS, ID (infectious disease), colleague to stage correctly

Ghanem KG, Ram S, Rice PA. The Modern Epidemic of Syphilis. *N Engl J Med*. 2020;382(9):845-854. doi:10.1056/NEJMra1901593

Syphilis testing:

Straight from the 1900s

False positive RPR

- Pregnancy •
- IV (intravenous) drug use
- TB (Tuberculosis) ٠
- Chronic liver disease
- Vaccinations (including • COVID)
- Endocarditis ٠

FIGURE 1 Traditional and Reverse Sequence Algorithms

The traditional algorithm, which is designed to detect active infection, starts with a nontreponemal screening test, such as an RPR, while the reverse algorithm starts with a treponemal specific antibody test, typically an EIA or CIA.



March 31, 2011; http://www.ixdo.gov/std/avohilis/avohilis-avobing-oldes. pdf. Accessed June 17, 2015;

Other Syphilis Testing

- Chembio (CLIA waived) HIV ¹/₂ Ab and Trep Ab 15 mins, fingerstick
- NOWDiagnostics, First To Know Syphilis test (CLIA waived) 15 min, fingerstick, OTC
- Diagnostics Direct Syphilis Health Check (CLIA waived) 10 mins, Fingerstick
- Quick note about Trep PCR:
 YOU STILL NEED SEROLOGIES!







Clinical presentation

 Chancre is hallmark of <u>primary</u> infection: 10-90 days after exposure

- Painless (but not always*)
- Can have more than one chancre
- Macrophages and activated T-cells at chancre site—and highly associated with HIV acquisition
- Median time to HIV diagnosis is 1.6 years**
- New in 2021: Atypical presentations are more common (painful chancres, condyloma lata, etc.)

**Pathela et al CID 2015





All images sourced from the National Network of Prevention Training Centers (NNPTC)

Primary syphilis - chancre



If HSV (herpes simplex virus) and mpox are on the differential, syphilis should be too.

All images sourced from the National Network of Prevention Training Centers (NNPTC)

Secondary syphilis: It is not psoriasis

- Chancre heals spontaneously in 1 to 6 weeks
- Systematic symptoms (F (fever), malaise, HA (headache), LAN (lymphadenopathy), etc) can occur
- Rash ultimately resolves, but infection is lifelong without treatment (latency)
- Condyloma lata!
- Don't forget about Mpox.

All images sourced from the National Network of Prevention Training Centers (NNPTC)

31. Mucous patches on tongue in secondary syphilis



Early neurologic clinical manifestations (e.g., cranial nerve dysfunction, meningitis, meningovascular syphilis, stroke, and altered mental status) are usually present within the first few months or years of infection. - CDC

- Screen for neurologic, visual, and auditory signs and symptoms in patients at risk
- Screen patients for syphilis if they present with neurologic, visual, or auditory complaints
- Careful neurological exam: evaluation of all cranial nerves, for patients with reactive nontreponemal and treponemal serology and clinical signs of early syphilis
- Conduct ophthalmologic evaluation for patients with syphilis and ocular complaints
- Evaluate and manage patients with syphilis and otologic symptoms in collaboration with an otolaryngologist



Neurosyphilis

» Neurosyphilis can be characterized as early/acute or late disease. Early neurosyphilis can be symptomatic or asymptomatic and can occur at any stage of syphilis, including concurrently with primary or secondary disease. Early symptomatic neurosyphilis consists of syphilitic meningitis, ocular syphilis and/or otosyphilis. Rarely, vascular complications can result from syphilitic meningitis and lead to an ischemic stroke; vascular complications are more commonly associated with late disease.

