Advanced Sexually Transmitted Infection Cases

Jonathan Baker PA-C

He | Him | His
Laser Surgery Care, NYC
President Elect, NYSSPA
AAPA Liaison to GLMA
Past President, LBGT PA Caucus

Financial Disclosure

The presenter has no relevant financial interests, arrangements or affiliation to disclose which could be perceived as a conflict of interest in the contest of the subject of this presentation

Off-label indications will be included; off-label use will be identified

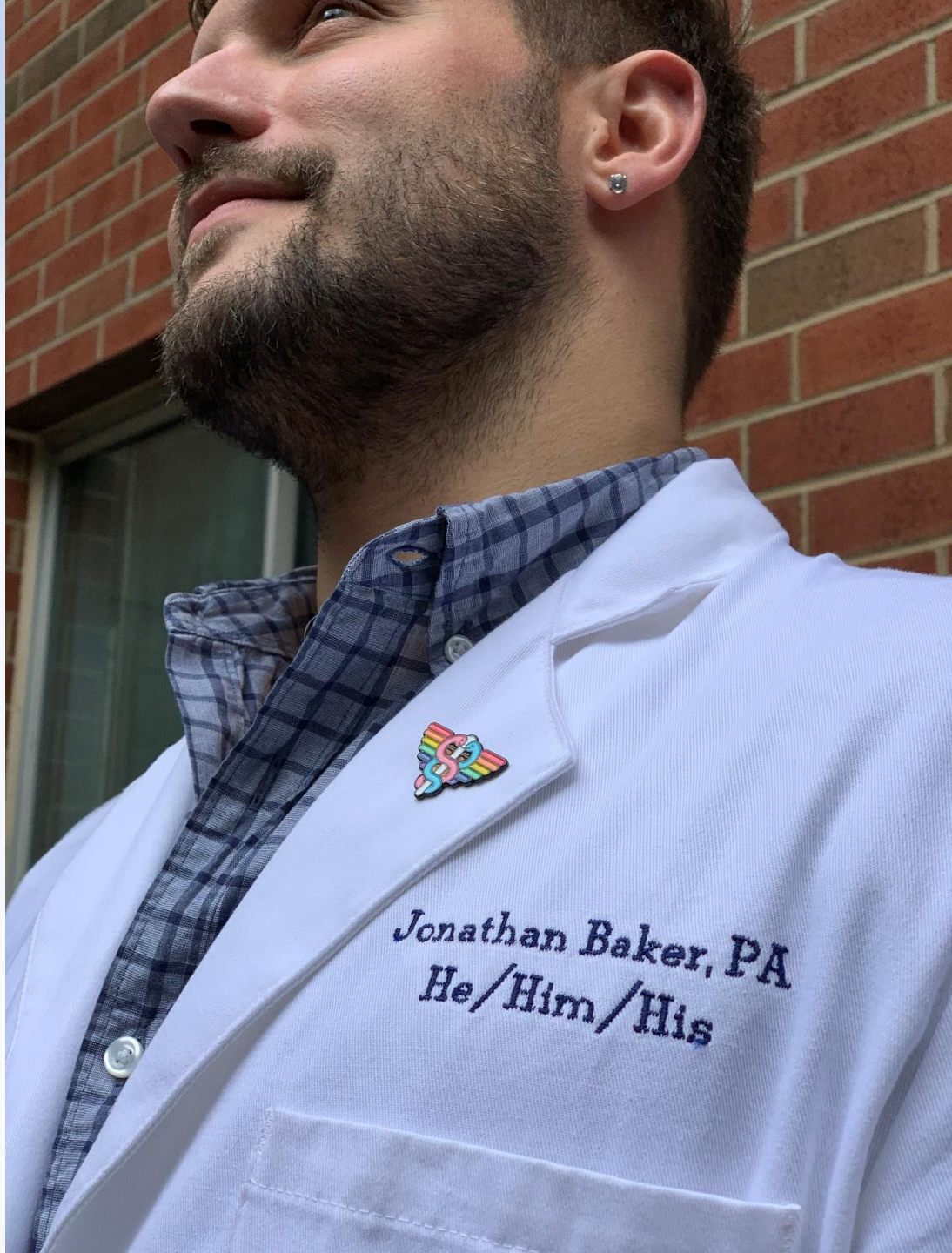
Objectives

Participants should be able to:

- Discuss clinical presentation, workup, and treatment of common STIs
- Review and reference current/updated guidelines for screening and treatment of STIs
- Recognize atypical STI presentations and treatment options

Sex & Gender

- Assigned sex at birth (AMAB or AFAB)
- Gender = social and cultural distinctions mapped on biology
- Sexuality = attraction, behaviors, orientation



STI Screening

Patient admits to:

- Receptive vaginal sex with condom

…As well as…

- Receiving oral sex (vaginal only)
- Giving oral sex
- Receptive anal sex condomless
- Sharing sex toys (vaginal)
  - With female partners

Patient is at risk for:

- HSV, HPV, MC, infestation, syphilis

…As well as…

- Vaginal gc/Ct, syphilis, HIV
- Oral gc/Ct, syphilis, HIV
- Rectal gc/Ct, LGV, syphilis, HIV
- Vaginal gc/Ct, syphilis, HIV
  - Trichomonas, bacterial vaginosis

