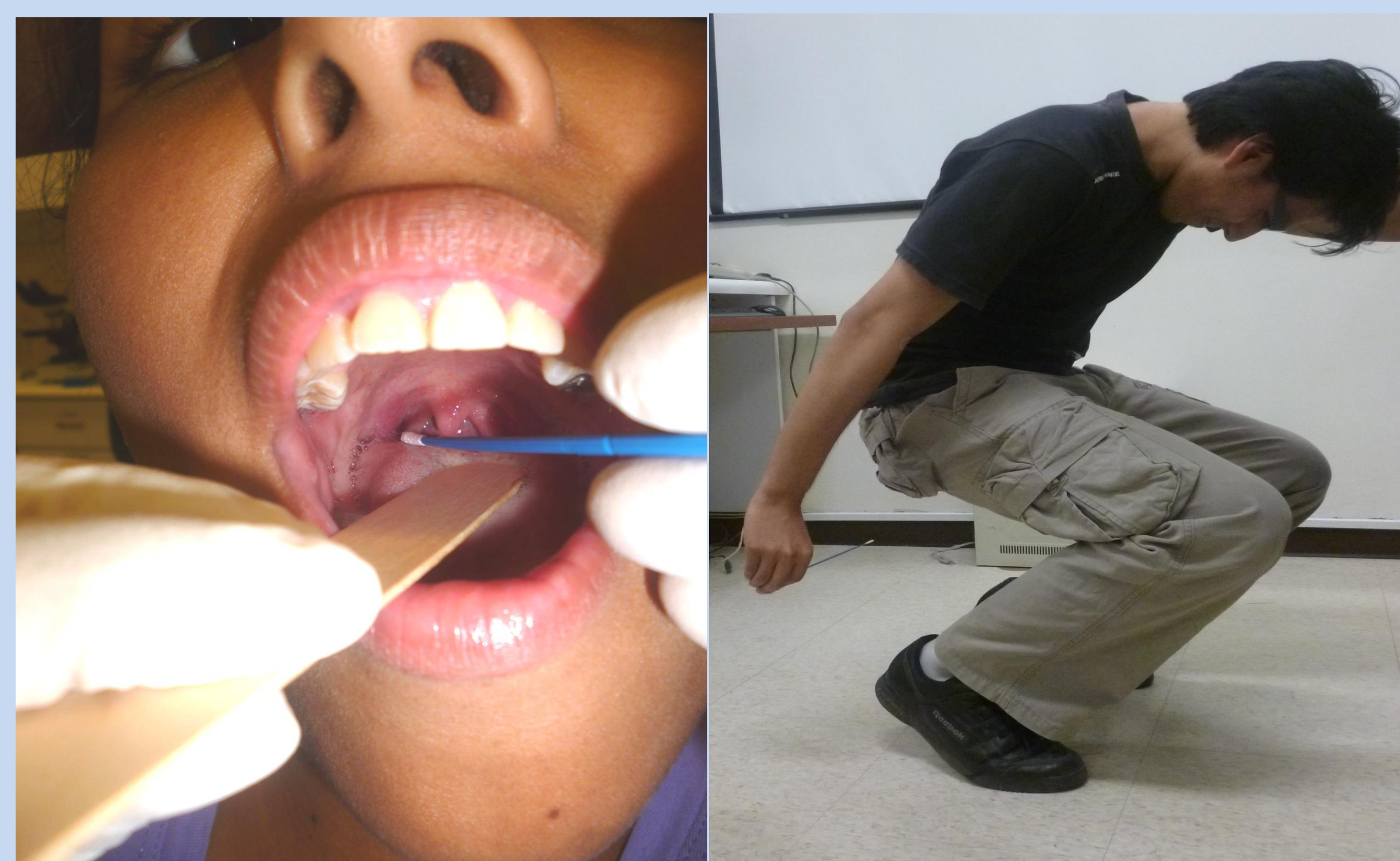


BACKGROUND

- *Chlamydia trachomatis* (CT) and *Neisseria Gonorrhoeae* (NG) are among the most common STIs worldwide
- In Peru, routine screening and testing for CT/NG is lacking as syndromic management for urogenital infections is used
- Prev. studies show moderate rates of CT/NG in non-urogenital site
- Pharyngeal and anal CT/NG infections may represent an unrecognized disease burden and limit effective STI control in Peru

METHODS

- A cross-sectional, clinic-based study with high-risk men who have sex with men (MSM) and transgender women (TW) in Lima, Peru
- We screened all MSM/TW for pharyngeal and anal CT/NG infection (CT/NG Aptima Combo2, GenProbe-Hologic, San Diego, CA) using self-collected anal swabs and staff collected pharyngeal swabs
- Participants with positive results received treatment based on Peruvian and US-CDC guidelines
- Prevalence ratios (PRs) calculated for associations between socio-demographics, sexual risk behaviors, and anal or oral infection



Picture 1. Posters with figures showing the participants the procedures of sample collections (left: Pharyngeal, assisted; right: Anal, self-collected) .

