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Supplemental information

**Sexual behavior shapes male
genitourinary microbiome composition**

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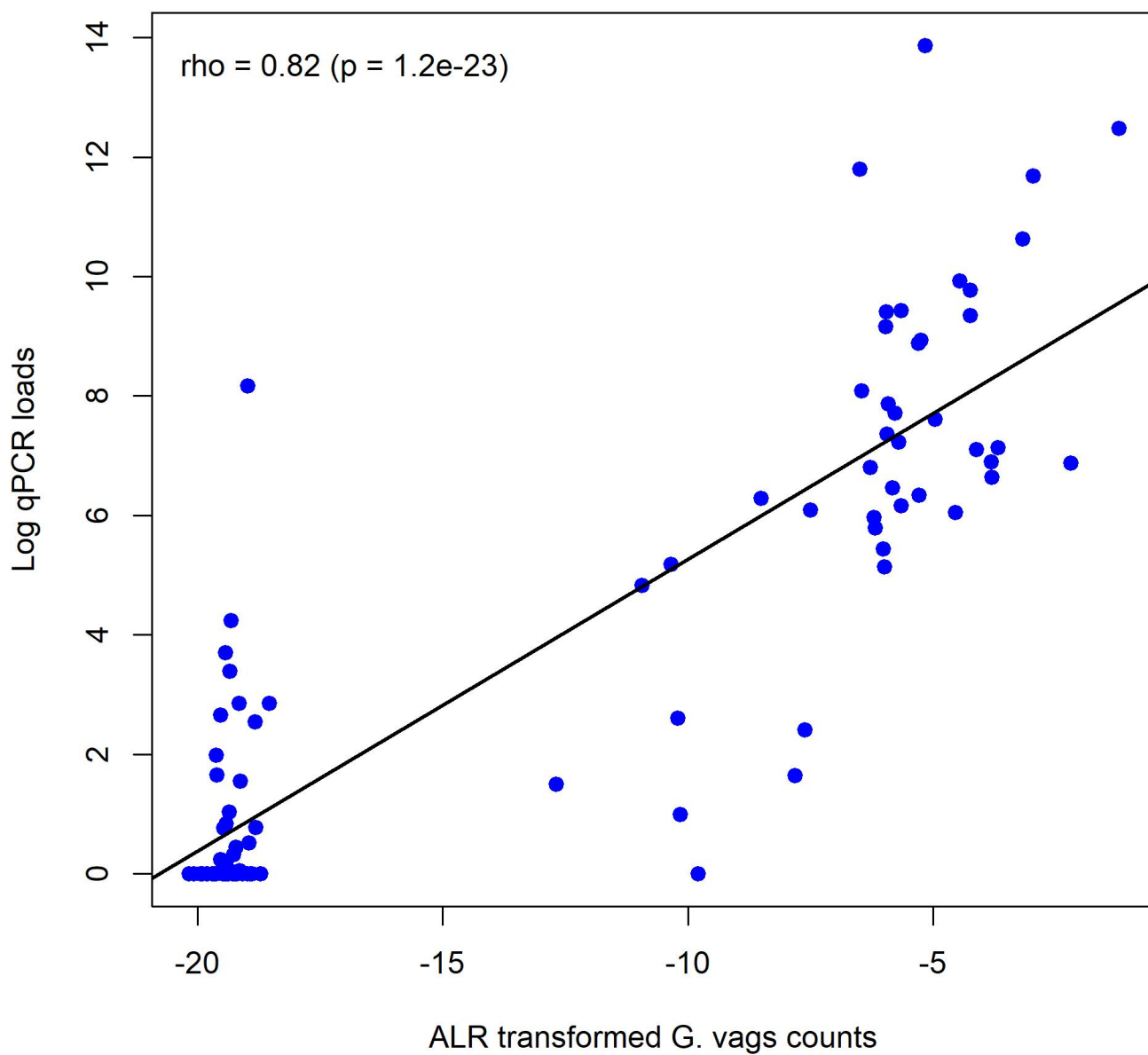
Supplemental Information.

Supplementary Table S1, related to Figure 1. IUMP Study Participant Characteristics (N = 110)

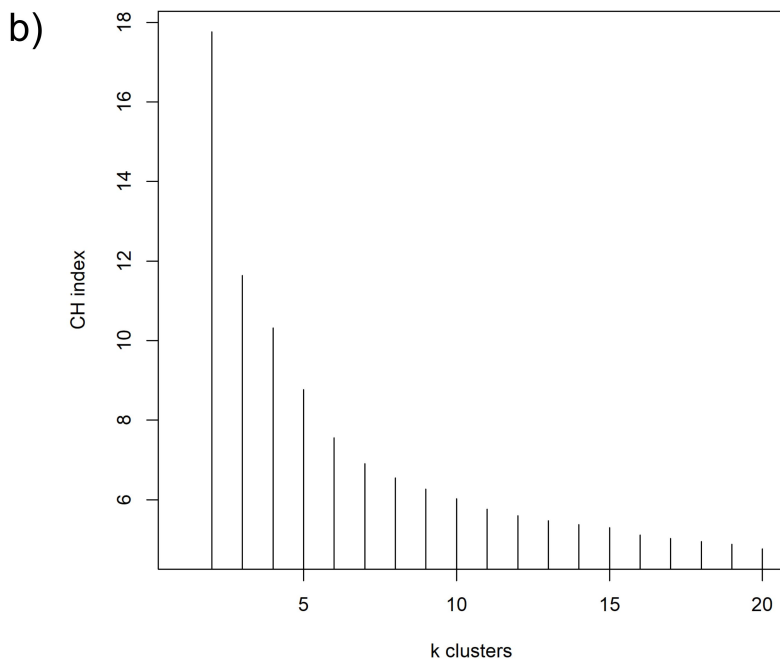
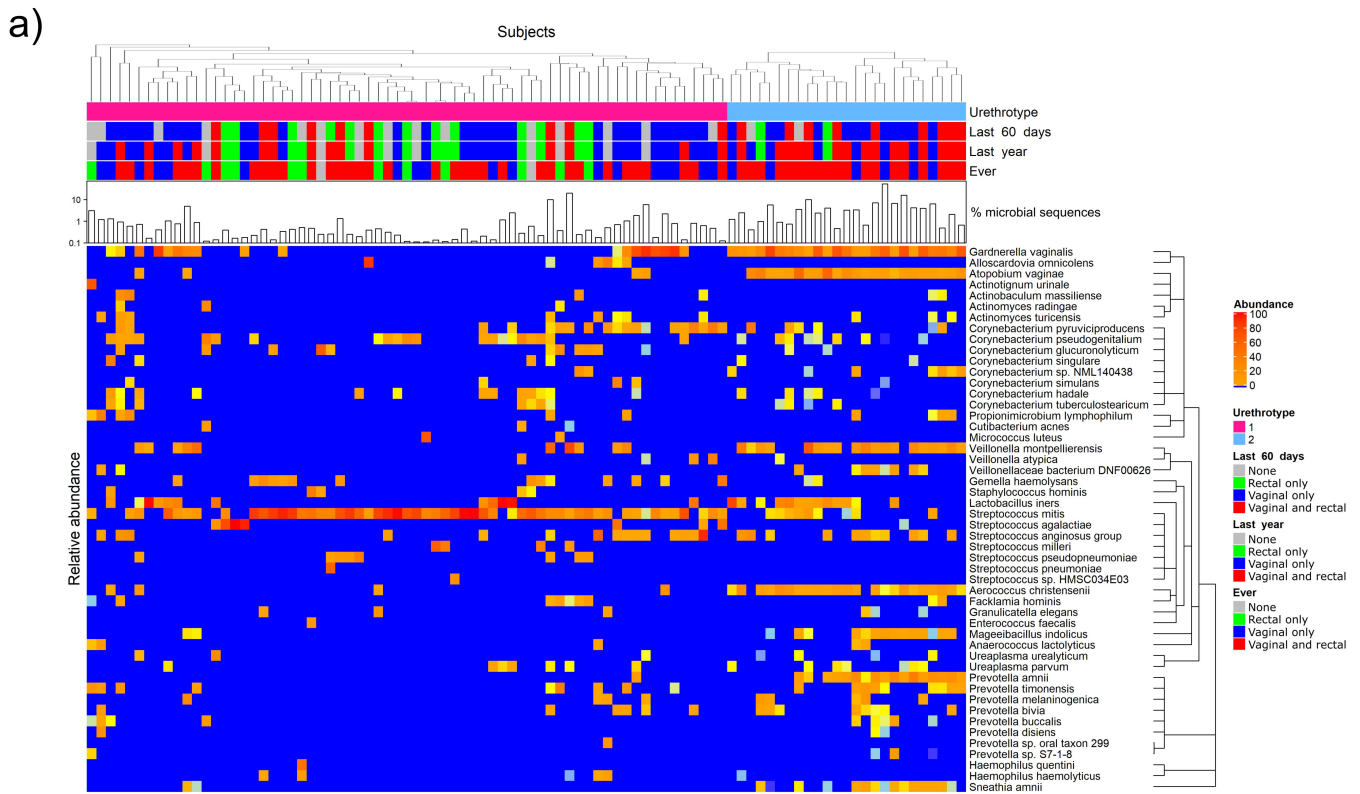
Characteristics	N (%)
Age, median (IQR)	28.7 (24.5–36.8)
Race	
Black/African American	38 (35%)
White	58 (53%)
Other	14 (13%)
Ethnicity	
Non-Hispanic	98 (89%)
Hispanic	12 (11%)
Self-reported sexual orientation	
Heterosexual	75 (68%)
MSM	22 (20%)
Other	13 (12%)
Prior self-reported history of STI	
Chlamydia (N = 106)	33 (31%)
Gonorrhea (N = 106)	26 (25%)
Trichomoniasis (N = 107)	5 (5%)
Herpes (N = 105)	5 (5%)
Syphilis (N = 105)	5 (5%)
NGU (N = 105)	11 (10%)
Genital warts (N = 107)	7 (7%)
Vaginal sex, most recent	
Never	15 (14%)
Within prior 60 days	71 (65%)
Within prior 1 year	8 (7%)
Lifetime/more than prior 1 year	15 (14%)
Received oral sex, most recent	
Never	1 (1%)
Within prior 60 days	90 (82%)
Within prior 1 year	9 (8%)
Lifetime/more than prior 1 year	10 (9%)
Insertive anal sex, most recent	
Never	29 (26%)
Within prior 60 days	41 (37%)
Within prior 1 year	13 (12%)
Lifetime/more than prior 1 year	27 (25%)
Reason for visit	
Diagnosed with STI	1 (1%)
Genital symptoms	3 (3%)
Worried about STI	21 (19%)
Partner diagnosed with STI	5 (5%)
General checkup/other	80 (73%)

