Clinical Cases

August 26, 2025

JSI
New York State Family Planning Training Center
nysfptraining.org

Learning Objectives and Disclosure*

1. Learners will be able to evaluate and diagnose common sexual and reproductive health conditions (e.g., sexually transmitted infections, menstrual disorders, and contraceptive needs) and develop evidence-based management plans.
2. Learners will discuss key components to patient-centered care and addressing and addressing the sexual and reproductive health concerns of patients.

***Images of genitourinary system will be shared during this session**

Speakers

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Definitions

- ***Treponema pallidum* or *T. pallidum:*** bacteria that causes syphilis
- **Treponemal test:** detects an antibody response to antigens specific to *T. pallidum*
  - **TPPA:** *T. pallidum* particle agglutination; treponemal test
  - **FTA-ABS:** fluorescent treponemal antibody-absorption; treponemal test
- **Nontreponemal test:** detect antibodies that are broadly reactive to lipoidal antigens shared by both host and *T. pallidum*
  - **RPR:** rapid plasma reagin
  - **VDRL:** Venereal Disease Research Laboratory
- **Biologic false positive (BFP):** a nontreponemal test that is reactive for conditions other than syphilis

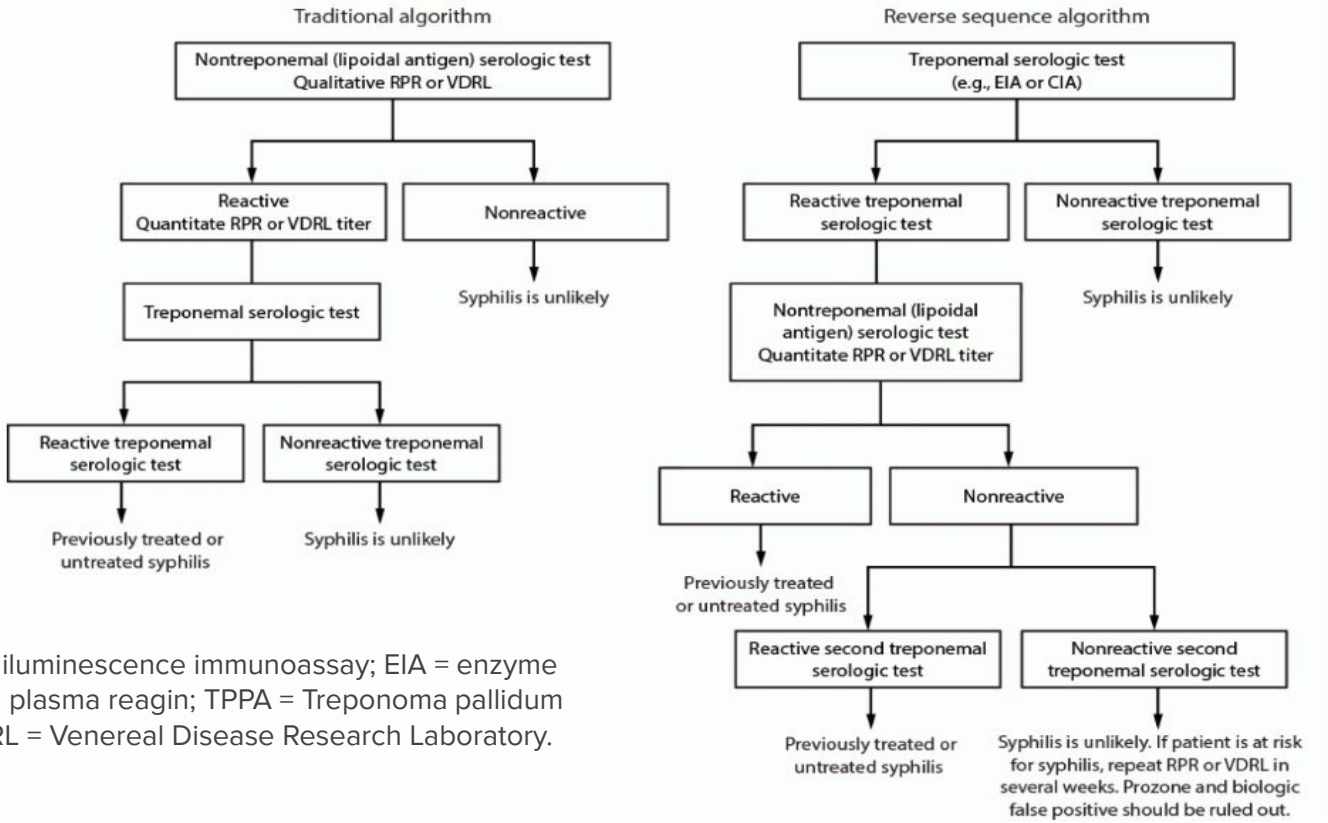
Source: CDC Laboratory Recommendations for Syphilis Testing, United States, 2024

