Alaska ID ECHO: HCV-HIV-PrEP-STIs

ALASKA NATIVE TRIBAL HEALTH CONSORTIUM

NPAIHB
Indian Leadership for Indian Health

February 8, 2022

The ANTHC Liver Disease and Hepatitis Program, HIV Clinical Services, Behavioral Health Department and Southcentral Foundation's Pharmacists have partnered to host this ECHO, and it's funded by a grant from the Northwest Portland Area Indian Health Board.

Welcome to Alaska Infectious Disease ECHO – HCV, HIV, PrEP, STIs

Approved Provider Statements:

JOINTLY ACCREDITED PROVIDER™
INTERPROFESSIONAL CONTINUING EDUCATION

In support of improving patient care, Alaska Native Medical Center (ANMC) is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Contact Hours:

ANMC designates this activity for a maximum of 12 contact hours, including 3 total pharmacotherapeutics contact hours, commensurate with participation.

Financial Disclosures:

Youssef Barbour, MD & Lisa Townshend-Bulson, APRN / faculty for this educational event, are primary investigators in an ANTHC sponsored hepatitis C study funded in part by Gilead Sciences. All of the relevant financial relationships listed have been mitigated.

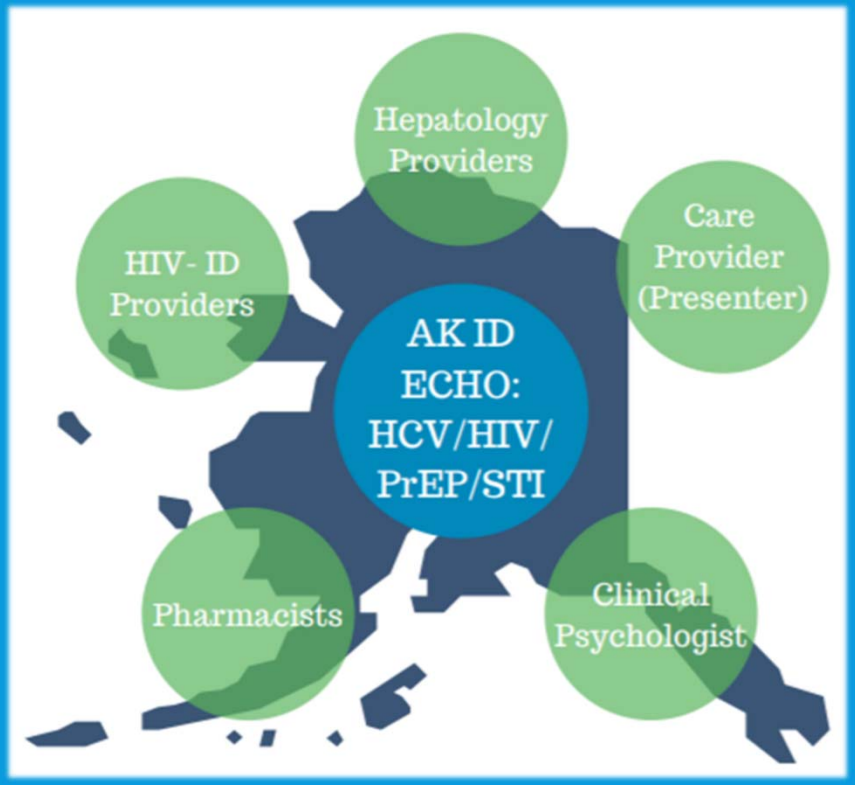
Requirements for Successful Completion:

To receive CE credit please make sure you have actively engaged in the entire activity, your attendance is recorded by the facilitator, and complete the course evaluation form found here: https://forms.gle/18t4EgvN2WdnM4P77

For more information contact
jlfielder@anthc.org or (907) 729-1387

ALASKA NATIVE MEDICAL CENTER

AK ID ECHO: CONSULTANT TEAM



- Youssef Barbour, MD Hepatologist
- Leah Besh, PA-C HIV/Hepatology Provider
- Terri Bramel, PA-C HIV/STI Provider
- Rod Gordon, R.Ph. AAHIVP Pharmacist
- Jacob Gray, MD Infectious Disease Provider
- Annette Hewitt, ANP Hepatology Provider
- Brian McMahon, MD Hepatologist
- Lisa Rea, RN HIV/STI Case Manager
- Lisa Townshend, ANP Hepatology Provider