Supplementary Table S2, related to Table 1 and STAR Methods: Temporal Odds Ratios of microorganisms that are significantly associated with vaginal sex at three-time intervals.

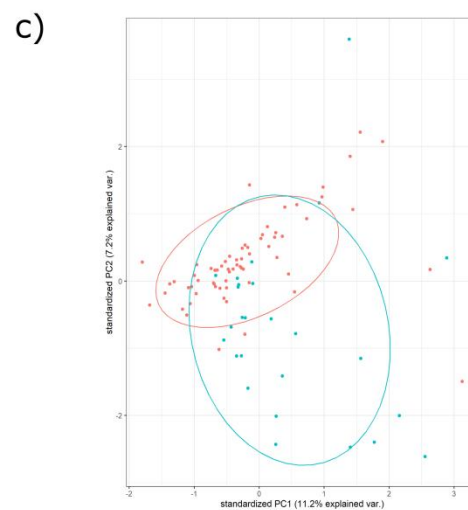
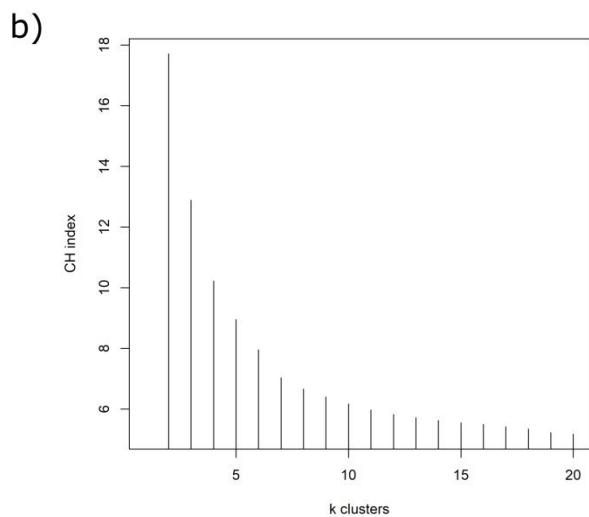
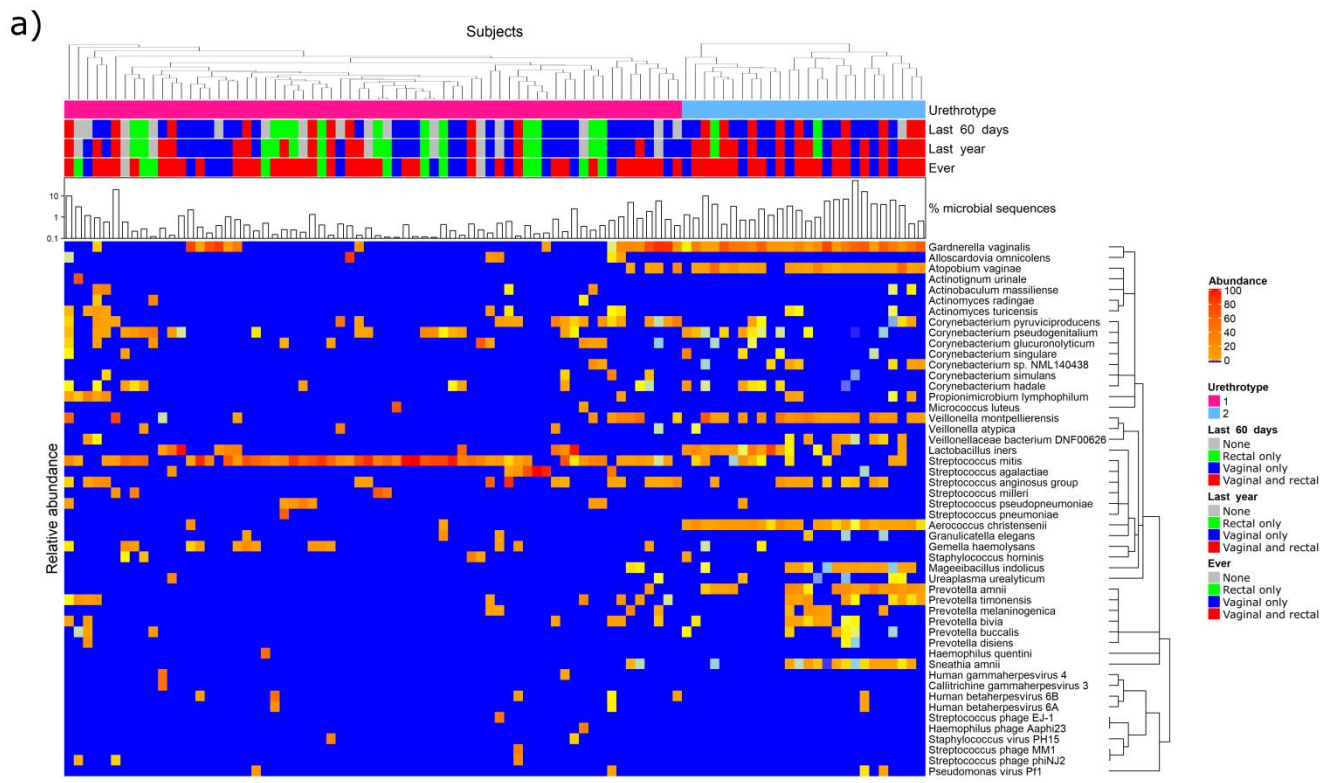
Taxa	Time	OR	CI2.5	CI97.5
<i>Actinomyces radingae</i>	Ever	0.0779	0.0065	0.9271
<i>Aerococcus christensenii</i>	1yr	4.381	1.1898	16.1309
<i>Aerococcus christensenii</i>	60d	4.3514	1.3508	14.017
<i>Atopobium vaginae</i>	1yr	4.381	1.1898	16.1309
<i>Atopobium vaginae</i>	60d	3.1263	1.052	9.2907
<i>Corynebacterium glucuronolyticum</i>	1yr	0.2714	0.0812	0.9069
<i>Corynebacterium glucuronolyticum</i>	60d	0.2727	0.0808	0.92
<i>Cutibacterium acnes</i>	Ever	0.0779	0.0065	0.9271
<i>Gardnerella vaginalis</i>	1yr	11.7949	3.2129	43.3004
<i>Gardnerella vaginalis</i>	60d	6.971	2.4912	19.5067
<i>Gardnerella vaginalis</i>	Ever	35.5352	2.0476	616.6845
<i>Haemophilus parainfluenzae</i>	Ever	0.0965	0.0145	0.6436
<i>Haemophilus sp. HMSC71H05</i>	Ever	0.0779	0.0065	0.9271
<i>Lactobacillus iners</i>	1yr	6.4186	1.3916	29.6059
<i>Lactobacillus iners</i>	60d	3.7692	1.1648	12.1968
<i>Mageeibacillus indolicus</i>	60d	10.3333	1.297	82.3244
<i>Prevotella amnii</i>	1yr	8.6735	1.0906	68.978
<i>Prevotella amnii</i>	60d	5.4545	1.1676	25.481
<i>Staphylococcus hominis</i>	Ever	0.0965	0.0145	0.6436
<i>Streptococcus anginosus group</i>	1yr	4.1008	1.1117	15.1272
<i>Ureaplasma parvum</i>	60d	20.2688	1.1671	352.0132
<i>Veillonella montpellierensis</i>	1yr	4.9833	1.3574	18.2944
<i>Veillonella montpellierensis</i>	60d	5	1.5571	16.0554



