MAYO CLINIC LABORATORIES

Test Definition: MMGEN

Mycoplasma genitalium, Transcription-Mediated Amplification, Post-Prostatic Massage Fluid/Urine or Peritoneal Fluids

Overview

Useful For

Detecting *Mycoplasma genitalium* in cases of suspected infection in peritoneal fluid or prostatic secretion (VBIII) fluid/urine

This test is **not intended for use** in medico-legal applications.

Highlights

This test performs analysis on non-US Food and Drug Administration approved sources, including prostatic secretion/post-prostatic massage fluid/urine (VBIII) and peritoneal fluid (ie, pelvic wash, cul-de-sac fluid).

Method Name

Transcription-Mediated Amplification

NY State Available

Yes

Specimen

Specimen Type

Varies

Necessary Information

Specimen source is required.

Specimen Required

Submit only 1 of the following specimens:

Specimen Type: Post-prostatic massage fluid/urine (VBIII)
Supplies: Aptima Urine Transport Tube (T582)
Container/Tube: Aptima Urine Specimen Transport Tube
Specimen Volume: 15 to 20 mL
Collection Instructions:
1. Patient should not have urinated for at least 1 hour prior to specimen collection.
2. Patient should void a small amount of urine prior to prostatic massage. Pre-massage urine can be discarded.
3. Patient should cease voiding and a prostatic massage should be performed by urologist or other healthcare professional.

4. Collect post-massage urine into a sterile, plastic, preservative-free container.
5. Transfer 2 mL of urine into the Aptima Urine Specimen Transport Tube using the disposable pipette provided within 24 hours of collection. The correct volume of urine has been added when the fluid level is between the black fill lines on the urine transport tube.
6. Place the labels on the transport tube so the black fill lines are still visible for volume confirmation at Mayo Clinic Laboratories.
7. Transport and store post-prostatic massage fluid/urine (VBIII) specimen transport container at 2 to 30 degrees C (refrigerate is preferred temperature) within 30 days of collection. **Specimen cannot be sent frozen**.

Specimen Type: Peritoneal fluid (pelvic wash, cul-de-sac fluid)
Supplies: Aptima Specimen Transfer Kit (T652)
Container/Tube: Aptima Specimen Transfer Tube
Specimen Volume: 1 mL
Collection Instructions:
1. Collect specimen by paracentesis using needle and syringe using routine procedures. Refer to the references below.
2. Thoroughly vortex specimen upon receipt to the laboratory.
3. Transfer 1 mL of peritoneal fluid into the Aptima Specimen Transfer kit using a disposable transfer pipette or a pipette tip containing a filter (aerosol barrier or hydrophobic plug) within 24 hours of collection.
4. Recap the specimen transfer tube tightly.
5. Transport and store specimen container at 2 to 30 degrees C (refrigerate is preferred temperature) within 30 days of collection. **Specimen cannot be sent frozen**.

Forms

If not ordering electronically, complete, print, and send a Microbiology Test Request (T244) with the specimen.

Specimen Minimum Volume

Peritoneal fluid: 1 mL; Post-prostatic massage fluid/urine (VBIII): See Specimen Required

Reject Due To

Overfilled or underfilled urine transport tubes Specimen collected into a SurePath Prep device or ThinPrep vial Midstream/clean catch urine	Reject

specimen Transport tubes contain swabs Multiple sources on single tube	

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Varies	Varies		APTIMA VIAL

Clinical & Interpretive

Clinical Information

Mycoplasma genitalium, an under-recognized sexually transmitted infection (STI), causes acute and chronic non-gonococcal urethritis, cervicitis, and pelvic inflammatory disease. Due to its growing prevalence, *M genitalium* was cited as an emerging public health threat by the Centers for Disease Control and Prevention (CDC) in 2015. In high-risk populations, prevalence has been reported as high as 9% to 24% in male patients and 11% to 16% in female patients. *M genitalium* is commonly misdiagnosed as other STIs (eg, *Chlamydia trachomatis* or gonorrhea), which can lead to improper treatment of the underlying cause and an increase in duration of infection. In 2021, the CDC updated their STI guidelines to recommend that men with recurrent non-gonococcal urethritis and women with recurrent cervicitis or pelvic inflammatory disease should be tested for *M genitalium*.