RESULTS

- We enrolled 306 MSM and 89 TW with a median age of 29.6 years (interquartile range (IQR) 23.7 – 38.4)
- Participants reported a median of 5 male sex partners in the past 3 months (IQR 2 - 10)
- Prevalence of anal or pharyngeal CT or NG infection was 28.3%
 - Anal CT = 14.4% , Anal NG =8.9%
 - Pharyngeal CT = 6.1% , Pharyngeal NG = 6.4%

- Among CT or NG infected participants:
 - 81% had one infection at one anatomical site,
 - 7% had the same infection at both sites,
 - 12% had multiple infections at multiple sites
- Anal NG infection was significantly associated with younger age (PR 0.96), being versatile during anal sex (PR 2.40), and using antibiotics in the prior 3 months was protective against infection (PR 0.61)
- Pharyngeal CT infection was significantly higher among TW (PR 2.00)

Fig 1. CT and/or NG infection by anatomic site among MSM/TW

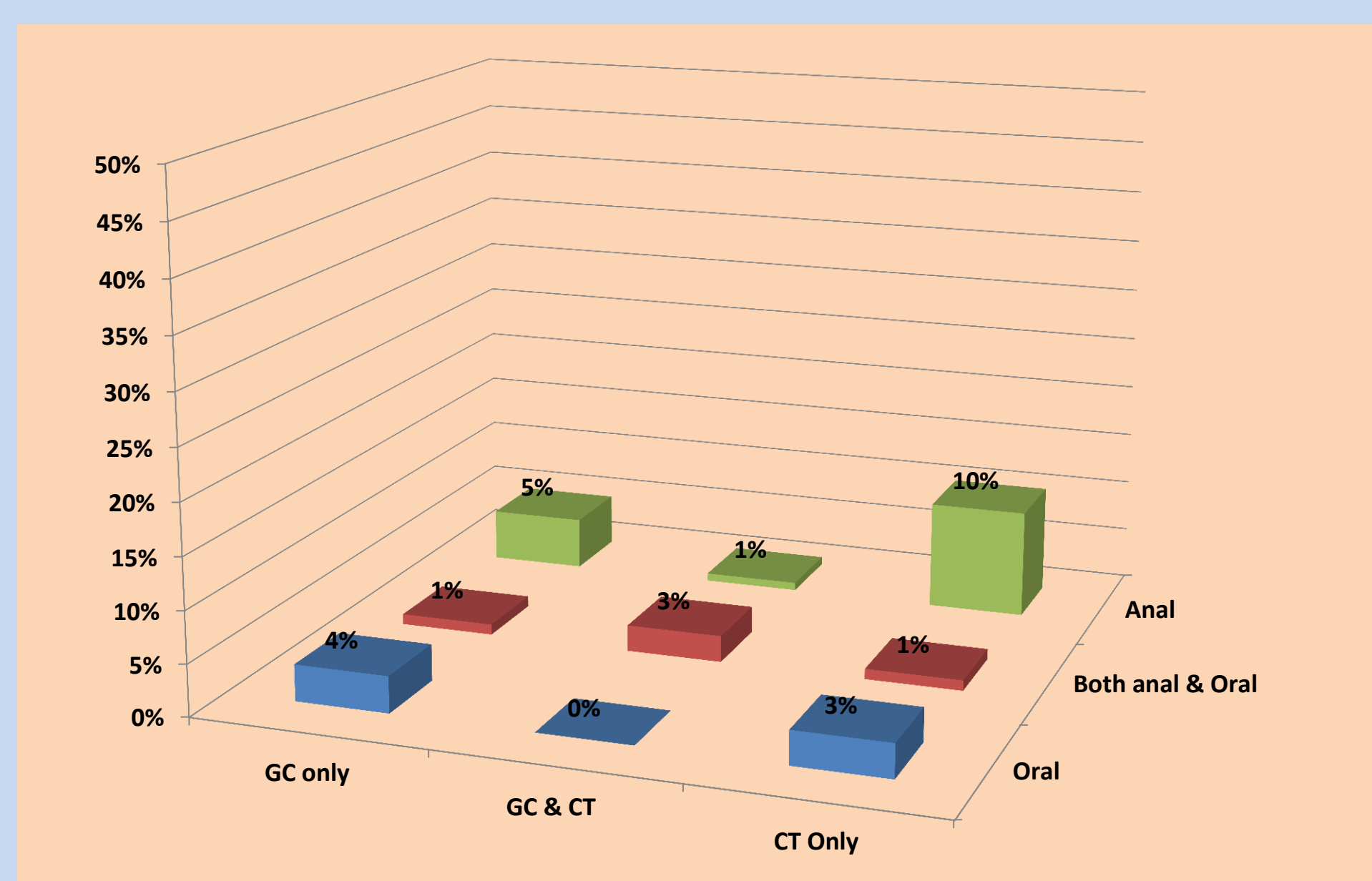


Table 1. Prevalence of anal CT/NG infection and associated factors in MSM and TW in Lima, Peru.

