



Prevalence and Correlates of Pharyngeal Gonorrhea Among Young People Attending Public STD Clinics



Marjan Javanbakht PhD¹, Sarah Guerry, MD², Pamina Gorbach DrPH¹, Ali Stirland MBChB², Michael Chien, PhD (c)², Peter Kerndt MD²

¹UCLA School of Public Health, Department of Epidemiology, Los Angeles, CA

²Los Angeles County Department of Public Health, STD Program, Los Angeles, CA

Contact Information:
Marjan Javanbakht, PhD
Box 957353 – Dept. of Epidemiology
UCLA School of Public Health
Los Angeles, CA 90095-7353
310-794-0619 x245
javan@ucla.edu

BACKGROUND

- Highest reported rates of gonorrhea among those 15-24 years of age
- Contribution of oral sex to gonorrhea transmission among young people may be higher than expected given:
 - Relatively high prevalence of oral sex among this population
 - Low prevalence of condom use for oral sex
 - Difficulty in eradicating pharyngeal gonorrhea with treatments used for urogenital and rectal gonorrhea

OBJECTIVE

- To identify factors associated with pharyngeal gonorrhea among young people

METHODS

- Cross-sectional study of clients attending public STD clinics in Los Angeles County
- Those included in this analysis were:
 - ages 15 – 24 years
 - reported oral sex in past 90 days
 - tested for pharyngeal gonorrhea
- Data collected from May 2006 – December 2007 using electronic records including:
 - Demographics
 - Sexual practice and risk behavior data
 - Laboratory testing data
- Factors associated with pharyngeal gonorrhea assessed with hierarchical regression models using generalized estimating equations

- A total of 3,992 clients were eligible and included in this analysis
- The median age was 21 years and more than half (53.4%) were male
- Among men 23% (n=482) reported sex with men
- The majority identified as African American (47.7%) or Hispanic (36.7%)

Figure 1. Prevalence of pharyngeal gonorrhea among women, by risk behaviors/STIs

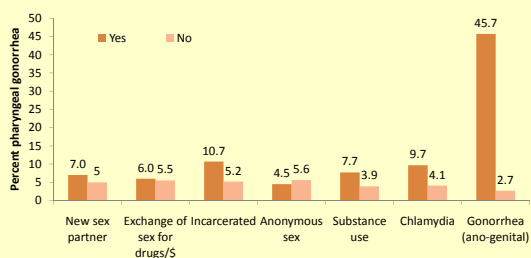
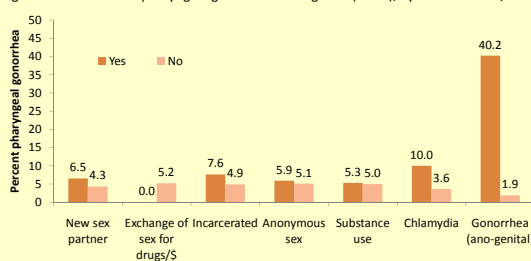


Figure 2. Prevalence of pharyngeal gonorrhea among men (MSW), by risk behaviors/STIs



RESULTS

- The overall prevalence of pharyngeal gonorrhea was 5.9% (n=233) and was higher among MSM (10.4%) as compared to MSW (5.1%) and women (5.5%)
- Among both men and women, the highest prevalence of pharyngeal gonorrhea was among those who also had urogenital or rectal gonorrhea (Figures 1-3)
- After adjusting age, race/ethnicity, and reason for visit (i.e., STD contact), concurrent infection with gonorrhea at a non-pharyngeal site was the strongest predictor of pharyngeal gonorrhea (Table 1)

Figure 3. Prevalence of pharyngeal gonorrhea among men (MSM), by risk behaviors/STIs

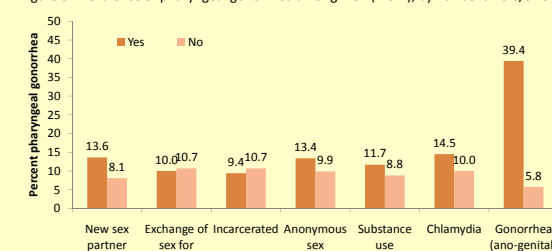


Table 1. Factors associated with pharyngeal gonorrhea, by gender*

	Women		Men (n=2,339)	
	AOR	(95% CI)	MSW (n=1,595) AOR	MSM (n=744) (95% CI)
Substance use	1.9	(1.2 - 3.1)	--	--
Gonorrhea				
Urogenital	26.5	(15.9 - 44.2)	35.4	(19.1 - 65.5)
Rectal	--	--	--	5.4 (2.2 - 13.5)
Chlamydia	--	--	2.0	(1.1 - 3.6)

Abbreviations. AOR: adjusted odds ratio; CI: Confidence interval

*models adjust for age, race/ethnicity, reason for visit

CONCLUSIONS

- Prevalence of pharyngeal gonorrhea among young people was relatively high
- Prevalence of pharyngeal gonorrhea significantly higher among those with concurrent non-pharyngeal gonorrhea, even after adjusting for other factors
- These findings support the utility of pharyngeal screening among young people who report oral sex, particularly those with a concurrent infection at another anatomical site