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**Lab Dept:** Microbiology/Virology

**Test Name:** MYCOPLASMA PNEUMONIAE DNA PCR

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***General Information***

**Lab Order Codes:** MPPC

**Synonyms:** *M. pneumoniae* PCR; PCR for *M. pneumoniae*; *Mycoplasma pneumoniae* DNA, Qualitative Real-time PCR

**CPT Codes:** 87581 - Infectious agent detection by nucleic acid (DNA or RNA); *Mycoplasma pneumoniae*, amplified probe technique

**Test Includes:** Polymerase Chain Reaction (PCR), Real-time

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***Logistics***

**Lab Testing Sections:** Microbiology - Sendouts

**Referred to:** Mayo Medical Laboratories (MML Test: MPRP)

**Phone Numbers:** MIN Lab: 612-813-5866

STP Lab: 651-220-6555

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 3 - 4 days

**Special Instructions:** **Specimen site** and **date/time of collection** are required for specimen processing.

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***Specimen***

**Specimen Type:**

- Throat and NP swabs in M5 universal transport media.
- Bronchial alveolar lavage (BAL) or bronch washing in sterile container
- Sputum/tracheal secretions in sterile container
- Fluids: CSF, pleural or pericardial
- Nasal washings in sterile container

**Container:** M5 transport media (Supply T484 ordered from Mayo) or sterile container

**Draw Volume:** 1 mL (Minimum: 0.5 mL) bronchial (BAL), sputum specimens, fluids, nasal washing

**Collection:****Bronchoscopy:**

1. Specimen obtained by physician through the biopsy channel of the bronchoscope.
2. Transfer specimen into a luki tube/sterile container.

**Sputum (expectorate):**

1. Collect early morning specimen in a sterile container under the direct supervision of a nurse or a physician.
2. Have patient rinse or gargle with water to remove superficial flora.
3. Instruct patient to cough deeply to produce a lower respiratory specimen.
4. Examine the specimen to make sure it contains this mucus. Do not submit saliva.

**NP Swabs:**

1. Carefully insert a minitip swab into the posterior nasopharynx via the nose.
2. Rotate the swab slowly for 5 seconds to absorb secretions, keeping the swab near the floor and the septum of the nose.
3. Remove the swab and place swab in transport media.

**Throat Swab:**

1. Depress tongue with tongue depressor.
2. Sample the posterior pharynx, tonsils, and inflamed areas with a sterile swab.
3. Place swab in transport medium.

**Fluids:**

1. Collect aseptically.
2. Place in sterile container.

**Nasal Washings:**

1. Tilt patient's head back at a 70° angle.
2. Insert rubber bulb syringe containing 1 - 2 mL of sterile saline until it occludes the nostril.
3. Collect specimen (Minimum: 1 mL) with one complete squeeze and release bulb.
4. Repeat in other nostril.
5. Dispense the specimen into a sterile screw cap container and transport to the lab immediately.

If specimen cannot be transported to the lab immediately, place 1 - 2 mL of specimen in viral transport media (VTM) and refrigerate.

**Transport/Storage:**

Transport to the Microbiology Laboratory immediately at room temperature. Store and ship at refrigerated temperatures.

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

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### ***Interpretive***

**Reference Range:** Negative

A positive result indicates the presence of Mycoplasma pneumonia. A negative result does not rule out the presence of Mycoplasma pneumonia and may be due to the presence of inhibitors within the same matrix, or the presence of organisms at numbers below the limits of detection of the assay.

**Methodology:** Rapid Polymerase Chain Reaction (PCR) using Light Cycler and Fluorescent Resonance Transfer (FRET)

**References:** [Mayo Reference Laboratories Web Page](#) January 2018

Cook, JH, and M Pezzlo (1992). Specimen receipt and accessioning. Section 1. Aerobic bacteriology, 1.2.1-4. In HD Isenberg (ed) Clinical Microbiology Procedures Handbook. American Society for Microbiology, Washington DC

Miller, J Michael (1999) A Guide To Specimen Management in Clinical Microbiology, American Society for Microbiology, Washington DC

Miller, J Michael, and HT Holmes (1999) Specimen Collection, Transport, and Storage In PR Murray et al, (ed), Manual of Clinical Microbiology, 7<sup>th</sup> edition, American Society for Microbiology, Washington DC, pp 33-104

**Updates:**

8/12/2004: Effective 8/10/2004, this test was moved from Lab Corp (Viomed) to Mayo Medical Laboratories forward to Focus Technologies, Inc.

3/31/2005: Test moved from MML MayoLink orderable test Wild 83 to interface test 91429. Order code changed. Update to MML's website.

2/23/2007: Test minimum volume previously listed as 0.5 mL. Shipping requirement previously listed as frozen.

8/17/2009: Pleural fluid and nasal aspirates are no longer acceptable specimens.

3/12/10: specified M4 VTM (blue cap) or M5 universal transport media as acceptable transport for swabs. (M5 verified as acceptable by Focus labs customer service).

3/28/2011: Removed M4 media, no longer stocked.

11/15/2013: Testing moved from Focus to internal at MML.

6/2/2015: Added nasal washing as acceptable specimen type.