ALASKA NATIVE TRIBAL HEALTH CONSORTIUM

CONGENITAL SYPHILIS

February 8, 2022

Nathan Wormington, STD Program Coordinator, DHHS, State of Alaska

Benjamin Westley, MD, Alaska Native Medical Center

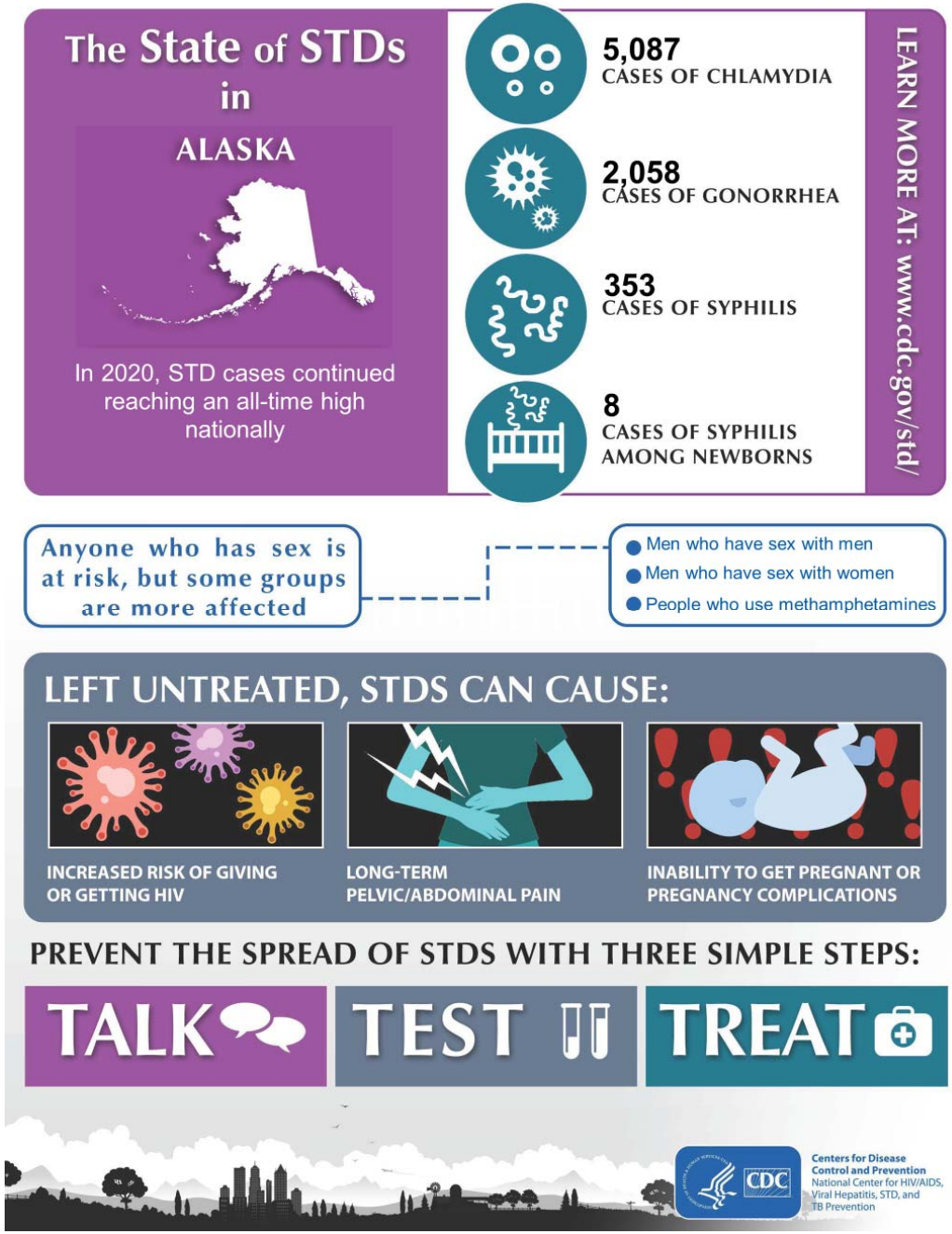
STI EPIDEMIOLOGY IN ALASKA

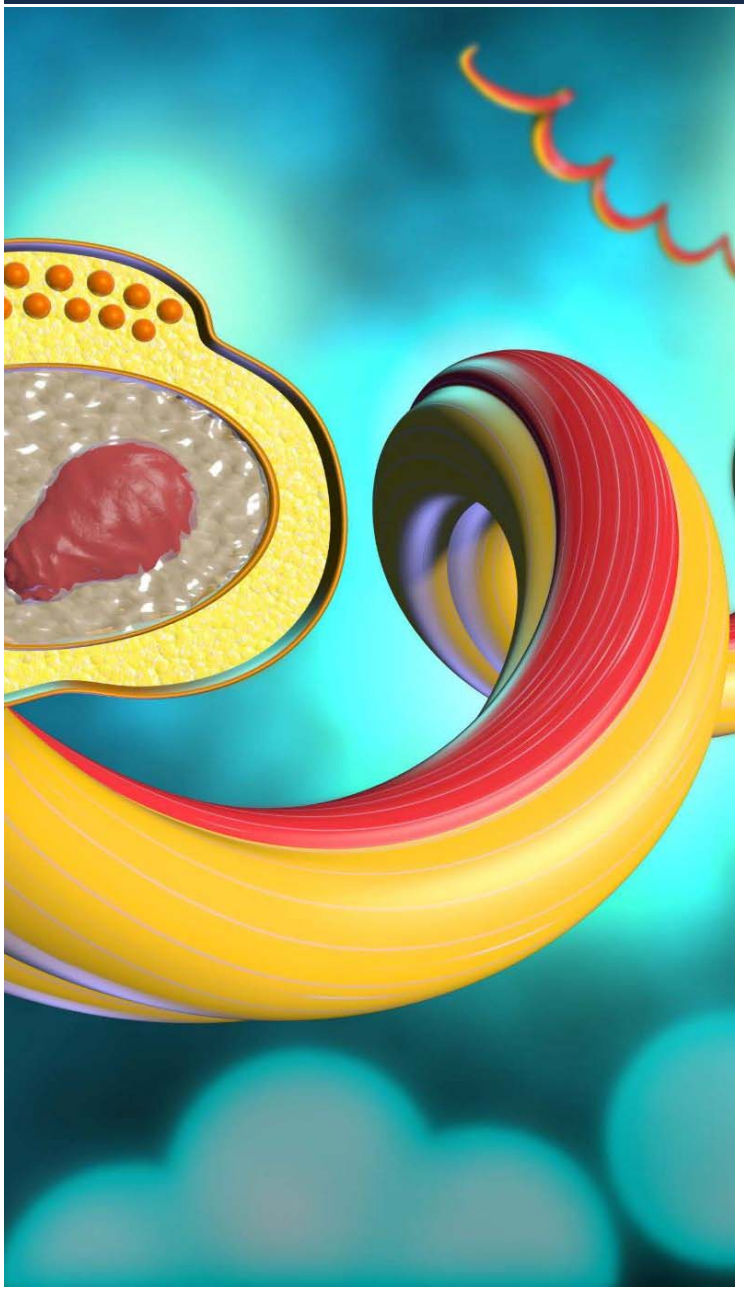
Department of Health and Social Services

Division of Public Health, Section of Epidemiology

HIV/STD Program

February 8th, 2022

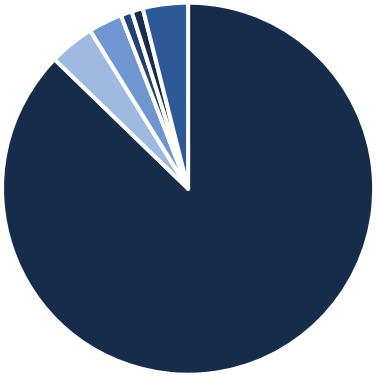

The State of STDs in
ALASKA
In 2020, STD cases continued reaching an all-time high nationally
5,087
CASES OF CHLAMYDIA
2,058
CASES OF GONORRHEA
353
CASES OF SYPHILIS
8
CASES OF SYPHILIS AMONG NEWBORNS
LEARN MORE AT: www.cdc.gov/std/
Anyone who has sex is at risk, but some groups are more affected
Men who have sex with men
Men who have sex with women
People who use methamphetamines
LEFT UNTREATED, STDS CAN CAUSE:
INCREASED RISK OF GIVING OR GETTING HIV
LONG-TERM PELVIC/ABDOMINAL PAIN
INABILITY TO GET PREGNANT OR PREGNANCY COMPLICATIONS
PREVENT THE SPREAD OF STDS WITH THREE SIMPLE STEPS:
TALK
TEST
TREAT
CDC
Centers for Disease Control and Prevention
National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention



Epidemiology of Syphilis in Alaska

- Urban/Sub-Urban
- Started within men who have sex with men (MSM) community, now commonly seen in women and men who have sex with women (MSW)
- Increase in cases who report drug use and/or homelessness (44% in 2020)
- Co-morbidity with HIV (9% in 2020)
- Co morbidity with other STD (30% in 2020)
- 8 congenital syphilis cases in 2020
- Partner Notification increases testing and results in additional case-findings
- Syphilis outbreak identified in 2018 and continues to grow into 2021
- *https://www.cdc.gov/std/syphilis/Syphilis-Pocket-Guide-FINAL-508.pdf*

Primary, Secondary, Early Latent Syphilis By Region-Alaska 2020



- Anchorage/Mat-Su
- Kenai/Soldotna/Gulf Coast
- Fairbanks/Interior Region
- North Slope Region
- SE Region/Juneau
- Bethel/Dillingham/SW Region

Commonly Used Substances and STI/HIV Risk

•**Alcohol.** Excessive alcohol consumption, notably binge drinking, can be an important risk factor for HIV because it is linked to risky sexual behaviors and, among people living with HIV, can hurt treatment outcomes.