Gonorrhea/Chlamydia Screening

Screen for gc/Ct



Genital | Pharyngeal | Rectal

based on

1) exposure route **2)** local guidelines **3)** population prevalence

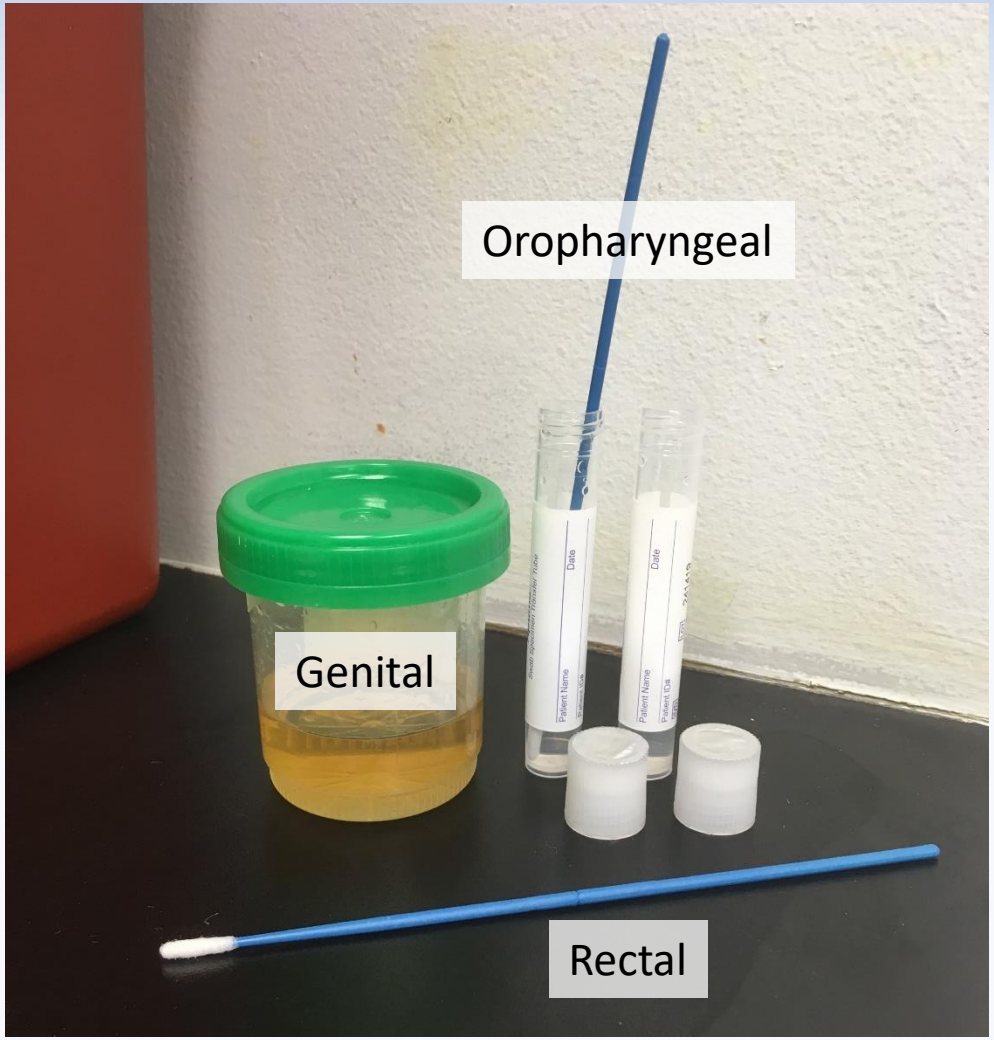
✅ Screen women ≤25y annually

✅ Consider screening men ≤25y in areas of ↑prevalence or risk factors

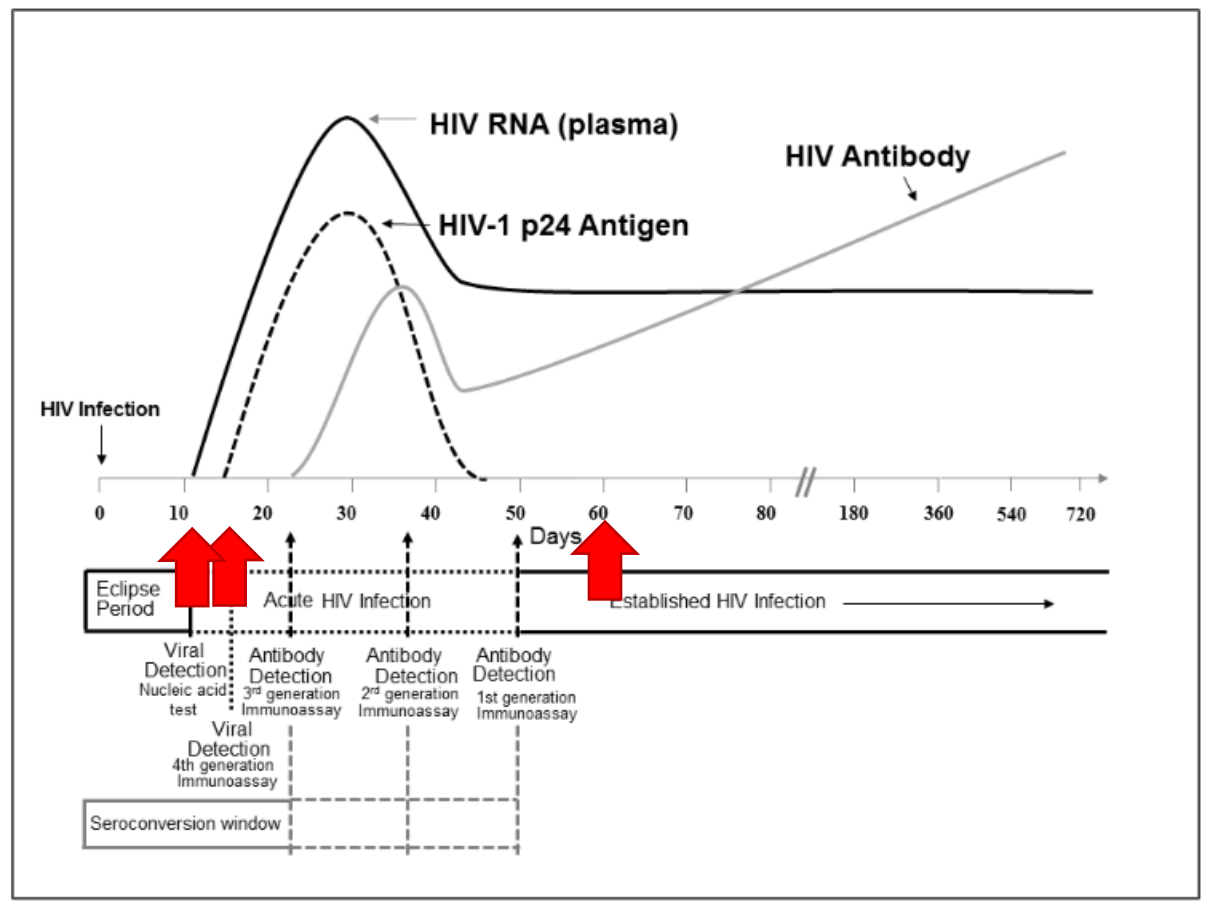
✅ Screen MSM annually (Q3-6 mo for MSM at high risk)

CDC

*Screening for pharyngeal Ct is not recommended due to low prevalence


Oropharyngeal
Genital
Rectal

HIV Testing and Window Periods



CDC 2014

Men who have Sex with Men

MSM (Men who have sex with men) – a heterogeneous population of men who engage in sexual behaviors involving men

MSM may identify as:	
Gay	Men who identify their sexual orientation as “gay”
Bisexual	Sexual attraction to more than 1 gender
Heterosexual	Sexual attraction to female presenting partners
Gender nonbinary	Behavior/appearance does not conform with norms
Transgender	Gender assigned at birth does not match identity

**Identities may be temporary, before sexual debut, or after sexual sunset*

Consensual Non-Monogamy (CNM)

- Relationship structure with partners other than primary
- Examples: open, swingers, monogamish, unilateral, medical
- CNM partners
  - ✅ Are no more likely to be diagnosed with a STI
  - ✅ Express similar rates of both commitment and jealousy as monogamous partners

Rubel 2015

HIV Preexposure Prophylaxis (PrEP)

- Tenofovir/Emtricitabine coformulation daily
- >99% effective at reducing risk of HIV acquisition
- “Safer than Aspirin”
- PrEP use is “protected” per CDC

- Potential for pericoital dosing, injectable, etc.
  - ONLY DAILY ORAL F/TAF & F/TDF are approved at this time

Grant 2010, Molina 2015, Hare 2019

Proctitis

Rectal inflammation
with pain, discharge, bleeding
+/- tenesmus and spasm

Differential:

- Idiopathic
- Inflammatory Bowel Disease
- Infection: ie *C Diff*
- Ct/gc/LGV/HSV/syphilis

