

Managing Syphilis Amidst Penicillin Shortage

Learning Community, September 26th

Welcome! Please introduce yourself in the chat 😊

Welcome and happy fall!

- **Please introduce yourself in the chat!**
- We're happy to have attendees here from the following clinics:
 - Bell Flower Clinic, Indianapolis, Indiana
 - Litoral Clinic, Migrant Health Center, Mayagüez, Puerto Rico
 - Mary Eliza Mahoney Health Center, Newark, New Jersey
 - Morrisania Clinic, Health & Hospitals, Bronx, New York
 - NYC Department of Health, NYC, New York
 - Take Care Down There Clinic, Columbus Public Health, Columbus, Ohio

Group Agreements

- Keep cameras on, especially when talking
- All participants contribute to the discussion
- We're here to learn together
- Confidentiality: any patient information shared remains private

Clinic Prompt

- ❖ Has your clinic explored its current penicillin stock?
- ❖ How your clinic managing syphilis amidst this shortage? What changes, if any, have been made?

Managing Syphilis: Providing Clinical Care in the Era of Bicillin-LA Shortages

Jason Zucker, MD, MS

Adult and Pediatric Infectious Diseases

Assistant Professor of Medicine, Columbia University Irving Medical Center

Assistant Medical Director, NYC STD Prevention and Training Center

JZ2700@cumc.columbia.edu

Twitter: @Jason10033

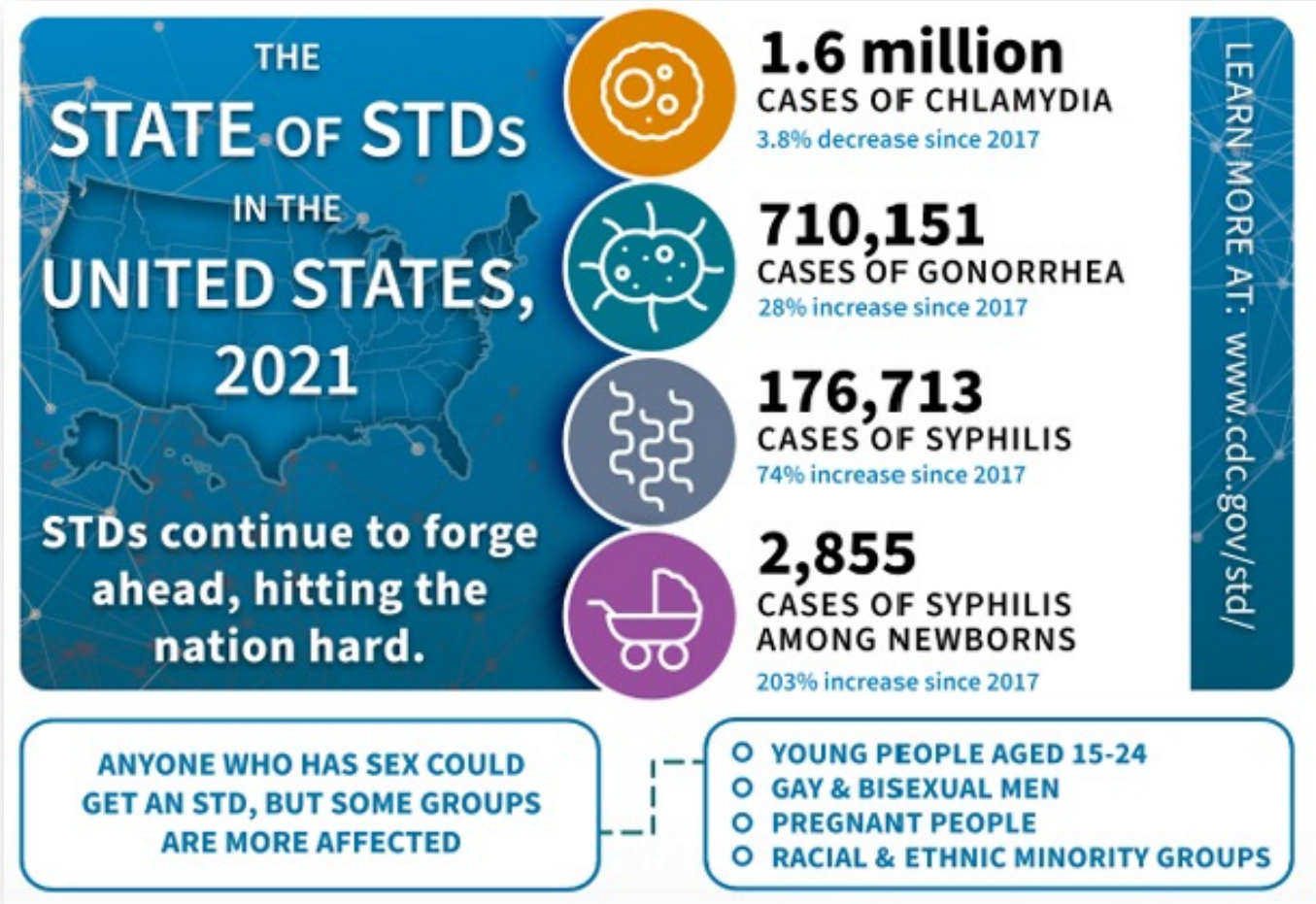
Disclosures

- None

Objectives

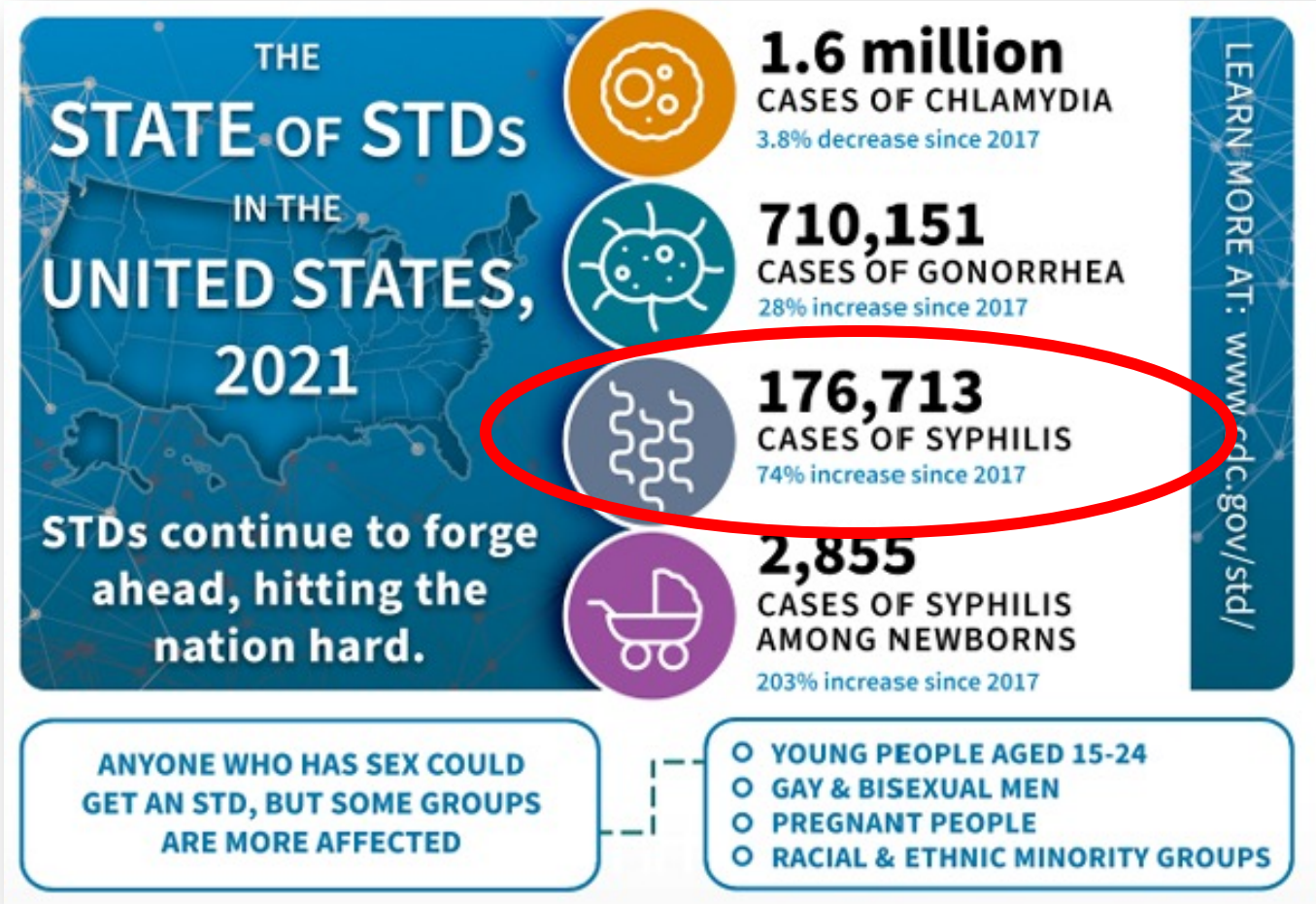
1. Recognize the importance of screening for syphilis
2. Accurately classify syphilis by stage
3. Summarize recommended and not recommended treatment options
4. Develop plans for management during the Bicillin-LA shortage for your clinic
5. Understand appropriate syphilis follow-up