•**Opioids.** Opioids, a class of drugs that reduce pain, include both prescription drugs and heroin. They are associated with HIV risk behaviors such as needle sharing when infected and risky sex, and have been linked to a recent HIV outbreak.

•**Methamphetamine.** "Meth" is linked to risky sexual behavior that places people at greater HIV risk. It can be injected, which also increases HIV risk if people share needles and other injection equipment.

•**Crack cocaine.** Crack cocaine is a stimulant that can create a cycle in which people quickly exhaust their resources and turn to other ways to get the drug, including trading sex for drugs or money, which increases HIV risk.

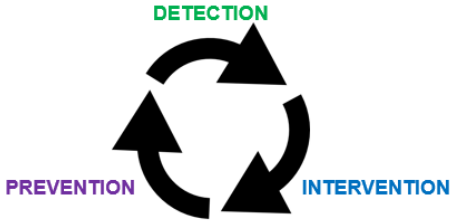
•**Inhalants.** Use of amyl nitrite ("poppers") has long been linked to risky sexual behaviors, illegal drug use, and sexually transmitted diseases among gay and bisexual men.

https://www.cdc.gov/hiv/basics/hiv-transmission/substance-use.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fhiv%2Frisk%2Fsubstanceuse.html

Substance Misuse and STIs in AK

- 2020 102/361 Syphilis cases reported either methamphetamine or heroin use, or both.
- 52 documented homeless, incarcerated, or unstably housed

DIS and Partner Services



- Disease Intervention Specialists (DIS) work to interrupt disease transmission
  - Expertise in communication, contact tracing, interviewing, counseling, case analysis, and provider and community engagement
  - Critical part of the public health infrastructure and in building the link to health care
  - Feeds prevention efforts
- Partner Services include partner notification, prevention counseling, and referral to other services
  - Partner Notification – a process through which infected persons are interviewed to elicit information about their partners/associates, who can then be confidentially notified of their possible exposure or potential risk and referred to appropriate services

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Thank you!

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Congenital Syphilis

Benjamin Westley MD FAAP FACP FIDSA
Infectious Diseases
Anchorage, AK
February 8, 2022

Goals

- Review some syphilis basics
- Define and describe congenital syphilis
- Initiate diagnosis and management of a neonate/child with possible syphilis
- Ponder some congenital syphilis dilemmas

Disclosures

- None

Syphilis fun facts

- New World disease…?
- First recorded European outbreak 1494
- "The Great Pox"
- First antimicrobial, arsphenamine, discovered by Paul Ehrlich and Sahachiro Hata to treat syphilis
- Famous syphilitics: Gauguin, Nietzsche, Schubert, (not Beethoven)

Syphilis diagnosis

- *Treponema pallidum* cannot be grown in culture
  - Can infect rabbits and examine blood with microscopy
- Treponemal tests
  - EIA "treponemal antibody", TP-PA, FTA-Abs
  - Rare false positives
  - Not titered
  - Positive for life
- Non-treponemal tests
  - RPR or VDRL
  - Reflex to titer
  - Frequent false positives
  - Titer falls with effective treatment
- To diagnose syphilis, usually both types of test will be positive