Case 1 - Syphilis in pregnancy

- 35 yo cis woman, pregnant, presented at EGA 22w6d
- Referred from OB/GYN to local health dept for syphilis treatment
- No complaints at visit
- Sex Hx: 1 male partner, no prior STIs
- No s/sx primary or secondary syphilis on exam
- Neuro assessment: WNL
- Last syphilis testing hx
  - 3 years prior: RPR 1:4, -TPPA → BFP, no tx
  - Prenatal visit [16w EGA]: RPR 1:1, +FTA-ABS → no tx, referred to LHD

Acronyms: EGA - estimated gestational age; WNL - within normal limits

Screening for syphilis with serologic tests - traditional and reverse sequence algorithms



Abbreviations: CIA = chemiluminescence immunoassay; EIA = enzyme immunoassay; RPR = rapid plasma reagin; TPPA = Treponoma pallidum particle agglutination; VDRL = Venereal Disease Research Laboratory.

Labs

- Initial labs
  - HIV: negative
  - GC/CT: negative
- RPR today: 1:1, TPPA is pending

Poll 1

Do you also need the TPPA result prior to treating the patient?

A. Yes
B. No
C. I don't know

Poll 1

Do you also need the TPPA result prior to treating the patient?

A. Yes

B. No

C. I don't know

Overall, TPPA is more specific than FTA- ABS

Table 2: Sensitivity and Specificity of Manual Treponemal Assays for Diagnosis of Syphilis in Clinically Characterized Specimens (Published Data)

Assay	Stage	Sensitivity	Specificity
FTA-ABS	Primary	78.2-100%	87.0-100%
	Secondary	92.8-100%	
	Latent (combined)	83-100%	
	Early Latent	94.4-100%	
	Late Latent	84.5-92.6%	
TP-PA	Primary	86.2-100%	99.6-100%
	Secondary	100%	
	Latent (combined)	100%	
	Early Latent	94.4-100%	
	Late Latent	86.8-100%	

Adapted from: Park et al. (2020). Sensitivity and specificity of treponemal-specific tests for the diagnosis of syphilis. *CID*, *71*(Supplement_1), S13-S20., https://doi.org/10.1093/cid/ciaa349

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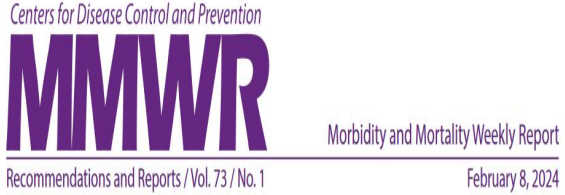
FTA vs everybody

- FTA is a manual treponemal test that requires lab personnel expertise
- Specificity of the FTA is limited by lab expertise and quality control measures
- Head-to-head comparisons of FTA vs TPPA show TPPA is better
- Per CDC, TPPA is preferred over FTA
- However, this doesn't mean you should ignore the FTA result



Papp, J. R. (2024). CDC Laboratory Recommendations for Syphilis Testing, United States, 2024. *MMWR. Recommendations and Reports*, *73*.

Poll 2

Are false positive serologic results more common in pregnancy?

A. Yes
B. No
C. I don't know

Poll 2

Are false positive serologic results more common in pregnancy?

A. Yes

B. No

C. I don't know

Treatment and management

- Client is diagnosed with late latent syphilis and treated with 2.4 MU Bicillin IM x 3
- What is this diagnosis based on? *Add your comments to the chat.*
- Diagnosis of late latent syphilis based on:
  - Timing - last serologic testing > 12mo ago
  - Client is asymptomatic