Sexually Transmitted Diseases



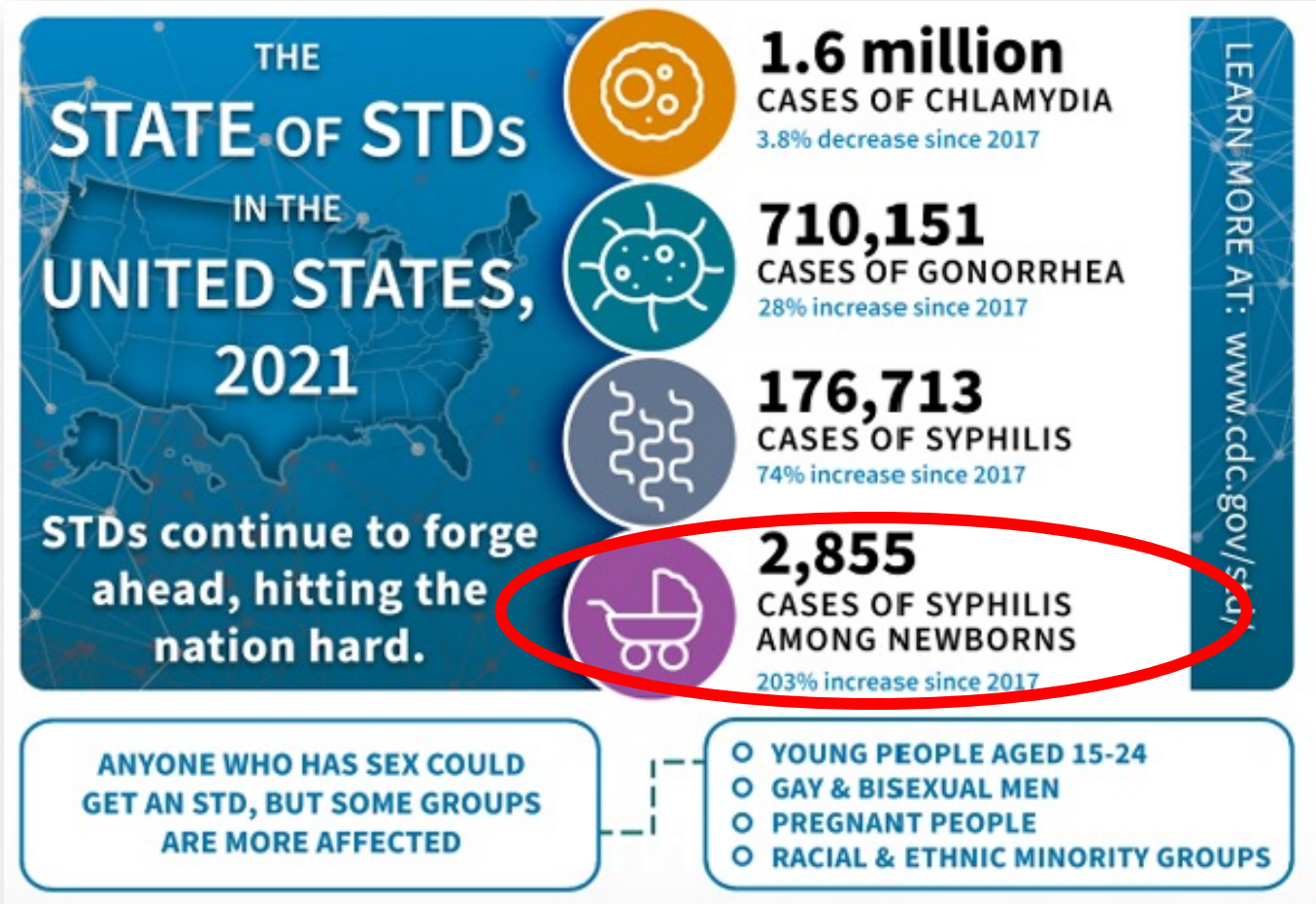
- Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2019*. Atlanta: U.S. Department of Health and Human Services; 2021.

Sexually Transmitted Diseases



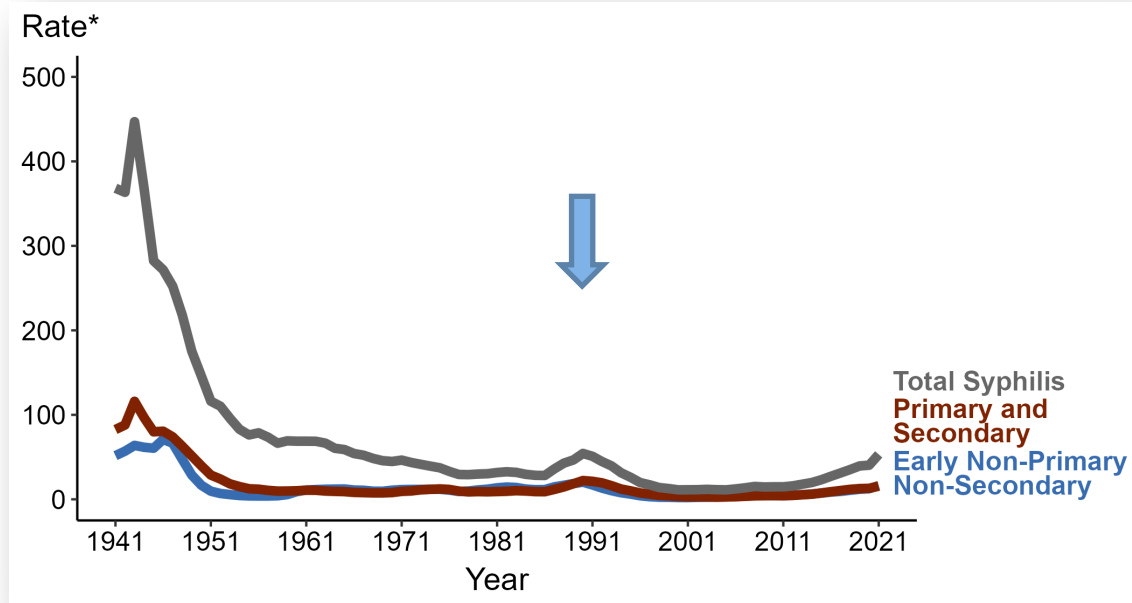
Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2019*. Atlanta: U.S. Department of Health and Human Services; 2021.

Sexually Transmitted Diseases



Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2019*. Atlanta: U.S. Department of Health and Human Services; 2021.

Syphilis is Rising

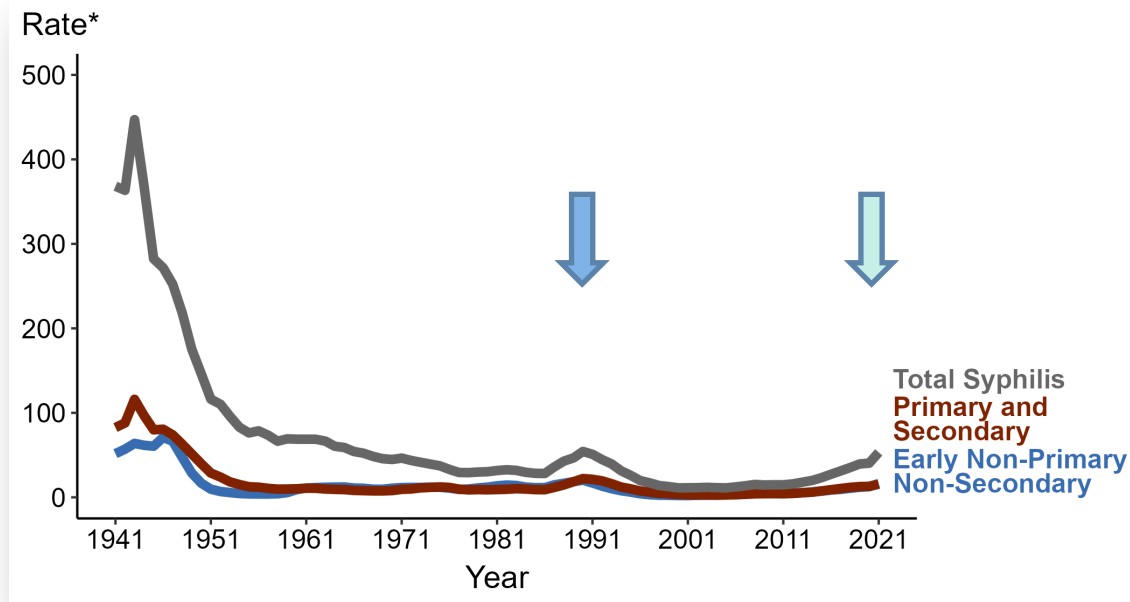


The National Plan to Eliminate Syphilis from the United States

October 1999
Division of STD Prevention
National Center for HIV, STD, and TB Prevention
Centers for Disease Control and Prevention

- <https://www.cdc.gov/stopsyphilis/exec.htm>
- <https://www.cdc.gov/std/statistics/2021/default.htm>

Syphilis is Rising

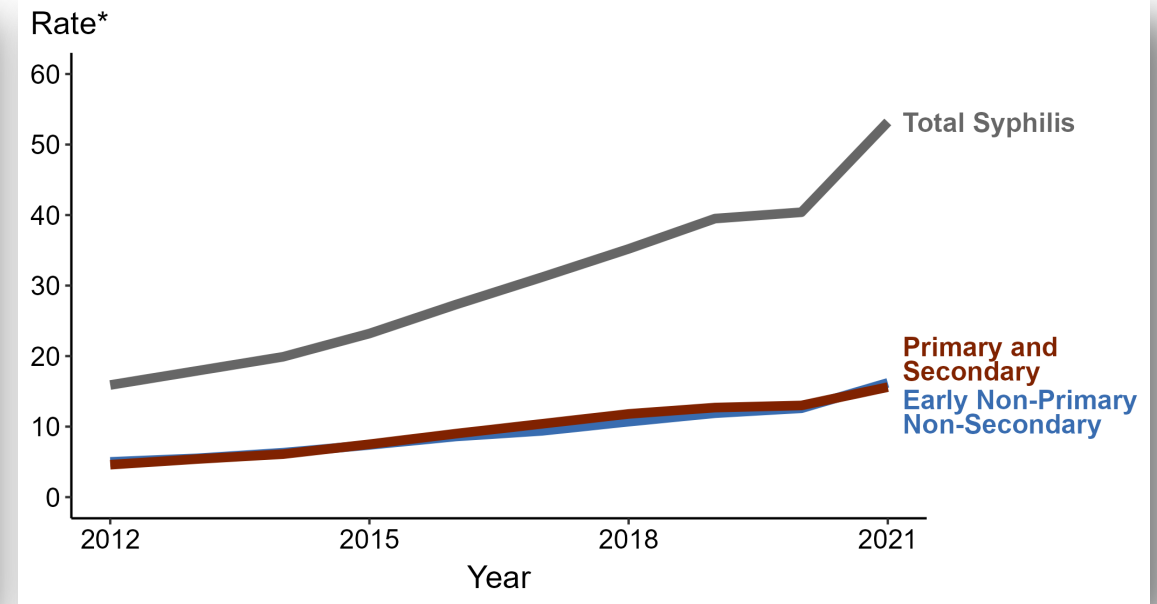
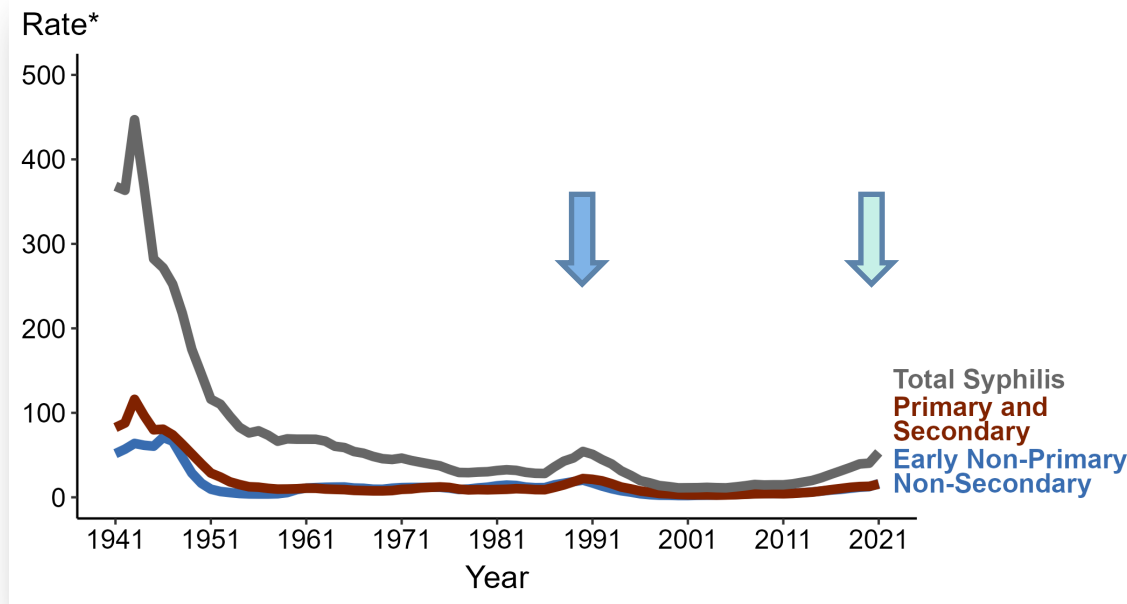


