Lab Dept: Microbiology/Virology

Test Name: NEISSERIA GONORRHOEAE (GC) AMPLIFIED RNA ASSAY, MISCELLANEOUS SITES

General Information

Lab Order Codes: MGRNA

Synonyms: Neisseria gonorrhea by Nucleic Acid Amplification (Gen-Probe), oral/throat, ocular (corneal/conjunctiva), anal/rectal, peritoneal fluid; GC by Nucleic Acid Amplification (Gen-Probe), oral/throat, ocular (corneal/conjunctiva), anal/rectal, peritoneal fluid

CPT Codes: 87591 – Neisseria gonorrhoeae, amplified probe technique

Test Includes: Target capture, transcription-mediated amplification, and dual kinetic assay. The detection of rRNA amplification product sequences (amplicon) is achieved using nucleic acid hybridization. Single-stranded chemiluminescent DNA probes are labeled and combine with amplicon to form stable RNA:DNA hybrids. Light emitted from the labeled RNA:DNA hybrids is measured as photon signals in a luminometer.

Logistics

Test Indications: Neisseria gonorrhoeae, a gram negative bacterium, is a common cause of sexually transmitted infection. This organism causes dysuria and urethral discharge in males with acute urethritis; complications may include pelvic inflammatory disease in women, and ascending infection resulting in gonococcal epididmytis and prostatis in men.

Neisseria gonorrhoeae is labile and does not remain viable for sustained periods of time. Diagnosis by culture methods, rather than NAT testing, especially after extended transit times, is not recommended.

Lab Testing Sections: Virology - Sendouts

Referred to: Mayo Medical Laboratories (MML Test: MGRNA)

Phone Numbers: MIN Lab: 612-813-5806

STP Lab: 651-220-6555

Test Availability: Daily, 24 hours

Turnaround Time: 1 - 3 days, performed daily

Special Instructions:

- **Obtain special collection supplies based on type of specimen to be collected. Kits are stocked on patient units.**
- **Specimen site** and **date/time of collection** are required for processing.

Specimen

Specimen Type: Oral/throat, ocular (corneal/conjunctiva), rectal/anal, peritoneal fluid

Container:

Obtain the following (stocked on patient units):	
Oral/throat Ocular (corneal/conjunctiva) Rectal/anal Peritoneal fluid	CHC# 24789 – Aptima Unisex swab specimen collection system 

Volume: 1 swab from Mayo supply kit T583 (CHC# 24789)

Collection:

Miscellaneous Sources:

1. Swab site.
2. Remove the cap from the swab specimen transport tube and immediately place the specimen collection swab into the transport tube.
3. Carefully break the swab shaft at the score line; use care to avoid splashing of contents.
4. Re-cap the swab specimen transport tube tightly.
5. Label tube with 2 identifiers, including patient's entire name, source, and date and time of collection.

Transport/Storage: Transport swabs at 2-27ºC to the Laboratory. Once in the lab, refrigerate swab and forward to Mayo.

Special Processing: Lab staff:
Oral/throat, ocular (corneal/conjunctiva), rectal/anal, peritoneal fluid swabs: Store at refrigerated temperatures and forward to Mayo for testing.

Sample Rejection: Specimen not submitted in appropriate transport container; improperly labeled specimen; external contamination. If an unacceptable specimen is received, the physician or nursing station will be notified and another specimen requested before the specimen is discarded.

Interpretive

Reference Range: No *Neisseria gonorrhoeae* detected

Limitations:

- This report is intended for use in clinical monitoring or management of patients; it is not intended for use in medico-legal applications.
- Appropriate specimen collection and handling is necessary for optimal assay performance.
- Results should be interpreted in conjunction with other laboratory and clinical information.
- 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 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.
- This assay cannot be used to assess therapeutic success or failure, since nucleic acids from these organisms may persist following antimicrobial therapy.
- No interference is expected due to blood (urine and swab) specimens or lubricants and spermicides (swab).
- The effects of use of tampons, douching, specimen types other than those listed and specimen collection variables have not been determined.

Methodology: Transcription Mediated Amplification (Gen-Probe)

References:

Mayo Medical Laboratories August 2015