CDC Centers for Disease Control and Prevention

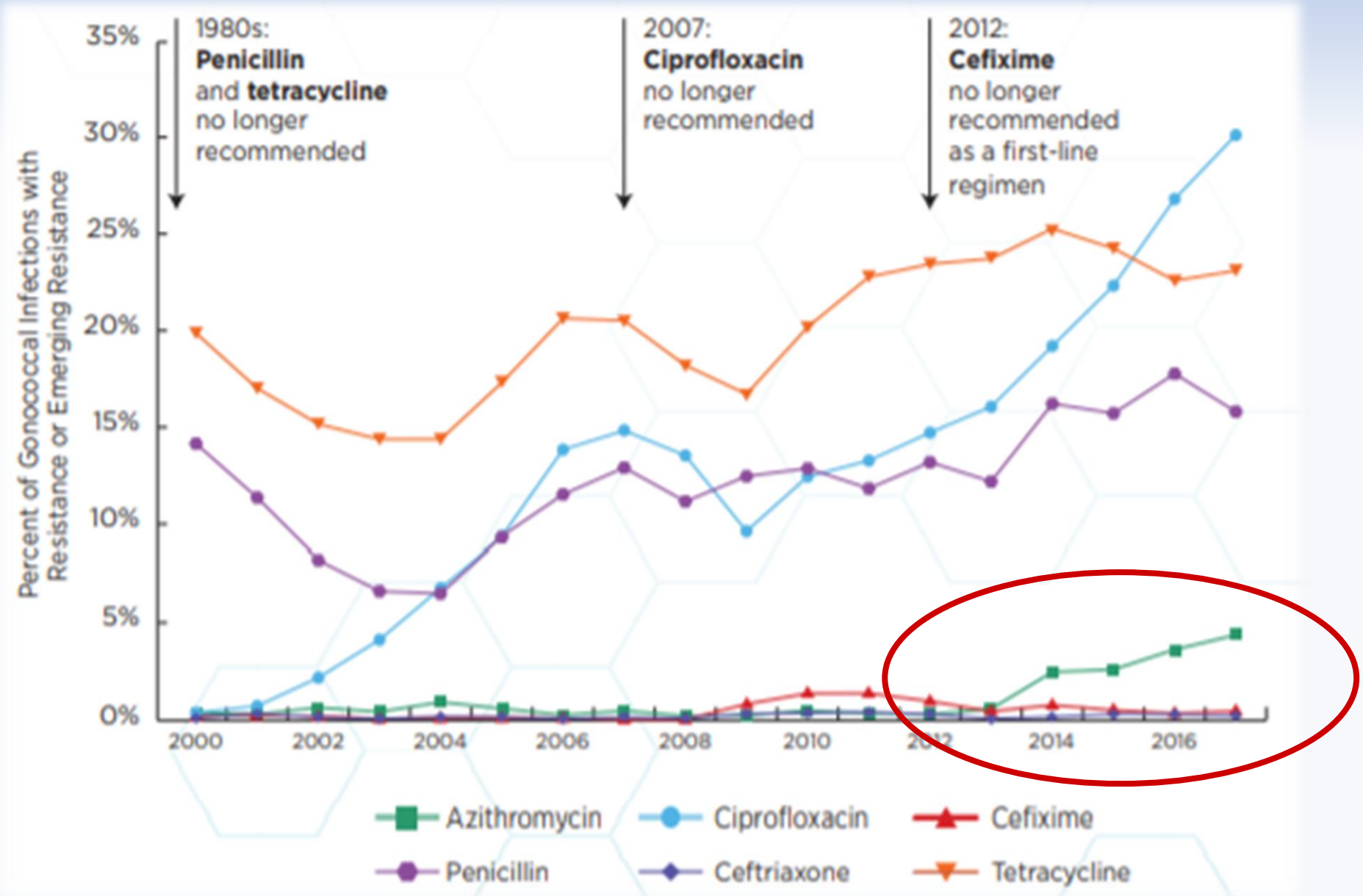
Sexually Transmitted Diseases (STDs)

UPDATED GONORRHEA TREATMENT RECOMMENDATIONS

CDC's updated recommendations for the treatment of uncomplicated gonorrhea in adolescents and adults: two-drug approach no longer recommended; treat with just one 500 mg injection of ceftriaxone.