Early Neurosyphilis: Review of Systems (pertinent positive symptoms)

GENERAL/CONSTITUTIONAL: headache, fever, fatigue, weakness, dizziness

HEAD, EYES, EARS, NOSE AND THROAT:

Eyes- pain, redness, loss of vision, double or blurred vision, photophobia, flashing lights or spots
 Ears- ringing in the ears, loss of hearing

GASTROINTESTINAL: nausea, vomiting

MUSCULOSKELETAL: neck pain/stiffness, muscle weakness

NEUROLOGIC: headache, dizziness, muscle weakness, confusion, loss of consciousness, seizures, difficulty speaking

PSYCHIATRIC: confusion

Early Neurosyphilis: Focused Neurologic Exam

Cranial Nerve Exam: assess for cranial nerve paisies (key maneuvers in bold)
 II: visual acuity, visual fields
 II, III: pupillary reactions to light and accommoda**--

III, IV, VI: extraocular movements, inspect for pto V: corneal relexes and jaw strength/movements, fac VII: facial movements (raise eyebrows, frown, tig puff out both cheeks)

Vill: hearing (rub fingers together)
 IX: swallowing, gag reflex, rise of palate

- V, VII, X, XII: voice and speech
 XI: trapezius muscle inspection & shoulder shrug
- XII: inspection of tongue and lateral movement of tor

Motor. assess for weakness/hemiplegia

Muscle strength testing upper and lower extremities

- Nuchal Rigidity Testing: assess for meningeal inflamma
 Chin to chest- stiffness/pain with flexion of neck, flex
 neck flexion (Brudzinski's sign)
- Jolt accentuation maneuver- worsening of headache side to side

Deep Tendon Reflexes: assess for hyperreflexia
 Biceps

Supinator
 Knee

Knee
 Ankle

ain/files/fileattachments/neurosyphilis guide 4 15 15.pdf?1468353297

https://www.smchealth.org/sites/m

Late Neurosyphilis

 General Paresis: chronic meningoencephalitis leading to dementia, muscle weakness and paralysis Usually develops 10-20 years after initial infection

- Usually develops 10-20 years after initial infection
- Progressive psychiatric and neurologic signs & symptoms including personality changes, memory loss, confusion, paranoia, seizures, weakness
 Physical exam findings may include pupillary abnormalities including the Argyli-Robertson

pupil (small pupil that constricts with accommodation but not with light), muscle weakness of the face and extremities, dysarthria, tremors of the face, tongue, hands, hyperreflexivity and eventually paralysis

Tabes Dorsalis: demyelination of the posterior columns of the spinal cord • Usually develops 20-25 years after initial infection

 Initial signs & symptoms may include gait abnormalities/ataxia, severe, sudden, brief stabbing pains mostly commonly occurring in the legs ("lightning pains"), paresthesias, other sensory abnormalities, bowel/bladder dysfunction, epigastric pain, nausea and vomiting, progressive loss of vision

 Physical exam findings may include Argyli-Robertson and other pupillary abnormalities, optic atrophy, ataxia, dysmetria, sensory abnormalities, decreased/absent lower extremity reflexes

Case

25-year-old cisgender woman who presents for STI workup with no complaints. She reports 2 cisgender male sexual partners in the last 3 months, uses condoms occasionally. Her exam is normal. Her RPR is reactive at 1:256, with reactive TP-PA, nonreactive HIV test, negative G/C NAAT (Nucleic Acid Amplification Testing).

You call the health department, and she has no previous RPRs on file.

What stage of syphilis does she have?

She returns to clinic for treatment?

- A) 1 shot 2.4 million units Bicillin as outpatient
- B) 3x weekly 2.4 million units Bicillin as outpatient
- C) Admit for LP (lumbar puncture) and IV Penicillin G for 2 weeks
- D) Admit for IV Penicillin G for 2 weeks without LP

Case - continued

With her return to clinic, she is not pregnant but with a complete review of neurological symptoms, she states that she has been having some vision changes which she describes as floaters and double vision at times. She also notes that she has had a headache more frequently within the last month. The rest of her neuro ROS is benign.

Now what should her treatment be?