Syphilis stages

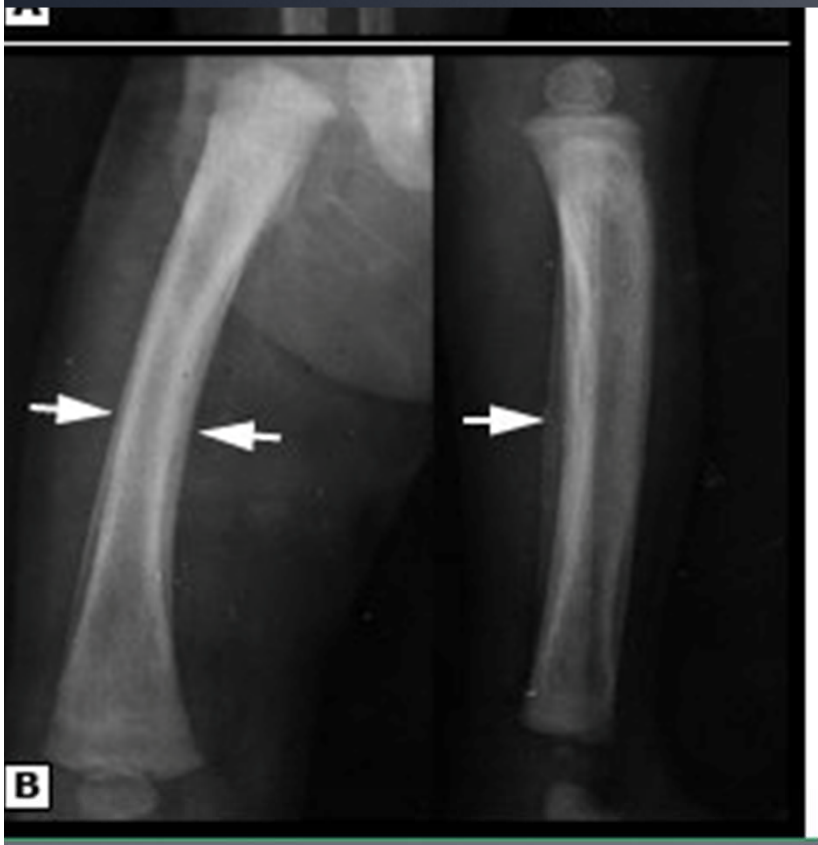
- Primary
  - Painless ulcer
  - Contagious
  - Treatment 1 dose of benzathine PCN
- Secondary
  - Rash, fever (treatment 1 dose benzathine PCN)
  - Occasionally, CNS disease (eye, ear, meningitis) -> IV PCN
- Late latent -> No symptoms, >1y after acquisition
  - Weekly PCN x3 doses
- Tertiary
  - Late symptoms; gummas, hearing loss, vascular disease, insanity
  - IV pcn

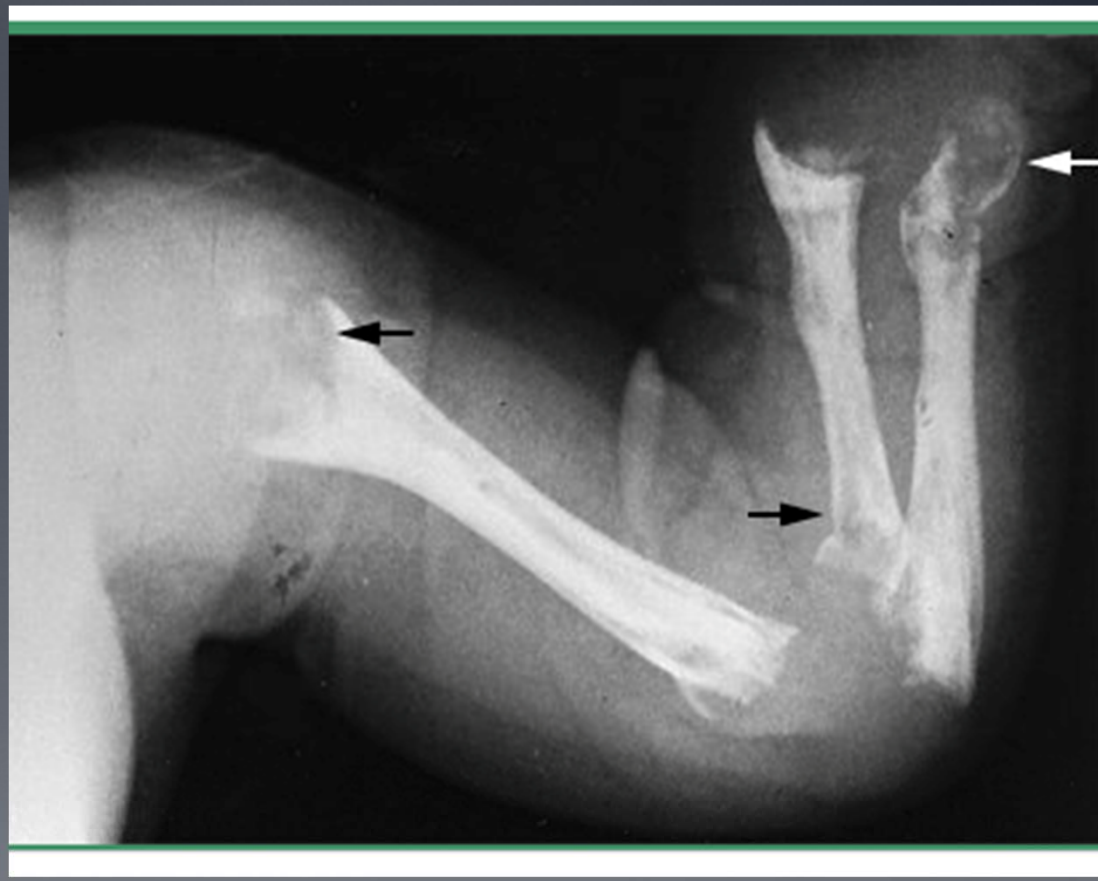
Congenital syphilis

- Spirochete *Treponema pallidum* transmitted from mother to fetus
- 2018 US case rate 33/100,000 live births
  - 400% increase since 2012
- Spirochetes in blood -> placenta -> fetus
  - Direct from chancre during birth felt much less common
- 60-90% risk with primary/secondary syphilis
  - <10% risk with late latent disease
- Organisms NOT in breastmilk