Supplementary Figure 1, Related to Figure 3 and STAR Methods: The Spearman's correlation coefficient of *Gardnerella vaginalis* QPCR genome counts and corresponding WGS reads illustrates strong positive correlations, validating the ALR transformation approach.



Supplementary Figure 2, Related to Figure 3 and STAR Methods: Clustering results based on Euclidian distance using CLR-transformed data reveals two urethrotypes clusters. A) Heatmap of CLR-transformed proportions of the top 50 most abundant microbial taxa found in the PU specimens of 92 participants reveals two UT clusters UT1 and UT2. Metadata at the top of the heat map include type of sexual activity (none, rectal only, vaginal only, vaginal and rectal sex) in specific time intervals (last 60 days, last 1 year, lifetime) and urethrotypes (UT1 = pink, UT2 = blue). The bar graph depicts the absolute abundance of microbial sequences on a log scale. The intensity of the red scale bar correlates with the relative abundance of a given species. Darker red indicates higher relative abundance, B) CH index analysis was used to determine the optimal number of UT clusters.



Supplementary Figure 3, Related to Figure 3 and STAR Methods: Clustering results based on Euclidian distance using ALR-transformed data reveals two urethrotypes clusters. A) Heatmap of ALR-transformed proportions of the top 50 most abundant microbial taxa found in PU specimens from 92 participants reveals two UT clusters UT1 and UT2. Metadata at the top of the heat map include type of sexual activity (none, rectal only, vaginal only, vaginal and rectal sex) in specific time intervals (last 60 days, last 1 year, lifetime) and urethrotypes (UT1 = pink, UT2 = blue). The bar graph depicts the absolute abundance of microbial sequences on a log scale. The intensity of the red scale bar correlates with the relative abundance of a given species. Darker red indicates higher relative abundance, B) CH index analysis was used to determine the optimal number of UT clusters, C) Relationships among communities visualized by principal component analysis based on bacterial ALR abundance.

Supplementary Methods S1, Related to Figure 1 and STAR Methods: Complete IUMP participant study survey.

Clinical History- Research Nurse

Record ID

[To AVOID DUPLICATES ALWAYS FIRST CHECK the Report 'Participant Identifiers And Time Point (Baseline/Followup)']

(ALWAYS FIRST CHECK the Report 'Participant Identifiers And Time Point (Baseline/Followup)')

Visit

- Baseline
 Follow up
 Second Follow up
-

Data Form being filled by

-
-

Please specify other not listed

Is this participant a case or control?

- Case
 Control
-

Visit Date

(MM/DD/YYYY)

1. Are you having eye symptoms?

- No
 Yes
-

2. If yes, what eye symptoms are you having?

- Erythema
 Pain, please describe:
 Blurry vision
 Increased tearing
 Discharge, please describe:
 Other, please describe:
-

2a. Please describe pain

2b. Please describe discharge

2c. Please specify other not listed

3. Are you having throat symptoms?

- No
- Yes

4. If yes, what throat symptoms are you having?

- Sore throat
- Erythema
- Difficulties swallowing
- Swollen tonsils
- Exudate
- Other, please describe:

4a. Please specify other not listed

5. Are you having any abdominal symptoms?

- No
- Yes

6. If yes, what abdominal symptoms are you having?

- Abdominal pain, describe (location and characteristics of the pain):
- Diarrhea
- Bloody stools
- Nausea
- Vomiting
- Other, please describe

6a. Please specify other not listed

6b. Please describe location of abdominal pain

6c. Please describe characteristics of the abdominal pain

7. Are you having penile/urethral symptoms?

- No
 Yes

8. If yes, what penile/urethral symptoms are you having?

- Burning or tingling
 Itching
 Dysuria (pain when you pee)
 Erythema around meatus
 Discharge
 Lesions
 Other, please describe

8a. Please specify number of Lesions

- 1 - 5
 6 - 10
 >10

8b. Please specify other not listed

9. Are you having scrotal/testicular symptoms?

- No
 Yes

10. If yes, what scrotal/testicular symptoms are you having?

- Pain
 Lesions
 'Bumps' or masses, describe (right or left or both sides, painful vs not painful):
 Swelling, describe (right or left or both sides):
 Other, please describe

10a. Please specify other not listed

10b. Please describe side of 'Bumps' or masses

- Right side
 Left side
 Both right and left side

10c. Please describe pain of 'Bumps' or masses

- Painful
 Not painful

10d. Please indicate where swelling

- Right side
 Left side
 Both right and left side

11. Are you having anal/rectal/butt symptoms?

- No
 Yes

12. If yes, what anal/butt symptoms are you having?

- Discharge
 Bleeding
 Pain, describe (all the time, with defecation, etc):
 Other, please describe

12a. Please specify other not listed

12b. Please describe the pain

- All the time
 With defecation
 Other

12b. Please describe the pain other not described above

13. Are you having any problems with your skin?

- No
 Yes

14. If yes, what problems with your skin are you having?

- Rash, please describe (time frame ongoing):
 Dryness
 Pruritis
 Other, please describe

14a. Please specify other not listed

14b. Please indicate start date of rash

(MM/DD/YYYY)

14c. Did the rash stop or is it ongoing?

