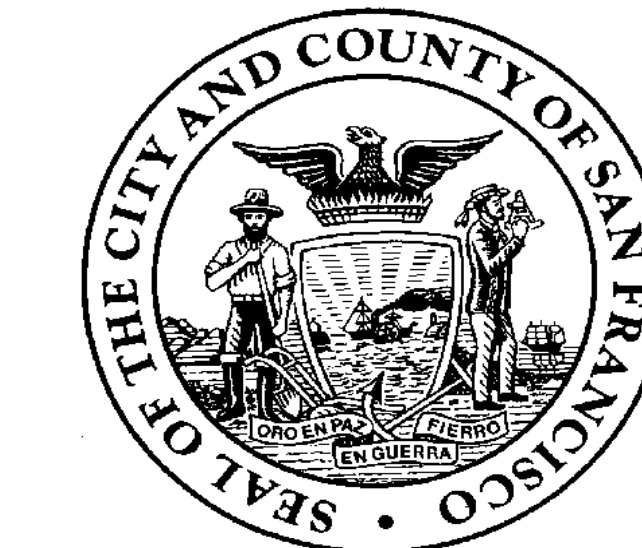


Repeat Rectal Gonorrhea and Chlamydia Infections in a Cohort of Participants on PrEP



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Background

- Sexually Transmitted Infection (STI) incidence is high among men who have sex with men (MSM) using HIV pre-exposure prophylaxis (PrEP)
- Repeat rectal STIs among PrEP users could represent treatment failure or repeat infection
- Retrospective cohort studies suggest that the efficacy of single-dose azithromycin may be lower than one week of doxycycline for rectal chlamydia (CT)
- Comparing rates of repeat rectal CT infection among a prospective cohort of PrEP users who are screened quarterly for STIs, may provide insight into the optimal treatment approach for rectal CT and optimal STI screening frequency for PrEP users

Objectives

- To assess rates of repeat rectal gonorrhea (GC) and chlamydia (CT) infections in a prospective PrEP cohort study
- To compare characteristics of participants (ppts) with and without repeat CT and rates of repeat CT by treatment regimen

Methods

- From September 2012 to January 2014, 557 HIV-uninfected MSM and TGW attending STI clinics in San Francisco and Miami and a community health center in Washington, DC were enrolled in The Demo Project
- Enrolled ppts were offered up to 48 weeks of open-label emtricitabine/tenofovir
- Ppts were tested for syphilis and urethral (U), pharyngeal (P) and rectal (R) GC and CT at screening and at weeks 12, 24, 36, and 48, and treated promptly if positive accordingly to CDC guidelines
- Ppts who were diagnosed with rectal GC or rectal CT at or after week 12 and who were positive for the same infection at the subsequent quarterly visit were considered to have a repeat infection
- Sexual risk behaviors, including # of sex partners and # of sex episodes (by position and condom use), were collected by interviewer administered questionnaire at each quarterly visit

Results

Infection	# Infections at Week 12 or later/# tests (% positive)	N (%) with follow-up test at next visit*	N (%) positive at next visit**
Rectal GC	91/1877 (4.9)	52 (57.1)	3 (5.7)
Rectal CT	169/1878 (9)	112 (66.3)	28 (22.2)

*Ppts positive for rectal CT or GC at week 48 did not have a follow-up test
**p<0.05 for comparison of % with repeat rectal GC vs. % with repeat rectal CT