Clinical findings

- 60-90% Asymptomatic at birth
  - Sx develop 5 weeks to 3m of age
- Barber's pole cord with red/blue discoloration
- Hepatomegaly/cholestasis
- Snuffles (syphilitic rhinitis)
- Rash
- Lymphadenopathy
- Acute/chronic CNS disease
- Abnormal long bone films
- Pneumonia alba





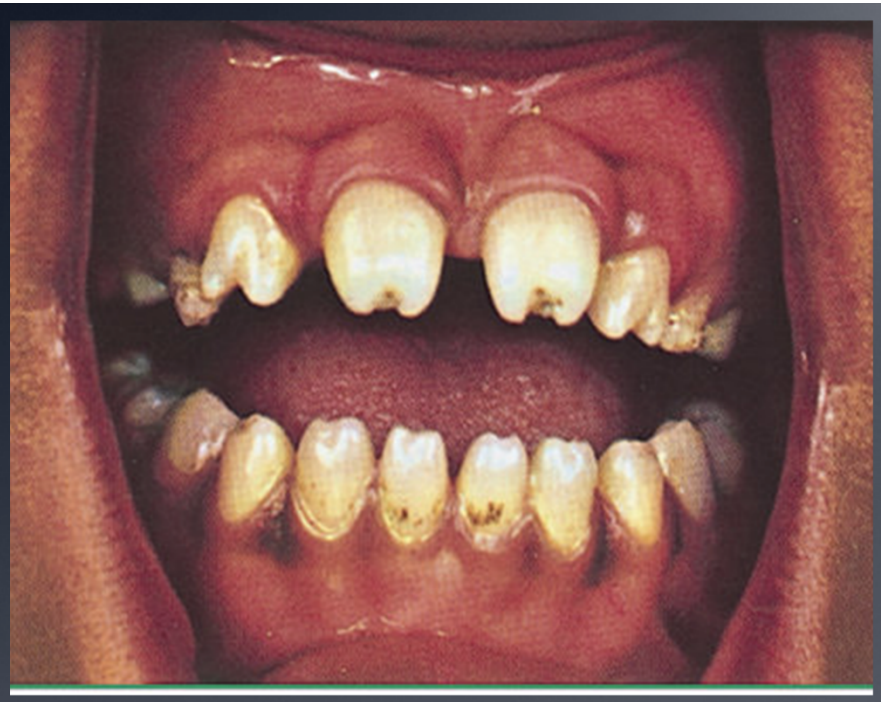
Uptodate.com

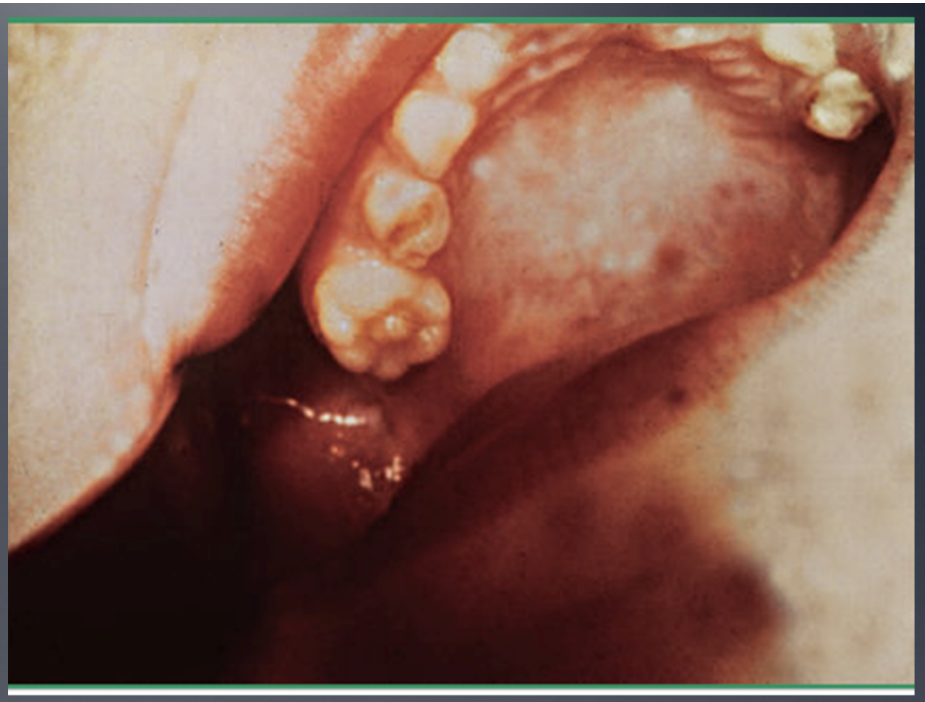
CSF abnormalities

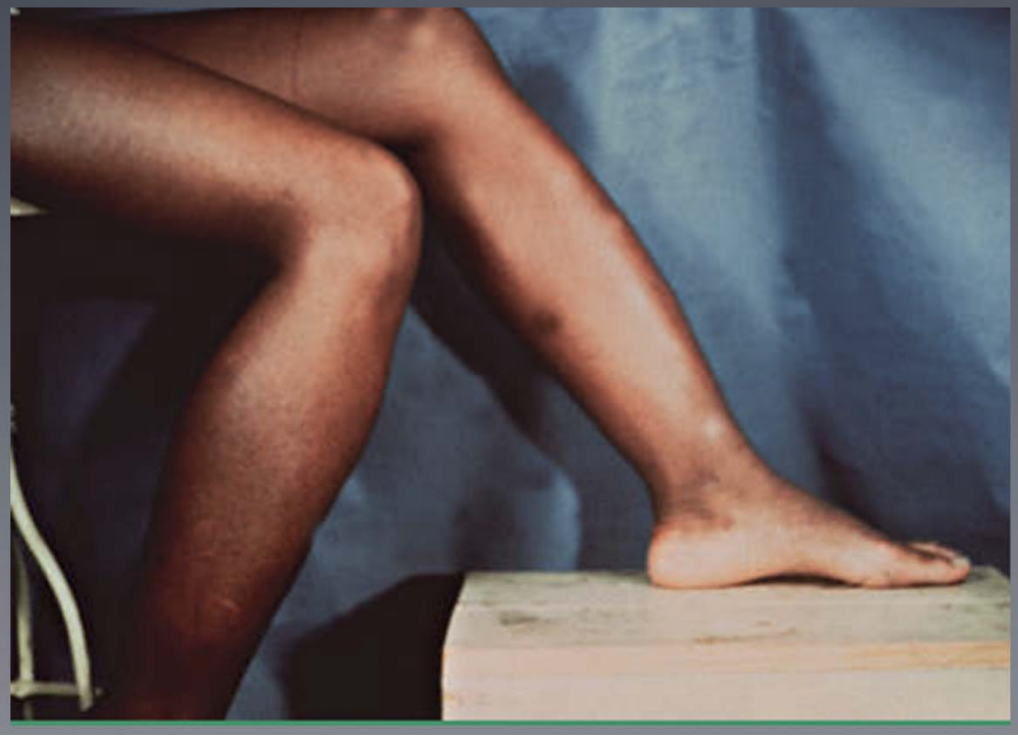
- >25 WBC (sensitivity 38%, specificity 88%)
- Protein >150 term or >170 preterm (sensitivity 56% specificity 78%)
- Reactive VDRL (sensitivity 54%, specificity 90%)

Late congenital syphilis

- Frontal bossing
- Keratitis
- Hearing loss (sensorineural)
- Hutchison teeth/mulberry molars
- Rhagades (fissures around mouth)
- Saber shins
- Saddle nose







Case definition

- Untreated/inadequately treated syphilis in pregnancy
  - REGARDLESS of any findings in infant, OR
- Reactive RPR and any of the following:
  - Exam findings of syphilis
  - Long bone films suggestive of syphilis
  - Positive LP (WBC, protein, and/or VDRL criteria)
- CONFIRMED
  - Above plus demonstration of organisms
  - VARY RARELY PERFORMED IN CLINICAL PRACTICE

Inadequate or suboptimal treatment of maternal syphilis

Inadequate therapy
Treatment with a nonpenicillin antibiotic
Treatment less than four weeks before delivery (including treatment with penicillin)
Inappropriate dose for stage of disease
Inadequate documentation of maternal treatment
Lack of performance of serial non-treponemal* antibody titers after maternal treatment
Maternal therapy was not documented
Inadequate response to therapy
Maternal non-treponemal antibody titers did not decline at least fourfold (two dilutions) after treatment
Maternal non-treponemal antibody titers suggest reinfection or relapse (ie, fourfold increase)

* Non-treponemal test: Rapid plasma reagin (RPR) test or Venereal Disease Research Laboratory (VDRL) test.