- Rash stopped
- Rash ongoing

14d. Please indicate stop date of rash

(MM/DD/YYYY)

Clinical Examination - Research Nurse

Visit

- Baseline
- Follow up

Data Form being filled by

-
-
-
-
-
-
-

Please specify other reason not listed

Visit Date

(MM/DD/YYYY)

Eyes:

- WNL
- Conjunctival injection (right, left, bilateral)
- Tearing (right, left, bilateral)
- Discharge (right, left, bilateral; color, quantity)
- Other findings (please describe):

Eyes:Conjunctival injection

- right
- left
- bilateral

Eyes:Tearing

- right
- left
- bilateral

Eyes:Discharge

- right
- left
- bilateral

Eyes: Discharge color

- Watery/clear
- Purulent
- Other

Please specify other not listed

Eyes: Discharge quantity

- Small
- Moderate
- Copious

Eyes: Please describe other not listed

Oropharynx:

- WNL
- Erythema
- Ulceration
- Exudates
- Lesions
- Other findings (please describe):

Please describe other oropharynx not listed

Pubic hair:

- WNL
- Nits
- Other, please describe

Pubic hair WNL:

- Normal
- Shaved
- Waxed

Pubic hair Nits:

- No
- Yes

Pubic Hair: Please describe other not listed

Penis:

- WNL
- Discharge
- Meatal erythema
- Lesions
- Other, please describe

Penis: WNL

- Circumcised
- Uncircumcised

Penis: Discharge

- None
- Minimal (with stripping only)
- Moderate
- Copious
- Clear
- Yellow/green
- White

Penis: Discharge

- None
- Minimal (with stripping only)
- Small
- Moderate
- Copious

Penis: Discharge Color

- Clear
- Yellow/green
- White

Penis: Meatal erythema

- No
- Yes

Penis: Lesions

- None
- Ulceration
- Genital warts
- Erythema
- Edema
- Other (describe):

Penis: Please specify other for lesions not described above

Penis: Please specify other for not described above

Penis: Location of lesions

- Peri-meatal
- Shaft
- Scrotum
- Suprapubic area
- Inguinal region
- N/A

Penis: Number of lesions

- 1 - 5
- 6 - 10
- >10

Scrotum and contents:

- WNL
- Epididymal tenderness
- Testicular tenderness
- Testicular mass
- Swelling
- Other, please describe

Scrotum and contents:Epididymal tenderness

- Right
- Left
- Bilateral
- None

Scrotum and contents:Testicular tenderness

- Right
- Left
- Bilateral
- None

Scrotum and contents:Testicular mass

- Right
- Left
- Bilateral
- None

Scrotum and contents:Swelling

- Right
- Left
- Bilateral
- None

Scrotum and contents: Please list other not listed above

External rectal exam:

- WNL
- Discharge, describe (color, quantity):
- Erythema
- Lesion

External rectal exam: Discharge Color

- watery/clear
- mucoid
- purulent

External rectal exam: Discharge Color

- small
- moderate
- copious

External rectal exam: Lesion

- None
- Ulceration (describe)
- Warts (describe)
- External hemorrhoid

External rectal exam: Number of Lesion

- 1 - 5
- 6 - 10
- >10

Skin:

- WNL
- Rash, describe:
- Erythema
- Other, please describe

Skin: Please describe other not listed

Inguinal Lymph Nodes:

- WNL (not palpable)
- Nodes felt (describe size, tenderness)
- Other, please describe

Inguinal Lymph Nodes: describe size

Inguinal Lymph Nodes: Tenderness

- No
 Yes

Inguinal Lymph Nodes: Please describe other not listed

Bell Flower Urethral swab Gram Stain results

- None recorded
 < 2 WBCs, no GNID.
 2-4 WBCs, no GNID.
 < 5 WBCs, no GNID.
 >5 WBCs, no GNID.
 >5 WBCs, positive for GNID.

Bell Flower Results

- Positive
 Negative
 Indeterminate

Study Samples Obtained:Remainder swab from initial urethral swab for Gram's stain

- No
 Yes

Study Samples Obtained:Urethral swab for Microbiome

- No
 Yes

Study Samples Obtained: First catch urine after swabs obtained

- No
 Yes

Study Samples Obtained: Saliva sample in collection kit (if subject consented)

- No
 Yes

Study Samples Obtained: rectal swab (if subject consented)

- No
 Yes

If yes rectal swab obtained, who obtained it?

- Participant obtained
 Clinician obtained

Treatment Provided

- Azithromycin 1000 mg orally directly observed in clinic
- Doxycycline 100 mg bid orally for 7 days
- Metronidazole 2 g orally directly observed in clinic
- None (controls)
- Other (specify):

Please specify other not listed

Date and Time for Follow Up Appointment (cases only)

(MM/DD/YYYY)

Enrollment Questionnaire Cases and Controls

Please complete the survey below.

Thank you!

1. Date of Visit

(MM/DD/YYYY)

2. How old are you?

(in years)

3. What is your birthdate?

(MM/DD/YYYY)

4. What is your race?

- American Indian or Alaskan Native
- Asian
- Black or African American
- Native Hawaiian or other Pacific Islander
- White
- More than one race
- Other

4a. Please specify other

5. This is about Hispanic ethnicity. Are you of Spanish, Hispanic, or Latino descent?

- No, I am not
- Yes, Mexican, Mexican-American Chicano
- Yes, Puerto Rican
- Yes, Cuban
- Yes, Central American
- Yes, South American
- Yes, Caribbean
- Yes, Other Spanish/Hispanic/Latino

6a. Which of the following best describes your current relationship status?

- Single and not dating
- Single and dating/hanging out with someone
- In a relationship but not living together
- Living together but not married
- Married and living together
- Married but not living together

6b. Is your current dating/relationship partner a:

- Man
 Woman
-

7. What is the highest level of education you completed (how much school did you complete)?

- No school or kindergarten
 1st grade
 2nd grade
 3rd grade
 4th grade
 5th grade
 6th grade
 7th grade
 8th grade
 9th grade
 10th grade
 11th grade
 12th grade/High school diploma/GED
 Vocational school (i.e. technical/secretarial/business)
 1 year of college
 2 years of college
 3 years of college
 Graduated from college with a 4year degree
 At least some graduate work
 Completed a graduate degree
-

8. Are you currently a student?

- No
 Yes
-

9. Do you currently have a job?

- No
 Yes
-

10. What is the ZIP code of the area where you currently live?

11. What is the main reason you came to the clinic today?

[Please select the one answer on the list below that comes closest to your main reason for coming]