View MMWR

Resistance Trends 2000-2018



CDC 2019

2020 CDC Guidelines Update: Gc Treatment

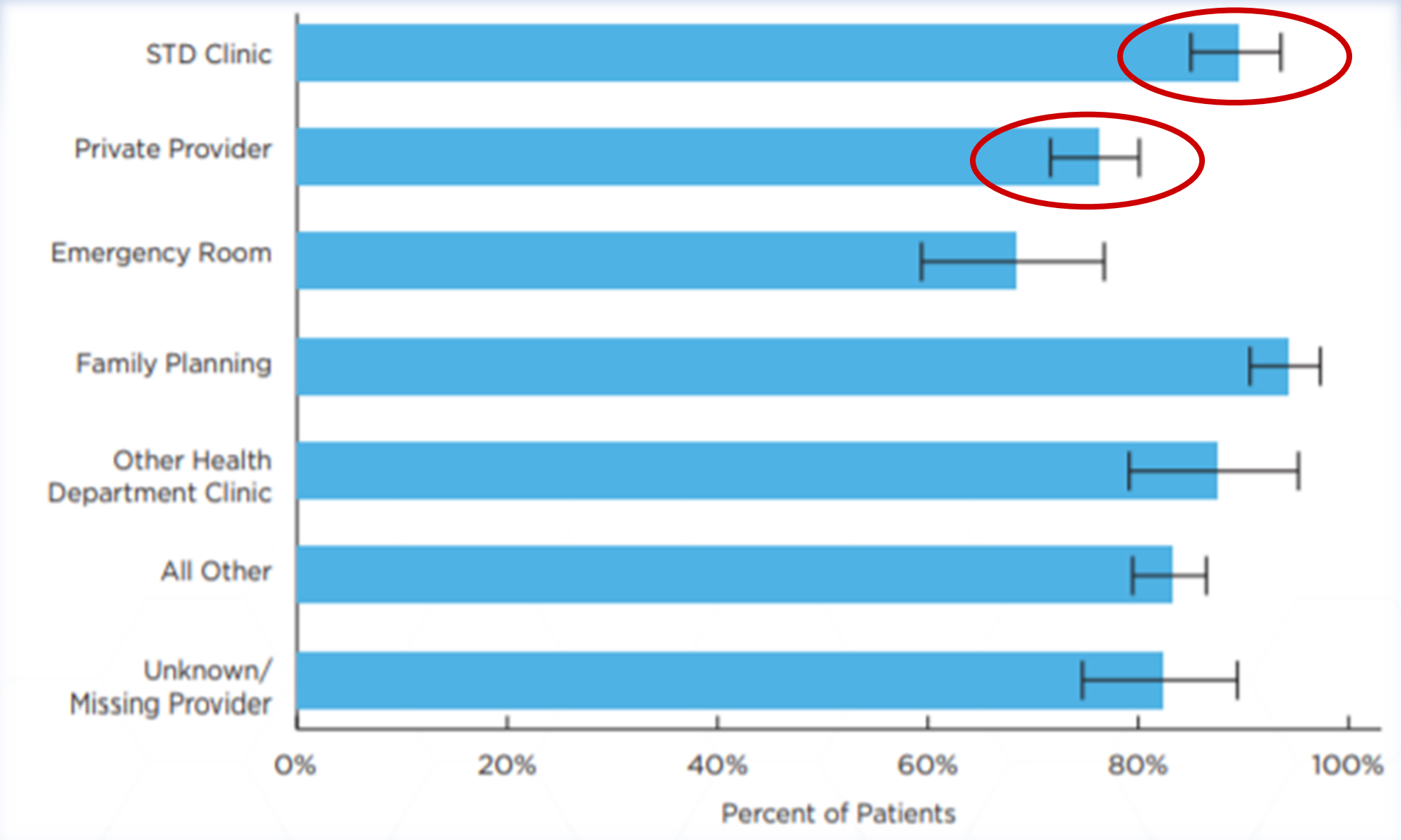
Ceftriaxone 500 mg IM once

- Alternative: Gentamicin 240 mg IM once + Azithromycin 2 g PO once
  OR Cefixime 800 mg PO Once
- Weight ≥150 kg (300 lb), ceftriaxone 1g IM once
- *If chlamydial infection has not been excluded:*
  doxycycline 100 mg PO BID x 7 days.

Pharyngeal gc exceptions

- No alternative to ceftriaxone, consult infectious diseases specialist
- If chlamydia coinfection is identified treat:
  doxycycline 100 mg PO BID x 7 days

Treatment Across All Settings 2018



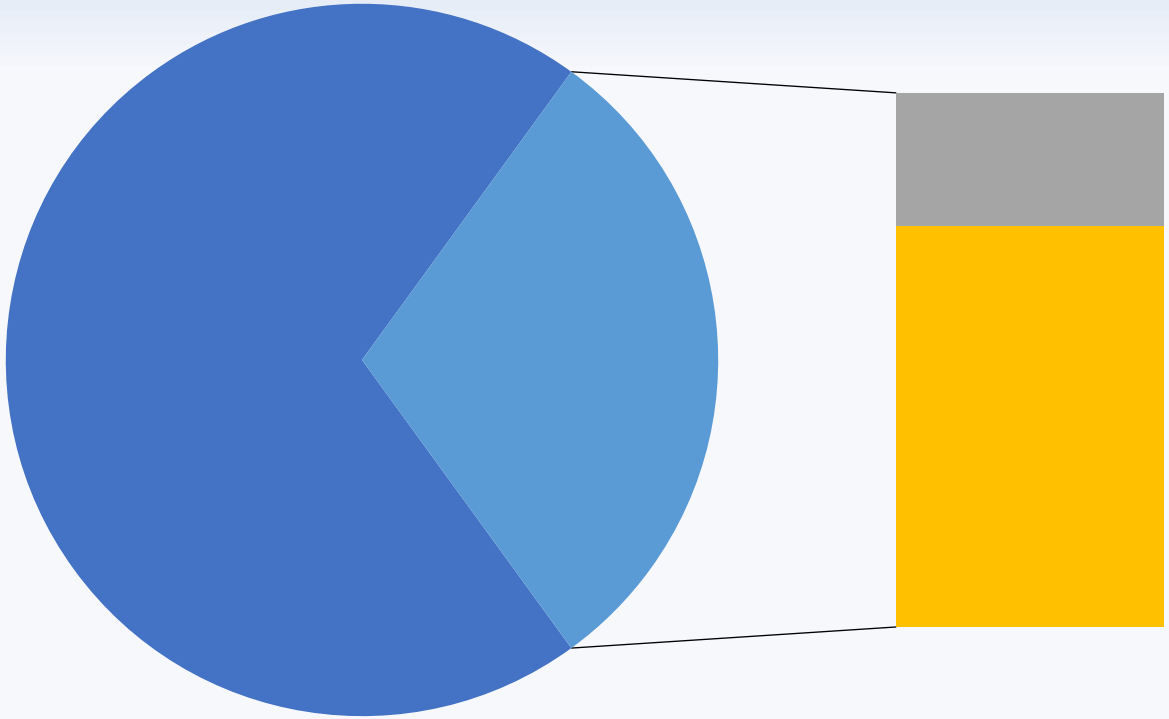
CDC 2019

Lymphogranuloma Venereum (LGV)