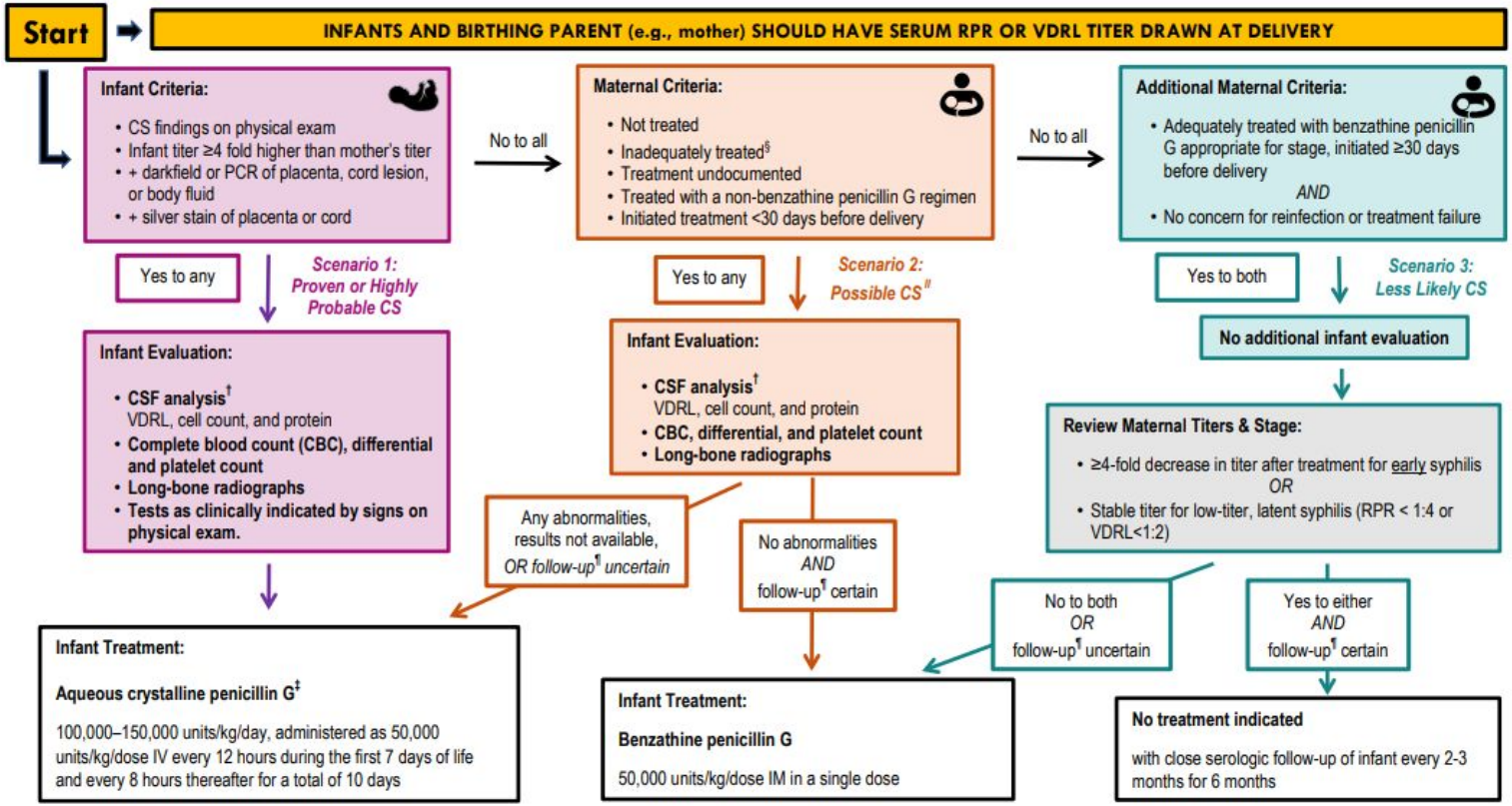
Poll 3

Does the baby need RPR testing at delivery?

A. Yes
B. No
C. It depends
D. I don't know

CONGENITAL SYPHILIS (CS)

Evaluation and treatment of infants (<30 days old) exposed to syphilis in utero*



Source: [California Prevention Training Center Congenital Syphilis Algorithm]

Case 1 - Poll 3

Does the baby need RPR testing at delivery?

A. Yes
B. No
C. It depends
D. I don't know

Depends on infant criteria, maternal criteria, timing of treatment, risk of reinfection, certainty of follow-up.