- I am having genital symptoms (discharge from my penis, frequent or painful urination; burning/stinging/tingling/itching of the opening of my penis)
 I am worried that I might have a sexually transmitted infection
 I am a sexual partner of a person who has been diagnosed with a sexually transmitted infection
 I had a sexually transmitted infection and the doctor asked me to come back to be checked or treated
 I am here for a routine check to be tested for a sexually transmitted infection
 I need a general check-up-and physical exam
 Other [please describe]
-

11a. Please specify other

12. Are there other reasons you came today?

	No	Yes
12a. I am having genital symptoms (discharge from my penis, frequent or painful urination; burning/stinging/tingling/itching of the opening of my penis)	<input type="radio"/>	<input type="radio"/>
12b. I am worried that I might have a sexually transmitted infection	<input type="radio"/>	<input type="radio"/>
12c. I am a sexual partner of a person who has been diagnosed with a sexually transmitted infection	<input type="radio"/>	<input type="radio"/>
12d. I had a sexually transmitted infection and the doctor asked me to come back to be checked or treated	<input type="radio"/>	<input type="radio"/>
12e. I am here for a routine check to be tested for a sexually transmitted infection	<input type="radio"/>	<input type="radio"/>
12f. I need a general check-up and physical exam	<input type="radio"/>	<input type="radio"/>
12g. Other [please describe]	<input type="radio"/>	<input type="radio"/>

12g. Please specify other

13. If you are having genital symptoms today, when did you first notice that something was wrong?

- Three days ago or less
 Four to seven days ago (more than 3 days but up to a week)
 Seven to fourteen days (1-2 weeks)
 More than fourteen days ago (2 weeks or more)
 Don't remember
-

14. Have you ever smoked cigarettes?

- No
 Yes
-

14a. How many years did you smoke cigarettes?

(years)

14b. Do you currently smoke cigarettes?

- No
 Yes
-

14c. How many packs per day?

(per day)

15. Have you ever consumed alcohol?

- No
 Yes
-

15a. Do you currently drink alcohol?

- No
 Yes
-

15b. On average, how often do you have drinks containing alcohol? One drink equals 1 bottle/glass of beer, 1 glass of wine, or 1 shot of liquor.

- Never
 Monthly or less
 2-4 times a month
 2-3 times a week
 4 or more times a week
 Don't know
 Would prefer not to answer
-

15c. If you no longer drink alcohol, when did you quit drinking alcohol?

16. Have you used any of the following substances in the past 30 days?

	No	Yes
16a. Marijuana	<input type="radio"/>	<input type="radio"/>
16b. Methamphetamine	<input type="radio"/>	<input type="radio"/>
16c. Cocaine	<input type="radio"/>	<input type="radio"/>
16d. Crack	<input type="radio"/>	<input type="radio"/>
16e. Heroin	<input type="radio"/>	<input type="radio"/>
16f. PCP	<input type="radio"/>	<input type="radio"/>
16g. Prescription pain medications	<input type="radio"/>	<input type="radio"/>
16h. Other	<input type="radio"/>	<input type="radio"/>

16g. Please specify other not listed above

17. Whether you wanted to or not, how old were you when you engaged in sexual activity with another person for the first time?

(in years)

17a. Any comments concerning question '17. Whether you wanted to or not, how old were you when you engaged in sexual activity with another person for the first time?'

18. How many sex partners have you had in your whole life?

(if unknown enter 999)

19. How many sex partners have you had in the past 12 months?

(if unknown enter 999)

20. How many sex partners have you had in the past 2 months (60 days)?

(if unknown enter 999)

21. How many new sex partners have you had in the past 2 months (60 days)?

(if unknown enter 999)

22. Have you ever been treated for a sexually transmitted disease (STD), which is also known as a venereal disease (VD)?

- No
 Yes
 Don't know
-

23. If you have been treated for a sexually transmitted disease or STD, was this within the last 2 months (60 days)?

- No
 Yes
 Don't know
-

Have you ever been told by a doctor or nurse that you had:

	No	Yes
24a. Chlamydia	<input type="radio"/>	<input type="radio"/>
24b. Gonorrhea	<input type="radio"/>	<input type="radio"/>
24c. Trichomonas	<input type="radio"/>	<input type="radio"/>
24d. Herpes	<input type="radio"/>	<input type="radio"/>
24e. Syphilis	<input type="radio"/>	<input type="radio"/>
24f. NGU (non-gonococcal urethritis)	<input type="radio"/>	<input type="radio"/>
24g. Genital warts	<input type="radio"/>	<input type="radio"/>

How recently have you engaged in the following sexual behaviors with a female partner?

	Done in past 60 days (two months)	Done in past year	Done during my lifetime (more than a year ago)	Never done this
25a) Masturbated with a woman	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25b. I put my mouth on a woman's vagina, vulva, genitals ("giving oral sex")	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25c. A woman put her mouth on my penis, genitals ("receiving oral sex")	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25d. I used a condom while receiving oral sex from a woman	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25e. I put my penis in a woman's vagina ("penile-vaginal sex")	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25f. I used a condom during vaginal sex with a woman	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25g. I put my penis in a woman's anus (butthole) ("anal sex")	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25h. I used a condom during anal sex with a woman	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25i. I put my mouth on a woman's anus/butthole? ("oral-anal sex," rimming)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25j. A woman put her mouth on my anus/butthole? ("oral-anal sex," rimming)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25k. Does your partner place her finger into or on your anus/butthole while engaging in sex?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

25I. Do you or your partner place a sex toy (vibrator, butt plug, anal beads) into or on your anus/butthole while engaging in sex?

26. If you have had penile-vaginal sex, of the last 10 times that you had penile-vaginal sex, how many of those times did you use a condom?

- Every Time (10 out of 10 times)
 9 out of 10 times
 8 out of 10 times
 7 out of 10 times
 6 out of 10 times
 5 out of 10 times
 4 out of 10 times
 3 out of 10 times
 2 out of 10 times
 1 out of 10 times
 Never (0 out of 10 times)

27. If you have had anal sex, of the last 10 times that you had anal sex, how many of those times did you use a condom?

- Every Time (10 out of 10 times)
 9 out of 10 times
 8 out of 10 times
 7 out of 10 times
 6 out of 10 times
 5 out of 10 times
 4 out of 10 times
 3 out of 10 times
 2 out of 10 times
 1 out of 10 times
 Never (0 out of 10 times)

28. How recently have you engaged in the following sexual behaviors with a male partner?

	Done in past 60 days (two months)	Done in past year	Done during my lifetime (more than a year ago)	Never done this
28a. Masturbated with a man	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28b. I put my mouth on a man's penis, genitals ("giving oral sex")	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28c. A man put his mouth on my penis, genitals ("receiving oral sex")	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28d. I used a condom during oral sex with a man	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28e. I put my penis in a man's anus (butthole) ("insertive anal sex")	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- | | | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| 28f. I used a condom during insertive anal sex with a man | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 28g. A man put his penis in a my anus (butthole) ("receptive anal sex") | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 28h. I used a condom during receptive anal sex with a man | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 28i. I put my mouth on a man's anus/butthole? ("oral-anal sex," rimming) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 28j. A man put his mouth on my anus/butthole? ("oral-anal sex," rimming) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 28k. I used pre-exposure prophylaxis (PrEP) (routine medication to prevent HIV infection, taken daily) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 28l. I used post-exposure prophylaxis (PEP) (temporary medication to prevent HIV infection, taken after I might have been exposed to HIV) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 28m. Does your partner place his finger into or on your anus/butthole while engaging in sex? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 28n. Do you or your partner place a sex toy (vibrator, butt plug, anal beads) into or on your anus/butthole while engaging in sex? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

29. If you have insertive anal sex with a man, of the last 10 times that you put your penis in a man's anus/butthole, how many of those times did you use a condom?