- Chlamydia Trachomatis serovars L1, L2, L3
- Inguinal/femoral lymphadenopathy
- +/- anogenital ulceration & severe proctitis
- **Clinical diagnosis,** specific diagnostic testing not widely available
- Rx: Doxycyline 100mg BID x 21 days
  - Partners treated with 1g azithromycin

CDC

Anal Intercourse & Heterosexual Identity



70% Deny Heterosexual AI

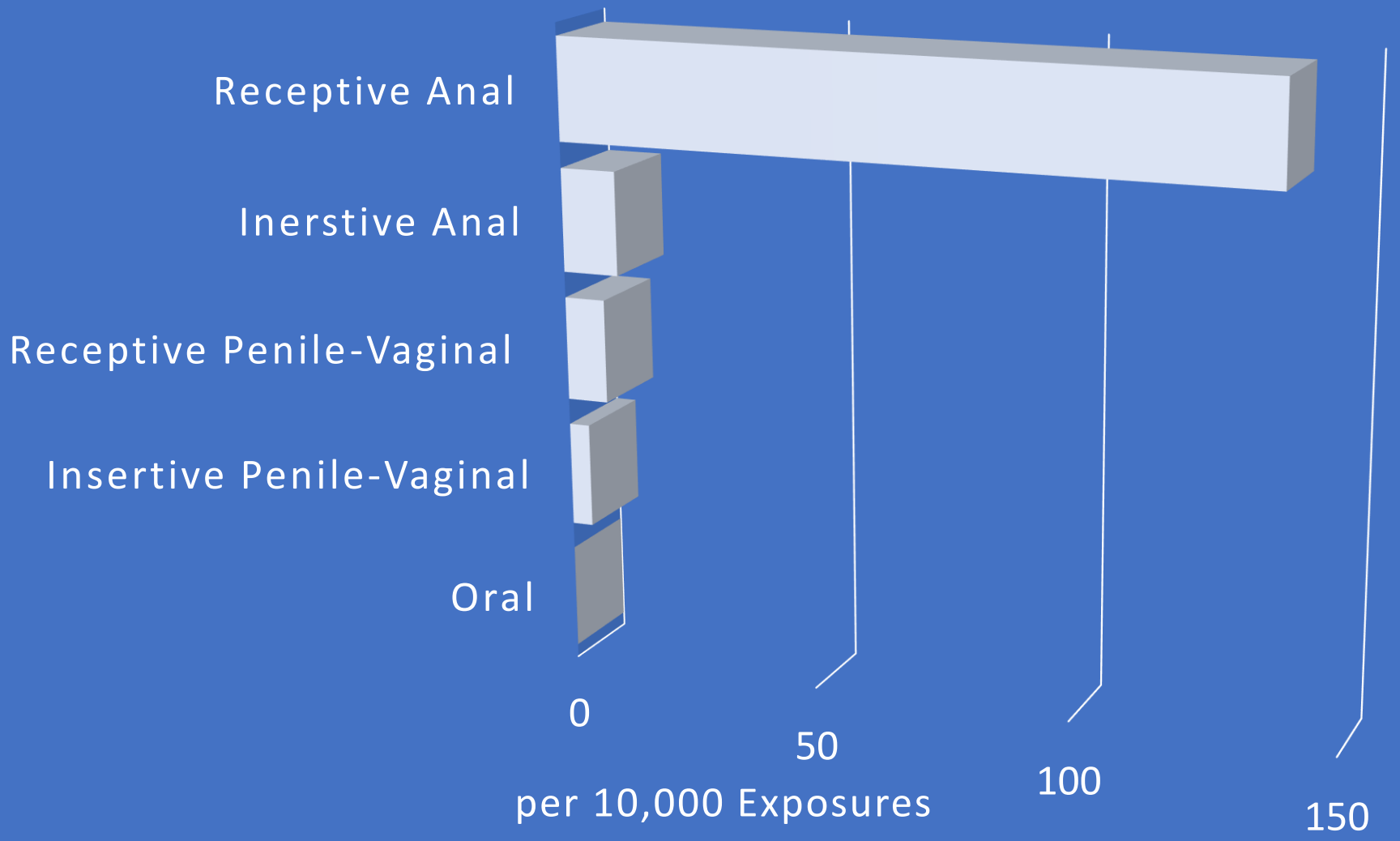
30% Report Heterosexual AI

20-30% Report Condom Use During AI

70-80% Deny Condom Use During AI

Habel 2018

Estimated Risk of Acquiring HIV from an Infected Source



CDC 2015

Anal Ulcers

- Differential
  - Fissure
  - Traumatic
  - Severe dermatitis
  - HSV
  - LGV
  - Syphilis
  - Malignancy (SCC)

Syphilis

- Primary syphilis - painless Chancre
- But, anal chancre can be **painful**
- Firm, well demarcated ulcer
- Appears 2-6 weeks post exposure