- A) 1 shot 2.4 million units Bicillin as outpatient
- B) 3x weekly 2.4 million units Bicillin as outpatient
- C) Admit for LP and IV Penicillin G for 2 weeks
- D) Admit for IV Penicillin G for 2 weeks without LP

Treatment of Syphilis

- IM (intramuscular) Penicillin G benzathine should always be FIRST line therapy
- Doxycycline for TRUE penicillin allergies and for nonpregnant persons in setting of Bicillin shortage¹
- IV penicillin for neuro/ ophtho/ otic syphilis
- Azithromycin should NOT be used; nearly all *T. pallidum* in US and globally is resistant²
- No new data to warrant a change in treatment recommendations
- Reaffirmation that a lack of serological response should be followed out to:
 - 12 months after syphilis of < 1 year duration
 - 24 months in case of syphilis of unknown duration or late syphilis
 - And that it may not be seen if RPR titer is <1:4
- 1. https://www.cdc.gov/std/dstdp/dcl/2023-july-20-Mena-BicillinLA.htm
- 2. Beale et al, Nat Commun 2019



Treatment of Syphilis

- Who MUST be treated with Bicillin?
 - Pregnant people
 - Alternatives for treating neurosyphilis have little evidence of efficacy

Ghanem KG, Ram S, Rice PA. The Modern Epidemic of Syphilis. *N Engl J Med*. 2020;382(9):845-854. doi:10.1056/NEJMra1901593

Using Serologic Tests for Syphilis to Assess Response

After therapy: 1:1024• **Cure** = 4-fold (or 2 dilution) decrease 1:512(e.g., from 1:32 to 1:8) at 12 months 1:256for early syphilis and 24 months for 1:128late syphilis 1:64• Failure = not achieved 4-fold decline 1:32(12%) or increase 1:162-fold decline or Reinfection = documented titer 1:81 dilution response then a 4-fold increase 4-fold decline or 1:4two dilutions= CURE 1:2 It is often difficult to distinguish between treatment 1:1failure and reinfection- the only way to do so is by history



RESEARCH ARTICLE November/December 2022 Volume 10 Issue 6 e02977-22 https://doi-org.beckerproxy.wustl.edu/10.1128/spectrum.02977-22

Efficacy and Safety of Treatments for Different Stages of Syphilis: a Systematic Review and Network Meta-Analysis of Randomized Controlled Trials and Observational Studies

Meixiao Liu^a, Yuxin Fan^a, Jingjing Chen^a, Jiaru Yang^a, Li Gao^a, Xinya Wu^a, Xin Xu^a, Yu Zhang^a, Peng Yue^a, Wenjing Cao^a, Zhenhua Ji^a, Xuan Su^a, Shiyuan Wen^a, Jing Kong^a, Guozhong Zhou^a, Bingxue Li^a, Yan Dong^a, Aihua Liu^{a,b}, Fukai Bao (D)^{a,b}

	6 month follow u	p	12 month follow up	
Treatment Effect		Mean with 95%CI and 95%Pri	Treatment Effect	Mean with 95%Cl
Ceftriaxone vs Penicillin		1.12 (1.02,1.23) (0.99,1.27)	Doxycycline vs Penicillin	1.01 (0.91,1.12)
Doxycycline vs Penicillin		0.88 (0.75,1.02) (0.72,1.07)	Ceftriaxone vs Penicillin	1.06 (0.94,1.20)
Tetracycline vs Penicillin	••	0.97 (0.93,1.02) (0.91,1.04)	Tetracycline vs Penicillin	1.01 (0.87,1.16)
Erythromycin vs Penicillin	+++	0.93 (0.88,0.98) (0.86,1.00)	Erythromycln vs Penicillin	0.87 (0.75,1.00)
Doxycycline vs Ceftriaxone		0.78 (0.65,0.93) (0.62,0.99)	Ceftriaxone vs Doxycycline	1.05 (0.91,1.21)



Congenital Syphilis (CS)

An example case

- Mom has adequate prenatal care with RPR NR (non-reactive) at 8 weeks gestation
- She presents with vaginal lesions at 35 weeks gestation
- HSV testing is negative
- No other STI testing
- Treated with valacyclovir
- Presents in labor at 37 weeks
- No RPR at delivery
- Baby has work up at 5 months for slow weight gain and developmental delay
- Hip x-rays indicate periosteal abnormalities and CS is diagnosed

Congenital syphilis prevention: Quality Care

- Access to packaged STI testing for people of childbearing potential
- Counseling pregnant people on STI prevention
 - Especially in the later half of pregnancy: Consider HSV and syphilis
- Do not forget syphilis can occur in pregnancy
- Go to the CDC STI guidelines for diagnosis and classifying CS

https://www.cdc.gov

Scenario 1: Confirmed Proven or Highly Probable Congenital Syphilis

Any neonate with

- an abnormal physical examination that is consistent with congenital syphilis;
 - a serum quantitative nontreponemal serologic titer that is fourfold[§] (or greater) higher than the mother's titer at delivery (e.g., maternal titer = 1:2, neonatal titer ≥1:8 or maternal titer = 1:8, neonatal titer ≥1:32)[¶]; or
 - a positive darkfield test or PCR of placenta, cord, lesions, or body fluids or a positive silver stain of the placenta or cord.