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Syphilis is Rising



• <https://www.cdc.gov/std/statistics/2021/default.htm>

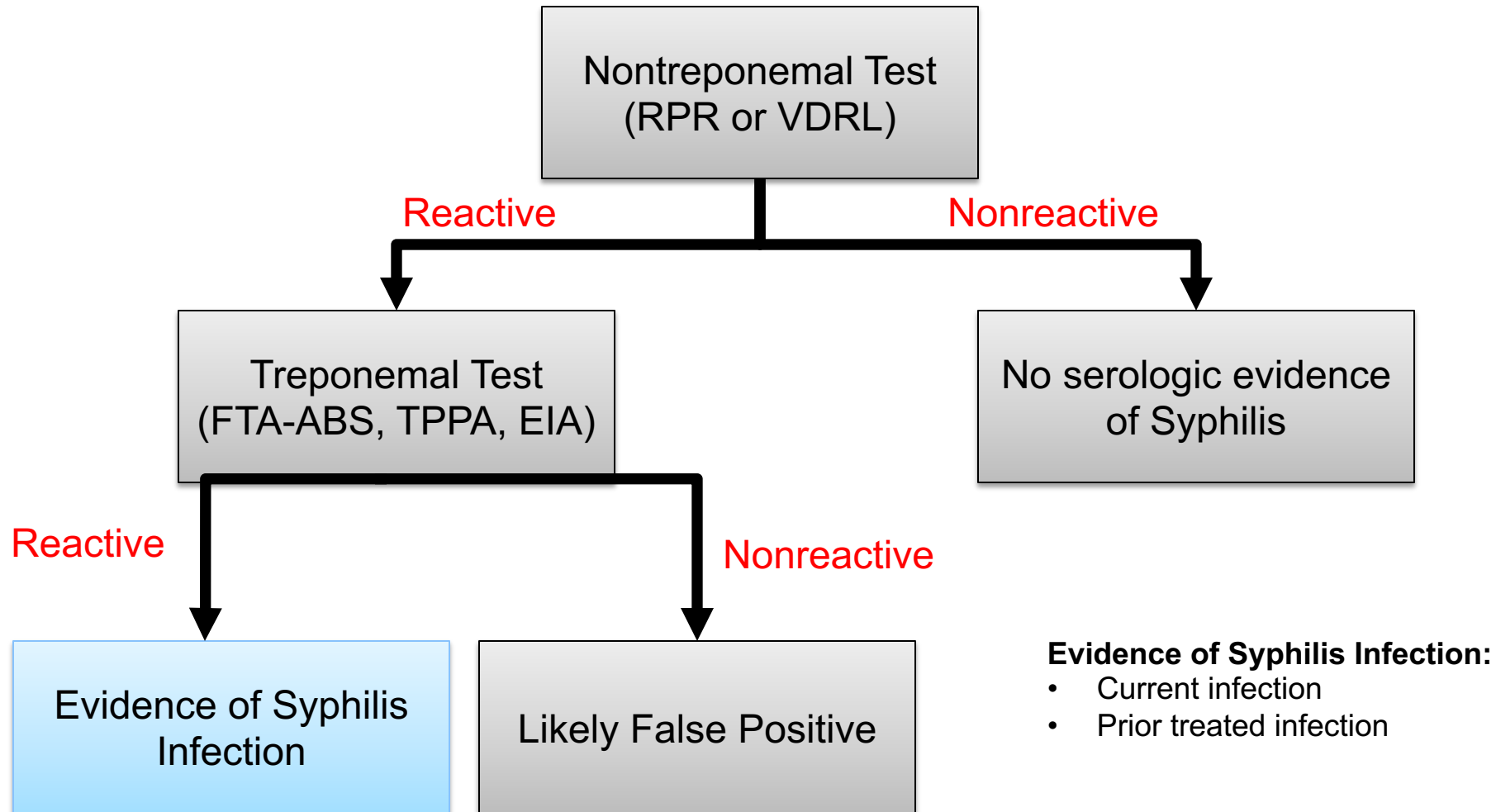
Screening for Syphilis

Population	Recommendations
Men who have sex with men	At least annually if sexually active, and every 3-6 months if at increased risk
Transgender and Gender Diverse People	Consider screening at least annually based on reported sexual risk behaviors and current use of hormone therapy
Patients taking PrEP	At initiation and every 3-6 months if at increased risk
Persons living with HIV	At diagnosis and at least annually if sexually active, and every 3-6 months if at increased risk
Non-pregnant Women (Cis-gender) and Non-MSM Men	No national recommendation for routine screening Screen sexually active adults at increased risk for syphilis infection
Pregnant Women	At first prenatal visit and at least one additional prenatal visit plus third trimester and at delivery if high risk or in endemic area

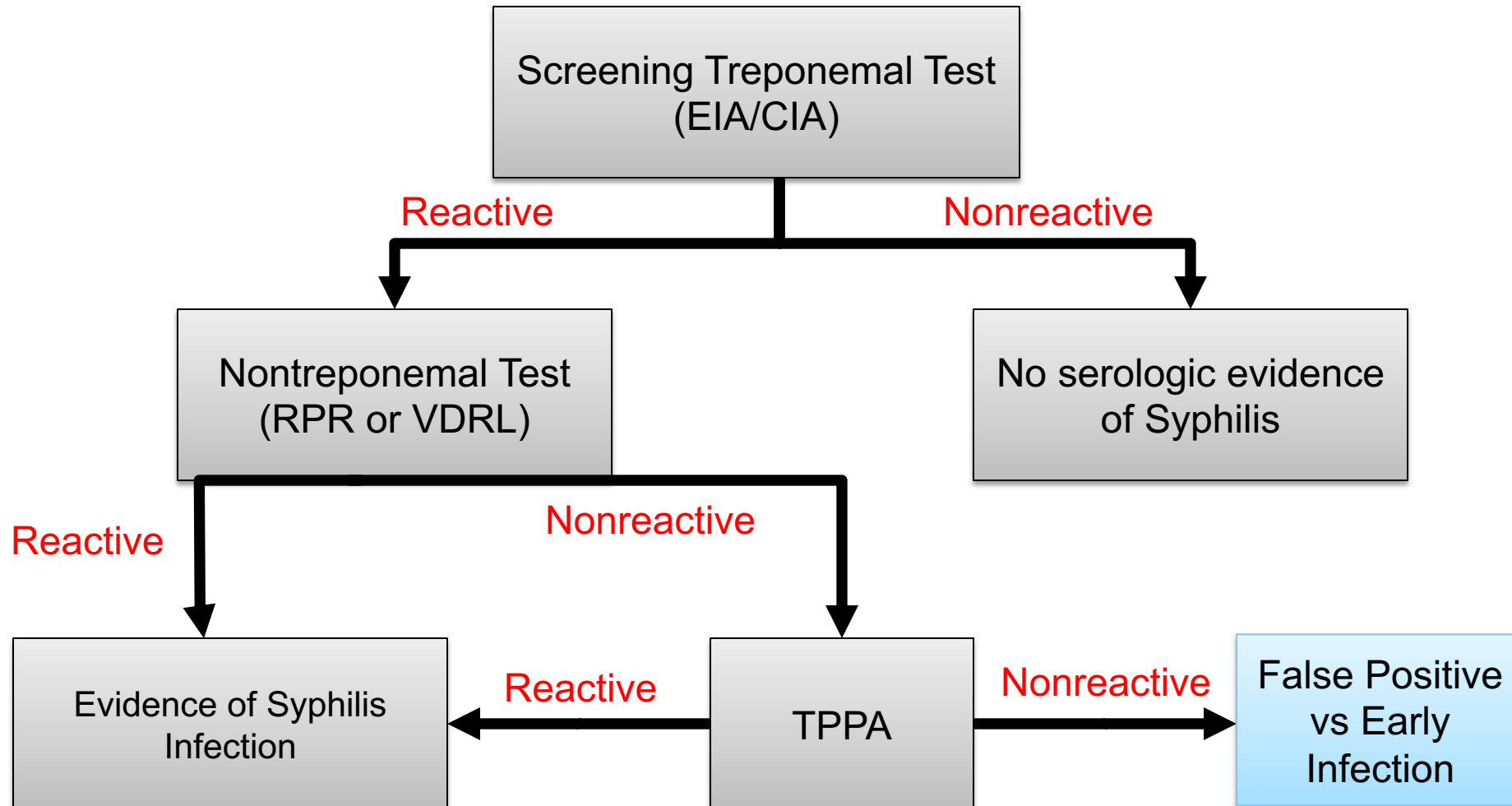
Screen If You're Screening For Sexually Transmitted Infections