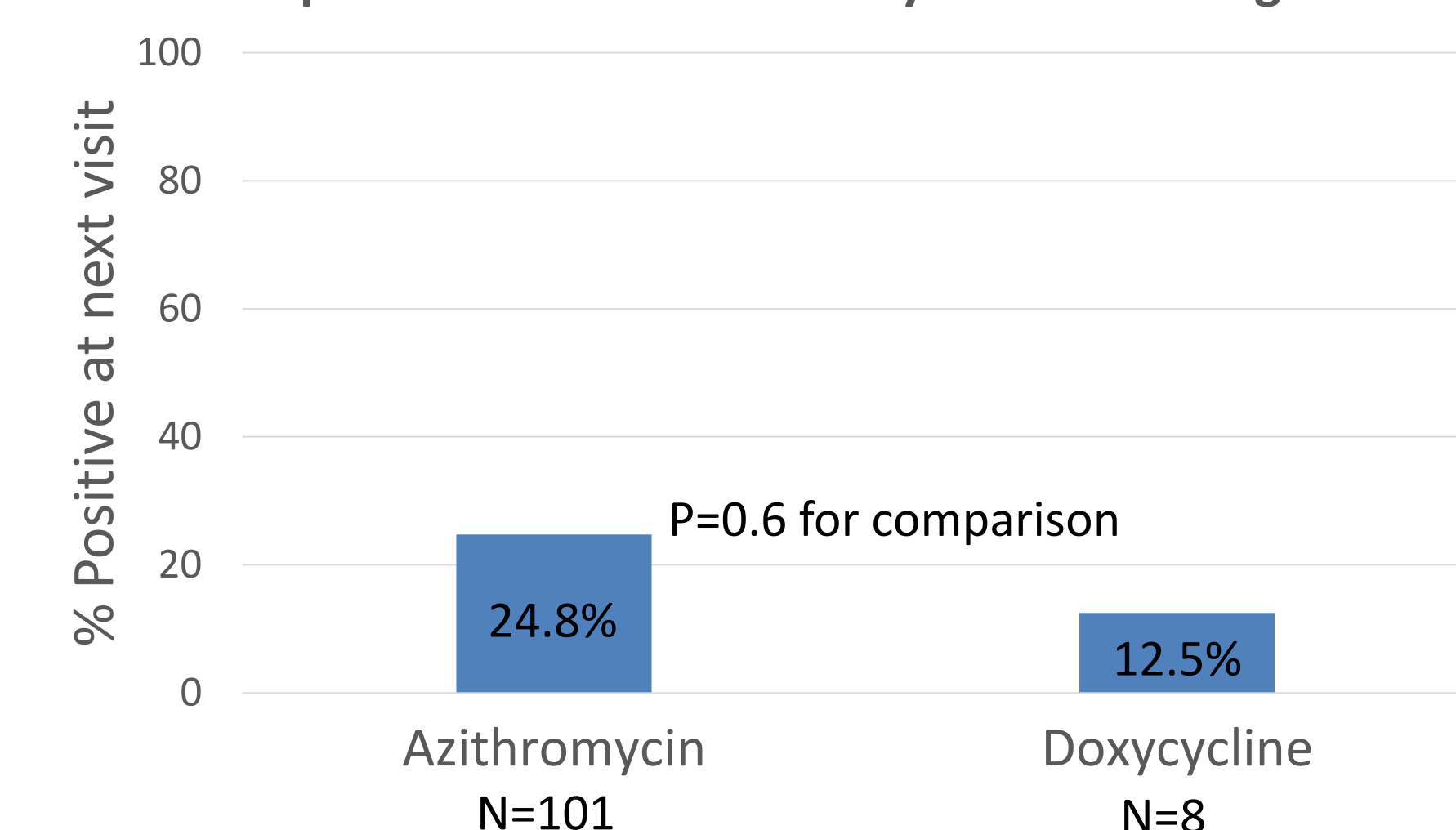
- All ppts with repeat rectal GC and 78% of those with repeat rectal CT reported having ≥ 1 episode of condomless receptive anal sex during the inter-visit interval

Table. Characteristics of ppts with repeat CT infection at the subsequent quarterly visit

Variable	Rectal CT at quarterly visit (N=112)	Rectal CT at subsequent quarterly visit (N=28)^
Study Site		
SF	67 (59.8)	17 (60.7)
Miami	23 (20.5)	5 (17.9)
WWH	22 (19.6)	6 (21.4)
Race/Ethnicity		
White	56 (50)	17 (60.7)
Latino	38 (33.9)	7 (25)
Black	5 (4.5)	0 (0)
Asian	8 (7.1)	3 (10.7)
Other	5 (4.5)	1 (3.6)
Positive for rectal CT at baseline	21 (18.8)	5 (17.9)
≥ 1 episode of condomless receptive anal sex during inter-visit interval	83 (75.5)	21 (77.8)
Meth use during inter-visit interval	20 (18)	7 (25)
Reported "excellent" ability take PrEP at the follow-up visit	54 (50.9)	12 (46.2)

^p>0.05 for all bivariate comparisons of ppts with and without repeat rectal CT

Repeat Rectal CT Infection by Treatment Regimen**



**Excludes 1 patient who received both azithro and doxy and 2 with missing treatment information

Conclusions

- In this PrEP cohort study, repeat rectal CT was more common than repeat GC and did not vary by treatment regimen
- Comparisons of outcome by treatment regimen were limited because 92% of ppts with rectal CT were treated with azithromycin
- Whether repeat rectal CT represented treatment failure or repeat infection is unclear; three-quarters of ppts with a repeat infxn reported condomless receptive anal sex in the inter-visit interval
- Randomized controlled trials with a 3 week test of cure are needed to compare azithromycin vs. doxycycline for the treatment of rectal CT
- Sexually active PrEP users should be screened regularly for STIs because repeat infections are common



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