Case 2 - Syphilis with atypical presentation

HPI - 35 yo MSM with small sores on head of penis & one under foreskin

- S/sx x 6 days
- Swelling of foreskin; worsened yesterday
- Painful, some amount of pus noticed
- + enlarged lymph nodes
- Denies dysuria, testicular pain, fever or chills
- Interested in HIV PrEP
- Neurosyphilis screen negative

Symptoms present?
Change in or blurring of vision?
Recent eye pain or redness?
Spots or distortion in vision?
Double vision?
Light hurting eyes?
New weakness in arms, legs, or face?
New headache unlike usual headaches?
Stiff neck?
New/recent hearing loss?
New/recent ringing of ears?
Signs present?
Ocular infection
Photophobia
Nuchal rigidity
Facial palsy

CLINICAL EDUCATION INITIATIVE

Neurosyphilis Review of Systems

- Eye redness
- Vision changes
- Headaches
- Neck stiffness
- Sensitivity to light
- Slurred speech
- Hearing loss
- Dizziness
- Seizures
- Weakness
- Numbness
- Unsteadiness or difficulty walking
- Urinary urgency or frequency
- Incontinence
- Memory and thinking difficulty
- Hallucinations
- Changes in personality

Source: CEI course “Syphilis - The Essentials”

Neurosyphilis: Clinical Syndromes

Syndrome		Onset	Signs & symptoms
Acute meningitis meningomyelitis		Early syphilis	Headaches, neck stiffness, light sensitivity, nausea, vomiting, cranial neuropathies, seizures
Meningovascular syphilis		Months to years (around 7 years)	Sudden weakness, numbness, difficulty talking, slurred speech, or focal neurologic sign Acute or chronic meningitis (above) Memory loss
Ocular syphilis		Any, usually early	Blurred vision, vision loss, eye pain, eye redness, constricted visual fields
Otic syphilis		Any	Asymmetric hearing loss or deafness, tinnitus, vertigo
Parenchymatous	General paresis	10 – 20 years	Cognitive and psychiatric changes, dementia
	Tabes dorsalis	20 – 30 years	Numbness and unbalance, loss of position and vibration sense, paresthesias, incontinence

Source: CEI course “Syphilis - The Essentials”

Case 2 - History

- Partners: male only, 3 partners in last 3 months, 1 new
- Practices: Give/receive anal sex, give/receive oral sex
- Condom use: 25% – 75% of time
- Having pain with and after sex
- Previous STI testing 11 months ago
  - GC/CT urine and pharyngeal negative; rectal: + **CT,** neg GC
  - RPR non-reactive
  - HIV ab/ag test: negative
  - Hep C: negative

Case 2 - Exam

- VS: 130/80, pulse 103, temp 36.8 C (temporal), RR 16
- 2 ulcers at glans penis - deep erythematous centers, raised borders, small amount of crusting
- Multiple other superficial ulcers covering penis with small amount of white/yellow discharge
- 1 small 6mm linear laceration in perineum
- Penile erythema present; no phimosis, paraphimosis, tenderness, discharge or swelling
- Bilateral inguinal adenopathy present
- Neuro exam intact and equal bilaterally

Case 2 - Labs

- Rapid HIV ab/ag: neg/neg
- Rapid Hep C ab: non-reactive
- Stat RPR: reactive, titer 1:16
- Pending labs:
  - HSV 1&2 PCR
  - GC/CT urine, pharyngeal, rectal
  - TPPA
  - State public health lab RPR
  - PrEP labs - creatinine, HepBsAg, lab-based HIV ab/ag

What's on your differential diagnosis list? *Please enter in chat or come off mute.*

Case 2 - Diagnosis and management

- Primary syphilis: LA-Bicillin 2.4 mu IM x 1 today
  - Follow-up in one week for reevaluation
  - Partner treatment discussed
- Presumptive HSV: Valacyclovir 1000 mg orally twice a day x 10 days
- Referred to Linkage to Care team for PrEP start, will follow-up at 1 week visit

Case 2 - Lab results

- HSV 1&2 PCR: Not detected
- GC/CT urine, pharyngeal, rectal: Not detected
- TPPA: Reactive
- State public health lab RPR: Reactive, titer 1:8
- PrEP labs:
  - Creatinine: WNL
  - HepBsAg: Non-reactive
  - Lab-based HIV ab/ag: Non-reactive

Case 2 - Patient lab follow-up

- Notified pt that HSV PCR was negative – ok to stop valacyclovir
- RTC 1 week for evaluation

Case 2 - 1 week follow up

- Pt reports ongoing significant swelling of foreskin with associated pain
  - Initially localized to shaft, but has extended to tip of penis
  - Also has some yellow malodorous discharge
  - Not able to pull back foreskin (phimosis)
- Had stopped taking valacyclovir, but restarted due to ongoing sx
- Noted improvement in penile swelling and inguinal lymphadenopathy over last day
- Denies fever, chills, rash, dysuria, difficulties in urination