Recommended Evaluation

- CSF analysis for VDRL, cell count, and protein**
- Complete blood count (CBC) and differential and platelet count
- Long-bone radiographs
- Other tests as clinically indicated (e.g., chest radiograph, liver function tests, neuroimaging, ophthalmologic examination, and auditory brain stem response)

Recommended Regimens, Confirmed or Highly Probable Congenital Syphilis

Aqueous crystalline penicillin G 100,000–150,000 units/kg body weight/day, administered as 50,000 units/kg body weight/dose by IV every 12 hours during the first 7 days of life and every 8 hours thereafter for a total of 10 days

OR

Procaine penicillin G 50,000 units/kg body weight/dose IM in a single daily dose for 10 days

If >1 day of therapy is missed, the entire course should be restarted. Data are insufficient regarding use of other antimicrobial agents (e.g., ampicillin). When possible, a full 10-day course of penicillin is preferred, even if ampicillin was initially provided for possible sepsis (*648–650*). Using agents other than penicillin requires close serologic follow-up for assessing therapy adequacy.

www.cdc.gov/std

Scenario 2: Possible Congenital Syphilis

Any neonate who has a normal physical examination and a serum quantitative nontreponemal serologic titer equal to or less than fourfold of the maternal titer at delivery (e.g., maternal titer = 1:8, neonatal titer \leq 1:16) and one of the following:

- The mother was not treated, was inadequately treated, or has no documentation of having received treatment.
- The mother was treated with erythromycin or a regimen other than those recommended in these guidelines (i.e., a nonpenicillin G regimen).⁺⁺
- The mother received the recommended regimen but treatment was initiated <30 days before delivery.

Recommended Evaluation

- CSF analysis for VDRL, cell count, and protein**
- CBC, differential, and platelet count
- Long-bone radiographs

This evaluation is not necessary if a 10-day course of parenteral therapy is administered, although such evaluations might be useful. For instance, a lumbar puncture might document CSF abnormalities that would prompt close follow-up. Other tests (e.g., CBC, platelet count, and long-bone radiographs) can be performed to further support a diagnosis of congenital syphilis.

Recommended Regimens, Possible Congenital Syphilis

Aqueous crystalline penicillin G 100,000–150,000 units/kg body weight/day, administered as 50,000 units/kg body weight/dose by IV every 12 hours during the first 7 days of life and every 8 hours thereafter for a total of 10 days

OR

Procaine penicillin G 50,000 units/kg body weight/dose IM in a single daily dose for 10 days

OR

www.cdc.gov/std

Benzathine penicillin G 50,000 units/kg body weight/dose IM in a single dose

Management of syphilis in pregnancy

- Obtain previous treatment history to help management
- Management is the same as non-pregnant people
- There are NO alternatives to IM Bicillin if penicillin allergy, must desensitize to use
- For P+S (primary and secondary), ES (early syphilis), some give an additional IM dose 1 week after treatment
- Goal is 7 days between doses of IM bicillin but if a person misses a dose, effort should be focused on getting the dose within 2 days
 - Doses more than 9 days apart means restarting treatment
- Ultrasound is used to monitor in second half of pregnancy but should not delay treatment
- For patients with early syphilis or high titers, Jarisch-Herxheimer reaction counseling is advised
- Recheck RPR 8 weeks after treatment

www.cdc.gov/std

Beyond demographics, some themes emerge:



Limited Prenatal Care



Interactions with the Prison System



Housing instability



Intimate Partner Violence



Unemployment



Substance Use



Sex Work/Trafficking



DCFS (Department of Child and Family Services) Involvement

E. Daniels et al.

A Syndemic approach to Congenital Sy

- Ensure quality care
- Team management: DIS, clinician, community health worker, etc
- Assess for social vulnerabilities
- Learn from programs that are doing work in adjacent areas
- Collaborate
- Involve community
- Always address prevention and stigma