Reference Values

Negative

Interpretation

A positive result indicates the presence of nucleic acid from *Mycoplasma genitalium* and strongly supports the diagnosis of a *M genitalium* infection.

A negative result indicates that nucleic acid from *M genitalium* was not detected in the specimen.

A result of inconclusive indicates that a new specimen should be collected.

The predictive value of an assay depends on the prevalence of the disease in a specific population. In settings with a high prevalence of sexually transmitted infections, positive assay results have a high likelihood of being truly positive. In settings with a low prevalence of sexually transmitted infections, or in any setting in which a patient's clinical signs and symptoms or risk factors are inconsistent with urogenital infection, positive results should be carefully assessed, and if

appropriate, the patient retested by other methods.

Cautions

Care must be taken to avoid cross-contamination during handling of specimens.

This test does not detect other *Mycoplasma* or *Ureaplasma* species.

This test is intended for clinical monitoring or management of patients; it is not intended for use in medico-legal applications.

Appropriate specimen collection and handling are necessary for optimal assay performance.

Results should be interpreted in conjunction with other laboratory and clinical findings.

A negative test result does not exclude the possibility of infection. Improper specimen collection, concurrent antibiotic therapy, presence of inhibitors, or low numbers of organisms in the specimen (ie, below the sensitivity of the test) may cause false-negative test results.

In low prevalence populations, positive results must be interpreted carefully as false-positive results may occur more frequently than true-positive results in this setting.

In general, this assay should not be used to assess therapeutic success or failure, since nucleic acids from these organisms may persist for 3 weeks or more following antimicrobial therapy.

The effects of tampon use, douching, specimen types other than those listed in Specimen Required, and specimen collection variables have not been determined.

Testing of urine specimens with this method is not intended to replace cervical exam and endocervical sampling for diagnosis of urogenital infection; infections may result from other causes or concurrent infections may occur.

Interference in assay results was observed when mucus at a final concentration of 0.3% weight/volume was added to clinical specimen matrix. Interference was not observed when mucus at a final concentration of 0.03% weight/volume was added to clinical specimen matrix.

Performance of the assay has not been evaluated in individuals younger than 15 years.

Clinical Reference

Waites KB, Crabb DM, Ratliff AE, Geisler WM, Atkinson TP, Xiao L. Latest advances in laboratory detection of Mycoplasma genitalium. J Clin Microbiol. 2023;61(3):e0079021. doi:10.1128/jcm.00790-21

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Performance

Method Description
The HOLOGIC APTIMA Combo 2 Assay combines the technologies of target capture, transcription-mediated amplification, and dual kinetic assay. The detection of the ribosomal RNA amplification product sequences (amplicon) is achieved using nucleic acid hybridization. Single-stranded chemiluminescent DNA probes are labeled and combined with amplicon to form stable RNA:DNA hybrids. Light emitted from the labeled RNA:DNA hybrids is measured as photon signals in a luminometer.(Package insert: APTIMA Mycoplasma genitalium Assay. AW-17946 Hologic, Inc; Rev 004, 02/2024)

PDF Report
No

Day(s) Performed
Monday through Sunday

Report Available
1 to 4 days

Specimen Retention Time
7 days

Performing Laboratory Location
Rochester

Fees & Codes

Fees
- Authorized users can sign in to Test Prices for detailed fee information.
- Clients without access to Test Prices can contact Customer Service 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact Customer Service.

Test Classification
This test has been modified from the manufacturer's instructions. Its performance characteristics were determined by Mayo Clinic in a manner consistent with CLIA requirements. This test has not been cleared or approved by the US Food and Drug Administration.

CPT Code Information
87563

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LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
MMGEN	Mycoplasma genitalium, TMA, Misc	100706-1

Result ID	Test Result Name	Result LOINC® Value
MMGES	Specimen Source:	31208-2
620734	Mycoplasma genitalium Result	100706-1