Case 2 - Exam and labs at 1 week visit

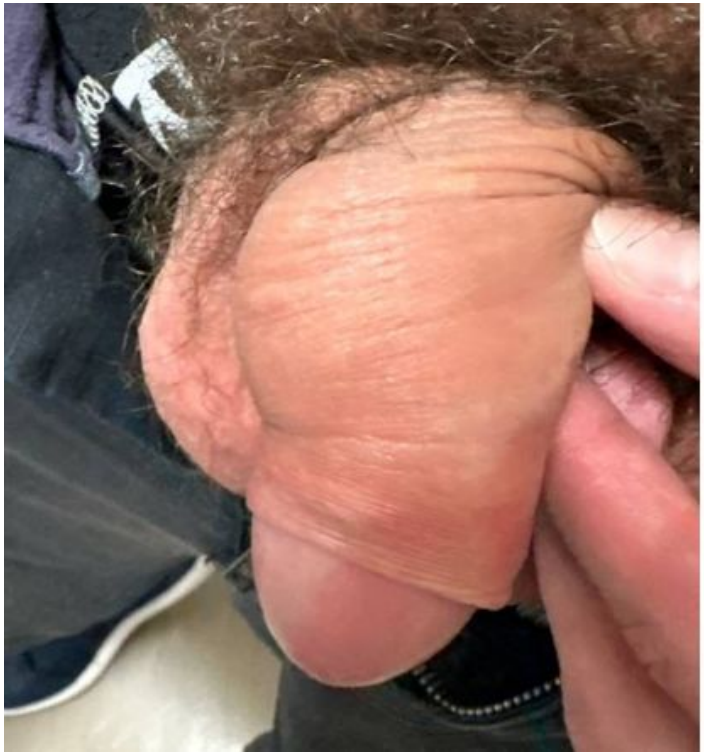
- VS: 119/81, pulse 97, temp 36.7 C; RR 16
- Unable to evaluate lesions under foreskin due to phimosis
- No other genital lesions but significant penile edema, most notable at base
- Improved bilateral inguinal adenopathy
- Gram stain (swabbed d/c, not urethra directly due to phimosis)
  - Negative for intracellular Gram negative diplococci
  - Positive for extracellular Gram negative diplococci
  - >10 polymorphonuclear leukocytes/OIF
- Urine GC/CT pending

Case 2 - Diagnosis and management at 1 week visit

- Diagnoses: Cellulitis of penis and NGU
- Treatment: Ceftriaxone 500 mg IM X 1 **plus** doxycycline 100 mg orally twice daily x 7 days
- Follow-up at clinic in 1 week
- Discussed DoxyPEP with patient, RX provided
- Mpox vaccine discussed – pt prefers to get at next visit

Case 2 - 2 week follow-up

- Reports significant improvement
- On exam:
  - Persistent penile swelling to the right shaft
  - Foreskin retracts without difficulty
  - No significant erythema or discharge



Case 2 - Next steps

- Patient to continue to monitor
- No additional antimicrobial therapy at this time
- Strict precautions – return if new or worsening symptoms
- Pt wants to start oral HIV PrEP
  - Rapid HIV ab/ag repeated today – nonreactive
  - Standard HIV ab/ag sent – pending
  - Oral PrEP RX sent to pharmacy for pt to pick up
  - Repeat HIV test in ~1 month

Penicillin G benzathine injectable suspension voluntary recall

- Preserve penicillin G benzathine for pregnant patients
- Choose doxycycline for men and non-pregnant women
  - Doxycycline 100mg orally twice daily x 2 weeks (early syphilis)
  - Doxycycline 100mg orally twice daily x 4 weeks (late latent syphilis or latent syphilis of unknown duration)
- Accurately stage syphilis to ensure appropriate use of antimicrobials
- Notify DSTDP and FDA at stdshortages@cdc.gov of any shortage to help CDC monitor the situation

2025 NYS FPP Provider Meeting

- September 16 - 17 in Albany, NY
- Learn more on our website: https://nysfptraining.org/2025-provider-meeting/
- Reach out to Allison directly if you have questions about the meeting
- We hope to see you there!

Thank you!

Letchworth State Park, NY

- Please complete the evaluation (required for CNE)
- Slides will be posted on nysfptraining.org