• <https://www.cdc.gov/std/treatment-guidelines/screening-recommendations.htm>

Syphilis – Traditional Algorithm



Syphilis – Reverse Algorithm



Syphilis – Interpreting Titers

1:2048

1: 1024

1:512

1: 256

1:128

1: 64

1:32

1: 16

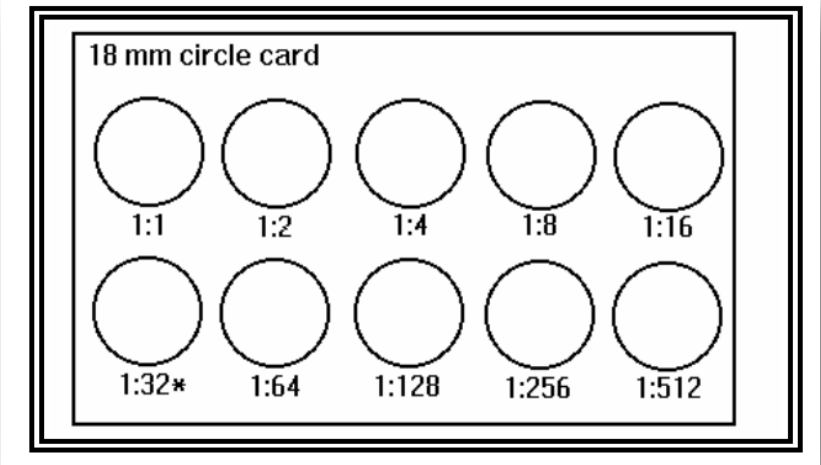
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1: 4

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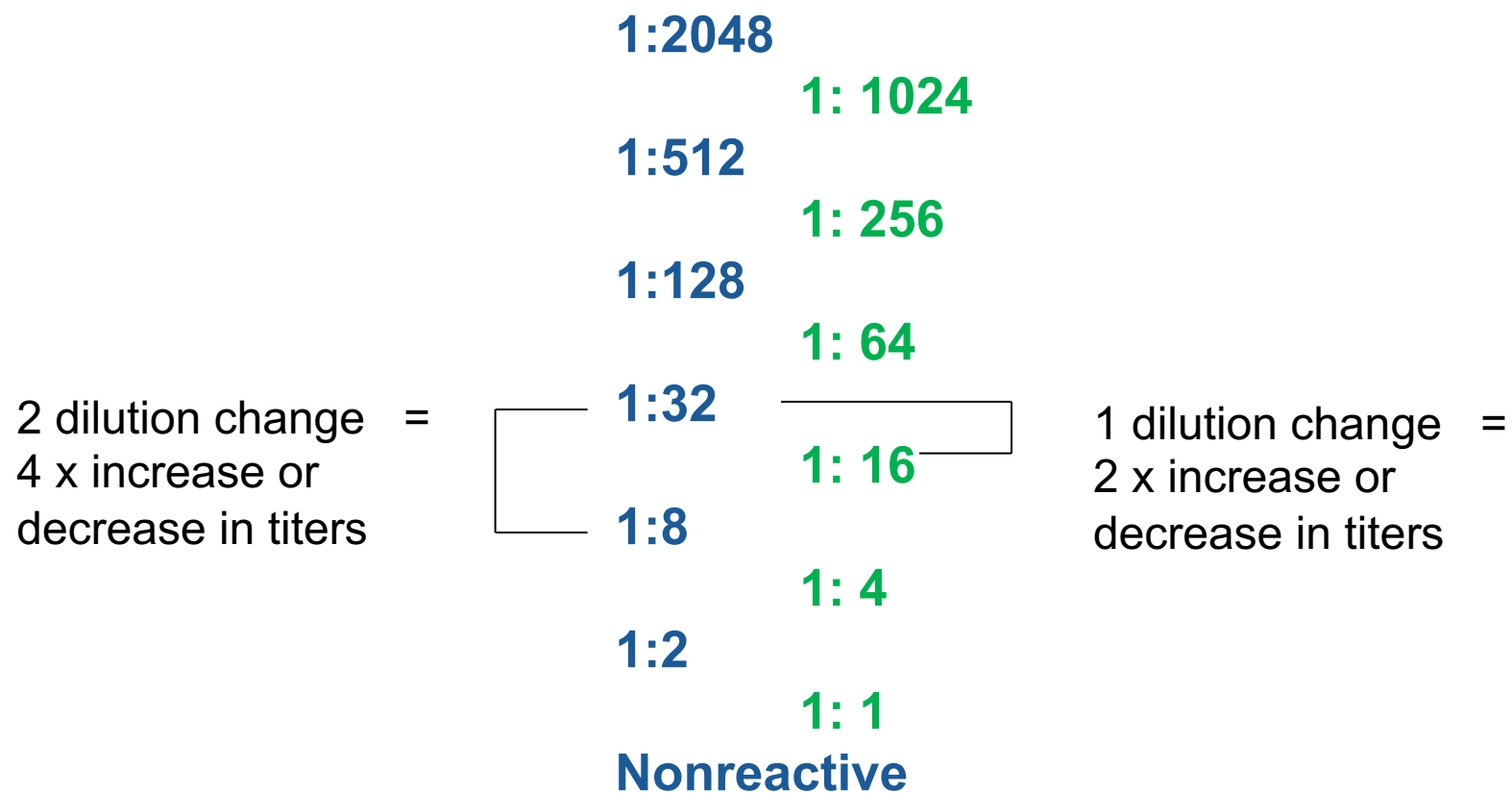
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Nonreactive