- Every Time (10 out of 10 times)
- 9 out of 10 times
- 8 out of 10 times
- 7 out of 10 times
- 6 out of 10 times
- 5 out of 10 times
- 4 out of 10 times
- 3 out of 10 times
- 2 out of 10 times
- 1 out of 10 times
- Never (0 out of 10 times)

30. If you have receptive anal sex, of the last 10 times that a man put his penis in my anus/butthole, how many of those times did you use a condom?

- Every Time (10 out of 10 times)
- 9 out of 10 times
- 8 out of 10 times
- 7 out of 10 times
- 6 out of 10 times
- 5 out of 10 times
- 4 out of 10 times
- 3 out of 10 times
- 2 out of 10 times
- 1 out of 10 times
- Never (0 out of 10 times)

You are almost done. These are the last few questions.

31. Do you or your partner(s) use any products (i.e. lubricants, spermicides) when you have sex?

- No
- Yes

31a. What types of products do you use when you have sex (check all that apply)?

- None
- Saliva
- Lubricants (like KY jelly)
- Spermicide (not related to the condom)
- Oils
- Lotion
- Other, please list:

31a. Please specify other not listed

32. Do you masturbate?

- No
- Yes

32a. How many times per week?

- None
- 1 time
- 2-3 times
- 4-6 times
- Every day
- 2 or more times a day

32b. Do you use lubrication when you masturbate?

- No
- Yes

32c. What do you use for lubrication when you masturbate? (check all that apply)

- Nothing
- Saliva
- Store bought lubrication (like KY jelly)
- Lotion
- Oil
- Other: please list:

32c. Please specify other

32d. Do you use a masturbation sleeve or a "Fifi" when you masturbate?

- No
- Yes

32e. Do you use any other aids/toys when you masturbate (i.e. vibrator, anal beads)?

- No
- Yes

33. Which of the following commonly used terms best describes your sexual orientation?

- Straight/heterosexual (not gay)
- Gay or homosexual
- Bisexual
- Asexual (I am not sexually attracted to others)
- Other, please describe

33a. Please specify other

Insight Test Results - Research Nurse

Date Form Filled out

-
-
-
-
-
-
-

Please specify other not listed

Date Form Filled out

(MM/DD/YYYY)

1. Chlamydia tests (NAAT)

- None recorded
- Negative test(s), date(s):
- Positive test(s), date(s):

1a. Chlamydia tests (NAAT): Date of Negative Test

(MM/DD/YYYY)

1a. Chlamydia tests (NAAT): Date of Negative Test

(MM/DD/YYYY)

1a. Chlamydia tests (NAAT): Date of Negative Test

(MM/DD/YYYY)

1a. Chlamydia tests (NAAT): Date of Negative Test

(MM/DD/YYYY)

1a. Chlamydia tests (NAAT): Date of Negative Test

(MM/DD/YYYY)

1a. Chlamydia tests (NAAT): Date of Negative Test

(MM/DD/YYYY)

1a. Chlamydia tests (NAAT): Date of Negative Test

(MM/DD/YYYY)

1a. Chlamydia tests (NAAT): Date of Negative Test

(MM/DD/YYYY)

1a. Chlamydia tests (NAAT): Date of Negative Test

(MM/DD/YYYY)

1a. Chlamydia tests (NAAT): Date of Negative Test

(MM/DD/YYYY)

1b. Chlamydia tests (NAAT): Date of Positive Test

(MM/DD/YYYY)

1b. Chlamydia tests (NAAT): Date of Positive Test

(MM/DD/YYYY)

1b. Chlamydia tests (NAAT): Date of Positive Test

(MM/DD/YYYY)

1b. Chlamydia tests (NAAT): Date of Positive Test

(MM/DD/YYYY)

1b. Chlamydia tests (NAAT): Date of Positive Test

(MM/DD/YYYY)

1b. Chlamydia tests (NAAT): Date of Positive Test

(MM/DD/YYYY)

1b. Chlamydia tests (NAAT): Date of Positive Test

(MM/DD/YYYY)

1b. Chlamydia tests (NAAT): Date of Positive Test

(MM/DD/YYYY)

1b. Chlamydia tests (NAAT): Date of Positive Test

(MM/DD/YYYY)

1b. Chlamydia tests (NAAT): Date of Positive Test

(MM/DD/YYYY)

2. Gonorrhea tests (NAAT or culture)

- None recorded
- Negative test(s), date(s):
- Positive test(s), date(s):

2a. Gonorrhea tests (NAAT or culture): Date of Negative Test

(MM/DD/YYYY)

2a. Gonorrhea tests (NAAT or culture): Date of Negative Test

(MM/DD/YYYY)

2a. Gonorrhea tests (NAAT or culture): Date of Negative Test

(MM/DD/YYYY)

2a. Gonorrhea tests (NAAT or culture): Date of Negative Test

(MM/DD/YYYY)

2a. Gonorrhea tests (NAAT or culture): Date of Negative Test

(MM/DD/YYYY)

2a. Gonorrhea tests (NAAT or culture): Date of Negative Test

(MM/DD/YYYY)

2a. Gonorrhea tests (NAAT or culture): Date of Negative Test

(MM/DD/YYYY)

2a. Gonorrhea tests (NAAT or culture): Date of Negative Test

(MM/DD/YYYY)

2a. Gonorrhea tests (NAAT or culture): Date of Negative Test

(MM/DD/YYYY)

2a. Gonorrhea tests (NAAT or culture): Date of Negative Test

(MM/DD/YYYY)

2a. Gonorrhea tests (NAAT or culture): Date of Negative Test

(MM/DD/YYYY)

2b. Gonorrhea tests (NAAT or culture): Date of Positive Test

(MM/DD/YYYY)

2b. Gonorrhea tests (NAAT or culture): Date of Positive Test

(MM/DD/YYYY)

2b. Gonorrhea tests (NAAT or culture): Date of Positive Test

(MM/DD/YYYY)

2b. Gonorrhea tests (NAAT or culture): Date of Positive Test

(MM/DD/YYYY)

2b. Gonorrhea tests (NAAT or culture): Date of Positive Test

(MM/DD/YYYY)

2b. Gonorrhea tests (NAAT or culture): Date of Positive Test

(MM/DD/YYYY)

2b. Gonorrhea tests (NAAT or culture): Date of Positive Test

(MM/DD/YYYY)

2b. Gonorrhea tests (NAAT or culture): Date of Positive Test

(MM/DD/YYYY)

2b. Gonorrhea tests (NAAT or culture): Date of Positive Test

(MM/DD/YYYY)

3. Trichomonas tests (NAAT)

- None recorded
- Negative test(s), date(s):
- Positive test(s), date(s):

3a. Trichomonas tests (NAAT): Date of Negative Test

(MM/DD/YYYY)

3a. Trichomonas tests (NAAT): Date of Negative Test

(MM/DD/YYYY)

3a. Trichomonas tests (NAAT): Date of Negative Test

(MM/DD/YYYY)

3a. Trichomonas tests (NAAT): Date of Negative Test

(MM/DD/YYYY)

3a. Trichomonas tests (NAAT): Date of Negative Test

(MM/DD/YYYY)

3a. Trichomonas tests (NAAT): Date of Negative Test

(MM/DD/YYYY)

3a. Trichomonas tests (NAAT): Date of Negative Test

(MM/DD/YYYY)

3a. Trichomonas tests (NAAT): Date of Negative Test

(MM/DD/YYYY)

3a. Trichomonas tests (NAAT): Date of Negative Test

(MM/DD/YYYY)