Image: MS 360 stock photo

No-cost online clinical consultation on the prevention, diagnosis, and treatment of STDs by your Regional PTC Clinical Faculty

www.STDCCN.org





St. Louis STI/HIV Prevention Training Center



Syphilis Case Study

Molly M. Elston, MSN, APRN, FNP Megan M. Smith, MSN, APRN, WHNP-BC Community Health, Nutrition and Clinical Services



Case Study 1: 65 y/o black cis man w long syphilis hx but no hx of tx

Visit Reason:

• Referred from DIS after positive syphilis testing with new MD - no history of syphilis treatment

Initial Patient Presentation:

- Believes he contracted both syphilis and HIV in 1987. Reports an HIV Dx in 2007. First diagnosed with syphilis in 2011.
- Was seen by a provider a few years ago and told provider he had syphilis. Patient was experiencing tingling in hands at that time. Provider wanted to do spinal tap. Pt refused spinal tap and provider refused to treat for syphilis
- Went to ED "a few years ago" because of tingling in bilateral arms. ED told him he had syphilis but did not treat
- After that, did syphilis testing twice at another clinic and was told he didn't have syphilis
- Patient states that at one point, a medical provider told him that he could not be treated with PCN because it would interact with his HIV and seizure meds
- Saw a new MD a couple of weeks ago who swabbed him and did bloodwork patient unsure what tests were run
- New MD said that it "wasn't active syphilis".
- C/O recurrent sore on penis that occurs approx. q3 years.
- Not currently sexually active, states abstinence since HIV diagnosis
- Hx seizures, takes Rx regularly
- Reports poor experiences in past w/ healthcare



Case Study 1: More details

Current Medications - Reviewed patient meds with DCHC pharmacist for interaction Sertraline HCI 100 MG Oral Tablet: 1 Tablet(s) daily Oral, For 1 Day(s) OXcarbazepine 300 MG Oral Tablet: Oral levETIRAcetam 500 MG Oral Tablet: 1 Tablet(s) daily Oral, For 1 Day(s) Biktarvy 50-200-25 MG Oral Tablet: Oral

Allergies - Dilantin

Labs - Syphilis 2022 EIA - Reactive, RPR - NR, TPPA-Reactive 2024 EIA - Reactive, RPR - NR, TPPA-Reactive 2024 (1 month later) EIA - Reactive, RPR - NR, TPPA-Reactive

HIV viral load- Undetectable

Physical Exam: Declined



Case Study 1: Action Steps

- Reestablished trust/reassured patient
- Dx: Late latent syphilis
- Tx: 3 doses of PCN
- Had balance issues, blurriness in eyes, shakiness in hands after dose 1 PCN, as well as rectal bleeding
- Referred to PCP PCP was upset that patient had been treated by health department, and that they hadn't been consulted prior to, or notified of treatment. States that they didn't treat patient because it wasn't "active" syphilis and believes the reaction was Jarisch-Herxheimer reaction.
- Consulted WashU and DCHD Medical Advisor
- Finished 3 dose series



Case Study 1: Takeaways

- Syphilis is tricky! RPR titers can be NR in late syphilis, also in very early syphilis.
 Establishing trust with patient is key!
 Getting full information on labs, treatment history, etc. can be difficult try to use your resources
 Wash U PTC

 - Consult other providers Cync health
- Request results from referring provider
 Goal: One stop shop test AND treat
 If your clinic can carry PCN, please do!



Case Study 2: 19 y/o white, PG cis woman and partner, multiple SDOH challenges

Visit Reason: Referred to Douglas County Health Department (DCHD) after initial prenatal visit at local FQHC with positive syphilis screening.

Initial Patient Presentation:

- · 19-year-old pregnant white cis female, 6 months pregnant at initial referral
- · living in a car with her 23-year-old partner. Car location varied in DC jurisdiction as well as in another local HD's jurisdiction.
- No known history of syphilis or symptoms in either patient or partner.
- · Unemployed, experiencing homelessness, food insecurity, and transportation barriers.
- Limited access to prenatal care and no prior STI treatment or screening.