Infant evaluation

- If mother untreated/inadequately treated
  - RPR, CBC/CMP, LP, eye exam, hearing screen and 10 days IV aqueous PCN G
- Mother adequately treated during pregnancy
  - RPR 2 or more dilutions > mother
    - Evaluate and treat
  - RPR same or lower than mom and exam normal
    - No evaluation, given single dose benzathine pcn 50,000 units/kg IM
- Maternal hx of treated syphilis BEFORE pregnancy and RPR remains low/stable during pregnancy
  - No treatment

Infection control

- Standard precautions
- This diagnosis is stigmatizing in and of itself
- Please DO NOT add to trauma by placing the child in contact or airborne isolation!
- As always, wear gloves if contacting body fluids or nasal or skin lesion drainage (or poop or urine for that matter)
- Wear gloves if handling ANY infant with skin or mucus membrane lesions
- Do NOT exclude pregnant HCPs from caring for infant

Infant follow-up

- RPR q2-3 months
- 2 dilution decrease expected by 3 months
- Non-reactive by 6 months
- Do NOT check EIA, TPPA, or FTA-ABS
  - These are expected to stay positive despite treatment
- If baseline CSF abnormal, must repeat at 6 months
  - If abnormal, retreat and repeat LP in 6 months
  - If persistently abnormal, obtain neuroimaging

Recent congenital syphilis conundrums

- Mother treated for syphilis exposure early 2020, 2.4 MU
  - No labs available
- Mother now 36 weeks late to care, notified of new syphilis exposure by public health
  - Baseline testing + EIA, + TPPA, RPR non-reactive
- Treated with single dose 2.4 MU benzathine pcn
- Baby born 3 weeks after maternal treatment
- What additional information do you want? What is mother's staging? What would you do?

Recent congenital syphilis conundrums

- Mother with possible syphilis exposure 3 weeks before delivery
- Father of baby with painless ulcer, given 2.4 MU PCN
- Mom not treated
- Father and mother syphilis and STI testing returned negative from time of initial evaluation 3 weeks prior to delivery
- What would you do now?

Current conundrum

- Mom syphilis negative 1 year ago
- Repeat testing at ~31 weeks
  - EIA reactive, TP-PA "inconclusive", RPR non-reactive
- What would Ben do?
  - Give mom Benzathine PCN 2.4 MU now and check FTA-Abs
  - FTA-Abs "equivocal"
  - Repeat RPR at 35 weeks nonreactive -> treated
- Baby born 5 weeks after maternal treatment
- What now?
- Additional information: Maternal COVID at 29 weeks, got monoclonal antibodies

QUESTIONS?

What questions do you have?

Please share questions in the chat or use the raise hand icon and unmute yourself.

DIDACTIC TOPICS FOR 2022

- Other 2022 topics:
  - HCV – Simplified HCV Treatment
  - HIV Treatment and Prevention - new injectable drugs
  - Drug interactions for commonly prescribed medications for HCV, HIV, STIs
  - HCV Reinfection vs Treatment Failure

What topics would you like to learn about?

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ADDITIONAL LEARNING OPPORTUNITIES

ANTHC Liver Disease ECHO

- Third Thursday of every month from 12:00-1:00 PM AKST
- February 17: NAFLD Series Part 2 – Exercise and Nutrition presented by Anne Fleetwood, RD

anthc.org/project-echo/alaska-liver-disease-echo

ANTHC LiverConnect

- Second Tuesday of every month 8:00-9:00 AM AKST
- March 8: Highlights of the Liver Meeting (part 3 of 3): Hepatitis B and a Potpourri of Other Abstracts

anthc.org/what-we-do/clinical-and-research-services/hep/liverconnect

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ADDITIONAL LEARNING OPPORTUNITIES

Addiction Medicine ECHO

- Second and fourth Thursday of every month from 12-1:oo PM

  anthc.org/project-echo/addiction-medicine-echo

Indian Country ECHO Programs

- Harm Reduction, Infectious Disease, and more!

  www.indiancountryecho.org/teleecho-programs

ALASKA NATIVE TRIBAL HEALTH CONSORTIUM

AK ID ECHO Contacts

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NPAIHB
Indian Leadership for Indian Health

Thank you!

AK ID ECHO is supported by a grant from the Northwest Portland Area Indian Health Board and funding is provided from the HHS Secretary's Minority HIV/AIDS Fund.

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mahsi' • quyanaq • igamsiqanaghhalek • 'awa'ahdah • baasee' • tsin'aen • quyanaa • gunalchéesh • háw'aa • qaĝaasakung • maasee' • quyana

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