Extragenital Testing and HIV Risk in MSM

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Extragenital Testing

- Nucleic Acid Amplification Test (NAAT) is a molecular technique that detects the presence of chlamydia-specific DNA or gonorrhea-specific DNA that is amplified (DDPH, 2018).

- Testing for STIs at any body site other than urogenital site (Roberts, 2015; Hologic, 2018):
  - Male and female urine (Aptima Combo 2 Assay for CT/GC Urine Specimen Collection Kit, Hologic®)
  - Male urethra and endocervix (Aptima Combo 2 Assay for CT/GC Unisex Swab Specimen Collection Kit, Hologic®)
  - Vagina (Aptima Combo 2 Assay for CT/GC Vaginal Swab Specimen Collection Kit, Hologic®)
Extragenital Testing

- Usually refers to rectum and oropharynx
- Tests for *neisseria gonorrhoea* (GC) and/or *chlamydia trachomatis* (CT) only
- Routinely done only for men who have sex with men (MSM)
Goals of Extragenital Testing (Bacon, 2017)

- To prevent morbidity
- To reduce transmission
- To identify patients at risk for HIV
- To identify patients who might benefit from PrEP
GC, STD Clinic Cases with Sexual Preference Disclosure, Hawaii 2011-2014 (Komeya and Sung, 2016)
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GC and CT Screening by Anatomic Site


% SCREENED BY ANATOMIC SITE AMONG MSM IN STD CLINICS

N=21994 MSM in the STD Surveillance Network (SSUN)

- Urogenital GC+: 11%
- Pharyngeal GC+: 8%
- Rectal GC+: 10%

- Urogenital CT+: 8%
- Pharyngeal CT+: 3%
- Rectal CT+: 14%

Patton et al CID 2014
Extragenital GC and CT Associated with Negative Urine Test, SSuN, 2011-2012 (Patton, et al, 2014)

High proportion of extragenital CT/GC associated with negative urine test, STD Surveillance Network (N=21994)

Between 70-90% of infections would be missed by only screening with urine

Patton et al CID 2014
HIV Risk from Extragential GC and CT (Park, 2016)

**BACKGROUND: STDs PREDICT FUTURE HIV RISK**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Incidence Rate</th>
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<tbody>
<tr>
<td>Rectal GC or CT</td>
<td>1 in 15 MSM</td>
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<tr>
<td>1 in 15 MSM were diagnosed with HIV within 1 year.*</td>
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<tr>
<td>Primary or Secondary Syphilis</td>
<td>1 in 18 MSM</td>
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<tr>
<td>1 in 18 MSM were diagnosed with HIV within 1 year.**</td>
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</tr>
<tr>
<td>No rectal STD or syphilis infection</td>
<td>1 in 53 MSM</td>
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<tr>
<td>1 in 53 MSM were diagnosed with HIV within 1 year.*</td>
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Recommended STD Screening for MSM (Park, 2016)

STD SCREENING FOR MSM

- HIV
- Syphilis
- Urethral GC and CT
- Rectal GC and CT (if RAI)
- Pharyngeal GC (if oral sex)
- HSV-2 serology (consider)
- Hepatitis B (HBsAg, freq not specified)
  - Hepatitis C (HIV+MSM, at least annually)

Anal Cancer in HIV+ MSM: Data insufficient to recommend routine screening, some centers perform anal Pap and HRA

* At least annually, more frequent (3-6 months) if at high risk (multiple/anonymous partners, drug use, high risk partners)

CDC 2015 STD Treatment Guidelines
"Triple Dip" (Hsu, 2015)

- HIV/Syphilis
- Pharyngeal GC NAAT*
- Urine GC/CT NAAT
- Rectal GC/CT NAAT*

*Off-label use. Not FDA-approved for testing at extragenital sites, but many reference labs have validated the assay for use.
Barriers to Extragenital Screening

(Barbee, 2015)

- **Provider-related**
  - Lack of testing and treatment knowledge (25-32%)
  - Lack of time (68%)
  - Discomfort with sexual history taking and genital exam (21%)

- **Patient-related**
  - Patient reluctance (39%)
Endorsement (CDC, 2015, NASTAD & NCSD, 2017)

MAKE EXTRAGENITAL TESTING A PRIORITY

STD screening of gay men/MSM, specifically of the throat and rectum, needs to improve. This is a call to action for health departments and medical providers to normalize 3-site testing.
Food for Thought
Food for Thought (Rompalo, n.d.)

- “If rectal STDs *cause* HIV, then preventing STDs is good HIV prevention.”

- “Even if rectal STDs *do not cause* HIV, MSM with rectal STDs are at higher risk for HIV.”
References


Mahalo

- Kat Sung, BS
- Alan Komeya, MPH
- Alan Katz, MD, MPH