3a. Trichomonas tests (NAAT): Date of Negative Test

(MM/DD/YYYY)

3b. Trichomonas tests (NAAT): Date of Positive Test

(MM/DD/YYYY)

3b. Trichomonas tests (NAAT): Date of Positive Test

(MM/DD/YYYY)

3b. Trichomonas tests (NAAT): Date of Positive Test

(MM/DD/YYYY)

3b. Trichomonas tests (NAAT): Date of Positive Test

(MM/DD/YYYY)

3b. Trichomonas tests (NAAT): Date of Positive Test

(MM/DD/YYYY)

3b. Trichomonas tests (NAAT): Date of Positive Test

(MM/DD/YYYY)

3b. Trichomonas tests (NAAT): Date of Positive Test

(MM/DD/YYYY)

3b. Trichomonas tests (NAAT): Date of Positive Test

(MM/DD/YYYY)

3b. Trichomonas tests (NAAT): Date of Positive Test

(MM/DD/YYYY)

3b. Trichomonas tests (NAAT): Date of Positive Test

(MM/DD/YYYY)

4. Gram stain

- None recorded
- < 2 WBCs, no GNID. Date(s):
- 2-4 WBCs, no GNID. Date(s):
- < 5 WBCs, no GNID. Date(s):
- >5 WBCs, no GNID. Date(s):
- >5 WBCs, positive for GNID. Date(s):

4a. Gram stain: Date of < 5 WBCs, no GNID

(MM/DD/YYYY)

4a. Gram stain: Date of < 5 WBCs, no GNID

(MM/DD/YYYY)

4a. Gram stain: Date of < 5 WBCs, no GNID

(MM/DD/YYYY)

4a. Gram stain: Date of < 5 WBCs, no GNID

(MM/DD/YYYY)

4a. Gram stain: Date of < 5 WBCs, no GNID

(MM/DD/YYYY)

4a. Gram stain: Date of < 5 WBCs, no GNID

(MM/DD/YYYY)

4a. Gram stain: Date of < 5 WBCs, no GNID

(MM/DD/YYYY)

4a. Gram stain: Date of < 5 WBCs, no GNID

(MM/DD/YYYY)

4a. Gram stain: Date of < 5 WBCs, no GNID

(MM/DD/YYYY)

4a. Gram stain: Date of < 5 WBCs, no GNID

(MM/DD/YYYY)

4b. Gram stain: Date of > 5 WBCs, no GNID

(MM/DD/YYYY)

4b. Gram stain: Date of > 5 WBCs, no GNID

(MM/DD/YYYY)

4b. Gram stain: Date of > 5 WBCs, no GNID

(MM/DD/YYYY)

4b. Gram stain: Date of > 5 WBCs, no GNID

(MM/DD/YYYY)

4b. Gram stain: Date of > 5 WBCs, no GNID

(MM/DD/YYYY)

4b. Gram stain: Date of > 5 WBCs, no GNID

(MM/DD/YYYY)

4b. Gram stain: Date of > 5 WBCs, no GNID

(MM/DD/YYYY)

4b. Gram stain: Date of > 5 WBCs, no GNID

(MM/DD/YYYY)

4b. Gram stain: Date of > 5 WBCs, no GNID

(MM/DD/YYYY)

4b. Gram stain: Date of > 5 WBCs, no GNID

(MM/DD/YYYY)

4c. Gram stain: Date of > 5 WBCs, positive for GNID

(MM/DD/YYYY)

4c. Gram stain: Date of > 5 WBCs, positive for GNID

(MM/DD/YYYY)

4c. Gram stain: Date of > 5 WBCs, positive for GNID

(MM/DD/YYYY)

4c. Gram stain: Date of > 5 WBCs, positive for GNID

(MM/DD/YYYY)

4c. Gram stain: Date of > 5 WBCs, positive for GNID

(MM/DD/YYYY)

4c. Gram stain: Date of > 5 WBCs, positive for GNID

(MM/DD/YYYY)

4c. Gram stain: Date of > 5 WBCs, positive for GNID

(MM/DD/YYYY)

4c. Gram stain: Date of > 5 WBCs, positive for GNID

(MM/DD/YYYY)

4c. Gram stain: Date of > 5 WBCs, positive for GNID

(MM/DD/YYYY)

4c. Gram stain: Date of > 5 WBCs, positive for GNID

(MM/DD/YYYY)

4d. Gram stain: Date of < 2 WBCs, no GNID. Date(s):

(MM/DD/YYYY)

4d. Gram stain: Date of < 2 WBCs, no GNID. Date(s):

(MM/DD/YYYY)

4d. Gram stain: Date of < 2 WBCs, no GNID. Date(s):

(MM/DD/YYYY)

4d. Gram stain: Date of < 2 WBCs, no GNID. Date(s):

(MM/DD/YYYY)

4d. Gram stain: Date of < 2 WBCs, no GNID. Date(s):

(MM/DD/YYYY)

4d. Gram stain: Date of < 2 WBCs, no GNID. Date(s):

(MM/DD/YYYY)

4d. Gram stain: Date of < 2 WBCs, no GNID. Date(s):

(MM/DD/YYYY)

4d. Gram stain: Date of < 2 WBCs, no GNID. Date(s):

(MM/DD/YYYY)

4d. Gram stain: Date of < 2 WBCs, no GNID. Date(s):

(MM/DD/YYYY)

4d. Gram stain: Date of < 2 WBCs, no GNID. Date(s):

(MM/DD/YYYY)

4e. Gram stain: Date of 2-4 WBCs, no GNID. Date(s):

(MM/DD/YYYY)

4e. Gram stain: Date of 2-4 WBCs, no GNID. Date(s):

(MM/DD/YYYY)

4e. Gram stain: Date of 2-4 WBCs, no GNID. Date(s):

(MM/DD/YYYY)

4e. Gram stain: Date of 2-4 WBCs, no GNID. Date(s):

(MM/DD/YYYY)

4e. Gram stain: Date of 2-4 WBCs, no GNID. Date(s):

(MM/DD/YYYY)

4e. Gram stain: Date of 2-4 WBCs, no GNID. Date(s):

(MM/DD/YYYY)

4e. Gram stain: Date of 2-4 WBCs, no GNID. Date(s):

(MM/DD/YYYY)

4e. Gram stain: Date of 2-4 WBCs, no GNID. Date(s):

(MM/DD/YYYY)

4e. Gram stain: Date of 2-4 WBCs, no GNID. Date(s):

(MM/DD/YYYY)

4e. Gram stain: Date of 2-4 WBCs, no GNID. Date(s):

(MM/DD/YYYY)

5. Prior diagnosis of NGU

- None recorded
- NGU diagnosis, date(s):

5a. Date of Prior diagnosis of NGU diagnosis

(MM/DD/YYYY)

5a. Date of Prior diagnosis of NGU diagnosis

(MM/DD/YYYY)

5a. Date of Prior diagnosis of NGU diagnosis

(MM/DD/YYYY)

5a. Date of Prior diagnosis of NGU diagnosis

(MM/DD/YYYY)

5a. Date of Prior diagnosis of NGU diagnosis

(MM/DD/YYYY)

5a. Date of Prior diagnosis of NGU diagnosis

(MM/DD/YYYY)

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(MM/DD/YYYY)

5a. Date of Prior diagnosis of NGU diagnosis

(MM/DD/YYYY)

5a. Date of Prior diagnosis of NGU diagnosis

(MM/DD/YYYY)

5a. Date of Prior diagnosis of NGU diagnosis

(MM/DD/YYYY)