• Early attempts to connect client to housing failed – client was unable to leave car (their only source of shelter) and car did not run. Client was unwilling to enter housing shelter where she'd be separated from partner.

- First visit (6 months pregnant) at local FQHC. Syphilis testing was performed. Dx: syphilis of unknown duration. Tx: 1 of 3 doses PCN administered
- · Patient did not attend first full prenatal visit at FQHC to receive 2nd dose PCN
- · Patient lost to follow-up for 1 month



Case Study 2: Continued

Current Medications: None reported
Allergies: No known drug allergies (NKDA)
Pertinent Labs: Syphilis (EIA: reactive; RPR 1:16); GC/CT urine (CT positive, GC negative)*; HIV (negative)**
Physical Exam: Not completed; patient did not attend subsequent appointments.



Case Study 2: Action Steps

- Repeated outreach by DIS after missed prenatal/2nd dose appointment
- Collaboration between DIS, local FQHC, LHD, food, and housing resources to coordinate services.
- Strategic planning meetings with DCHD teams to engage and retain client in care.
- Incentive through another LHD for completing all 3 doses of PCN.
- Delivered food via Whispering Roots to maintain engagement.
- Conducted 3 field visits:
 - 3 doses PCN delivered at client's location (to client and partner)
 - provided food resources and basic prenatal education.
- Assisted client and partner in securing temporary housing
- Client's treatment completed <30 days before delivery, will still follow baby and treat as congenital case.



Case Study 2: Outcomes for Baby

- Baby had RPR of 1:8.
- Outcome = Scenario 2
 - Dx: Possible Congenital syphilis
 - Baby treated with Aqueous crystalline. Pen G 50,000 units/kg IV q12 hours x 7 days, then q8 hours x 3 days.
- Baby Girl was also treated for Chlamydia with 3 day course of Azithromycin.



Case Study 2: Takeaways

- Building trust and motivating patients requires significant resources (emotional support, food, transportation, etc.).
- Meeting patients where they are is key to overcoming barriers.
- Regular testing and timely treatment are essential for preventing congenital syphilis.
- Collaboration across clinics, health departments, and social workers is vital to address barriers and ensure treatment adherence.



Congenital Syphilis

Scenario 1: Confirmed Proven or Highly Probable Congenital Syphilis

Any neonate with

- an abnormal physical examination that is consistent with congenital syphilis;
- a serum quantitative nontreponemal serologic titer that is fourfolds (or greater) higher than the mother's titer at delivery (e.g., maternal titer = 1:2, neonatal titer \ge 1:8 or maternal titer = 1:8, neonatal titer \ge 1:32)₁; or
- a positive darkfield test or PCR of placenta, cord, lesions, or body fluids or a positive silver stain of the placenta or cord.

Scenario 2: Possible Congenital Syphilis

Any neonate who has a normal physical examination and a serum quantitative nontreponemal serologic titer equal to or less than fourfold of the maternal titer at delivery (e.g., maternal titer = 1:8, neonatal titer \leq 1:16) and one of the following:

- The mother was not treated, was inadequately treated, or has no documentation of having received treatment.
- The mother was treated with erythromycin or a regimen other than those recommended in these guidelines (i.e., a nonpenicillin G regimen).[#]
- The mother received the recommended regimen but treatment was initiated <30 days before delivery.



Congenital Syphilis

Scenario 3: Congenital Syphilis Less Likely

Any neonate who has a normal physical examination and a serum quantitative nontreponemal serologic titer equal or less than fourfold of the maternal titer at delivery (e.g., maternal titer = 1:8, neonatal titer $\leq 1:16$) and both of the following are true:

- The mother was treated during pregnancy, treatment was appropriate for the infection stage, and the treatment regimen was initiated ≥30 days before delivery.
- The mother has no evidence of reinfection or relapse.

Scenario 4: Congenital Syphilis Unlikely

Any neonate who has a normal physical examination and a serum quantitative nontreponemal serologic titer equal to or less than fourfold of the maternal titer at deliverys and both of the following are true:

- The mother's treatment was adequate before pregnancy.
- The mother's nontreponemal serologic titer remained low and stable (i.e., serofast) before and during pregnancy and at delivery (e.g., VDRL \leq 1:2 or RPR \leq 1:4).