- Treponemal Ab testing ~6 wks
  - TPPA, FTA-ABS
- RPR testing ~6-8 wks

CDC

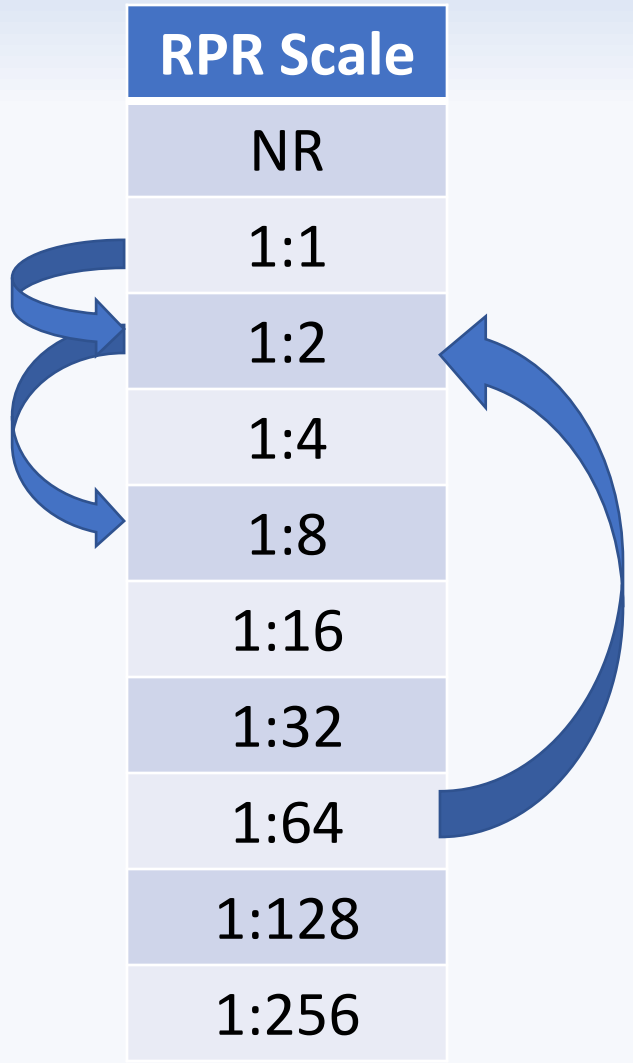
Syphilis Reverse Sequence Testing

- Treponema Pallidum Ab testing reflexed to RPR
- Pro: sooner detection, reduced risk of false positive
- Cons: limited use in patients with history of syphilis

Syphilis Management

- "Significant change" 2 fold change in titer
  - 1:2 → 1:8 = think new infection
- Cure is a 4 fold decrease in titer @ 6 mos
  - 1:64 → 1:2 = resolved infection
- Caveats: Inter- intra- lab variability, Serofast

- Rx: Benzathine PCN 2.4 million U IM
  - 1 dose: 1° or 2° infection, infection <1 yr (early latent)
  - 3 dose: late latent infection. >12 mo
- IV PCN G if neuro involvement



CDC

STI Prophylaxis

2 Pilot Clinical Trials have shown doxycycline as a potential STI prophylaxis

- Doxycyline 100mg daily in HIV-positive MSM
  - 30 men who have had syphilis 2x+ since their HIV infection
  - No difference in risk behavior between groups
  - 70% reduction in acquisition of any STI (trend to Ct and syphilis)
  - >60% adherence by serum drug levels
- Doxycycline 100 mg 2 tab 72 hrs post-coital in MSM on PrEP
  - 232 HIV-negative MSM on intermittent PrEP
  - Median 7 pills per month (max 6 pills per week)
  - No difference in risk behavior between groups
  - ~70% less likely to acquire syphilis or Chalmydia

Doxycycline for STI prophylaxis is OFF-LABEL

Bolan 2015, Molina 2017 (CROI2017)

Sexual History Taking

Why do we take a sexual history?

- Determine screening, diagnostics, treatments, and immunizations
- Document rationale for expensive testing

Is counselling on safer sex effective?

- Make patients aware their risks
- Not counselling may be perceived as condoning behavior

Sexual History not one size fits all; **there is no formula**

Focus on **Behaviors** & **Anatomy**

Ulcerative Genital Disease Differential

- Syphilis
- HSV
- Trauma
- LGV
- Chanchroid
- Granuloma Inguinale
- Something else?

Chancroid

- Caused by H. ducreyi
- Diagnosis is clinical
  - Painful genital ulcer(s) and inguinal adenopathy
  - R/O syphilis and HSV
- Increases risk of HIV acquisition
- Treatment (any of the following)
  - Azithromycin 1g PO once
  - Ceftriaxone 250mg IM once
  - Ciprofloxacin 300mg PO x 3d
  - Erythromycin 500mg PO x 7d
- *Extremely rare in the US and no commercially available lab test*

Granuloma Inguinale (Donovanosis)

- Caused by Klebsiella granulomatis
- Painless, slowely progressive anogenital ulcers without lymphadenopathy
- Treatment doxycycline 100mg BID x 21 days until all lesions have completely healed
- *Extremely rare in the US and no commercially available lab test*

CDC

Primary Genital HSV Features

- Extragenital manifestations common
- Fever, HA, malaise, myalgias
- Aseptic meningitis rare
- New lesions can manifest 4-10d after onset

CDC

Recurrent Genital HSV Features

- Prodromal symptoms common but not always
- Recurrences in similar cutaneous distribution
- HSV 2 recurrence more common 4-5x a year

CDC

Primary Treatment

Acyclovir	400mg	TID	7-10 days
	200mg	5x/D	7-10 days
Valacyclovir	1000mg	BID	7-10 days
Famciclovir	250mg	TID	7-10 days

Treatment can be extended if healing is incomplete after 10 days of therapy.

CDC

Recurrent Treatment (within 72 hrs)

Acyclovir	400mg	TID	5 days
	800mg	BID	5 days
	800mg	TID	2 days
Valacyclovir	500mg	BID	3 days
	1g	QD	5 days
Famciclovir	125mg	BID	5 days
	1g	BID	1 day
	500mg once followed by 250mg BID x 2 days		

If HSV2 or frequent recurrences consider suppressive therapy

CDC

Drug Resistant HSV

OFF-LABEL therapy for antiviral resistant HSV

- Cidofovir topical 1%-3% ~~QD~~-BID
- Cidofovir IV 5mg/kg once weekly
- Foscarnet 40-80mg/kg IV Q8hrs until clinical resolution

CDC

Sexually Transmissable Enteric Infections

- Giardia lamblia and Hystolitica entamoeba
  - Diarrhea, gas, flatulence, cramping, nausea, dehydration, or NO SYMPTOMS
  - Dx 3 stool samples on separate days (“ova and parasites”)
- Giardia treatment
  - Metronidazole 250 mg PO TID x 5-7 days
  - Tinidazole 2g PO once
  - Albendazole 400mg PO QD x 5 days
- H. entamoeba treatment
  - Metronidazole 750 mg PO TID x 10 days
  - Followed by paromomycin 50mg TID x 7 days (IF symptomatic or cysts on examination of samples)

CDC

Anolingus

Hepatitis A

- Oral-fecal transmission
- HAV vaccination recommended for MSM
- Supportive management
- 10-15% relapse in 6 months
- PEP with vaccine or immunoglobulin

CDC

Sexual Transmission of Hepatitis

HBV

- Vaccine recommended for all patients
- PEP with HBV vaccination or immunoglobulin
- Check titers if at risk for occupational and non-occupational exposure

HCV

- ↑Transmission with fisting and anal intercourse
- ↑ risk in MSM, HIV-positive, and PrEP users
- No known postexposure prophylaxis (PEP)
- Several multidrug PO treatments available

CDC

Human Papillomavirus (HPV)

- The most common STI
- Can affect the genital, mouth, & anus
- LR HPV can cause condyloma (uncommon)
- HR HPV can cause cancer

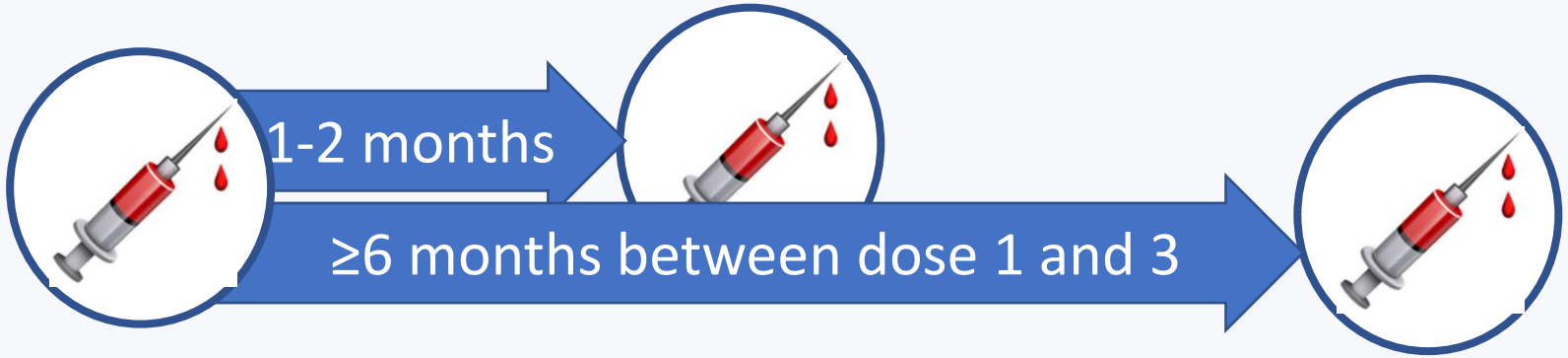
“Most sexually active people who are not vaccinated get HPV infection at some point in their lives, even if they only have one sexual partner.”

-NYC DOH

CDC, NYC DOH

HPV Vaccination

- Recommended up to age 26, considered up to age 45
- For ages 27-45 consider:
  - Prior exposure to HPV
  - Potential for future exposure to HPV
  - Cost/insurance coverage
- No current recommendation for HPV9 after HPV4



CDC 2019

AAPA CME

Basic Principles of Culturally Sensitive Care of Sexual & Gender Diverse Patients (Including LGBTQ+)

HPV: Here, There, and Everywhere

Prescribing HIV Prevention: Preexposure Prophylaxis (PrEP)

Getting to the Bottom of Anorectal Pathology

Caring for Gender Diverse Patients in Your Practice

Toward Health Equity: Social Determinants of Health & PA Practice

Questions?

@RectalRockstar

JonathanBaker.PA@gmail.com

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