	No (%)	Prevalence of anal GC or CT	Crude PR	CI	p-value
Overall		21%			
Age			0.96	0.94 - 0.99	0.001
18-25	136	26%			
26-30	75	19%			
31-35	60	30%			
36+	111	12%			
Unmet basic needs (months, last year)			Ref		
0	157	21%			
1 - 3	112	23%	1.10	0.70 - 1.74	0.668
4 - 12	113	19%	0.93	0.57 - 1.50	0.756
Sexual identity / Gender Identity			Ref		
Gay	211	23%			
Bisexual/Heterosexual	83	14%	0.64	0.36 - 1.34	0.126
Transgender	83	23%	1.01	0.63 - 1.61	0.979
Sex Role for anal sex			Ref		
Active	84	12%			
Passive	119	18%	1.55	0.78 - 3.11	0.214
Versatile	179	27%	2.30	1.23 - 4.32	0.010
Used an antibiotic, 3 months			Ref		
No	222	24%			
Yes	159	16%	0.63	0.41 - 0.97	0.037
Used alcohol before last sex			Ref		
No	259	21%			
Yes	122	20%	0.96	0.63 - 1.47	0.868
No. male sex partners, 3 months			Ref		
0 - 2	114	22%			
3 - 5	113	22%	1.01	.6179511 - 1.647019	0.972
6 - 10	65	22%	0.98	.5500335 - 1.753759	0.951
11+	90	19%	0.86	.4962506 - 1.495001	0.596
Had unprotected anal sex, 3 months			Ref		
No	83	21%			
Yes	285	22%	1.08	0.67 - 1.74	0.754
Sex worker			Ref		
No	270	22%			
Yes	112	19%	0.84	0.54 - 1.31	0.455

Table 2. Prevalence of pharyngeal CT/NG infection and associated factors in MSM and TW in Lima, Peru.

	No	Prevalence of Oral GC or CT	Crude PR	CI	p-value
Overall	45/381	12%			
Age			0.97	(0.94 - 1.00)	0.092
18-25	17/136	13%			
26-30	13/75	17%			
31-35	7/60	12%			
36+	8/110	7%			
Unmet basic needs (months, last year)			Ref		
0	22/157	14%			
1 - 3	9/112	8%	0.57	(0.27 - 1.20)	0.140
4 - 12	14/112	13%	0.89	(0.48 - 1.67)	0.720
Sexual identity / Gender Identity			Ref		
Gay	22/210	10%			
Bisexual/Heterosexual	6/83	7%	0.69	(0.29 - 1.64)	0.402
Transgender	16/83	19%	1.84	(1.02 - 3.33)	0.044
Sex Role for anal sex			Ref		
Active	6/84	7%			
Passive	14/119	12%	1.65	(0.66 - 4.12)	0.286
Versatile	25/178	14%	1.97	(0.84 - 4.62)	0.121
Antibiotic Use, last 3 months			Ref		
No	22/221	10%			
Yes	23/159	14%	1.45	(0.84 - 2.51)	0.182
Alcohol use at last sex			Ref		
No	28/259	11%			
Yes	17/121	14%	1.30	(0.74 - 2.28)	0.362
No. male sex partners, 3 months			Ref		
0 - 2	13/114	11%			
3 - 5	16/113	14%	1.24	(0.63 - 2.46)	0.536
6 - 10	5/64	8%	0.69	(0.26 - 1.84)	0.452
11+	11/90	12%	1.07	(0.50 - 2.28)	0.857
Had unprotected anal sex, 3 months			Ref		
No	11/88	13%			
Yes	33/279	12%	0.95	(0.50 - 1.79)	0.866
Sex worker			Ref		
No	28/269	10%			
Yes	17/112	15%	1.46	(0.83 - 2.56)	0.188

DISCUSSION

- Prevalence of pharyngeal and anal CT and NG infections are considerable among high-risk Peruvian MSM/TW.
- In accordance with WHO guidelines for MSM and transgender sexual health, increasing access to CT/NG screening including non-genital sites should be implemented.

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