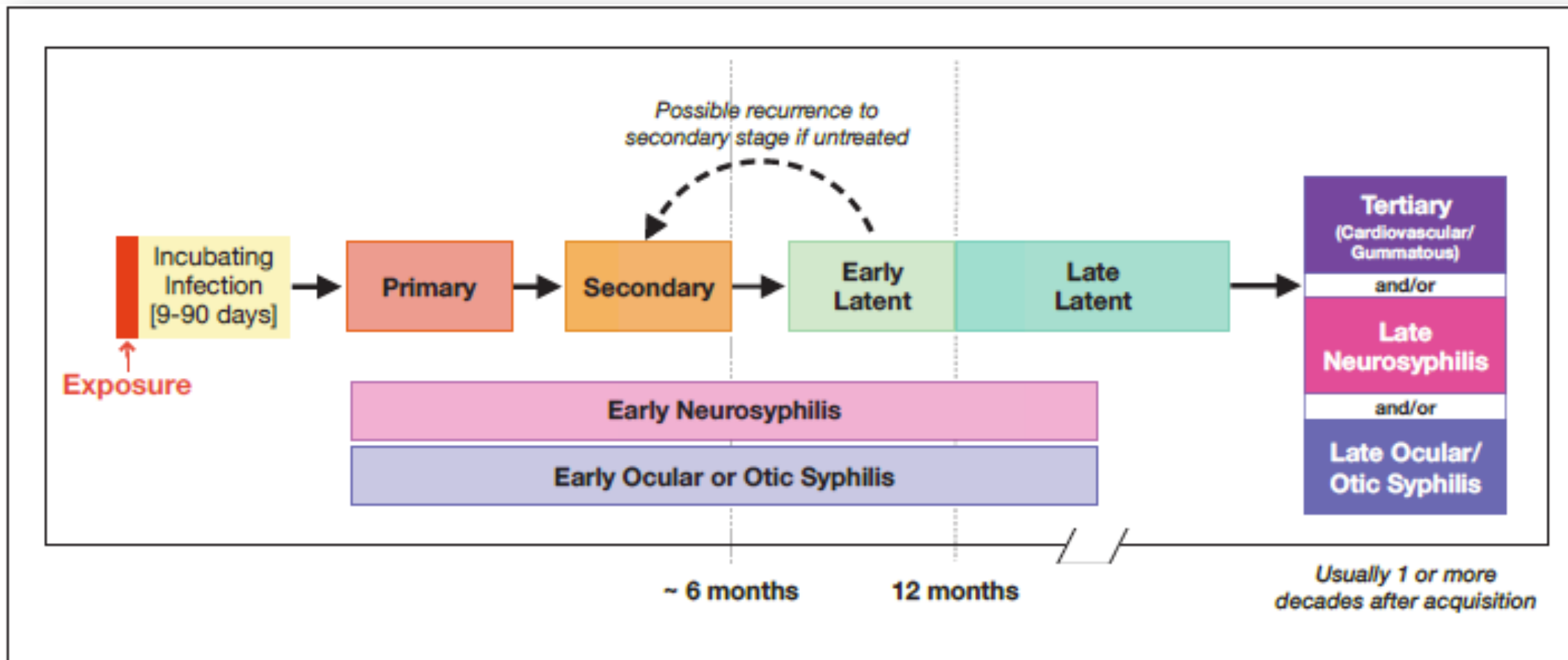


• https://www.nycptc.org/x/Syphilis_Monograph_2019_NYC_PTC_NYC_DOHMH.pdf

Syphilis – Interpreting Titers

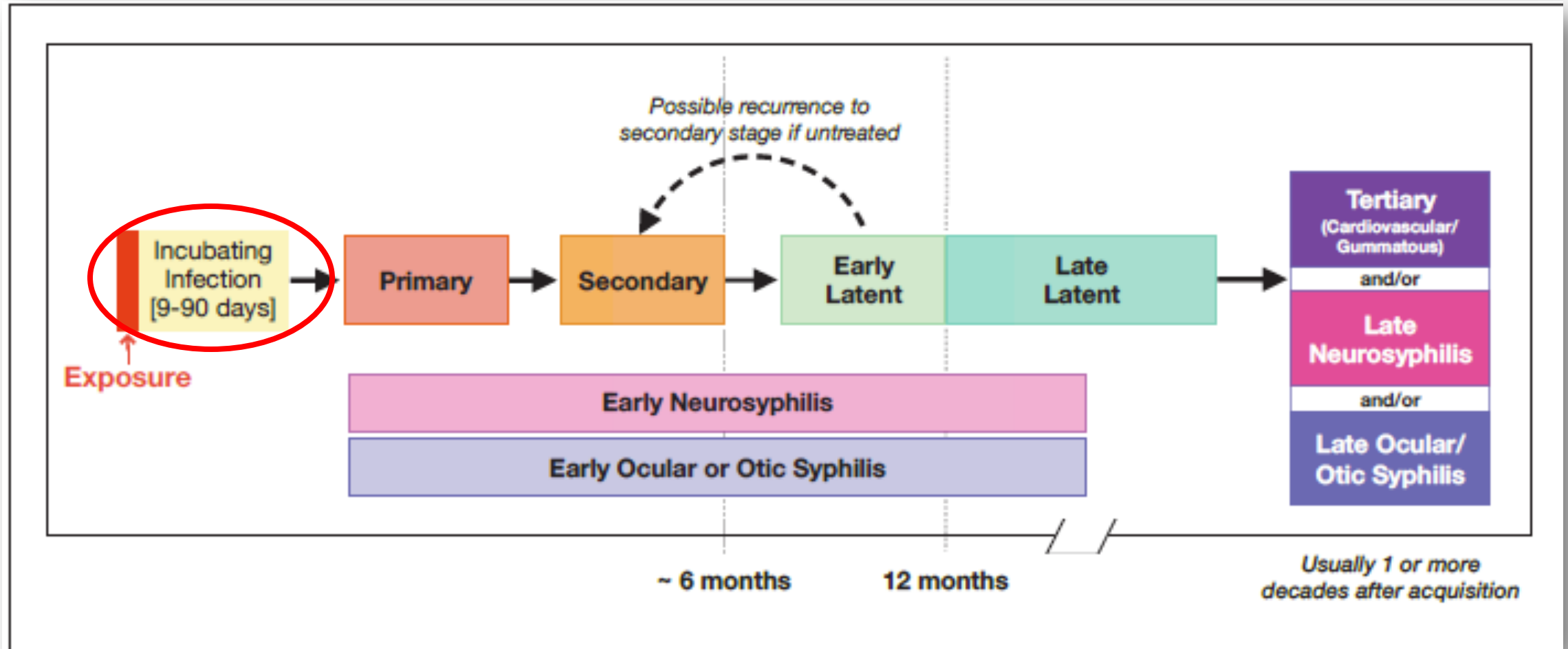


Syphilis Stages



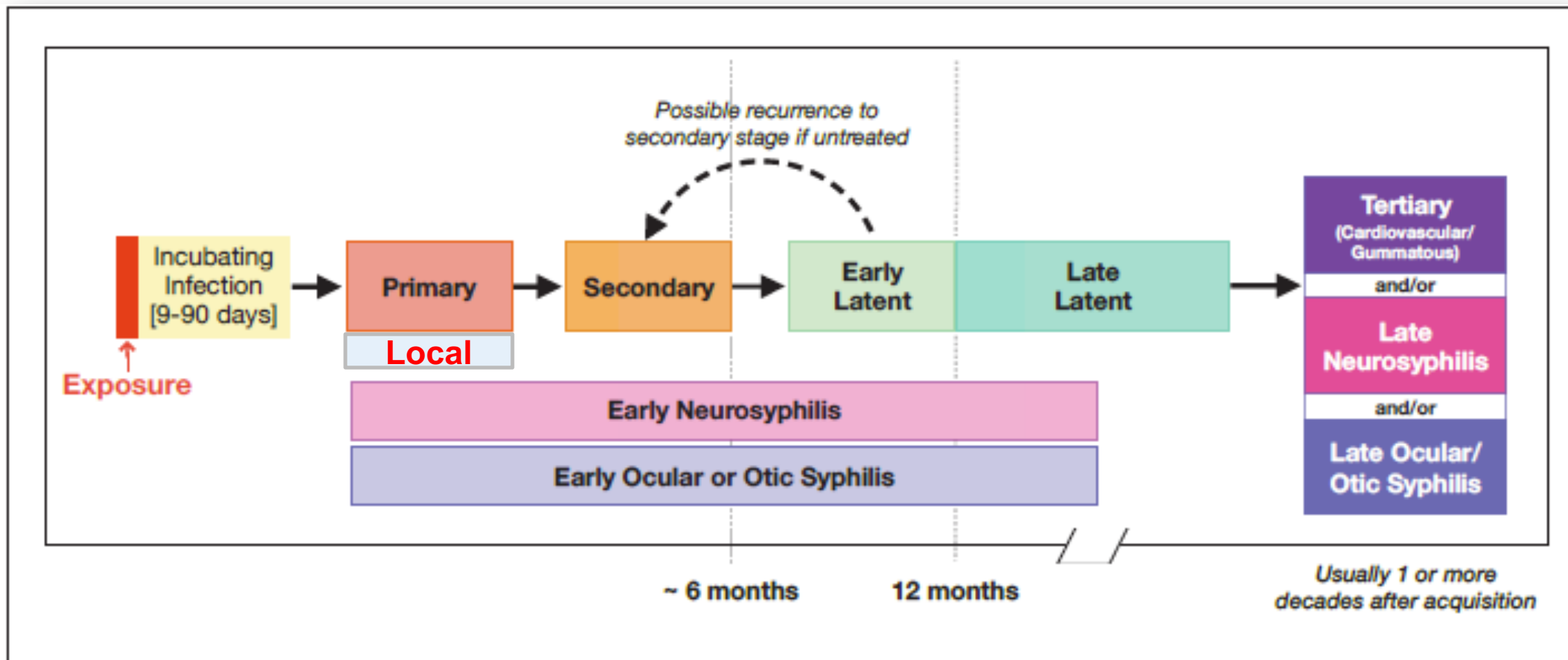
• New York City Department of Health and Mental Hygiene, and the New York City STD Prevention Training Center. The Diagnosis and Management of Syphilis: An Update and Review. March 2019. A PDF version is available at www.nycptc.org.

Syphilis Stages



• New York City Department of Health and Mental Hygiene, and the New York City STD Prevention Training Center. The Diagnosis and Management of Syphilis: An Update and Review. March 2019. A PDF version is available at www.nycptc.org.

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Syphilis – Primary

- Primary Syphilis
 - Local
 - One or more ulcers (chancres) at inoculation site
 - **Painless**
 - **May go unnoticed**
 - **Often associated with regional or bilateral lymphadenopathy**
 - Occur 10 – 90 days after infection
 - Highly infectious
 - Resolves in 1-6 weeks



- <https://www.cdc.gov/std/syphilis/images.htm>
- <https://www.cdc.gov/std/syphilis/stdfact-syphilis.htm>

Syphilis

- Classic Presentation
 - Single painless ulcer or chancre at the site of infection
- Atypical presentation
 - Multiple, atypical, or painful lesions at the site of infection

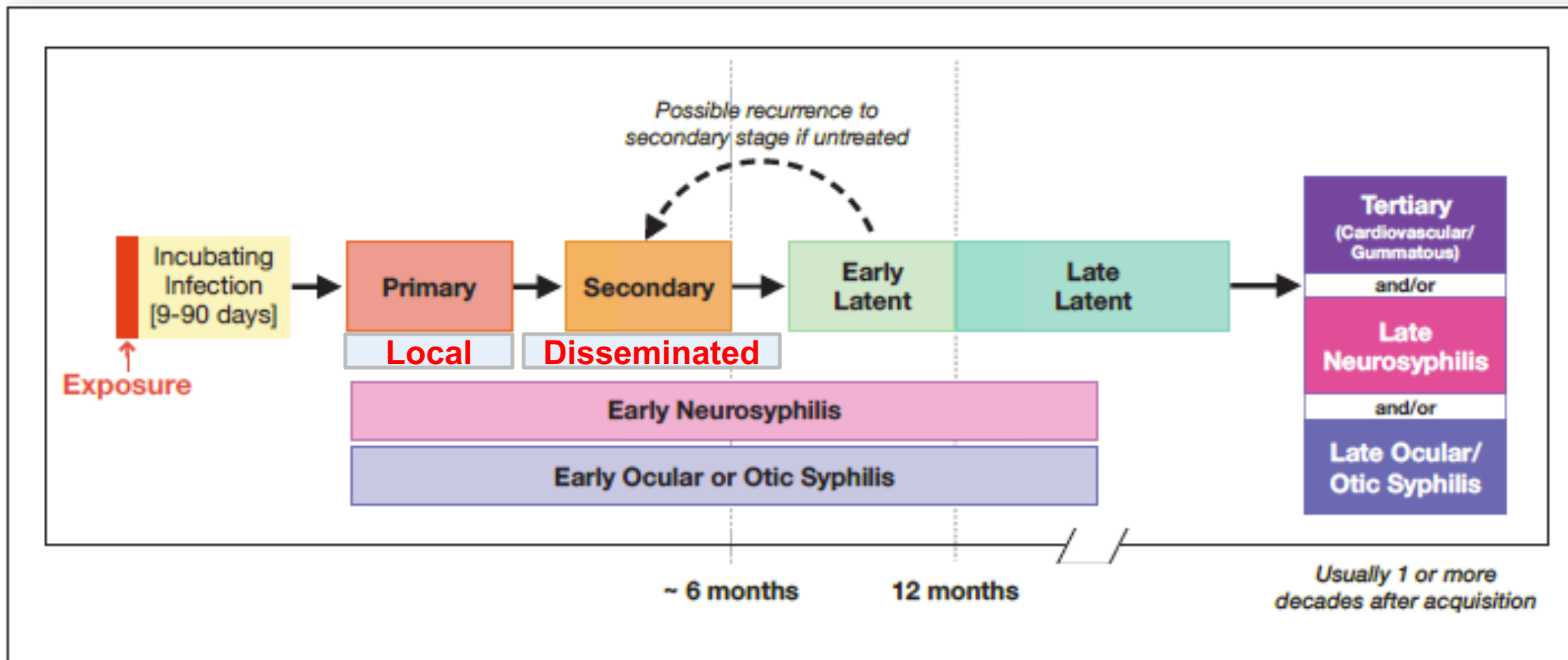
ORIGINAL ARTICLE

Painful and multiple anogenital lesions are common in men with *Treponema pallidum* PCR-positive primary syphilis without herpes simplex virus coinfection: a cross-sectional clinic-based study

Janet M Towns,¹ David E Leslie,² Ian Denham,¹ Francesca Azzato,²
Christopher K Fairley,^{1,3} Marcus Chen^{1,3}

• Towns JM, Leslie DE, Denham I, Azzato F, Fairley CK, Chen M. Painful and multiple anogenital lesions are common in men with *Treponema pallidum* PCR-positive primary syphilis without herpes simplex virus coinfection: a cross-sectional clinic-based study. *Sex Transm Infect.* 2016 Mar;92(2):110-5. doi: 10.1136/sextrans-2015-052219. Epub 2015 Sep 16. PMID: 26378262.