Syphilis info for Providers/Public

https://www.douglascountyhealth.com/infectious-disease/syphilis-

response





DCHD STI Clinic Services

Health Department Healthy. Vibrant. Everyone. Everywhere.

Douglas County Health Department STI (Sexually Transmitted Infection)

CLINIC

CLINIC HOURS Call at 8:00 a.m. to Schedule Same Day Appointment. Limited walk in appointments available.

Scan here for clinic hours or call 402-444-7112.



Closed all Federal holidays and the Saturday prior to a holiday that fails on a Monday.

COST Full Visit (see a provider): \$25 Express Visit (testing only): \$5 for one test -OR- \$10 for 2+ tests We accept cash, check or credit card.

WHO IS ELIGIBLE?

STI Services are available for anyone 13 years and older.

BEFORE COMING

- · Bring a current photo ID. We provide confidential testing.
- Have something to eat and drink before arriving to
- prevent feeling weak/nauseated if treatment is required. • We do not allow children in the clinic during your visit.



Douglas County Midtown Campus

1111 South 41st Street, Ste 210, Omaha, NE 68105 (402) 444-7112 (option 2) "Located on the southeast corner of 41st & Pacific Street (Lock for the blue awning in front of the building.) "Protocol

STI CLINIC SERVICES

- Express Testing for Gonorrhea and Chlamydia (no exam necessary)
- Walk-in HIV testing/referral for HIV Care
- Exams by Healthcare Providers for the diagnosis/treatment of STIs
- Testing/treatment for Syphilis, Gonorrhea, and Chlamydia
- Extragenital site testing (swab of throat/rectum) for Gonorrhea and Chlamydia
- Testing (females only) and treatment for Trichomonas
- Hepatitis C testing and referral to care if needed
- Confidential counseling (risk reduction; partner notification; disease information)
- Expedited Partner Therapy
- PrEP referrals
- Mpox Vaccine
- Immunizations are available for adults who are uninsured
- FREE condom distribution/education
- DoxyPEP
 Herpes and HPV testing is not
- provided



DCHD STI Clinic

-Same day appointment clinic (moving to wednesday walk-in clinic soon)
-\$25 full service visits or \$5-10 express
-Full: See a provider, get tested and treated if indicated
-Express: Screen HIV, Syphilis and/or Gc/Ct urine; >full if +
 -will soon add throat/rectal/vaginal swab testing
-Will not turn anyone away for inability to pay
-DoxyPEP
-unable to get mpox anymore
-moving towards offering PrEP soon



DCHD STI Outreach

- Libraries, health fairs, bars, events, parades, etc.
- Vending machines
- Free condoms/lube
- Free at-home test
- Free HIV/Syphilis Test
- https://www.dou
 yhealth.com/clin
 services/sti-outi
 testing



Where Can You Find Them?

- Douglas County Health Department
 1111 S 41st Street
- Washington Branch Library
 2868 Ames Avenue
- Siena Francis House 1117 N 17th Street
- American Dream
 7402 F Street
- Nebraska Urban Indian Health Coalition 2226 N Street



What's Inside the Machines?

You can find many products that help keep you healthy:

- Sexual and Reproductive Health
 - STI Test Kits (send your urine sample for results)
 - Pregnancy Tests
 - Emergency Contraception (Plan B)
 - Condoms and Lubricant
 - Tampons and Pads

Harm Reduction Products

- Fentanyl Test Strips
- Deterra Safe Drug Disposal Bags
- Wound Kits
- COVID-19 Tests
 - COVID-19 Test Kits (at-home tests)
- Coming Soon:
 - Naloxone
 - HIV OraQuick In-Home Test





Thank you.

www.douglascountyhealth.com 🗗 😏 🔯

Thank you for joining our 5th HIV ECHO session!

- Our next session on May 1st at 12PM CST will be over Trauma Informed Care presented by Mahelet Kebede, MPH
- Want to join us as a presenter? Email us at <u>UNMCHIVECHO@unmc.edu</u> and we would love to have you!

