
Lab Dept: Microbiology/Virology

Test Name: RSV DIRECT FA

General Information

Lab Order Codes: DRSV

Synonyms: RSV Direct Fluorescent Antibody; Respiratory Syncytial Virus DFA; RSV DFA; FA for RSV

CPT Codes: 87280 - Infectious agent antigen detection by immunofluorescent technique; respiratory syncytial virus

Test Includes: Detection of RSV antigen in nasopharyngeal specimens using direct immunofluorescence.

Rapid RSV Antigen is the primary test used for rapid detection of RSV antigen (<2 hr TAT) for ED and ambulatory patients during respiratory season. Refer to [RSV Antigen Detection](#).

This test does not include RSV culture. [Refer to Viral Respiratory Culture](#).

Logistics

Lab Testing Sections: Virology

Phone Numbers: MIN Lab: 612-813-5806

STP Lab: 651-220-6555

Test Availability: Daily, 24 hours

Turnaround Time: Specimens must arrive by 12 pm/Noon for same day results. All specimens received after that time will be held until the next working day for completion.

Special Instructions:

- Requisition must state **specific site** of specimen and **date/time of collection**.
- **Do Not** use calcium alginate swabs

Specimen

Specimen Type: 2 nasopharyngeal swabs; nasal aspirate; nasal washings

Container: Swab transport system, sterile container, viral transport media (available in Microbiology)

Volume: **Nasopharyngeal:** 2 swabs

Nasal washing: 1 mL

Nasal aspirate: 0.5 mL

Collection: **Nasopharyngeal swabs:**

1. Obtain 2 swabs using NP flexible wire swabs.
2. Gently insert swab through nose into posterior nasopharynx.
3. Gently rotate swab slowly for 5 seconds to absorb secretions.
4. Collect a second swab in the same manner.
5. Maintain sterility and forward promptly at ambient temperature.

Nasopharyngeal 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. Place aspirate in container and forward promptly.

Nasal Aspiratation:

1. Prepare suction set up on low to medium suction.
2. Wash hands and put on protective barriers (e.g., gloves, gown, mask).
3. Place child supine and obtain assistant to hold child during procedure.
4. Attach luki tube to suction tubing and #6 French suction catheter.
5. Insert catheter into nostril and pharynx without applying suction.
6. Apply suction as catheter is withdrawn. If necessary, suction 0.5 – 1 mL of normal saline through catheter in order to clear the catheter and increase the amount of specimen in the luki tube.

Special Processing

Place swabs or 1-2 mL of washing/aspirate in viral transport media (VTM) upon arrival in the lab. Swabs should remain in the VTM by cutting the wire. Refrigerate specimen after collection.

Transport/Storage:

Onsite collections: Transport to laboratory immediately.

Offsite collections: Place swabs or 1 –2 mL of washing/aspirate in viral transport media (VTM) and refrigerate. Specimens must be promptly transported to the laboratory, with next available courier, not to exceed 24 hours from the time of collection. However, delayed transport causes a delay in test results.

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.

Interpretive

Reference Range: No RSV detected by DFA.

Limitations:

- A negative result does not eliminate the possibility of RSV infection.
- If less than 50 respiratory epithelial cells are present, negative results cannot be interpreted.
- The FA test does not replace viral isolation.

Methodology: Direct Fluorescent Antibody

Additional Information: RSV is very labile. The detection of RSV antigen allows for detection of virus in specimens in which virus is not culturable.

References: 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, 7th edition, American Society for Microbiology, Washington DC, pg 33-104

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