Syphilis Stages



- New York City Department of Health and Mental Hygiene, and the New York City STD Prevention Training Center. The Diagnosis and Management of Syphilis: An Update and Review. March 2019. A PDF version is available at www.nycptc.org.

Syphilis - Secondary

- Secondary Syphilis
 - **Disseminated**
 - **Systemic symptoms**
 - Dermatologic manifestations
 - Painless generalized adenopathy
 - Low-grade fever
 - Fatigue
 - Usually, 4-8 weeks after infection
 - Resolves in 6 weeks
 - Highly infectious

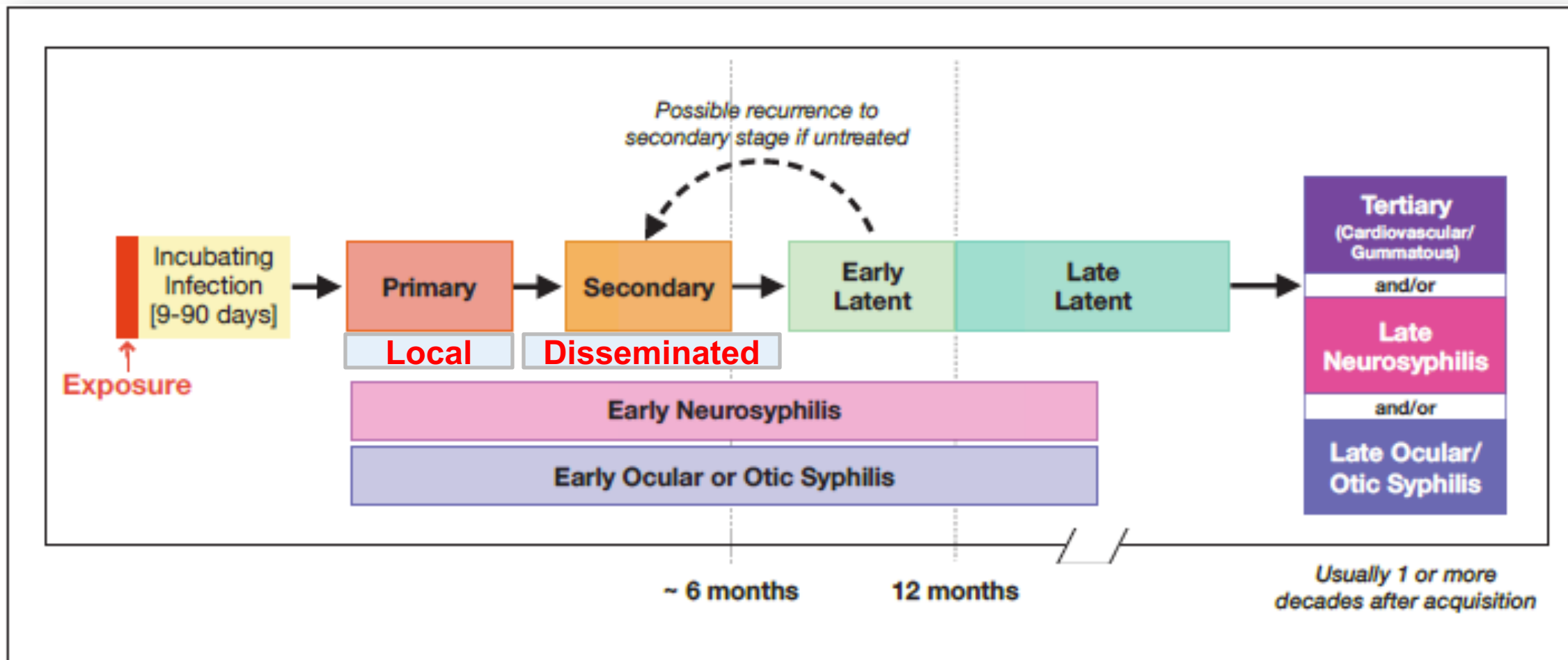


Syphilis - Secondary

Organ System	Clinical Findings
Skin and Mucous Membranes	<ul style="list-style-type: none"> Rash or other skin lesions with varied appearance frequently on palms/soles <ul style="list-style-type: none"> Macular/papular/maculopapular Annular Psoriasiform Necrotic (rare) Condyloma lata: moist, gray-white, wart-like growths appearing in warm moist areas such as the perineum and the anus Patchy alopecia, often with a moth-eaten appearance Mucous patches: flat, silver-gray discrete macules, plaques or erosions involving the mouth, tongue, or ano-genital mucosa Split- or fissured-papules at the angles of the mouth and nasolabial folds (rare)
Systemic	<ul style="list-style-type: none"> Lymphadenopathy Systemic symptoms including: malaise, fever, and other nonspecific constitutional symptoms
Gastrointestinal	<ul style="list-style-type: none"> Gastric syphilis Hepatitis (usually subclinical)
Renal	<ul style="list-style-type: none"> Glomerulonephritis Nephrotic syndrome
Musculoskeletal	<ul style="list-style-type: none"> Arthritis Periostitis
Neurologic	<ul style="list-style-type: none"> Signs/symptoms of meningitis (eg, subtle headache) Cranial nerve (CN) dysfunction (especially 6th, 7th, 8th CN) Meningovascular syphilis with stuttering stroke symptoms
Ocular/Otic	<ul style="list-style-type: none"> Symptoms of anterior, posterior, or panuveitis; other manifestations include episcleritis, vitritis, retinitis, papillitis, interstitial keratitis, acute retinal necrosis, and retinal detachment Symptoms of otologic syphilis (eg, hearing loss, tinnitus, vertigo)

• New York City Department of Health and Mental Hygiene, and the New York City STD Prevention Training Center. The Diagnosis and Management of Syphilis: An Update and Review. March 2019. A PDF version is available at www.nycptc.org.

Syphilis Stages



• New York City Department of Health and Mental Hygiene, and the New York City STD Prevention Training Center. The Diagnosis and Management of Syphilis: An Update and Review. March 2019. A PDF version is available at www.nycptc.org.

Syphilis – Latent

Latent Phase	Definition
Early Latent	Duration of infection \leq 1 year
Late Latent	Duration of infection $>$ 1 year
Syphilis of Unknown Duration	Unknown duration of infection

*****Latent syphilis requires no exam findings of primary, secondary or tertiary syphilis**

Recommended Options for Treating Syphilis

Stage	Treatment	Alternative
Incubation	Benzathine penicillin G 2.4 million units intramuscular injection once	Doxycycline 100mg twice daily for 14 days
Primary		
Secondary		
Early latent		
Late latent	Benzathine penicillin G 2.4 million units intramuscular injection 3 times at one week intervals	Doxycycline 100mg twice daily for 28 days
Syphilis of unknown duration		
Tertiary (non-neuro)		
Neurosyphilis, Ocular, or Otic Syphilis	Aqueous crystalline penicillin G 18–24 million units per day, administered as 3–4 million units intravenously every 4 hours, or by continuous infusion, for 10–14 days	Procaine penicillin G 2.4 million units IM once daily <i>PLUS</i> Probenecid 500mg 4 times daily for 10–14 days

• Workowski KA, Bolan GA; Centers for Disease Control and Prevention. Sexually transmitted diseases treatment guidelines, 2015. MMWR Recomm Rep. 2015 Jun 5;64(RR-03):1-137. Erratum in: MMWR Recomm Rep. 2015 Aug 28;64(33):924. PMID: 26042815; PMCID: PMC5885289.

Penicillin Shortage

Penicillin G Benzathine Injectable Suspension
 Status: Currently in Shortage
 Date first posted: 04/06/2023

»Therapeutic Categories: Anti-Infective

Expand all

Pfizer Pharmaceuticals (Revised 07/10/2023)

Company Contact Information:
 844-646-4398

Presentation	Availability and Estimated Shortage Duration	Related Information	Shortage Reason (per FDASIA)
Bicillin L-A Pediatric 600,000 Units/mL Prefilled Syringe (NDC 60793-700-10)	Next delivery: TBD; Estimated recovery 2024	Dear Patient Letter: Availability Update for Bicillin® L-A (penicillin G benzathine injectable suspension) and Bicillin® C-R (penicillin G benzathine and penicillin G procaine injectable suspension) Prefilled Syringes (HYPERLINK)	Demand Increase for the drug
Bicillin L-A 1.2 million Units/2 mL (600,000 units/mL) Prefilled Syringe (NDC 60793-701-10)	Limited Supply. Next delivery: July 2023; Estimated recovery: Q2 2024	On allocation. Check Wholesaler for Availability Dear Patient Letter: Availability Update for Bicillin® L-A (penicillin G benzathine injectable suspension) and Bicillin® C-R (penicillin G benzathine and penicillin G procaine injectable suspension) Prefilled Syringes (HYPERLINK)	Demand Increase for the drug
Bicillin L-A 2.4 million Units/4 mL (600,000 units/mL) Prefilled Syringe (NDC 60793-702-10)	Limited Supply. Next delivery: July 2023; Estimated recovery: Q2 2024	On allocation. Check Wholesaler for Availability Dear Patient Letter: Availability Update for Bicillin® L-A (penicillin G benzathine injectable suspension) and Bicillin® C-R (penicillin G benzathine and penicillin G procaine injectable suspension) Prefilled Syringes (HYPERLINK)	Demand Increase for the drug

Penicillin G Procaine Injectable Suspension
 Status: Discontinuation

»Therapeutic Categories: Anti-Infective

Expand all

Pfizer, Inc. (New 06/13/2023)