Specimen Lab

Barcode for U1a/Unspun Urine

_____ (U1a)

Sample of U1a/Unspun Urine

- Not Collected
- Not Run-Technical Error
- Other

Please specify other reason

Barcode for U1ap/Unspun Urine

_____ (U1ap)

Sample of U1ap/Unspun Urine

- Not Collected
- Not Run-Technical Error
- Other

Please specify other reason

Barcode for U1an/Unspun Urine

_____ (U1an)

Sample of U1an/Unspun Urine

- Not Collected
- Not Run-Technical Error
- Other

Please specify other reason

Barcode for U1b/Unspun Urine

_____ (U1b)

Sample of U1b/Unspun Urine

- Not Collected
- Not Run-Technical Error
- Other

Please specify other reason

Barcode for rs1/Rectal Swab

_____ (rs1)

Sample of rs1/Rectal Swab

- Not Collected
- Not Run-Technical Error
- Other

Please specify other reason

Barcode for rs1a/Rectal Swab

(rs1a)

Sample of rs1a/Rectal Swab

- Not Collected
 Not Run-Technical Error
 Other

Please specify other reason

Date Form Filled Out

(MM/DD/YYYY)

Name of Person filling out Form

-

Please specify other

Collection Date and Time

(Date Time with Seconds (MMDDYYYY H:M:S))

Date Received in Laboratory

(MMDDYYYY)

Aliquot Date and Time

(Date Time with Seconds (MMDDYYYY H:M:S))

Urine Volume

(ml)

Urine Test Results

Chlamydia trachomatis

- Positive
 Negative
 Indeterminate

Final Chlamydia trachomatis (if originally indeterminate)

- Positive
 Negative
 Indeterminate

Biological Categorization of Chlamydia trachomatis (if originally indeterminate)

- Positive
 Negative
 Indeterminate

Clinical Categorization of Chlamydia trachomatis (if originally indeterminate)

- Positive
 Negative
 Indeterminate

Value _____

Concentration _____

Organism Load _____

Comments _____

Neisseria gonorrhoeae Positive
 Negative
 Indeterminate

Final Neisseria gonorrhoeae (if originally indeterminate) Positive
 Negative
 Indeterminate

Biological Categorization of Neisseria gonorrhoeae (if originally indeterminate) Positive
 Negative
 Indeterminate

Clinical Categorization of Neisseria gonorrhoeae (if originally indeterminate) Positive
 Negative
 Indeterminate

Value _____

Concentration _____

Comments _____

Trichomonas vaginalis Positive
 Negative
 Indeterminate

Final Trichomonas vaginalis (if originally indeterminate) Positive
 Negative
 Indeterminate

Biological Categorization of Trichomonas vaginalis (if originally indeterminate) Positive
 Negative
 Indeterminate

Clinical Categorization of Trichomonas vaginalis (if originally indeterminate) Positive
 Negative
 Indeterminate

Value _____

Concentration _____

Comments _____

Mycoplasma genitalium Positive
 Negative
 Indeterminate

Final Mycoplasma genitalium (if originally indeterminate) Positive
 Negative
 Indeterminate

Biological Categorization of Mycoplasma genitalium (if originally indeterminate) Positive
 Negative
 Indeterminate

Clinical Catogrization of Mycoplasma genitalium (if originally indeterminate) Positive
 Negative
 Indeterminate

Value _____

Concentration _____

Comments _____

Macrolide resistance testing result Positive
 Negative
 Indeterminate

Biological Categorization of Macrolide resistance testing result (if original result is indeterminate) Positive
 Negative
 Indeterminate

Clinical Categorization of Macrolide resistance testing result (if original result is indeterminate) Positive
 Negative
 Indeterminate

Macrolide resistance testing result date _____
(MM/DD/YYYY)

Macrolide resistance testing result comments _____

Quinolone resistance testing result Positive
 Negative
 Indeterminate

Biological Categorization of Quinolone resistance testing result (if original result is indeterminate)

- Positive
 Negative
 Indeterminate

Clinical Categorization of Quinolone resistance testing result (if original result is indeterminate)

- Positive
 Negative
 Indeterminate

Quinolone resistance testing result date

 (MM/DD/YYYY)

Quinolone resistance testing result comments

Ureaplasma urealyticum

- Positive
 Negative
 Indeterminate

Final Ureaplasma urealyticum (if originally indeterminate)

- Positive
 Negative
 Indeterminate

Biological Categorization of Ureaplasma urealyticum (if originally indeterminate)

- Positive
 Negative
 Indeterminate

Clinical Categorization of Ureaplasma urealyticum (if originally indeterminate)

- Positive
 Negative
 Indeterminate

Value

Concentration

Comments

Urine Specimen Storage

Identifier of Abbott tube

Date Frozen

 (MMDDYYYY)

Freezer Location

Comments

Identifier of Amplicor aliquot

Date frozen

(MMDDYYYY)

Freezer Location

Comments

Identifier of Neat Urine

Date frozen

(MM/DD/YYYY)

Freezer Location

Comments

Rectal Test Results

Chlamydia trachomatis

- Positive
 Negative
 Indeterminate

Final Chlamydia trachomatis (if originally indeterminate)

- Positive
 Negative
 Indeterminate

Value

Concentration

Comments

Mycoplasma genitalium

- Positive
 Negative
 Indeterminate

Final Mycoplasma genitalium (if originally indeterminate)

- Positive
 Negative
 Indeterminate

Value

Concentration _____

Comments _____

Rectal Specimen Storage

Identifier of Abbott Tube _____

Date frozen _____
(MM/DD/YYYY)

Freezer Location _____

Comments _____

Identifier of SPG aliquot _____

Date frozen _____
(MM/DD/YYYY)

Freezer Location _____

Comments _____

Urethral Gram Stain < 5
 >= 5
 < 1
(PMN's/hpf)

Gram Negative Intracellular Diplococci (GNID) Present Urethral Gram Stain No
 Yes

Comments for Urethral Gram Stain _____

Slide Identifier _____

Slide Storage Box _____

Any additional comments _____

Cell Count

Barcode for SL1/Spent Urethral Swab

(SL1)

Barcode for S1/Urethral Swab

(S1)

Barcode for U1/Master Urine

(U1)

Barcode for Sv/Saliva

(Sv)

Barcode for U1c/UnSpun Urine

(U1c)

Barcode for P1/Cell Pellet

(P1)

Barcode for Sup/Master Supernatant

(Sup)

Barcode for Sup1/Filtered Supernatant

(Sup1)

Barcode for Sup2/Filtered Supernatant

(Sup2)

Barcode for Sup3/Filtered Supernatant

(Sup3)

Barcode for Sup4/Filtered Supernatant

(Sup4)

Date Form Filled Out

(MM/DD/YYYY)

Name of Person Filling Form

- Evelyn Toh
 Other

Please specify other name not listed

Date received in lab

(MM/DD/YYYY)

Urine Volume

Value of Total Cell Count

Urine Cell Count

Date Frozen

(MM/DD/YYYY)

Freezer Location

Comments

Total Cell Count (Neat)

Total Cell Count (Centrifuged)

IUMP Target Baseline

Name of Person Filling out the Form

Please specify other not listed

Target Accruals Group

- IU
- Healthy
- CT only
- IUMP Other NGU Groups
- Enrolled as control, doesn't meet criteria
- Enrolled as case, doesn't meet criteria

If IUMP other NGU Groups, specify if

	Positive	Negative	Indeterminate	Not Done
MG	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
UU	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
TV	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
GC	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
NM	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CT	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments
