

Testing Done (n = 2,274)

Chlamydia	2,269 (99.7%)
Gonorrhoea	2,267(99.6%)
Syphilis	33 (1.4%)
HIV	1 (<0.1%)

Disclosures. All authors: No reported disclosures.

1493. Effect of HIV Status on Early Syphilis Treatment Response in the Era of Combination Antiretroviral Therapy

Helen King, MD¹; Winston Tilghman, MD²; Katya Prakash, MD¹; Aaron Kofman, MD¹; Theodoros Katsivas, MD MAS¹; Feng He, MS¹; Sonia Jain, PhD¹ and Charles Hicks, MD¹; ¹University of California, San Diego, La Jolla, California, ²Infectious Hepatitis and STDs, San Diego County Department of Public Health, San Diego, California

Session: 149. Sexually Transmitted Infections

Friday, October 5, 2018: 12:30 PM

Background. Rates of incident early syphilis are increasing and HIV-coinfection is common. Syphilis treatment for HIV-positive individuals does not differ from that of the general population, although data published prior to combination antiretroviral therapy (cART) suggest that HIV-infected persons may be less likely to achieve expected serologic responses to treatment (SRT).

Methods. We conducted a cohort study of early syphilis diagnosed in a large HIV clinic and a public sexually transmitted diseases (STD) clinic in San Diego. SRT was defined as a fourfold or greater decline in rapid plasma reagin (RPR) titer following syphilis treatment. We compared SRT at 6 and 12 months post-treatment between HIV-infected and HIV-uninfected persons.

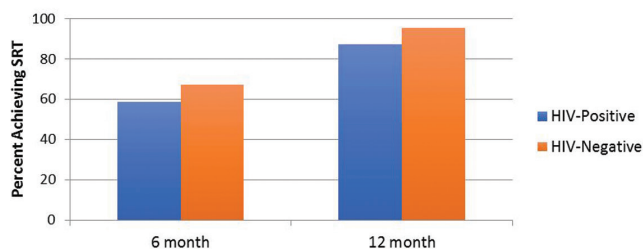
Results. Of 1,239 early syphilis cases reviewed, 742 (61%) were included in the analysis. Reasons for exclusion included lack of follow-up RPR (n = 454), nonreactive RPR at syphilis diagnosis (n = 33), and incomplete data (n = 10). Of those analyzed, 533 (72%) were HIV-positive; 168 (23%) HIV-negative; HIV status was unknown for 41 (5%). Overall, 449 (60%) and 657 (89%) of analyzed cases achieved SRT 6 and 12 months after treatment, respectively. HIV-positive cases were less likely to achieve SRT at 12 months than HIV-negative cases (464/533 [87%] vs. 160/168 [95%], P = 0.003, Figure 1), as were early latent syphilis cases (285/348 [82%]) vs. primary (102/117 [92%]) and secondary syphilis (264/277 [94%]) (Table 1).

Conclusion. In this cohort of early syphilis cases, most achieved SRT within 12 months of treatment, but only 60% achieved SRT within 6 months. Significantly lower 12-month SRT responses were seen in HIV-positive compared with HIV-negative persons and in early latent compared with primary and secondary syphilis. The impact of cART use, viral suppression, and treatment choice on outcomes is being analyzed.

Table 1. Serologic Response to Treatment by Syphilis Clinical Stage

RPR Titer Response	Syphilis Stage			P-Value
	Primary N = 117	Secondary N = 277	Early Latent N = 348	
6 months post-treatment				
≥4-fold decline	70 (60%)	177 (64%)	202 (58%)	0.323
<4-fold decline	47 (40%)	100 (36%)	146 (42%)	
12 months post-treatment				
≥4-fold decline	108 (92%)	264 (95%)	285 (82%)	<0.001
<4-fold decline	9 (8%)	13 (5%)	63 (18%)	

Serologic Response to Syphilis Treatment (SRT) by HIV Status



Disclosures. All authors: No reported disclosures.

1494. Vaginal pH: Associations with *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, and *Trichomonas vaginalis*

Stephanie McLaughlin, MD MPH¹; Khalil G. Ghanem, MD, PhD, FIDSA²; Kathleen Page, MD³; John McLeod Griffiss, MD³ and Susan Tuddenham, MD, MPH⁴; ¹Internal Medicine, New York University, New York, New York, ²Johns Hopkins University School of Medicine, Baltimore, Maryland, ³Laboratory Medicine,

University of California San Francisco, San Francisco, California, ⁴Infectious Diseases, Johns Hopkins University, Baltimore, Maryland

Session: 149. Sexually Transmitted Infections

Friday, October 5, 2018: 12:30 PM

Background. Bacterial vaginosis (BV), a low-*Lactobacillus* state characterized by elevated vaginal pH, has been associated with incident sexually transmitted infections (STIs). Elevated pH may also be associated with certain *Lactobacillus* species (*L. iners*). Increased pH may serve as a cheap, easily accessible biomarker for underlying STI, vaginal dysbiosis and risk of STI acquisition. In this study we examine the relationship between vaginal pH and infection with *Neisseria gonorrhoeae* (GC), *Chlamydia trachomatis* (CT) and *Trichomonas vaginalis* (TV).

Methods. This study used data from women attending Baltimore City STI clinics from 2005 to 2016. Those with a vaginal pH determination and testing for GC, CT or TV were included. Most GC and CT testing was conducted using nucleic acid amplification tests, while TV was diagnosed via microscopy. Generalized estimating equations with a logit link were utilized to explore relationships between vaginal pH and STI, accounting for confounders and repeated within patient measures.

Results. A total of 28,333 individual women contributed 63,032 visits. Mean age was 28.9 (SD 9.8), 4.5% were Caucasian and 91.5% were Black. 42.5% had BV via Amsel's criteria. Of 11,577 total STI cases 2056 (17.8%) had a pH <4.5. 22.2% of GC cases, 28.2% of CT cases, and 7.4% of TV cases had a pH <4.5. After adjustment for age, race, number of sexual partners in the past 6 months, and HIV sero-status, a pH ≥4.5 was associated an increased odds of GC (OR: 1.86 (CI 1.66–2.09)), CT (OR: 1.44 (CI 1.34–1.53)), and TV (OR: 6.50 (CI 5.98–7.16)) infection as compared with a pH of <4.5. These relationships remained significant in subjects without symptomatic BV and when each analysis was restricted, separately, to those who reported exposure to a partner with GC, CT or nongonococcal urethritis, or TV.

Conclusion. Elevated vaginal pH is associated with urogenital STI and may serve as a useful biomarker for underlying infection. This analysis was not able to assess causality, though pH remained predictive when restricted to those reporting STI exposure, perhaps suggesting that high pH increases risk of STI acquisition. Further prospective studies are required to confirm these findings and to mechanistically define relationships between vaginal pH, resident microbiota, and STI.

Disclosures. All authors: No reported disclosures.

1495. Incidence of Sexually Transmitted Infections (STIs) in Patients on Pre-exposure Prophylaxis (PrEP)

Almutase Hamed, MD¹; Christopher Saling, MD¹; Melinda S. Brown, MD²; Maria Elaine Szabela, MD²; Rajasingam Jayasingam, MD^{1,2}; Arthur Siegal, MD¹ and Jihad Slim, MD²; ¹Internal Medicine, St. Michael's Medical Center, Newark, New Jersey, ²Infectious Disease, St. Michael's Medical Center, Newark, New Jersey

Session: 149. Sexually Transmitted Infections

Friday, October 5, 2018: 12:30 PM

Background. Pre-exposure prophylaxis (PrEP) is a highly effective method for preventing HIV transmission among at-risk patients. There is limited and conflicting data regarding the risk of other STIs following PrEP initiation. The objective of this study was to compare the incidence of STIs before and during PrEP therapy.

Methods. A retrospective observational study of patients seeking PrEP therapy at an inner-city clinic in Newark, New Jersey, between May 1, 2016 and March 30, 2018. Patients who were MSM, intravenous drug users, or heterosexual with multiple or HIV-positive partners were considered at risk for HIV and offered PrEP. Patients were initially screened and tested every 3 months for HIV, *Chlamydia trachomatis*, *Neisseria gonorrhoea*, syphilis, hepatitis B virus (HBV), hepatitis C virus (HCV), hepatitis A virus (HAV), herpes simplex virus (HSV), medication adherence and continued high-risk behavior. Patients were also counseled on risk-reduction behaviors. STI incidence before and during PrEP was compared.

Results. Between May 1, 2016 to March 30, 2018, 125 patients were considered at risk. Fifty-one (41%) patients were lost to follow-up after the initial visit and were excluded. Seventy-four (59%) patients completed screening and were included in the study. The mean age was 35.0 ± 11.6 years. The majority of the patients were males 74% (54). 29 (40%) were MSM, and 33 (45%) had HIV-positive partners. The mean duration of PrEP was 386 ± 183 days. Upon initial screening 14 (19%) patients were positive for at least one STI; 3 (21%) patients had HCV, 3 (21%) had *chlamydia*, 2 (14.3%) had HBV, 2 (14.3%) had *gonorrhoea*, 2(14.3%) had syphilis, one had HSV II and one was found to have HIV. Two patients acquired a new STI on PrEP. One tested positive for chlamydia and gonorrhoea 1 month after initiating prep and another contracted syphilis after 6 months. No patient had recurrent STIs nor acquired HIV while on PrEP therapy.

Conclusion. The use of PrEP not only reduces the transmission of HIV but also appears to reduce the incidence of other STIs. Frequent STI screenings and behavioral counseling on risk reduction likely contributed toward lower STI incidence. Larger studies examining similar data over longer durations are needed to confirm these findings.

Disclosures. All authors: No reported disclosures.

1496. Anorectal *Mycoplasma genitalium* Is Common Among Nigerian MSM and Associated with HIV

Trevor A. Crowell, MD, PhD^{1,2}; John Lawlor, MS^{1,2}; Kara Lombardi, MS^{1,2}; Rebecca Nowak, PhD³; Justin Hardick, MS⁴; Sunday Odeyemi, MSc, AIMLS^{1,5}; Afoke Kokogho, MB, BS^{1,5}; Jennifer Malia, MS¹; Catherine Stewart, BS,