Company Contact Information:
 844-646-4398

Presentation	Posting Date	Related Information
600,000 units/1 mL Prefilled Syringe (NDC 60793-130-10)	06/13/2023	Discontinuation of the manufacture of the drug
1.2 MU/2 mL Prefilled Syringe (NDC 60793-131-10)	06/13/2023	Discontinuation of the manufacture of the drug

https://www.accessdata.fda.gov/scripts/drugshortages/dsp_ActiveIngredientDetails.cfm?AI=Penicillin%20G%20Procaine%20Injectable%20Suspension&st=d
https://www.accessdata.fda.gov/scripts/drugshortages/dsp_ActiveIngredientDetails.cfm?AI=Penicillin%20G%20Benzathine%20Injectable%20Suspension&st=c

Recommended Options for Treating Syphilis

Stage	Treatment	Alternative
Incubation	Benzathine penicillin G 2.4 million units intramuscular injection once	Doxycycline 100mg twice daily for 14 days
Primary		
Secondary		
Early latent		
Late latent	Benzathine penicillin G 2.4 million units intramuscular injection 3 times at one week intervals	Doxycycline 100mg twice daily for 28 days
Syphilis of unknown duration		
Tertiary (non-neuro)		
Neurosyphilis, Ocular, or Otic Syphilis	Aqueous crystalline penicillin G 18–24 million units per day, administered as 3–4 million units intravenously every 4 hours, or by continuous infusion, for 10–14 days	

• Workowski KA, Bolan GA; Centers for Disease Control and Prevention. Sexually transmitted diseases treatment guidelines, 2015. MMWR Recomm Rep. 2015 Jun 5;64(RR-03):1-137. Erratum in: MMWR Recomm Rep. 2015 Aug 28;64(33):924. PMID: 26042815; PMCID: PMC5885289.

Managing Syphilis During Shortages



**MONITOR SUPPLY
AND FORECAST NEED**



**APPROPRIATELY
STAGE SYPHILIS**



PRIORITIZATION

Prioritization

Prioritization

- Pregnant persons
- Babies with congenital syphilis

Strategies

- Antimicrobial stewardship
- Alternative regimens
 - Doxycycline

Prioritization Strategies

NewYork-Presbyterian
The University Hospital of Columbia and Cornell
Formulary & Therapeutics Committee

DRUG ALERT

Critical and time sensitive drug information disseminated by the Department of Pharmacy.

Vol. 43, No.6 June 2023

Critical Drug Shortage: Penicillin G Benzathine (Bicillin® LA) Injection

- There is a nationwide shortage of all strengths of penicillin G benzathine (Bicillin® LA) injection due to increased demand. NewYork-Presbyterian Hospital has a limited supply, and the anticipated duration of the shortage is unclear.
- Alternatives to penicillin G benzathine **MUST** be used at this time. Current, limited supplies should **ONLY** be used in patients unable to receive an alternative regimen and must be approved by an Infectious Diseases approval source.
- Effective immediately, penicillin G benzathine (Bicillin® LA) will require ID approval prior to use.**
- To address this shortage, the Department of Pharmacy recommends the following for treatment of patients exposed to or infected with syphilis:

	Pregnancy	All Others
Syphilis Exposure	Benzathine penicillin G 2.4 million units IM x 1	Doxycycline 100mg twice daily for 14 days
Primary Syphilis	Benzathine penicillin G 2.4 million units IM x 1	Benzathine penicillin G 2.4 million units IM x 1
Secondary Syphilis		
Early latent syphilis		
Late latent syphilis	Benzathine penicillin G 2.4 million units IM x 3	Doxycycline 100mg twice daily for 28 days
Tertiary syphilis (without neurological involvement)	Benzathine penicillin G 2.4 million units IM x 3	Benzathine penicillin G 2.4 million units IM x 3
Neuro, Ocular, Otic syphilis	Aqueous crystalline penicillin G 18-24 million units per day, IV 10-14 days	Aqueous crystalline penicillin G 18-24 million units per day, IV 10-14 days
Congenital syphilis	Please reach out to Pediatric Infectious Diseases	

- For all other indications, alternatives to penicillin G benzathine **MUST** be utilized at this time. The following therapies may be utilized as alternatives to penicillin G benzathine:

Potential Indication for Penicillin G benzathine	Alternative Antibiotic Therapy		Comments
	Adults	Children / adolescents	
Treatment of Group A Streptococcal Pharyngitis	Penicillin VK 500 mg PO q8h x 10 days	Children <12 years of age Penicillin VK 25-50 mg/kg/day (max 3 grams) PO divided q6-8h OR Ceftriaxone 50-75 mg/kg IM/IV q24h Children ≥12 years of age Penicillin VK 125-250 mg PO q6-8h OR Ceftriaxone 50-75 mg/kg IM/IV q24h (all x 10 days)	In children, amoxicillin (50 mg/kg/day divided q12-24h) is another alternative
Prophylaxis of rheumatic fever	Penicillin VK 500 mg PO q8h x 10 days	Children <5 years of age Penicillin VK 125 mg PO q12h Children ≥5 years of age Penicillin VK 250 mg PO q12h	

References
1. Workowski KA, Bachmann LH, Chan PA, et al. Sexually transmitted infections treatment guidelines, 2021. MMWR Recomm Rep. 2021;70(4):1-187.

For questions regarding this Drug Alert, please contact the NYP Enterprise Drug Information Center at 746-0741 or via email: druginformation@nyp.org

1. Recommendations:

1. Requires ID approval

2. Provide recommendations

3. Provide alternatives

- “For all other indications, alternatives to penicillin G benzathine **MUST** be utilized....”

Provide Recommendations

	Pregnancy	All Others
Syphilis Exposure	Benzathine penicillin G 2.4 million units IM x 1	Doxycycline 100mg twice daily for 14 days
Primary Syphilis	Benzathine penicillin G 2.4 million units IM x 1	Benzathine penicillin G 2.4 million units IM x 1
Secondary Syphilis		
Early latent syphilis		
Late latent syphilis	Benzathine penicillin G 2.4 million units IM x 3	Doxycycline 100mg twice daily for 28 days
Tertiary syphilis (without neurological involvement)	Benzathine penicillin G 2.4 million units IM x 3	Benzathine penicillin G 2.4 million units IM x 3
Neuro, Ocular, Otic syphilis	Aqueous crystalline penicillin G 18- 24 million units per day, IV 10-14 days	Aqueous crystalline penicillin G 18- 24 million units per day, IV 10-14 days
Congenital syphilis	Please reach out to Pediatric Infectious Diseases	

Provide Alternatives

Potential Indication for Penicillin G benzathine	Alternative Antibiotic Therapy		Comments
	Adults	Children / adolescents	
Treatment of Group A Streptococcal Pharyngitis	Penicillin VK 500 mg PO q8h x 10 days	<p><u>Children <12 years of age</u> Penicillin VK 25-50 mg/kg/day (max 3 grams) PO divided q6-8h OR Ceftriaxone 50-75 mg/kg IM/IV q24h</p> <p><u>Children ≥12 years of age</u> Penicillin VK 125-250 mg PO q6-8h OR Ceftriaxone 50-75 mg/kg IM/IV q24h (all x 10 days)</p>	In children, amoxicillin (50 mg/kg/day divided q12-24h) is another alternative
Prophylaxis of rheumatic fever	Penicillin VK 500 mg PO q8h x 10 days	<p><u>Children <5 years of age</u> Penicillin VK 125 mg PO q12h</p> <p><u>Children ≥5 years of age</u> Penicillin VK 250 mg PO q12h</p>	

Alternative Therapies for Group A Strep

Medication	Pediatric Dosing (max at adult dosing)	Adult Dosing
Penicillin V	≤ 27 kg: 250 mg PO 2 to 3 times daily x10 days >27 kg: 500 mg PO 2 to 3 times daily x10 days	500 mg PO twice daily x10 days
Amoxicillin	50 mg/kg/day PO once daily or divided twice daily x10 days	500 mg PO twice daily or 1 gram once daily x10 days
Cephalexin	40 mg/kg/day PO divided twice daily x10 days	500 mg PO twice daily x10 days
Ceftriaxone*	50 mg/kg IM x1 dose	Ceftriaxone 1g IV or IM x 1 or 2 doses
Azithromycin**	12 mg/kg/day PO daily x5 days	500 mg PO daily x5 days
Clindamycin**	7 mg/kg/dose PO three times daily x10 days	300 mg PO three times daily x10 days
* Limited data available, only for patients unable to tolerate oral medications		
**Reserved for patients with anaphylaxis to penicillin/cephalosporins		

Not Recommended Alternative Therapies

- Ceftriaxone
- Azithromycin
- Amoxicillin +/- Probenecid

Not Recommended Alternative Therapies

- **Ceftriaxone**
 - Azithromycin
 - Amoxicillin +/- Probenecid
- Ceftriaxone 1g IM/IV x 10 days
 - Limited data on effectiveness
 - “the optimal dose and duration of ceftriaxone therapy have not been defined”
 - “treatment decisions should be discussed in consultation with a specialist”

• Workowski KA, Bolan GA; Centers for Disease Control and Prevention. Sexually transmitted diseases treatment guidelines, 2015. MMWR Recomm Rep. 2015 Jun 5;64(RR-03):1-137. Erratum in: MMWR Recomm Rep. 2015 Aug 28;64(33):924. PMID: 26042815; PMCID: PMC5885289.

Not Recommended Alternative Therapies

- Ceftriaxone
 - **Azithromycin**
 - Amoxicillin +/- Probenecid
- 2g Azithromycin x 1
 - “*T. pallidum* chromosomal mutations associated with azithromycin and other macrolide resistance and documented treatment failures in multiple U.S. geographic areas, **azithromycin should not be used as treatment for syphilis**”

Not Recommended Alternative Therapies

- Ceftriaxone
- Azithromycin
- **Amoxicillin +/- Probenecid**

Observational Study > Clin Infect Dis. 2015 Jul 15;61(2):177-83. doi: 10.1093/cid/civ270.

Epub 2015 Mar 31.

Clinical Infectious Diseases


MAJOR ARTICLE



Combination of Amoxicillin 3000 mg and Probenecid Versus 1500 mg Amoxicillin Monotherapy for Treating Syphilis in Patients With Human Immunodeficiency Virus (HIV): An Open-Label, Randomized, Controlled, Non-Inferiority Trial

Naokatsu Ando,^{1,2} Daisuke Mizushima,¹ Kazumi Omata,² Takashi Nemoto,³ Natsumi Inamura,³ Saori Hiramoto,³ Misao Takano,¹ Takahiro Aoki,¹ Koji Watanabe,^{1,2} Haruka Uemura,¹ Daisuke Shiojiri,¹ Yasuaki Yanagawa,^{1,2} Junko Tanuma,¹ Katsuji Teruya,¹ Yoshimi Kikuchi,¹ Hiroyuki Gatanaga,¹ and Shinichi Oka¹

¹AIDS Clinical Center, National Center for Global Health and Medicine, Tokyo, Japan; ²Center for Clinical Sciences, National Center for Global Health and Medicine, Tokyo, Japan; and ³Department of Laboratory, National Center for Global Health and Medicine, Tokyo, Japan

Kazuhiko Ikeuchi , Kazuaki Fukushima, Masaru Tanaka, Keishiro Yajima, Akifumi Imamura

• Ando N, Mizushima D, Omata K, et al. Combination of Amoxicillin 3,000 mg and Probenecid versus 1,500 mg Amoxicillin Monotherapy for Treating Syphilis in Patients with HIV: an Open-Label, Randomized, Controlled, Non-Inferiority Trial [published online ahead of print, 2023 May 9]. Clin Infect Dis. 2023;ciad278. doi:10.1093/cid/ciad278

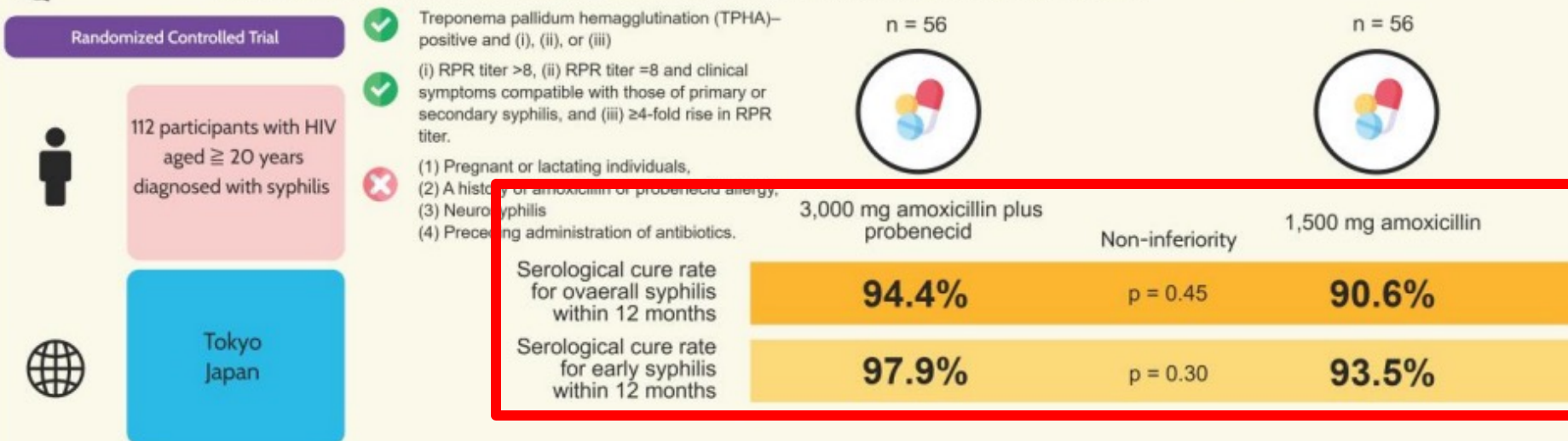
Syphilis Treatment With Amoxicillin

Combination of Amoxicillin 3,000 mg and Probenecid versus 1,500 mg Amoxicillin Monotherapy for Treating Syphilis in Patients with HIV: an Open-Label, Randomized, Controlled, Non-Inferiority Trial



ANDO et al., 2023 | *Clinical Infectious Diseases*

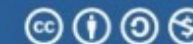
BACKGROUND: This study was aimed to investigate the non-inferiority of low-dose amoxicillin treatment commonly used in Japan to the amoxicillin plus probenecid regimen, which is the current standard amoxicillin-based treatment



In conclusion, our study was the first randomized controlled trial to demonstrate a high efficacy of amoxicillin-based regimens for syphilis in patients with HIV infection but did not reveal the non-inferiority of low-dose amoxicillin compared with amoxicillin plus probenecid.

Clinical Infectious Diseases

<https://doi.org/10.1093/cid/ciad278>



Ando N, Mizushima D, Omata K, et al. Combination of Amoxicillin 3,000 mg and Probenecid versus 1,500 mg Amoxicillin Monotherapy for Treating Syphilis in Patients with HIV: an Open-Label, Randomized, Controlled, Non-Inferiority Trial [published online ahead of print, 2023 May 9]. *Clin Infect Dis*. 2023;ciad278. doi:10.1093/cid/ciad278

Treating Syphilis in Pregnancy

Stage	Treatment	Alternative
Incubation	Benzathine penicillin G 2.4 million units intramuscular injection once	<p>“Pregnant [persons] who have a history of penicillin allergy should be desensitized and treated with penicillin”</p>
Primary		
Secondary		
Early latent		
Late latent	Benzathine penicillin G 2.4 million units intramuscular injection 3 times at one week intervals	
Late of unknown duration		
Tertiary (non-neuro)		
Neurosyphilis, Ocular, or Otic Syphilis	Aqueous crystalline penicillin G 18–24 million units per day, administered as 3–4 million units intravenously every 4 hours, or by continuous infusion, for 10–14 days	

• Workowski KA, Bolan GA; Centers for Disease Control and Prevention. Sexually transmitted diseases treatment guidelines, 2015. MMWR Recomm Rep. 2015 Jun 5;64(RR-03):1-137. Erratum in: MMWR Recomm Rep. 2015 Aug 28;64(33):924. PMID: 26042815; PMCID: PMC5885289.

Missed Doses

- How many days between doses is acceptable?
 - Clinical experience suggests that 10–14 days between doses of benzathine penicillin for latent syphilis might be acceptable before restarting
 - An interval of 7–9 days between doses is preferred
- How many days between doses is acceptable for pregnant persons?
 - “Missed doses >9 days between doses are not acceptable for pregnant [persons] receiving therapy for late latent syphilis”
 - “Pregnant [persons] who miss a dose of therapy should repeat the full course of therapy”

Follow-up After Treatment

Primary and Secondary

- Repeat serology
 - 6 months
 - **12 months**

Signs of Failure

- Clinical signs and symptoms
- 4x increase in non-treponemal testing for >2 weeks
- Failure to see a 4x decrease after 12 months
 - **10%–20% will not achieve 4x decrease in titer within 12 months**

Follow-up After Treatment

Latent

- Repeat serology
 - 6 months
 - 12 months
 - **24 months**

Signs of Failure

- Clinical signs and symptoms
- 4x increase in non-treponemal testing for >2 weeks
- Failure to see a 4x decrease after 24 months
 - **More common if initial titer is <1:8**

Follow-up After Treatment "Failure"

- Management of Treatment Failure
 - Follow-up
 - Serologic follow-up annually
 - Clinical (and particularly neurologic) examination
 - Consider LP for CSF examination
 - Repeat HIV testing
 - If additional follow-up cannot be ensured, consider re-treatment

NYC STD Prevention Training Center

The CDC-funded NYC STD Prevention Training Center at Columbia University provides a continuum of education, resources, consultation and technical assistance to health care providers, and clinical sites. www.nycptc.org



Didactic Presentations

Webinars, conferences, trainings and grand rounds presentations to enhance and build knowledge

Technical Assistance

Virtual and on-site technical assistance regarding quality improvement, clinic implementation and best practices around sexual health provision

*For more information please contact:
Gowri Nagendra Soman MPH
gn103@cumc.columbia.edu*

Clinical Consultation Warmline

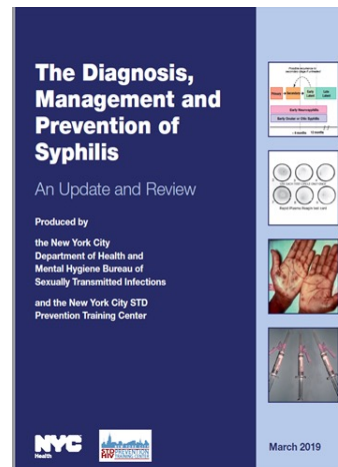
Clinical guidance regarding STD cases; no identifying patient data is submitted

<https://www.stdccn.org/>

Resources

Clinical guidance tools regarding the STD treatment guidelines, screening algorithms and knowledge books, such as the **Syphilis Monograph**.

To download a copy please visit:
<http://bit.ly/SyphilisMonograph2019PTC>



Questions

Syphilis can have very serious complications when left untreated.

Questions & Discussion

Quick Evaluation

1. How would you rate the value of today's discussion?
2. The level of the brief lecture was:
3. Attending the learning community is a good use of my time.
4. I felt comfortable contributing during the LC session.
5. As a result of today's session, are there any changes you would make in your practice?
6. Since the last LC, has your clinic made (or is in the process of making) any clinical practice changes related to HIV prevention services?

Next Learning Community Session

Date: December 12, 2023

12-1pm EST

Topic: Doxy PEP

In the meantime...

Look out for our October newsletter!

Feedback?

Questions for a clinician?

Let us know!

Find LC resources here:

<https://nycptc.org/hivprevent.html>

HIV PREVENTION LEARNING COMMUNITY



Bimonthly Newsletter

VOL. 9

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June Newsletter

PRIDE MONTH

We love June because that means...it's **Pride Month!** We hope everyone has found resources to support campaigns your clinics and organizations are running this month. There are many great resources out there!

CDC has "[Pride-In-A-Box](#)", a how-to guide with information and resources to support your site's Pride Month activities. You can also find their social media toolkit [here](#).

You can find some other great resources and ideas from [GLSEN](#), [The Trevor Project](#), and [Human Rights Campaign](#).

MAY LC RECAP

May's LC focused on **PrEP for Adolescents**. Together we discussed what PrEP options are available for adolescents, considerations when working with adolescents, and how newer PrEP options, like on-demand dosing and injectable PrEP, might or might not work for this population.

Some of the persistent concerns discussed included confidentiality when billing insurance, how to keep adolescents engaged in care, and addressing stigma among young people.

Are you interested in providing PrEP for adolescents? Let us know; we would love to help.